Imaging and Imagining the Future: Rhetorical Visions of Environmental Discourse in *Gasland*

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Imaging and Imagining the Future: Rhetorical Visions of Environmental Discourse in *Gasland*Dissertation directed by Professor Lisa B. Keränen.

Abstract

This study offers a rhetorical vision analysis of contemporary environmental discourse using the critical approaches of text-intertext methodology and fantasy theme analysis. More specifically, it considers how the rhetorical strategies of Josh Fox's award-winning environmental documentary film, Gasland, configure the human-nature relationship and position stakeholders as potential agents of environmental change. The film speaks to the environmental risks of and devastation from natural gas development, especially the technology of hydraulic fracturing. The rhetorical artistry of Gasland results from a combination of ancient and modern narrative structures—the mythical "hero's journey" within the context of the American road trip—with roots in Western and American cultural consciousness, which are interwoven with fantasy themes—the apocalyptic narrative, the American Jeremiad, and nature as Eden—that deeply resonate with the socially constituted realities of the modern environmental movement. The film portrays the ideal human-nature relationship as an Eden, humans and nature living in harmony; when humans disregard this balance, as Fox argues the natural gas industry is now doing, the result is an apocalyptic wasteland of illness, desolation, and death. The film urges viewers to "stand up" by learning about this issue and sharing knowledge with others. The film creates a powerful rhetorical vision that is shared by many of its viewers, who form a community around the social reality the film constructs and proceed to act according to its precepts. It also engages the natural gas industry in a strong response that adopts the elements of Fox's vision but creates a mirror image that reverses its characterizations. Fox's rhetorical vision of a stark duality of the hero/villain archetype, however, may constrain political responses to the issue of

natural gas development because of the hero narrative's implicit romanticization of the individual and its hierarchical framing. Understanding how rhetorical visions are constructed in such texts is of special significance in the arena of environmental issues, where attitudes and actions can affect the quality of life for humans, nonhumans, and the planet.

Imaging and Imagining the Future

Dedication

To my incomparable and amazing wife and best friend of 40 years, Allidah.

She is the hurricane beneath my wings.

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I entered the doctoral program at the University of Colorado, Boulder in 2003 as a nontraditional student; older, with a few careers under my belt, and working full time. I am grateful to the CU Graduate School and especially the Department of Communication for being generous and welcoming to a unique aspiring scholar such as myself. I owe special appreciation to Bryan Taylor and Gerald Hauser, the first professors I met with as I introduced myself to the Department. They were both gracious and supporting in my quest to be a scholar within the academy. Bryan served as my initial advisor in the area of organizational communication and mentored me into the ways of scholarship.

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Table of Contents

Abstract, iii

Dedication, v

Acknowledgements, vi

Table of Contents, viii

Prologue, xi

Chapter 1 — Rhetoric and the Environment, 1

The Study of Environmental Communication, 4

The Rhetorical Vision Perspective, 11

The Rhetoric of Film, 14

Constructing the Text, 20

The environment and natural gas development, 24

Works into text: Gasland, 28

Organization of the Study, 32

Chapter 2 — Visions and Fantasies, 35

Data Collection Within the Rhetorical Text, 35

Rhetorical Analysis, 41

Constructivism, 42

Media and process of critical rhetoric, 46

Rhetorical Vision Analysis: Theory and Method, 48

Critique and review, 51

Theme and vision analysis, 58

Rhetorical Visions and Environmental Rhetoric, 60

Chapter 3 — Human, Nature, the Environment, and Discourse, 63

The Human-Nature Relationship, 65

Pathways of Environmental Discourse, 69

Thematic Types Found in Environmental Discourse, 75

The sublime, 77

Apocalyptic narratives, 79

American Jeremiad, 87

Utopian narratives, 89

Nature as Eden, 90

Nature as spirit, 92

An ecocentric or biocentric vision, 92

Sustainable development, 94

Green society, 96

Technology as savior, 97

Nature as threatening/powerful/resilient, 98

Virtual nature, 99 Island civilization, 100

Conclusion, 101 Chapter 4 — Devastation and Hope: Themes of Gasland, 103 Contextual Background, 104 Setting Themes, 106 Fox's home, 107 The territory of Gasland, 109 America, 112 Time and space, 113 Character Themes, 114 Josh Fox: the hero, 116 Natural gas industry: the villain, 119 Residents of Gasland, 121 Politicians, 124 Regulators, 125 Experts, 126 Journalists, 127 Technology, 129 Action Themes, 131 Threats to home, 132 A journey, 133 Connectedness, 135 Contamination and pollution, 137 Natural gas industry denials and indifference, 143 Conspiracy, 146 Illness, 149 Fear and horror, 152 Politicians as advocates, 153 Regulatory agencies as ineffective and regulations as ineffectual, 155 Experts finding the truth, 156 Conclusion, 158 Chapter 5 — Denial and Outrage: Responses to *Gasland*, 160 Natural Gas Industry Responses, 164 America's Natural Gas Alliance, 166 Barnett Shale Energy Education Council, 167 Energy in Depth, 168 Settings, 169 Characters, 170 Josh Fox, 171 Natural gas industry, 172 Residents, 172 Regulators, 1173 Experts, 174

Actions or plotlines, 174 Contamination and pollution, 175 Illness, 176 Fear and horror, 177 Regulatory agencies as responsible and regulations as effective, 178 Natural Gas Now!, 179 Fox's rebuttal to the industry, 182 Viewers' Comments and Reviews, 182 Settings, 186 Characters, 186 Josh Fox, 187 Natural gas industry, 189 Residents of Gasland, 191 Government, 192 Media, 194 Action themes, 194 Contamination and pollution, 194 Power, 196 Fear, 197 Filmmaking critiques, 198 Rhetorical Effects: Motivating to Action, Changing Attitudes, 199 Accuracy and the Logical Argument, 203 Conclusion, 205 Chapter 6 — Rhetorical Artistry of Gasland, 207 Crafting an Effective Rhetorical Vision, 214 Narrative Structures, 220 The hero's journey, 220 The road trip in America, 225 Environmental Fantasy Types in Gasland, 229 The apocalyptic narratives, 230 The American Jeremiad, 231 Nature as Eden, 233 Seeking the "Truth," 234 Chapter 7— Reexamining the Human-Nature Relationship, 242 Research Questions Revisited, 243 Future Research, 254 References, 257 **Appendices** Appendix A: Transcript of Gasland, 274 Appendix B: Natural Gas Industry Responses, 365 Appendix C: Viewer Responses, 383

Prologue

On February 1, 2012, in an unprecedented occurrence, Josh Fox, the controversial producer and director of the documentary Gasland, was ordered arrested by the Republican chair of the House Subcommittee on Energy and Environment at a public congressional hearing on hydraulic fracturing. Despite standing in the area designated for the public, Fox was arrested for "unlawful entry" and led away in handcuffs. He visited Congress to film a sequel to his awardwinning documentary that exposes environmental and health risks of natural gas development and was told by House leadership that if his crew was "working for 'Gasland" they could "forget" about getting access to the public hearing (Huffington Post, 2012, p.1). This event occurred just over two years from Gasland's premiere at the Sundance Film Festival and raises many questions. Primary among them might be: Why and how did an independent documentary about an environmental issue create such concern from a political party that it felt threatened enough to apparently violate the producer's civil rights in such a blatant manner? My study provides insight into this timely and critical question, as it offers an analysis of the power of this environmental documentary to offer alternative visions of hydraulic fracturing than those preferred by the natural gas industry and its supporters.

Chapter 1 — Rhetoric and the Environment

At the beginning of her transformational 1962 book, Silent Spring, Rachel Carson tells a story, "A Fable for Tomorrow," that spins the tale of a fictional countryside at the time of year when it should be emerging from winter's dormancy into a vibrant spring. But instead, readers find a bleak landscape, devoid of life, with all that is natural destroyed . . . a silent spring. Carson's narrative comprises a powerful and eloquently told revelation of what our world could become if humans do not act to stop and repair the poisoning of the environment with pesticides, herbicides, and numerous other leaked chemicals. It is not just the environment at such great risk, but people and their families. Nor does *Silent Spring* tell of a catastrophe caused by natural or external forces: "No witchcraft, no enemy action had silenced the rebirth of new life in this stricken world. The people had done it themselves" (Carson, 1962, p. 3). Many credit Silent Spring with initiating the modern era of environmentalism; arguing that it led the way in securing the banning or controlling of DDT and other dangerous chemicals in the United States and setting the stage for the clean air and water legislation of the 1970s and later. It was not the fable alone that enabled this book and its author to accomplish so much; the entire book constructed a vivid image of the world as it is now and a powerful vision of a more desirable future that resonated with its readers and moved them to change their attitudes and initiate action. Although other pieces of environmental rhetoric have done the same, few are so remarkable in their content and effect. Many more fall short of having this level of impact, despite the fact, as many would argue, that we are facing environmental crises every bit as dangerous as those of Carson's day.

Certainly there are many reasons why some rhetorical discourses fulfill their potential at constructing alternate social realities, moving their audience to action and contributing to the

creation of a future better than what might have been, but in this study I wish to investigate what I argue is at the heart of transformational discourse like Carson's: the constitutive power and persuasive effectiveness of constructing a rhetorical vision within the contexts of environmental issues and movements. I hope to contribute to a better understanding of what these visions have been and how they are working in the environmental discourses of today and, in so doing, potentially extend the current literature to enable the viewing of environmental themes and narratives as part of broader rhetorical strategies inherent in environmental discourse. My research interrogates how rhetorical strategies are employed in environmental discourse to construct social realities of environmental issues and actions and to influence attitudes and change behaviors. This is a worthy research topic, I believe, because much of our discourse within the context of environmental movements has the potential to influence life and death issues for humankind, wild species, and the planet. How rhetorical visions and images are constructed and integrated into the persuasive discourse of current environmental rhetoric is the subject of this study, using as artifacts the award-winning documentary film, Gasland (2010), and additional related discourses concerning the ongoing and critical environmental issue of the risks associated with natural gas development. This study of current usage of rhetorical visions will hopefully contribute to the discussion of the nature of environmental discourse and suggest useful methods for further examining this discourse in all of its rhetorical forms.

My selection of the discursive form of the documentary film is partly because of the power of the visual to persuade, partly because of the widespread use of film and video media in the world of ideas today, and partly because of my experience within the praxis of video production. The documentary genre is particularly relevant as a rhetorical artifact because it is seen primarily as a persuasive instrument, according to Benson and Snee (2008), "documentary

film is an argumentative art form" (p. 17). Nichols (2001) elaborates, "Documentaries seek to persuade or convince us by the strength of their argument or point of view and the appeal, or power, of their voice" (p. 43). The study is guided by research questions that I have posited that allow the interrogation of my selected artifacts to increase our understanding of rhetorical visions as they are constructed and perceived through visual media in the service of a critical, timely environmental issue. My research questions are:

- What is the nature of the rhetorical visions of the future that the film *Gasland* and related artifacts construct?
- How are publics and citizen actors configured within *Gasland* rhetoric? That is, using *Gasland* as an exemplar, what can we say about the potential roles documentary films allow for public participation in environmental movements? How do they envision citizen participation in environmental causes?
- What are the practical implications of these visions both for environmental rhetors and publics?

In the remainder of this chapter I touch upon the development and current state of the field of environmental communication, particularly focusing on some of the narratives and visions that persist across environmental movements. I then address the concept and application of the rhetorical vision perspective on rhetorical criticism and introduce elements of the rhetoric of film, including visual rhetoric and the rhetoric of documentary film. Next, I discuss the process of constructing my rhetorical text for this critical analysis, and I finish with an overview of the structure and organization of this dissertation.

The Study of Environmental Communication

My research informs theoretical constructs in the rhetoric of environmental communication, especially in regard to the rhetorical elements used to frame critical contemporary environmental issues. The study illuminates essential themes and narratives used in argumentation within the context of environmental problems, proposals, and actions by interpreting them through the lenses of rhetorical criticism and rhetorical vision analysis. I believe the results provide a critical basis for better understanding how rhetorical visions are constructed by and applied to discourse of the environmental movement in the United States. The analysis identifies current visions employed by a critically successful environmental documentary film and relates these to the broad pathways of environmental discourse and the rhetorical strategies of that discourse. My study also seeks to inform the practice of rhetoric around the issues and technologies of environmental conflict and to enhance and encourage reflexive discourse among environmental communication practitioners, especially within the visual media of film and video to the end of improving environmental rhetorical praxis. Arising from human-caused threats to the environment, the discourse of environmental movements in the United States and much of Western culture are constituted and informed by issues and concerns inherent in humanity's struggles with the human-nature relationship and, specifically, our communicative construction of what nature is or should be. As the field of environmental communication has emerged in recent decades the impact of communication and rhetoric on those elements of discourse that effect significant factors of the planet and life upon it has become increasingly clear. Scholars of this field argue environmental communication has two basic functions that explain the effects of discourse, as Cox (2010) notes: first a "pragmatic function in which we educate, alert, mobilize, and persuade others" and second, a "constitutive

function, in which language and other symbols themselves help to shape our perceptions about reality and the nature of environmental problems" (p. 36). Cox (2010) sees environmental communication as "the symbolic medium that we use in constructing environmental problems and in negotiating society's different responses to them" (p. 36). An early focus of the field has been the rhetorical study of communicative artifacts and discourses of environmental writers and campaigns and includes such elements as "the rhetoric of environmental groups, nature writing, and business PR campaigns, as well as environmental media, and websites" (Cox, 2010, p. 16). This rhetorical focus has included a study of "the pragmatic modes of persuasion . . . used to communicate about the environment" and critical studies that question or challenge "the dominant discourses that define the relationship between nature and society" (Cox, 2010, p. 16). Essentially, Cox (2010) argues, echoing Cantrill (1996) and Oravec (1981, 1996) among other scholars that, "the way we communicate with one another about the environment powerfully affects how we perceive both it and ourselves and, therefore, how we define our relationship with the natural world' (p. 2; emphasis in the original). Speaking of the importance of the field of environmental rhetoric, Herndl and Brown (1996) note that environmental communication is an immense and remarkably varied field of study, one that "connects almost every part of our social and intellectual life, crossing the boundaries between various academic disciplines and social institutions" (p. 4).

The significance of environmental communication as a field of study is not lost on the practitioners within that field because, as Spangle and Knapp (1996, p. 5) put it, "as long as the subjective process of human encoding and decoding of discourse is the basis of knowledge, the opportunity exists for persuasion." Moreover, Spangle and Knapp (1996, p. 5) note that groups "engaged in the battle for public support of their environmental positions" are fully aware of this

fact. We can see this manifested throughout our culture as the environment has come to be one of the primary political issues of the later 20th century and continues unabated into the 21st. Given this primacy, "it is imperative that communication specialists analyze the persuasive tactics and appeals of . . . competing perspectives to help clarify the issue[s] and, more important, make suggestions for future persuasive strategies that will bring . . . diverse groups together, rather than drive them further apart" (Spangle & Knapp, 1996, p. 3). Spangle and Knapp (1996) represent the view that the pragmatic perspective of rhetorical studies in reaching answers to environmental concerns is primary, but there are other equally important aspects, such as questioning the received arguments and realities that come to the environmental arguments from both environmental activists and opponents, and raising critical new issues in an effective manner. Possibly most important, is the contribution such studies can make to the "invention of alternatives" in viewing issues and in implementing rhetorical strategies that would "model the kinds of thinking and feeling needed to help move from conditions of crisis to conditions of sustainability" (Schwarze, 2007, p. 97). Given the importance of studying rhetoric within an environmental context, however, Davis (1997) still laments that "while communications scholars have extensively tracked the representations of violence, races, genders, and professions in the mass media, it is striking that they have not given such categories as nature, wilderness, or the environment more than the most rudimentary analysis" (p. 10). One of the goals for this study is to contribute to the "inventory of resources for rhetorical inducements" that will help to move forward some of the essential themes within environmental movements for rhetorical practitioners, observers, and analysts alike (Prelli & Winters, 2009, p. 240).

Environmental movements include early conservation efforts to protect and preserve the wild areas of America that were feared disappearing at the closing of the Western frontier in the

19th century, modern environmental actions of the 1960s and 1970s to fight global pollution and environmental degradation, and today's efforts to mediate the environmental crisis of global climate change, which threatens, according to many, the very survival of humankind. With all these great issues, and many lesser and tangential ones, there are those who work to end or reduce environmental threats and there are others who question the "reality" of such threats and work against measures to address them. Those holding extreme positions feel passionately about the issues and often go to great lengths to fight for their cause, while the great majority of Americans often do not understand the issues, do not know which solutions are correct, and mostly, just want to get on with their lives. But for most of us, as Moser and Dilling (2004) note, using as an example the primary environmental crisis of today, "global warming currently lacks a sense of urgency" and "remains a low priority" (p. 34). In the same vein, Leiserowitz (2007) adds, "most of the American public considers global warming a moderate risk that is more likely to impact people and places far distant in space and time" (p. 53). From the history of the environmental movement, however, we see that previous concerns raised have usually resulted in both immediate and long-lasting adverse effects for the environment and for humans; these were concerns that should have been, or should be acted upon. How environmental rhetors craft persuasive discourse that influences attitudes and changes behaviors in this fascinating and complex mix of difficult—often dangerous—issues and their resolution is the subject of this study. I argue along lines similar to Moser and Dilling (2007) that social change is a vital and dynamic process that requires the ongoing facilitation of an "exchange of ideas, feelings, and information as well as the forming of mutual understanding and common visions of a desirable future" (p. 494). At the same time, we must consider, along with Myerson and Rydin (1996), that our historic and current "environmental arguments are deeply irresolvable" (p. 181), largely

because of their complexity and scale, and because the problems cut across scientific, economic, and political lines. But Myerson and Rydin (1996) go on to explain that, "it is in the nature of the arguments that attempts at resolution are made, that solutions are proffered" and they state that "solution rhetoric is created through 'figures of thought'" (p. 181), which I argue are also expressed as the narratives and rhetorical visions that have persisted through the history of environmental movements. As might be expected in seeking solutions, or in even constructing an issue around which to seek solutions, environmentalists and those who oppose their efforts employ rhetorical practices to meet their ends.

While rhetorical visions created and shared within this context take many forms, environmental rhetoric struggles to be effective with persistent use by rhetors of the themes of complexity, over-simplification, and reliance on fear and devastating scenarios of the future. In the complexities of the problems debated, scientists themselves often have difficulty understanding issues as challenging as, for example, world climate science. Needing to be better educated on such issues can, in itself, lead the ordinary person to frustration and paralysis. According to Cantrill (1996), "a number of studies indicate that as persons become more informed about environmental problems, they may also become much more passive in their concern for that environment" (p. 79). We can see this complexity not only in the sciences of the environment, but in rhetorical narratives and visions that define the human-nature relationship in conflicting and contested terms. From the earliest view of the wilderness as being hostile to human survival through its vision as a pathway to the sacred down to a current perception of its unity with urbanism, we find our basic concept of and relationship with the natural highly problematic. Paradoxically, when environmental advocates attempt, as they often do, to simplify the message for their audience, they also encounter problems. Cantrill (1996), restating Fischoff

(1981), argues that "the ecology of the mind in oversimplifying the ecology of the Earth compels people to take mental shortcuts in reasoning about the environment" (p. 81). This simplicity is also reflected in visions that have developed over many decades to explain our concept of what nature is. One of the first tropes of the early conservation and preservation movements, and seminal to the modern environmental movement according to Oravec (1981, 1996), is the concept of the sublime. This vision simplifies nature to that which causes feelings of "awe" and "grandeur," and creates a powerful emotional narrative that obscures all complexities of ecology and science. Within this vision, the wilderness is simply to be worshipped as the "face of God" (Cronon, 1996b, p. 73). Cantrill (1996) believes that people use these mental images portraying the complexity or the simplicity of nature as "bunkers for inactivity as well as staging areas for behavior in and toward the environment" (p. 81). While both complexity and simplicity often seem to fail to persuade audiences to take action on critical environmental concerns, one or the other remain as consistent rhetorical strategies in environmental discourse.

Dominant within environmental discourse since the 18th century—as we shall learn more of later in this study—are found apocalyptic themes and appeals to a catastrophic *telos*. Whether purposefully or not, such rhetorical claims call upon fear of the possible future and often present imagery of devastating global and individual consequences. Such apocalyptic attempts at persuasive discourse have been and continue to be a frequent cornerstone of environmental rhetoric, even though it has been suggested by several investigators (Moser & Dilling, 2004; Nabi, 2002; O'Keefe, 2002a, 2002b; Spangle & Knapp, 1996) that they are less than successful tropes. Even while himself using an apocalyptic theme in his climate change documentary, *An Inconvenient Truth* (2006), Albert Gore states that such a message will more often than not move the American public "straight from denial to despair" (Foust et al., 2008, p. 2). In a seemingly

equal paradoxical statement on environmental rhetoric, O'Neil and Nicholson-Cole (2009) admit that apocalyptic rhetoric can "successfully capture people's attention," but argue that it is more likely that such messages will "distance or disengage individuals" from the topic "tending to render them feeling helpless and overwhelmed" (p. 375). They go on to suggest that "on a standalone basis fear, shock, or sensationalism may promote verbal expressions and general feelings of concern but that they overwhelmingly have a 'negative' impact on active engagement with climate change" (O'Neil & Nicholson-Cole, 2009, p. 376). These arguments seem to be about the extent to which negative messages actually make a substantive difference within an issue network, with some studies showing, that while "fear may change attitudes and verbal expressions of concern," it does not necessarily translate into "active engagement with the issue or actual behavior" (Moser & Dilling, 2004, p. 39). Spangle and Knapp (1996) conclude, along with Braile (1994), whom they cite, "that it has become more difficult to scare people with data because the population is now desensitized to it" (p. 26). But the apocalyptic is still found at the heart of the iconic rhetoric of Carson and Gore (Killingsworth & Palmer, 1996a; Bartlett, 2009), and as shall be seen, Gasland; although O'Neil and Nicholson-Cole (2008) argue that the most effective and "engaging" rhetoric will present "nonthreatening imagery and icons" that relate environmental issues "to individuals' everyday emotions and concerns" (p. 355). This strategy, which strongly pulls from Burke's (1969) concept of identification is prominent in studies that attempt to improve environmental rhetoric so that it not only creates "an active public," but also works "toward arousing the public toward action" (Foust and Murphy, 2009, p. 164). Moser and Dilling (2007) also encourage communicators to appeal to the more "empowering" emotions, such as "emotional belief-, value-, and identity-driven aspects of individuals . . . rather than the ones that tend to promote apathy, denial, and disengagement" (p. 498). In considering effective

rhetorical strategies within an environmental context, Cantrill (1996b) posits that people will "act upon their environmentalist attitudes to the extent that they believe those actions meet their immediate, socially supported interests" (p. 81) and goes on to suggest that if environmental rhetors are to "be saviors" then they should begin "appreciating the thoughts of those we are trying to save and reinvesting in studies designed to discover and exploit their weaknesses" (p. 90). Essential to success for an environmental advocate is to understand her audience, to know "what factors influence perception, where these cognitive biases originate, and how they affect the processing of communication" (Cantrill, 1996, p. 76). My study focuses on the promise and limits of rhetorical visions in fulfilling this need for an effective narrative to move individuals and groups to environmental action and continues this conversation by exploring the representation of the apocalyptic as well as other themes in *Gasland*.

The Rhetorical Vision Perspective

The construction and application of rhetorical strategies for environmental discourse can be better understood, I argue, through a critical analysis of such discourse by exploring texts and related intertextual material using the conceptual lens of the rhetorical vision. With this study, I hope to follow Foust and Murphy (2009) in their quest to structure environmental communication "in ways that enable more members of the public to become active advocates for, and participants in, mitigating" environmental issues (p. 151). Environmental rhetoric, however, as stated above, need not resolve difficult environmental issues to be considered as successful environmental argumentation. As Myerson and Rydin (1996) argue, "posing different positions is both necessary in view of the variety of actors involved and reflective of a creative interaction between world views" (p. 200). Buell (2005) states that even many nonhumanists would agree that "issues of vision, value, culture, and imagination are keys to today's

environmental crises at least as fundamental as scientific research, technological know-how, and legislative regulation" (p. 5). Futurist Robert Olson (1995) uses words that conjure a rhetorical vision, "the future may well be decided by the images of the future with the greatest power to capture our imaginations and draw us to them, becoming self-fulfilling prophecies" (p. 34). In interrogating the persuasive power of such rhetorical "images of the future," this study employs rhetorical criticism to explicate rhetorical visions within communicative artifacts. While I take a view of rhetorical visions that allows for other contributions of rhetorical criticism, especially Burke's (1957, 1969) dramatism and Fisher's (1987) narrative paradigm, I recognize the importance of and discuss below the origins of the rhetorical vision concept derived from Bales' (1950, 1970) work with group bonding through fantasy themes.

Bormann (1972, 1982, 1985a, 1985b, 1989) expanded upon Bale's (1970) findings to go on to develop the symbolic convergence theory (SCT) and its corollary methodologies of fantasy theme analysis and rhetorical vision criticism. With a theoretical basis and analytical tools, Bormann and others, such as Hensley (1975), Cragan (1981a), Kroll (1983), Foss and Littlejohn (1984), Vatz and Weinberg (1987), Hagy (1996), Duffy (1997), Golden (1997), Swartz (1999), Taylor (2004), Archer (2007), and Kinsella and Mullen (2007) have conducted numerous studies within the field of applied communication that have attempted to show the relevance of SCT and rhetorical visions to a wide variety of rhetorical discourses that "function dramatically to connect audiences with messages" (Foss, 2009, p. 97). SCT is based on the generalized assumptions that first, communication creates reality and second, that "symbols not only create reality for individuals but that individuals' meanings for symbols can converge to create a shared reality or community consciousness" (Foss, 2009, p. 98). The rhetorical vision perspective has been used by scholars to good effect in numerous rhetorical studies of topics ranging from the writings of

Jack Kerouac, to the world of disaster planning, and even to the Disciples of Christ (Archer, 2007; Carpenter, 1978; Hensley, 1975; Swartz, 1999).

According to Hesford and Brueggemann (2007) a rhetorical vision "refers to a shared understanding or perception of reality" (p. 8). These authors argue that "rhetorical visions can be shared among small groups and large groups, and they can even function in ways that unify a nation" (Hesford & Brueggemann, 2007, p. 8). As Bales (1970) claims, fantasy themes, of which rhetorical visions are comprised, are found in many varieties in society at large, including "public ceremonies, plays, artistic productions, rituals; as well as the more volatile forms one finds in the riot; the mob-scene; a lynching; a panic" (p. 136). The rhetorical critic can take the "shared fantasies and rhetorical visions discovered . . . as the basis for a critical qualitative analysis" (Bormann, 1989, p. 466) and the critic can use rhetorical analysis of texts to search for fantasy themes that create a rhetorical vision; bringing the audience into agreement over some aspect of environmental reality. In applying this concept to critical analysis, "the critic is concerned with how rhetors use the manifest content of their artifacts to connect the audience members with some past experience that the group has shared and/or a future ideal world that the group hopes to create" (Archer, 2007, p. 7). Comprised of interconnected fantasy themes, a rhetorical vision can provide an audience with a specific interpretation of reality or a rich narrative with scenes, actors, and actions with which they can identify and, subsequently, influence attitudes and behaviors. In evaluating Bormann's work, Foss (2009) notes that in the theory "the presence of a rhetorical vision suggests that a rhetorical community has been formed that consists of participants in the vision or members who have shared the fantasy themes" (p. 100). To explore the concept of rhetorical visions, I have selected a documentary film as a discursive artifact that provides access to a timely and relevant environmental issue. Film gives

rhetors a variety of rich and complex persuasive devices and it is important to consider some perspectives on the rhetorical functions of this communicative form.

The Rhetoric of Film

The documentary film is widely used as a persuasive form of media today in the construction and contention of vital environmental issues. Nichols (1981) notes that some define ideology as "views that serve to rationalize the vested interests of some group" and that such views are usually thought of as "arguments or stated beliefs" (p. 5). But ideology may also be "literally, views" calling upon the old adage that "seeing is believing" and suggesting that "how we see ourselves and the world around us is often how we believe ourselves and the world to be" (Nichols, 1981, p. 5). Others suggest that the visual can be a more powerful and effective force than the verbal. Blair (2004) argues that the visual "adds drama and force of a much greater order," by using such devices as "references to cultural icons and other kinds of symbolism, dramatization and narrative to make a powerfully compelling case for its conclusion" (p. 59). Blair (2004) goes on to note that "the visual has an immediacy, a verisimilitude, and a concreteness that help influence acceptance and that are not available to the verbal" (p. 59). It is in rhetoric that the visual argument excels and, as Nichols (1981) states, "the actual form of the argument . . . may be, in part, specifically cinematic" (p. 199). Part of the power of the documentary as noted by film critics and theorists, is the relationship of film to reality. According to Nichols (1981), "The cinema is strongly representational art: it presents us with recognizable figures or objects" (p. 10), but an image is not what it represents, the object to which it refers is absent and it is this relationship of the image to its referent that is special in film and particularly in documentary film, and that accentuates the argumentative appeal of the visual over the verbal for many rhetors and audiences.

Visual discourse thus comprises a significant rhetorical element in our culture. Documentary film and video are increasingly engaged in influencing policy in many areas, including environmentalism, as we find DeLuca (1999) encouraging us to focus not only on images, but "action images" in the public arena (p. 124). Meanwhile, Olson et al. (2008) see the U.S. public "dominated by visual images, visual artifacts, visual performances and other commands to 'look'" (p. 1). Writing in 1988, Jamieson notes that while earlier rhetorical theorists, from Aristotle to Perelman, have recognized the importance and power of "bringing before the eyes." "making pictures." and "creating presence." today. "in the age of television. dramatic, digestive, visual moments are replacing memorial words" (p. x). Now, early in the 21st century, we have YouTube videos going "viral" and garnering millions of "views" by techno-savvy publics. Video is being made available through the Internet, cable, and over the air constantly, delivered through a variety of electronic devices everywhere we live and work. It is impossible to deny that in the digital era, "most of what we come to know and feel about the political and our own place within it is tied to visual and aurial images" (Haskins, 2003, p. 92). A Pew Research Center study published in 2011 finds that "71% of online Americans now use video-sharing sites such as YouTube and Vimeo" and notes, "The rise of broadband and better mobile networks and devices has meant that video has become an increasingly popular part of users' online experiences" (Moore, 2011, p. 2). The popularity of these video sites is remarkable, with the report noting that during 2011 3 billion viewers per day visited YouTube alone. Indeed, today "visual communication techniques have replaced twentieth century logocentricity as the primary mode of communication" because of all of the electronic forms of distribution available (Williams, 2006, p. 31).

The critical study of film communication best employs the concepts of visual rhetoric, a critical field that constitutes a theoretical perspective involving the analysis of the symbolic or communicative aspects of visual artifacts. Visual rhetoric is a critical-analytical tool or a way of approaching and analyzing visual data that highlights the communicative dimensions of images or objects. Rhetorical scholars have found that rhetoric is a useful way of studying these visual representations, including film and other non-oratorical modes of human action and that a rhetorical perspective can be applied to visual symbols within visual artifacts to illustrate, explain, or investigate rhetorical constructs and theories formulated from the study of discourse (Foss, 2004, p. 311). Visual rhetoric offers a set of theoretical perspectives that have come into being as part of the rhetorical tradition in the 1970s and is seen as a valid and growing part of that tradition. Visuality always has been integral to rhetorical consciousness, since the inception of written texts treating oral interaction. For Burke (1966), symbolicity included not only talk but also all other human symbol systems, and he encouraged analysis of symbols in all of the forms, including "mathematics, music, sculpture, painting, dance, architectural styles and so on" (p. 28). Blakesley (2004) notes, "in critical theory, the rhetorical turn of the 1980s became the visual turn of the 1990s" and this turn argues that symbolic action "entails visual representation in the inseparable and complex verbal, visual, and perceptual acts of making meaning" (p. 112). Indeed, the term discourse has been expanded to include "visual signals, nonverbal gestures, and such discontinuous fragments of signification as advertisements and product logos—in fact, all types and forms of symbolic communication" (Oravec, 1996, p. 58). This visual, or pictorial, turn is largely due to the pervasiveness of the visual symbol and its impact on contemporary culture and the growing recognition that these symbols provide access to a range of human

experience not always available through the study of other forms of discourse (Foss, 2004, p. 303).

While it is easy to see that film and video clearly represent valid artifacts within the realm of visual rhetoric, the documentary genre is a particularly fruitful field of investigation because of its affinity with the purposes of rhetoric. As Nichols (1981) says, "Narrative, exposition, and poetics—these global dominants are the triadic linchpins of literary expression and roughly correspond to the cinematic divisions of fiction, documentary and experimental film" (p. 73). The documentary film is the domain of exposition, which is in turn seen as the traditional province of rhetoric; Nichols (1981) notes that all three forms of classical artistic proof: ethical, emotional, and demonstrative "figure heavily in most exposition" (p. 174). While storytelling is essential to both fiction and documentary film genres, the documentary form tends to be based more in nonfictional elements and closer representations of reality than the fictional film. The fundamental tendencies of documentaries are essentially to record, reveal, or preserve; to persuade or promote; to analyze; and to express (LaMarre & Landreville, 2009). Hendrix and Wood (1973) claim that it is axiomatic that suasion—intentional or unintentional—is present in film and while film studies have given attention to film's aesthetic dimensions, they assert that film's suasive dimensions merit increased critical attention. We find several scholars taking a specifically rhetorical approach to critical analysis of film and video, including most notably, Carolyn Anderson, Thomas Benson, David Blakesley, John Harrington, Martin Medhurst, Bill Nichols, Brian Ott, and Thomas Rostech. Ideally a rhetorical criticism of film should identify both "the experience of the film and the way in which the film brings about that experience" (Benson & Anderson, 1989, p. 3). A structural approach to the rhetorical criticism of film is even more complex and involves "understanding how the film creates the structures that invite

audiences to make meaning in a multi-layered approach to the film as entertainment, art, and social text" (Benson, 2003, p. 9). Benson and Anderson (1989) go on to observe:

Films are social constructions and as such invite shared experiences. The rhetorical critic inquires into that shared experience 'by interrogating the film itself, regarding the film as a constructed invitation to a complex experience of thoughts and feelings.' (p. 3).

The cinema began with documentary, a visual recording of real, often every day, events and has come to mean to most a genre of film that shows us situations and events that are recognizable as part of shared experience: "the historical world as we know and encounter it, or as we believe others to encounter it" (Nichols, 1991, p. x). A documentary film's primary purpose may be to record or preserve the past but it also persuades or promotes certain political positions and agendas, therefore becoming a form of advocacy (Hesford & Brueggemann, 2007, p. 479). Most scholars believe that the rhetorical function of enacting "change through persuasion" is the underlying and primary intent of most documentary filmmaking (Hesford & Brueggemann, 2007, p. 467). As far back as 1942, pioneering documentarian John Grierson (1947/1966) felt that there was a duty to explore the "materials of citizenship" and of "waking the heart and will in regard to them" when he stated, "That duty is what documentary is about" (p. 250). Documentaries have always held the power to influence public opinion, and historians and critics of documentary have always emphasized its social and political functions (Benson & Snee, 2008, p. 2). Documentary is framed as a discourse of advocacy, a constructed case that marshals evidence in support of a predetermined conclusion. (Frentz & Rosteck, 2008, pp. 5-6). Much like the orator of old, the documentarian speaks to the issues of the day, "proposing new directions, judging previous ones, measuring the quality of lives and cultures" (Nichols, 2001, p. 60).

Along with the power of visuals to persuade and the possibly even greater effectiveness of film with its combination of the visual, the verbal, and other extratextual nuances such as music, ambient sounds, and pacing, the documentary film has often been used to stimulate social change, for both morally sound reasons and morally questionable ones. In the 1930s, as a particularly infamous example, Joseph Goebbels recognized the rhetorical power of film as part of the propaganda machine of Germany's Third Reich when he said, "We are convinced that films constitute one of the most modern and scientific means of influencing the masses" (Tomasulo, 1998, p. 101). While not the kind of endorsement most would seek, the power of film to influence attitudes and behaviors still resonates with many today; documentaries are increasing in number and are considered vital as part of a larger effort to "spark debate, mold public opinion, shape policy, and build activist networks" (Nisbet & Aufderheide, 2009, p. 450). Barrett and Leddy (2008) agree, arguing that "it seems intuitive and logical that a well-made documentary film—especially one with a compelling narrative and well-crafted outreach plan, would serve as a catalyst to change minds . . . , alter entrenched behaviors and start, inform or reenergize social movements" (p. 2). In their study comparing the effects of a fictional and a documentary film on the same historical event, Barrett and Leddy (2008) found that a "documentary is certainly capable of eliciting strong, gut-wrenching emotions in the audience, thereby increasing interest and knowledge about important issues" (p. 550). Their study further demonstrated that "socio-political documentaries can play a vital role in both informing and engaging the electorate" and that documentaries "have the potential to strongly influence public opinion" (Barrett & Leddy, 2008, p. 550). Documentaries are generally advocacy films and they are often designed to motivate a public to take action on an issue. Beyond motivational effect on a mass audience, however, the documentary can reach to issue-specific audiences and has been

found to have impact in areas of "recruitment, education, mobilization, and framing within . . . relevant activist organizations" (Whiteman, 2009, p. 475). Whiteman's (2009) study of such an advocacy film pointed to the film's success in strengthening organizational structures among activists and that "activity associated with the film resulted in the establishment of a new community of scholars, linked by new communication structures and producing new policy research" (p. 475). Increasing, as well, is the trend of filmmakers of advocacy documentaries to use web-based strategies to "involve their audiences in the project's development" and use "websites to build a community before the film has even been completed" (Barrett & Leddy, 2008, p. 4, emphasis in original). While its value is recognized, the "ideal of providing media for public knowledge and action is often assumed in documentary production . . . is rarely closely examined, either by filmmakers or scholars" (Nisbet & Aufderheide, 2009, p. 456). The same call for the need for better understanding and documentation of the "connection between the power of a film . . . and social change" is made by Barrett and Leddy (2008, p. 2). It is hoped that this study will contribute to a better understanding of the power of the documentary to initiate and facilitate environmental changes.

Constructing the Text

In this study, I employ rhetorical criticism as the means to discover and interpret persuasive constructs within discursive artifacts of today's environmental movement. The goal of rhetorical criticism—broadly construed as an interpretive art—is to apply theory to a text or set of texts or artifacts in order to explain their persuasive dimensions. My rhetorical analysis will draw from contemporary rhetorical theory in order to analyze the rhetorical visions of an environmental documentary film and related discursive artifacts that present and argue a current and critical environmental issue. While calling upon various elements of the rhetorical tradition

in my data collection, I emphasize the analytical method of textual-intertextual analysis from the perspective of the rhetorical vision concept as discussed above. The textual-intertextual analysis as developed by Ceccarelli (2001) begins with the close textual reading of the primary texts, but adds a close analysis of intertextual material that illustrates responses to the primary text. With this method, a critic can effectively broaden her analytical approach to be able to actually "postulate how the intrinsic design of a text (its form) is connected to its extrinsic effect (its function)" (Ceccarelli, 2001, p. 6). Thus, the critic will collect and analyze not only the primary texts, but will also conduct a historical and contextual analysis of the primary text and its content, as well as a close textual reading of its reception. The text-intertextual method is a response, in part, to the need to place any text and its cultural intertext in relationship with its context in order to produce rhetorical criticism that is relevant, effective, and fulfills its place within a scholarly discipline. Texts, in fact, are never complete, but are always interacting with and being changed by their contextual elements, as Campbell (1990) says, "context and meaning in texts are emergent" (p. 354).

Following along with Campbell's (1990) perception, I believe it is beneficial to my study to attempt to build upon Ceccarelli's (2001) text-intertext concept because the notion of a "text" as a discrete, bounded object *has* been problematized in postmodern rhetorical theory. While I recognize that Ceccarelli's writings retain a somewhat modernist notion of text, my intent is to appropriate the critical impulse of textual-intertextual analysis and translate it to a more postmodern view of a constructed text. Barthes (1977) and McGee (1990) both explore the complexities of what is a suitable text for critical analysis and arrive at, I suggest, some useful concepts that can be integrated with and perhaps extend Ceccarelli's (2001) approach for the purposes of this study. Significant among the many contributions of Barthes (1977) to the

discussion of text is his division of the term work, as a unit of discourse, from the term text, which consists of a broad array of influences and other discursive materials that come into existence before and after the specific work under consideration. McGee (1990) further challenges the notion of a discrete and bounded text, at least from the perspective that it refers to a "finished discourse"; rather, he speaks of "fragments" that make up a context (p. 287), thereby collapsing for us text and context together and stressing the necessity of the interrelationship for greater rhetorical understanding. We study a single text not as a completed identity then, but rather consider it as a "work" or a "fragment" that is integral to a larger body of works acting within an historical and cultural context for ultimate meaning. The critic begins with a discourse that is "a dense reconstruction of all the bits of other discourses from which it was made" (McGee, 1990, p. 279); a discourse that is never finished from a rhetorical perspective. Largely because of its persuasive or influential purpose, it is always interacting, always expanding. Even more common in today's digital age, is the recognition that what was once considered an autonomous text is now a social construction "developed from and constrained by prior cultural knowledge and experience, and constituted by messages from a combination" of sources and systems (Chesebro & Bertelsen, 1996, p. 150). Indeed, the participation of an audience in creating the text and the textual experience is significant, as Bannet (1989) notes, these writings "make the reader look at them and to work at them, actively involving him in their construction or recreation" (pp. 8-9).

Given this perspective, how is a critic to approach his quest for a text to interrogate to gain greater insight and understanding into rhetorical strategies and critiques? Blair et al. (1991) helps us by recognizing that in the lack of material unity of a text, the role of the critic is strengthened and revitalized by the task of drawing a viable boundary for any given study, and

must do so with the full knowledge that it is an artificial boundary and that its creation is full of textual and intertextual relationships. In short, "The critic's intervention begins with the construction of the text, not the selection of a work" (Blair et al., 1991, p. 282). In viewing the text-intertext theoretical position of Ceccarelli (2001) from the perspectives of Barthes (1977) and McGee (1990), we can possibly reach a middle theoretical ground that better integrates text and context in a meaningful analysis. I seek to set the boundaries of McGee's "dense reconstruction" of discursive fragments within the arbitrary constraints of the text-intertext of Ceccarelli, thereby giving the critic additional contextual meaning to his construction of a critical text. At the risk of adding too many layers to this constitutive effort, I believe that the boundaries of a critical text can be beneficially further clarified—particularly when the text it taken from and around a key environmental issue—by employing the concept of the "issue network" as developed by Whiteman (2009). This analytical frame was developed specifically for the study of documentary films and looks to an analysis that addresses a comprehensive understanding of the political impact of a work regarding an issue with public and policy implications. With this perspective, the critic moves beyond focusing on the documentary film itself to include the context of the broad issue that the film addresses. The critic has an additional frame for building a text: the *issue* as focal point for compiling Barthes' individual "works" or McGee's "fragments" into a broad cohesive intertext. With this lens we view the film and its creators as being part of a larger policy process and track the film's entry into and effects on a larger, complex issue. The issue within which the text of this study occurs and which we will find it influences in part, is that of natural gas production and particularly the environmental risks associated with a technology called hydraulic fracturing—or fracking as it has become known during the controversy. My construction of a critical text, using the concept of Blair et al. (1991), begins with the documentary film, *Gasland*, as an entry point into this issue of threats to the environment from this fracking technology. Radiating from this selected work, my overarching critical text encompasses intertextual works that have developed in direct response to the film, or have emerged within the issue network in the period immediately following the film's release. I have also used intertextual discourse that preceded the film in order to better define and understand the context of the issue at the time of the documentary's production and its showings. An overview and background of the issue and its historical and cultural context will help in understanding a justification for and validation of the construction and selection of the critical text for this study.

The environment and natural gas development. Natural gas is a combustible fossil fuel often found in underground reservoirs and comprised of methane and other hydrocarbon compounds. The use of the resource is distributed across several sectors of the economy and it is an important energy source for the industrial, commercial, and electrical generation sectors, as well as serving a vital role in heating for residences. Although not used to the extent of coal and oil, natural gas still plays a key role in meeting energy demands for the United States. A U.S. Department of Energy study reported in 2009 that "Natural gas, coal, and oil supply about 85% of the nation's energy, with natural gas supplying about 22% of the total"; natural gas is expected to continue to be a significant component of the United States and global energy picture for the foreseeable future (p. ES-1). Although the technology of using hydraulic fracturing in drill holes to produce natural gas actually began in the late 1940s, its use and concern for associated risks has greatly expanded in the last decade. Increased demand for natural gas and decreasing supplies created rising prices for the commodity—peaking in 2008—and advances in horizontal drilling and hydraulic fracturing technologies allowed economic recovery of natural

gas from shale deposits. Shale is a type of sedimentary rock that is high in organic matter and found beneath millions of acres in at least 23 states. The vast natural gas reservoirs in these rocks have been known about for more than a century, but the previous methods of production by vertical wells were not economically viable at recovering the resource. Tightly contained within these dense shale rock formations at depths of 5,000 to 12,000 feet, these natural gas reserves are now economically recoverable due to a breakthrough first in the technology of directional drilling. This technology allows for vertical drilling until the shale formation is reached, when the drilling is able to be curved a full 90 degrees and continued along a horizontal plane parallel to and within the shale deposit. This horizontal bore hole allows for accessing a much greater area of the shale and the natural gas contained within it then does a vertical drill hole. Even when accessed by this improved method, however, the shale-bound natural gas does not flow through the bore hole to the surface on its own, but requires the hydraulic fracturing technology for its production. In this process, after the horizontal bore hole is completed by encasing it in cement, a string of pipe containing explosives is inserted and charges set off that blast narrow channels into the shale. Into these channels is then forced, under great pressure, a fracturing fluid consisting of water and chemical additives. This causes fractures to radiate out from the blast channels and these are then held open by the injections of a proppant, primarily consisting of sand in fluids. The natural gas within the shale then flows through the fractures into the bore hole and to the surface, where it is collected in tanks and transported through pipelines to refineries.

The combination of market forces and advances in technology, along with the existence of vast expanses of shale beds containing natural gas has created commercial natural gas production in the country at a scale not previously seen and has led to the economic recovery of the resource in areas of the United States in which there has not been extensive, or any, oil and

gas production previously. This rapid growth in exploration and production has raised concerns about the environmental risks of natural gas drilling to a national level, although much of the subsequent conflict among industry, environmentalists, and landowners is being experienced at regional and state levels in the areas in which the activity is occurring. Identified risks include surface pollution and waste generated by the drilling itself and the "backwash" of the drilling and fracturing fluids and material; air pollution from the drilling and production process; contamination of groundwater sources for drinking water by methane and other gases, and by the chemicals used in the fracturing process; the potential for seismic activity caused by the injection of fluids in large volumes beneath the surface; and the substantial amounts of water required for the process. While all of these issues are raised by environmental activists, most of the concern has focused on the contamination of groundwater from natural gas being leaked through the casing and cement of the bore hole or infiltrated from the subsurface fracturing zone, as well as the risks of pollution from the chemicals used in the process. This latter concern has been exacerbated by natural gas companies adamant refusal, until recently, to disclose what chemicals are being used in the process, citing the formulas as proprietary.

While these concerns have been raised by local groups of citizens and regional and national environmental organizations, the risks have been downplayed by the oil and gas industry and industry advocate groups. The industry and its supporters claim that the risks have been vastly overstated and that there are no documented proven cases of groundwater or drinking water contamination caused directly by natural gas drilling and production. The issue has been complicated further by inconsistent or lack of responses by government and regulatory agencies. In a report in 2004, for example, the U.S. Environmental Protection Agency (EPA) studied groundwater in areas of drilling for methane gas in coal beds and determined that there was no

risk to the contamination of groundwater in those areas because the gas occurred below the groundwater level and the groundwater was sufficiently protected by the steel and concrete casing of the wells. In 2005, the Safe Drinking Water Act (SDWA) specifically exempted natural gas drilling from its regulations, a result, activists and others claim, of significant lobbying efforts on the part of the industry, plus the industry-favorable attitude of the Bush Administration. As recently as 2009, regulatory agencies and industry were confident of the safety of the fracking process. During 2010 and 2011, however, environmental activists, landowners, and local and state regulators have identified more and more hazards associated with the process. State regulators in Pennsylvania found that gas drilling using hydraulic fracturing "contaminated drinking water, polluted surface waters, polluted air, and contaminated soils" (Michaels et al., 2010, p. 1) and similar instances of contamination have been reported by regulating agencies in Ohio, Texas, and Wyoming, with residents also claiming significant occurrences of pollution in Colorado. The primary argument of the environmental activists is that the industry is under-regulated, allowing for abuses and severe risks to those living in the affected areas. In opposition, industry and its supporters claim that the industry is fully and adequately regulated by several national and local laws and there is no need to add more burdensome regulation under the SDWA. We have in this struggle a nearly classic case of disagreements between environmentalists and industry, where each raises their own anecdotal and scientific evidence that is, in turn, refuted by the other side—often on a point-by-point basis. As is so often the case in these instances, the engineers and experts disagree to such an extent on risks and even specific cases that it is rarely possible for the lay public, or even the policymakers to be able to make a determination as to the validity of either side. This area of active and dynamic conflict presents a fertile field for studying the use and effect of rhetoric, I believe, and

one that is important and current with new studies and conflicts continuing to arise. At this writing the outcome of the fracking process, its risks, and its regulation are very much in question. Our access point into this complex, dynamic, and uncertain issue network, as Whiteman (2009) would term it, is the film *Gasland*; written, directed, and filmed by Josh Fox.

Works into text: Gasland. The film Gasland serves as an excellent touchstone for studying emerging rhetoric about the fracking issue because of its recognized quality as a documentary piece, with its calculated production values and strong storytelling, the audience responses it has generated, and its impact on the issue network. As Whiteman (2009) contends, artifacts such as these are most often only pieces of a much larger fabric of discourse and texts within the context of a broad issue and, as such, it is usually difficult to attribute specific reactions or results stemming from a specific work. This is certainly true with Gasland, as concerns about the risks of natural gas drilling preceded the film's production and events put in motion before the film's distribution reached conclusions after the film, but had no direct relation to it. Other events seemed more to emanate from the exposure the film gave to the issue, as deduced by their timing, not by documented evidence of connections. But some events can be directly traced to the film, itself, and these can be weaved together into a segment of the issue network that comprises a Gasland text. Primary among these is the direct, strong, and dramatic responses to the film from the natural gas industry, primarily through industry associations or advocacy groups. These responses denounced the film's message and the motivations of the director in relatively harsh terms. Gasland's director, in turn, responded at length to these criticisms in a point-by-point rebuttal. In the months following the national airing of Gasland on the HBO cable network in the summer of 2010, the EPA held public hearings on the risks of hydraulic fracturing as part of a congressionally mandated study, and the New York state senate

passed a nine-month moratorium on new permits for hydraulic fracturing in the state. In the year following the film's release, Josh Fox and actor Mark Ruffalo (an advocate of the film) were asked to testify before congressional hearings into the issue, the Democratic representatives of the Committee on Energy and Commerce in the House of Representatives published a minority report demanding the public disclosure of the hydraulic fracturing chemicals used by the industry, and the EPA announced that it will examine all claims of water pollution related to hydraulic fracturing in Texas, North Dakota, Pennsylvania, Colorado, and Louisiana, rather than just leaving it in the hands of the respective state's regulatory agencies.

That *Gasland* struck a chord with the film industry and film reviewers can be seen by both awards and honors given and quotes taken from reviews. It was first honored in January 2010 with the award of the Special Jury Prize for best documentary at the prestigious Sundance Film Festival and, subsequently, the film has been nominated for and has won several awards from the film production and distribution world, including:

- Winner of Artistic Vision Award, Feature; Big Sky Documentary Film Festival; 2010.
- Winner of Audience Award; Thin Line Film Festival; 2010.
- Winner of Best Documentary award; Environmental Media Awards, USA; 2011.
- Winner of Grand Jury Prize; Yale Environmental Film Festival; 2010.
- Winner of Emmy for Outstanding Directing for Nonfiction Programming; 2011.
- Winner of Special Jury Prize; Sarasota International Film Festival; 2010.
- Nominated for Best Documentary Screenplay; Writers Guild of America; 2011.
- Nominated for Grand Jury Prize, Documentary; Sundance Film Festival; 2010.
- Nominated for Oscar, Best Documentary, Features; Academy Awards; 2011.
- Nominated for Pare Lorentz Award; International Documentary Association; 2011.

 Nominated for three additional Emmy awards: Exceptional Merit in Nonfiction Filmmaking, Outstanding Cinematography for Nonfiction Programming, and Outstanding Writing for Nonfiction Programming; 2011.

Following its recognition at the Sundance festival, the film was "picked up" by the HBO cable network for prime time airing in June 2010. In 2011, as seen in the list above, it was one of five documentary films nominated for an Oscar by the Academy Awards and was nominated for four Emmy awards and won one. Film reviewers have given *Gasland* nearly universal acclaim for its quality and its significance, as seen in a few examples:

- Anthony Breznican of *USA Today*: "The most important film I saw [at the Sundance Film Festival] was the documentary *Gasland*" (Breznican, 2010, p. 1).
- Robert Koehler of *Variety* calls *Gasland* "one of the most effective and expressive environmental films of recent years." Comparing it to Carson's *Silent Spring*, Koehler refers to the film as a "rare example of cinema art that is also an organizing tool" with a "level of research, gutsiness and energy that should generate sensational response everywhere it plays" (Koehler, 2010, p. 1).
- Michael Tully of the Hammer to Nail website calls *Gasland* a "volcanic documentary" and adds, "With humor and inquisitiveness, Fox has delivered 2010's most alarming wake-up call" (Tully, 2010, p. 1).
- On the CinemaScope website, Robert Koehler added to his previous comments on the film by calling it "a work of art which also happens to educate quite effectively" and suggesting it was also a possible ideal of "that cherished sub-genre in many festival circles, the environmental film" (Koehler, 2010, p. 2).

- At the close of each Sundance festival *indieWIRE* conducts a poll of dozens of festival-attending critics and bloggers to determine the best and worst of the festival. Results of the 2010 poll revealed *Gasland* to be the number one choice as "best" of the competition films, including both fiction and nonfiction genres (indieWIRE, 2010, p. 1). The indieWIRE website also calls *Gasland* a "powerful personal documentary that confronts these questions [of the consequences of 'fracking'] with spirit, strength, and a sense of humor" (indieWIRE, 2010, p. 1).
- Stewart Nusbaumer, writing for the Huffington Post website, calls *Gasland* a "rare film," and an "extraordinary documentary" that "just might be the best film of the year." A film, he believes, that "might take you from outrage right into the fire of action" (Nusbaumer, 2010, p. 1).
- Margot Roosevelt, for the *Los Angeles Times*, calls the film "a compelling documentary," that is "alternately chilling and darkly humorous" (Roosevelt, 2010, p.1).
- For the *Los Angeles Weekly*, Karina Longworth notes that the film was "a massive hit at Sundance" and refers to it as a "riveting personal documentary" (Longworth, 2010, p.1).

The works selected to comprise the broad text of *Gasland* seek to represent the ripples created by the dropping of the film into the flow of the natural gas and 'fracking' issue network. The total works comprise a text of approximately 130 minutes of video and 430 pages of print, consisting of the information shown in Table 1 below.

Table I. Cultural Fragments Comprising the Critical Text of Gasland and Its Issue Network

Work/Fragment	Description	Method of Analysis
1. The film Gasland	One hundred seven minutes of film on DVD format and pages from the website: FAQs, About the Film, and Bios.	Close viewing

2.	Transcript of the film Gasland	Eighty-eight-page transcript of words spoken, written, and visuals presented.	Close reading with attention to rhetorical visions
3.	Interviews with the writer, director, and videographer of the film, Josh Fox	Four interviews with Mr. Fox consisting of 12 pages of single-spaced text and one 24-minute video.	Close reading and viewing with attention to rhetorical visions
4.	Rebuttals from industry advocate groups	Twenty-two pages of industry rebuttals and one 3-minute video "promotional" tool.	Close reading and viewing with attention to rhetorical visions
5.	Josh Fox's response to industry criticism	A one-page "open letter" to journalists and a 40 single-spaced page rebuttal of the criticisms of the natural gas industry.	Close reading with attention to rhetorical visions
6.	Comments posted by viewers (users) of the film on the Internet Movie Database (IMDB) and Amazon websites	A total 0f 128 pages, consisting of 101 pages of Amazon reviews by 103 viewers and 27 pages of IMDB reviews by 22 "users" of the film.	Close reading with attention to rhetorical visions

For the purposes of the analysis, these artifacts are grouped into three broad categories: (1) the film and its transcript and directly related material from the film's website and interviews with Josh Fox, the film's writer and director; (2) responses to the film from industry advocate groups and Josh Fox's rebuttal to the natural gas industry's responses; and (3) comments from viewers of the film as posted on the film distribution websites.

Organization of the Study

This dissertation offers a qualitative, critical study, using the constructed text of *Gasland* as described above as rhetorical artifacts to provide data for rhetorical criticism. It primarily uses a textual-intertextual analytical frame from a rhetorical vision perspective. The dissertation, then, is organized to reflect the unique components, objectives, and methods of this analysis and its

conclusions. Chapter 1 introduces the study and provides a scholarly and social context for its undertaking; it explores the concepts of environmental communication, rhetorical visions, and the rhetoric of documentary film as entry to the critical aspects of the study; presents the significance of the study; lays the groundwork for the issue and the issue network of which the critical text is a part, presenting the historical, technical, and political context of the issue of hydraulic fracturing in the exploration and production of natural gas; and closes with a brief overview of the dissertation's organization. Chapter 2 discusses the methods used in the study and the general theories and concepts behind its design. The chapter touches upon the methods of data collection and analysis, including rationale underpinning the text construction, the textintertext concept, close reading and viewing, and the issue-centered model; particular attention is given to the symbolic convergence theory and fantasy theme and rhetorical vision analysis. Chapter 3 presents both a literature review and an historical context for the study consisting of three sections: exploring the human-nature relationship, the pathway of environmental discourse in an historical context, and rhetorical visions of environmental discourse. Chapter 4 discusses in detail the results of close viewing of the film and close readings of the transcript of the film, the film's website materials, and interviews with Josh Fox, the film's writer and director. Chapter 5 discusses the results of close reading of those works comprising the intertextual material that originate from responses to the film from representatives of the natural gas industry and comments and reviews from viewers of the film, as represented by user entries made on two film distribution websites. Chapter 6 is a discussion of the findings of the analysis of the critical text, including the rhetorical visions constructed within the documentary film and resonating outward to the intertextual materials studied. Chapter 7 presents the conclusions from the study, structured around answers to the study's research questions, including a discussion of the

rhetorical strategies and visions presented; how they relate, or do not relate, to the historical themes and narratives of environmental movements; and how they may affect motivation and social change. The final chapter also suggests ways the findings might enhance practitioners' reflexivity on environmental rhetoric and documentary film and future questions to be addressed through additional studies of rhetorical criticism.

Chapter 2 — Visions and Fantasies

This chapter discusses the methods employed in this study and the theoretical constructs upon which they are based. I use for my study critical rhetoric methodology as its overarching data collection and analytical structure and within this rhetorical criticism frame my analytical approach is based heavily, though not solely, on the symbolic convergence theory (SCT) and its corresponding critical methods of fantasy theme and rhetorical vision analysis. This chapter begins with discussions of these data collection and analysis approaches, including an overview of rhetoric and rhetorical criticism analysis, including close reading and viewing within a rhetorical vision perspective, constructivism, criticism, and rhetorical vision analysis. The chapter closes with an introduction to rhetoric and rhetorical vision concepts as applied to environmental movements and issues.

Data Collection Within the Rhetorical Text

As discussed in Chapter 1, this study offers a rhetorical analysis of a specific issueoriented text constructed of and around the primary work of *Gasland*, the 2010 environmental
documentary of Josh Fox, blending elements of the concepts of Ceccarelli (2001), Barthes
(1977), and McGee (1990). The intertextual artifacts surrounding this work that construct the full
critical text consist of responses to the film by the natural gas industry and opinions and
comments by viewers of the film. It is my intent to have purposefully constructed a text from
these works that will provide rich and useful insights for the study of environmental rhetoric. As
previously discussed, this methodology for constructing a text responds to post-modernist
insights and seeks to conflate text and context in meaningful ways, and carries with it the
anticipation by the researcher that a critical analysis of the constructed text does have "something
to offer—a different way of understanding or acting—to the community the critic addresses"

(Nothstine et al., 2003, p. 5) and in this study, for the issue network to which it belongs. When working with visual artifacts, such as film, however, this conflation of text and context is even more complex as the artifact of film carries with it visual and aural impressions that give more dimensions to that context as created within the film. We have then an historic context of place, issues, and events at the time of production of the work and we have a (re)production of that context within the film itself. While such a construction and conflation is, indeed, problematized, in my analysis I seek to recognize the complexity of combining works into what I term a text by considering the history, events, writings, and analyses that precede and influence a work; the actions and interactions occurring as the work is created, including common instances of collaborative authorship, especially in film; and the reactions and actions that follow the work.

However the critic places boundaries around his text, the meanings of the text and the works, or fragments, of which it is comprised are various and emergent as they are interpreted by various elements of the issue-oriented audience. The meaning of a work is not unitary and fixed, but is created and co-created through tensions within and among works that open up possibilities for different and distinct—indeed, polysemous—interpretations. The obtaining of diverse meanings from the same text is inherent in any work or text as it is subjected to different audiences within different contexts; polysemy is an ancient rhetorical technique to exploit this "undecidability of a phrase or figure" (Ceccarelli, 1998, p. 396). As a purposeful rhetorical strategy intended for persuasive ends polysemy has often been used to create a text's appeal for different audiences, or it may be used to purposefully divide and inflame audiences while seeking to identify and polarize issues. It is also referred to as strategic ambivalence when used in rhetoric. Campbell (1990) looks forward to a rhetorical criticism that does not focus on a "single magisterial reading of the invitation of the text" and will honor the audience as well as

the rhetor by "attending to the insurgent polysemy of the text" and exploring how the speaker, purposely or not, "invites alternative readings by different interpretive communities" (p. 369). Attention paid to polysemy of texts will help in a better understanding of how that work influences and persuades within its context.

Film is particularly capable of generating an open text with contradictions and complexities of cinematic elements that will enable viewers with disparate ideologies and points of view to find very different meanings. When looking to understand diverse meanings from a text, the critic can then privilege motivational or persuasive effect that necessitates focusing on the text and its audience. The critic is no longer concerned with finding the *correct* reading of a film or a manuscript, but instead can attempt to understand how various readings are valid from a particular perspective and serve a function for that element of the audience. Relevant to my constructed text for this study, Ceccarelli (2001) stresses the need for close reading of material that is respondent to a primary work and that combines with that work to make up the total text surrounding an issue. Ceccarelli (2001) argues that it is a way to fully understand and describe how audiences are reading and understanding the work and invites the critic to consider her analytical method of textual-intertextual analysis to incorporate close reading of receptional fragments as a way to understand the polysemy of the work and as a way to construct a text. Ceccarelli's (2001) "textual-intertextual analysis" method of rhetorical criticism evaluates how rhetors design their arguments to persuade others by both detailed readings of the focused text the work of Barthes (1977)—and detailed readings of associated, or intertextual materials relevant to the work. In seeking to determine how certain works stimulate change and others do not, the method not only attempts to determine specific rhetorical strategies present within the work, but also seeks to discover the responses of the historical audience to the work. By using

this method to make this connection, between the "internal form" of the argument and the "external function" of the audience response, Ceccarelli (2001) argues that the critic is able to come to a more complete understanding of the rhetorical strategies and of their more practical dimension of being persuasive or not. Through close textual reading of the focused text, the critic can discover how a text was constructed to "invite a particular response in a particular audience" (Ceccarelli, 2001, p. 6) and the critic can then form a conjecture about how that work has affected its audience. By adding close readings of intertextual material—texts as evidence of the reception of a work—the critic can make sounder conclusions about the actual persuasive influence of the text. The data collection and analysis for this study will utilize, at its base, the method known as "close reading," which has grown out of the practical criticism concepts of I.A. Richards as introduced in his *Practical Criticism*, published in 1929 and is now a staple of literary and rhetorical criticism, as well as being widely used in the social sciences. This critical methodology relies upon a focus on the text and accentuates the concept that the meaning of a piece of work can be discovered through a close examination of the text in detail, rather than a reliance on abstract or remote theoretical principles concerning the work. The method within the context of this study, however, deviates from Leffian rhetorical criticism (1980, 1990) in that it is not designed to offer a magisterial reading of a canonical text that uncovers its "subtle spatiotemporal forms." Rather, it seeks to uncover broad patterns in the work that can inform our understanding of the suasiveness of the text.

For this study, I will be noticing, identifying, and calling out those features that relate to rhetorical strategies of the filmmaker or of the writer in the case of responses to the film and I will particularly be seeking out those instances of rhetorical phrasing that appear to contribute to the creation or intimation of a rhetorical vision, including rhetorical features and structural

elements. Collection of data from my primary works will be by close textual viewing of the environmental documentary film and close textual reading of a transcript of that film. Visual excerpts from the film and text excerpts from the transcription will be collected and coded according to their possible relationship to rhetorical strategies and visions. Close viewing of film is in many ways more complex than analysis of textual discourse. In film, the critic must consider visual and audio content, including verbal and music content, and also appreciate other factors that can construct a theme, message, or emotion, such as pacing, lighting, sequence of images, and juxtaposition of aural and visual cues. The film is available in a DVD format, which allows for ease of repetitive viewing of the entire film or specific segments and the ability to view in slow motion or to pause and study specific images or frames. With these methods of text construction and data collection I am able to explore how a particular strategy or a unique rhetorical vision invites a particular response while also using the intertextual analysis for clues to additional rhetorical visions possibly hidden in the primary work or co-constituted by the audience interaction with the work. By viewing these texts from this perspective, I believe that I am able to make and support broader claims about this genre of discourse to better understand how effective means of persuasion work within such discourse.

In defining the text for this study, I employed the analytical perspective of Whiteman (2009), or the "issue-centered model," which was developed specifically within the context of studying impacts of documentary films and is found to be relevant to my the constitution of a text for the exploration of the development of rhetorical visions. In approaching a rhetorical topic from an issue perspective, the critic is provided a frame for developing his text that allows a "comprehensive and systematic analysis of the full range of political impact, including impact on producers, activists, and policymakers" (Whiteman, 2009, p. 458). From this perspective, the

critic moves from centering on the documentary itself to the broad issue with which the documentary concerns itself; an approach that uses the environmental issue of the documentary as a focal point for collecting intertextual materials that are relevant to the research direction of the study. In this way, the documentary and its producers can be seen as being "immersed in a larger policy process" and a social-issue documentary can be conceived as an "intervention into a complex and ongoing network of activists and policymakers concerned about the issue" about which the film is constructed (Whiteman, 2009, p. 460). Seen as part of the interacting texts of the issue network, the documentary is not a final text, but is co-created by other participants in the network and is effective within that network through its linkage to activists and policymakers and through its ongoing constitutive interactions with its audiences, those favorable and those unfavorable to the initial discourse. Such an approach also allows the critic to move his focus beyond "the effects a documentary may have on individual citizens reached through mainstream distribution channel[s]" (Whiteman, 2009, p. 458) to those important to the issue under view, such as activist organizations, corporate groups, and decision makers. Intertextual materials can be closely examined that allow the exploration of potential changes in or responses from activist organizations and public policy; Whiteman (2009) notes, "many documentaries can be regarded as 'implicit' pieces of policy analysis, moving through an issue network" (p. 475). The critic is able to use issue-oriented intertextual materials to help determine changes in the issue network and its members after the distribution of the documentary. I view, then, the artifact of the film Gasland as a cinematic entry point into the issue network involved with the practice of hydraulic fracturing in shale formations within the United States to extract natural gas. This network consists of a wide array of participants, including individuals involved in leasing their mineral rights to gas companies; gas developers and producers; activist organizations concerned about

the risks associated with hydraulic fracturing and natural gas production; activist organizations representing the oil and gas industry or others who feel the promotion of natural gas production and use is a good economic and environmental practice; and government agencies at the local, state, and federal levels that are responsible for regulating the industry, protecting air and water quality, and informing the public about the practice and its risks.

Rhetorical Analysis

Constructing a critical text and collecting and coding data through the process of close reading of written material and transcripts and close viewing of the film and other video elements is the first and an obviously important phase of the critical study. It provides the critic with organized raw material that must then be analyzed according to the rhetorical theories and critical methodologies that are believed to be among those best suited to achieve the goal of understanding the rhetorical strategies and visions constituted within and among the text and its audience. The primary methodology used in this study is that of rhetorical criticism, based upon a constructivist perspective of the theory, art, and practice of rhetoric. Killingsworth and Palmer (1992) argue for rhetoric as both a theory and a practical art when they also recognize the classical view of rhetoric as being "the production and interpretation of signs and the use of logical, ethical and emotional appeals in deliberations about public action" (p. 1). In subscribing to Burke's (1969) initial description of the rhetorical as any "inducement to action," I agree that it may be more accurate to "speak of persuasion 'to attitude' rather than persuasion to out-andout action" (p. 50), from a perspective that recognizes the existence of constraints on the ability to take action. This perspective recognizes the power of rhetoric and how it functions socially as symbolic action to assert influence or power. Brummett (1991) carries the rhetorical even further by dubbing it as "the social function that influences and manages meanings" (p. xiv). Cox (2010) agrees: "A rhetorical perspective focuses on purposeful and consequential efforts to influence society's attitudes and ways of behaving through communication" (p. 53), while Hauser (1999) concludes in Burkian fashion that "the category of rhetoric includes any experience that does the work of 'symbolic inducement of social cooperation'" (p. 14). Consistent with this symbolic inducement perspective on rhetoric, the theoretical and methodological concepts important to this study are discussed below and include constructivism, rhetorical criticism, the symbolic convergence theory (SCT) and rhetorical vision analysis, and environmental rhetoric.

Constructivism.

While my study has the underpinning of these views of rhetoric as actions to persuade an audience to changes of attitude, the taking of action, and the inducement to cooperation, it is guided by constructivist insights as well. The concept that social reality, and arguably our understanding of all of reality, is constituted by language, symbols, and, most effectively, the use of rhetoric lends depth as well as breadth to our study of rhetoric that exceeds in significant ways the world of classical rhetoric and gives the act of rhetorical criticism greater ontological relevance. The concept that reality, or a significant component of it, has come to exist as a complex effect of discourse, that, in effect, communication, or even rhetoric alone, constitutes what we perceive to be reality, is fairly commonly accepted in contemporary postmodern communication scholarship, although there are certainly discussions and arguments about questions such as how and how much. Burke (1966) puts it succinctly, "however important to us is the tiny sliver of reality each of us has experienced firsthand, the whole overall 'picture' is but a construct of our symbol systems" (p. 5). At the same time, however, Burke (1966) also recognizes that the typical—non-communication scholar—person "clings to a kind of naive verbalism that refuses to realize the full extent of the role played by symbolicity in his notion of

reality" even though the human is "the symbol-using animal" (p. 5). Postmodern constructivism repudiates any foundation to knowledge that "transcend[s] social-historical contexts" (Crist, 2004, p. 6) that are infused with communication. Leff and Sachs (1990) point out that as far back as Edmund Burke's concepts of the power of language, there has been recognition that discourse is able to blend form and meaning "into local unities that 'textualize' the public world and invite audiences to experience that world as the text represents it" (p. 270). Prelli (2006) similarly suggests that "what appears or looks to us as reality is constituted rhetorically through the multiple displays that surround us, compete for our attention, and make claims upon us" (p. 1). This concept, or collection of related concepts, is important to this study partly because it is at the basis of a rationale for the significance of studying rhetoric; partly because the study explores and extends the received "truths" and persistent narratives of wilderness and the environmental movement from this constructivist perspective; and partly because the primary analytical method used—rhetorical vision analysis—is also based on the expectations that reality is constructed by rhetorical means. The constructivist concepts fit well into the new field of environmental communication, as Cox (2010) notes, "Environmental communication is constitutive . . . [it] helps to constitute, or compose, representations of nature and environmental problems themselves as subjects for our understanding" (p. 21; emphasis in the original). At the least, communicative actions define our perceptions of long accepted environmental realities, such as wilderness as a pristine, sublimity or a wild fearful place, or nature as something to be guarded and preserved or as a vast inventory of goods and values to be conquered, consumed, and exploited. At the most, constitutive theories provide for the communicative creation of the very essence of what we define as reality as when scholars argue that science defines what is real

through rhetorical actions that guide the questions asked, the research conducted, and the findings accepted.

Even at a more superficial level, the constitutive theory in its social constructivist guise points the way to the extent to which factors such as values, beliefs, and emotions of experts in science, engineering, industry and government fix policy decisions effecting broad environmental issues. Lange (1993) echoes these thoughts, "Discursive practices inherently determine the social construction of any environmental conflict" (p. 126; emphasis in the original). In turn, Rogers (1998) notes that "constitutive' theories of discourse have become a mainstay of communication studies" and believes these theories present hope to the critical scholar because "If reality is socially constituted by means of symbol systems, more affirming and egalitarian systems of meaning can be constructed" (p. 245). At the same time he recognizes the strength of these constitutive theories and their value in questioning certain scientific and religious claims, Rogers (1998) also expresses caution in their meaning for considering the human-nature relationship, in that "constitutive theories follow idealism in treating the realm of the nonlinguistic . . . as inert and insignificant" (p. 245). In this way, constitutive theories can continue and support the problematic idea of the duality of the human-nature relationship. Crist (2004) also raises concerns about the widespread acceptance of constitutive theories when noting that by considering all that is wild and all that is the environment as rhetorically constructed we again place nature as second to humans and we open the door to continued and further exploitation and denigration. Certainly Crist's (2004) argument has value, but I believe it would be incorrect to argue for the dismissal of the constructivist theories because they threaten the environmental movement, even though such a threat has far ranging risks to the planet and life on it. Indeed, we might, in turn, argue that misunderstandings of the various concepts of nature

and wilderness are primarily responsible for a problematic approach to the environment or ineffective efforts to come to grips with the problems. DeLuca (2002) is also troubled by the premise that "not only nature but wilderness is a social construction" because this view deconstructs nature, making "Nature [a] part of culture" (p. 164). DeLuca (2002) goes on to state that under constructivism, "People are not a part of nature; nature is part of the human world" and notes this echoes Marx in coming to the conclusion that "Nature is declared dead (if it ever existed). Bereft of existence, nature remains a rhetorical resource for politics . . . and a cultural concept for social analysis" (p.164). The concern for scholars and environmentalists is that diminished nature is even more subject to destruction and exploitation because it is not even worthy of study other than as an interesting rhetorical construct. For those critics who fully subscribe to the concept of rhetorical constructivism, however, Rogers (1998) gives us some solace by arguing that "Admitting and embracing the power of discourse does not necessitate either continued objectification of the earth or continued denial of our own earthly natures" (p. 256). Rogers (1998) believes the environment is an "object of discussion and contention, a thing needing to be saved from us" and calls us to go beyond listening to nature—to life—and have a dialogue with the natural (p. 263). Rhetorical studies, I would also argue, are how we begin to understand how to engage in dialogue with nature because through such studies, we have the difficulty and the joy of being 'in between,' neither completely abstract nor completely concrete. We see, then, that communication scholars are "well-positioned to begin the work of (re)constructing theories of discourse that acknowledge and promote dialogues that embrace rather than negate our inseparability from nature" (Rogers, 1998, p. 264).

By better understanding the sources of received views of nature and wilderness and how these views came to be widely held, we may have a better chance of changing them for the betterment of humans, the wild, and the planet. As Sandmann (1996) restates the essence of Albert Gore's argument in Bender's 2006 documentary film, *An Inconvenient Truth*, "The only meaningful relationship we can have with the material world is through symbol use . . . we are playing out a no-win game by our failure to understand our symbolic relationship with the earth" (p. 131). Possibly through carefully crafted rhetorical strategies, and particularly by better understanding the creation and power of rhetorical visions, the environmental rhetor can, rather than persuade, *present* people with alternative realities with which they can identify and, ultimately, inhabit.

Media and process of critical rhetoric. As well as a broader perspective of rhetoric's purpose and results, I also join other scholars in taking a broader view of the media of rhetoric. Extending beyond oral and written discourse, the formative media of the rhetoric of today includes a greater symbolic experience of the visual and the spatial, and acknowledges that "our nonverbal as well as verbal experiences can be rhetorical" (Clark, 2010, p. 201). Nothstine et al. (2003) extend this definition to "photographs, advertisements, musical compositions, paintings, situation comedies, films, novels" and more (p. 3). While scholars are expanding the media through which rhetoric can be experienced, McGee (1990) notes the significance of "the pure act of criticism" in the field and how that criticism is "intimately connected with any analysis of discourse" (p. 274). Criticism is how ultimately as scholars we come to better understand the structure and effect of rhetoric and, if so desired, we can influence the art and practice of rhetoric for the better. The act of criticism is multifaceted, but is integral to the study of rhetoric. Early in the formative years of communication as a discipline Wichelns (1925/1993) sought to separate rhetorical from literary criticism by assigning to the literary critic the understanding of the "voice of a human spirit" through all time and all ages and speaking as "the spectator of all time and all

existence," while relegating the view of the rhetorical critic to being "patently single"; not being concerned with permanence or beauty, but being solely "concerned with effect" (p. 26). I believe there is value for us in Wichelns' (1925/1993) assessment when amended from a constructivist viewpoint of rhetoric, where we assign to the rhetorical critic not only the study and understanding of immediate effect, but also the longer-term and more essential role of developing, defining, and creating social reality for individuals, groups, and nations for extended periods. We might also add appreciation for the beauty and eloquence that comes with a wellmade critical argument or a well-constructed rhetorical vision. Effective criticism is, I believe, ultimately the presenting of something new relating to a rhetorical event and can be the "soul of eloquence" as Osborn (2003) suggests (p. 79). However, we should be careful to note that in studying effect we do not wish to abandon aesthetics. Along these same lines, Foss (2009) argues that one purpose of rhetorical criticism is to better understand the artifact under exploration and, "consequently, to use that understanding to help others appreciate [the artifact] or to change some aspect of the society that generated [it]" (p. 6). Beyond these specific intentions, however, my critical path is guided by the view that criticism is "most valuable and worthwhile when it provokes its audience to think or act differently and in socially responsible ways" (Nothstine et al., 2003, p. 4). This call to think and act differently must also be related to the broad context within which the rhetoric operates and consider the rhetorical act as a "timely and opportune response to contingent circumstances and particular audiences" (Schwarze, 2006, p. 257). Acting as a rhetorical critic is acting in relation to texts of the past and audiences of the present and future and requires us, therefore, to be aware that we are engaging in rhetoric ourselves and should strive for our work to be consequential and to be written into the public arena, where it might be judged and evaluated as is any other text. In my goals as a critic, not only in this study

but in any future scholastic endeavors, I argue that rhetoric is best when it opens and not closes public discourse and when it makes "people generous and not craven" (Nothstine et al., 2003, p. 55).

Rhetorical Vision Analysis: Theory and Method

The concept of rhetorical vision comes from the work of Bormann (1972, 1982, 1985a, 1985b, 1989) and his construction of the symbolic convergence theory (SCT) and its associated fantasy theme analysis methodology. Bormann's work, in turn, is based on studies of group interactions by Bales (1950, 1970) in which he observed a phenomenon of group fantasy creation, where certain fantasies are introduced that bring the group into active agreement and sharing that "stimulates in each of its members a feeling that he has entered a new realm of reality—a world of heroes, villains, saints, and enemies—a drama, a work of art" (Bales, 1970, p. 398). Carson's (1962) "A Fable for Tomorrow" segment in Silent Spring (1962) comfortably fits within this concept of rhetorical vision and exemplifies the power of an eloquent and wellconstructed vision for initiating attitudinal and behavioral changes. Bormann (1989) speculates that rhetorical innovation can begin "when one creative person fantasizes a powerful personal consciousness and dramatizes the complete vision so skillfully that it is shared by converts and becomes the rhetorical vision which forms a community's consciousness" (p. 454). That vision is, as Bormann (1972) says, "constructed from fantasy themes" (p. 398) and "the proper selection of fantasy themes allows the rhetor to dramatize values and attitudes in order to create and sustain an audience's sense of community" (Archer, 2007, p. 6) Within such rhetorical visions, we find two primary types of broad fantasy themes, those that "connect audience members with a shared past experience" and those that "connect the audience with the dream of an ideal future" (Archer, 2007, p. 7). Bormann (1972) explicates this connection between experience and theme

further, saying, "The relationship between a rhetorical vision and a specific fantasy theme within a message explains why so much 'persuasive' communication simply repeats what the audience already knows" (p. 399). It is this shared experience when combined with the dream of an ideal future that evokes the "emotional ratification of the audience, who is led to believe that the rhetor has learned everything possible about past successes and failures" and can now put forth viable alternatives (Archer, 2007, p. 13).

Fantasy theme analysis further postulates that when a group of themes coalesces into a persistent scenario that crosses issues and genres, they have taken the form of a fantasy type. A fantasy type leads an audience into a set of interconnections that it is already familiar with and such a type, as well as the visions they become part of, are very much a rhetorical form, as Burke (1931/1968) says, "A work has form insofar as one part of it leads a reader to anticipate another part, to be gratified by the experience" (p. 124). In speaking of fantasy themes, fantasy types, and rhetorical visions, Bormann (1989) says, "when group members [or an audience] respond emotionally to the dramatic situation they publicly proclaim some commitment to an attitude" (p. 397) and "when a person appropriates a rhetorical vision he gains with the supporting drama constraining forces which impel him to adopt a life style and to take certain actions" (p. 406). Bormann fits his symbolic convergence theory within the "broad framework" that is Fisher's narrative paradigm as one that specifically seeks to explain human communication in terms of "socially shared narrations or fantasies" (Bormann, 1985b, p. 128). Bormann places SCT and its related methodologies as a generalized theory within the narrative paradigm; it "assumes that human beings are social storytellers who share fantasies and thus build group consciousness and create social realities" (Bormann, 1985, p. 136). While Fisher (1987) apparently prefers to consider rhetorical visions as "rhetorical fictions" that are "constructions of fact and faith having

persuasive force" he notes that such "visions" have been demonstrated to "exist" and he agrees with Bormann that this demonstration is "partial evidence for the validity of the narrative paradigm" and that Bormann's work "enriches the narrative paradigm" (p. 64).

In their comprehensive review of the development and literature of SCT, Bormann et al. (2001) summarize the concept as one that "explains the communicative force of fantasy-sharing on human action as stemming from its ability to forge a symbolic consciousness that is constitutive of reality" (p. 271). In Bormann's (1972) expansion of Bales (1970) findings, he postulates that:

A rhetorical vision is constructed from fantasy themes that chain out in face-to-face interacting groups, in speaker-audience transactions, in viewers of television broadcasts, in listeners to radio programs, and in all the diverse settings for public and intimate communication in a given society (p. 398).

In addition to "chaining out" from small groups, however, other fantasy theme scholars note that rhetors can use these themes as they already exist in our culture to enhance or build their rhetorical arguments. Archer (2007) notes that "the proper selection of fantasy themes allows the rhetor to dramatize values and attitudes in order to create and sustain an audience's sense of community, petitioning them to act by providing a rhetorical vision that sparks a common response amongst the group members" (p. 6). Swartz (1999) goes on to argue:

Rhetorical visions are large meta-narratives (reality-defining discourses), encapsulated ideologies, prophetic inquiries that suggest alternative possibilities for growth and change. [Rhetorical visions] are symbolically situated desires that have the power to transform images of self, society, and others (p. 4).

SCT and fantasy theme analysis have been a viable part of the conversation within critical rhetoric for more than four decades and I believe that with a deeper look into their construction, it can be seen that they have something to contribute to the discursive genre of environmental documentary film today.

Critique and review. Whether due to Bormann's bold claims for his theoretical construct or other factors, SCT and its corresponding analytical methodologies have been subject to passionate scholarly review and criticism almost since their inception, including essays by Brummett (1984), Farrell (1980), Goodall (1983), Gronbeck (1980), Gunn (2003), Ivie (1987), Leff (1980), Mohrmann (1980, 1982a, 1982b), and Smith and Windes (1995). Bormann and others have explored and responded to the more significant of these critiques in some detail in previous publications, including Bormann (1982), Bormann et al. (1994, 2001, 2003), Cragan and Shields (1995, 1998), Grainey (1983), and Sharf (1987). For the purposes of this study I feel that it is appropriate to discuss in general the criticisms raised most frequently about this theory and methodology in order to better our understanding of the concepts and justify their application to the present study. While these criticisms challenge the validity and usefulness of this method, I believe that upon closer inspection there are valid responses to these questions in most cases, and in other instances the questions raise issues that actually might lead to a stronger theoretical position. Dominant criticisms of SCT can be broadly categorized into four areas: (1) the basic presuppositions that undergird the theory have not been clearly expressed; (2) the theory is Freudian-based, which leads to several weaknesses and inconsistencies; (3) the theory is simply "reinventing the wheel" and has nothing new to add to communication scholarship; and (4) the theory invokes a humanist, autonomous agency that fits within the discredited modernist

paradigm. The most prominent critics who have elicited direct responses from Bormann and his colleagues are Mohrmann (1980, 1982a, 1982b) and more recently, Gunn (2003).

Bormann and his followers in fantasy theme analysis respond to their critics' concerns that there are no conceptual underpinnings to the theory by arguing that there are, indeed, welldefined and clearly stated presuppositions that undergird SCT. These have been developed and refined over the SCT-based "professional articles and books [that] exceed 485" published in the 30-plus years since the theory's initial formulation (Bormann et al., 2003, p. 367). The primary assumptions for the theory are that (1) it is a grounded approach to theory building, (2) it is based on empirical studies, (3) the audience is reintroduced as an important element of rhetoric, and (4) it is a generalizable theory. Of particular importance in applying the theory to my study is that SCT is seen by its founders and developers as a grounded theory; one that is developed from research and iteratively grows and is tested, verified, and modified through subsequent research and study (Fisher and Hawes, 1971; Glaser and Strauss, 1967/2007). Symbolic convergence theorists assume "that concepts should emerge from the studies rather than being derived from [just] studying previous writings" and further, that understanding and clarification of the theory's concepts are "outcomes of research, not its prerequisites" (Bormann, et al., 1994, p. 263). Bormann et al. (2001) note that "one of the earmarks of grounded theory is that replication of the same experiments should yield the same results" (p. 276) and believe that SCT meets that requirement. Not recognizing the importance of the grounded approach to theory generation is possibly the largest factor influencing SCT's critics. A grounded theory is not settled at its initiation, but evolves and strengthens or fails and is rejected through continued research and exploration. I believe that the theory and its methods having held steady through decades of study is a reliable indication that it has merit in critical analysis and a grounded perspective

invites my study to make contributions that may challenge or strengthen conceptual or methodological elements of SCT.

The second presupposition of SCT is one that also strengthens its credibility: its basis as an empirically based study of the "sharing of imagination" (Bormann et al., 1994, p. 263). Its adherents consider SCT to be a hybrid theory that spans and possibly unites the humanities and the social sciences and note that much of the SCT research published is quantitative social science studies. Such empirical findings argue against the claims of critics, such as Mohrmann (1982b), when he does not accept "that a fantasy chain occurring in a small group will be replicated in form, content, and impact in a newscast, a letter, a speech, and any other mode of communication" (p. 309) and doesn't understand how anyone can "maintain that the processes in the fantasy chain are precisely equivalent to processes across all contexts of communication" (p. 308), Gunn (2003) extends Mohrmann's critique, arguing that SCT cannot determine motivations in large groups of people based on the fantasy theme analysis of a subjective critic. According to Bormann et al. (2003), however, researchers have employed large-scale quantitative studies demonstrating the "presence of meaning, emotion, value, and motive for action" in rhetorical discourse and these provide evidence that "fantasy themes may be identified accurately and established simultaneously as being present within large groups of people and directly linked to their behavior as individuals" (pp. 367 and 368). These empirically based social scientific studies relevant to SCT include Bormann (1973), Bormann and Itaba (1992), Bormann et al. (1997), Bormann, Koester et al. (1978), Cragan and Shields (1977, 1992), Duffy (1997), Endres (1989, 1994, 1997), Foss and Littlejohn (1984), Nimmo and Combs (1982), Rarick et al. (1977), Shields (1981b), and Stone (2002).

A third presupposition of SCT is that the "audience should again be an important part of the rhetorical paradigm" (Bormann et al., 1994, p. 268). SCT theorists believe that by including considerations of audience in rhetorical acts, rhetorical criticism can be more effective in determining motivation and actions. As Bormann et al. (1994) states:

Fantasy theme analysis put[s] the audience back into the rhetorical paradigm . . . The concept of rhetorical community and consciousness as related to consciousness creating, raising, and sustaining is a major finding of . . . research in the symbolic convergence theory (p. 268).

The involvement of audience is of particular relevance in this study as I seek to explore the responses to the rhetorical strategies of Gasland as well as defining those strategies themselves. Finally, generalization is an important supposition of SCT and is relevant to the theory's founders and developers in their effort to seek a unifying theory for rhetoric and communication. While it may ultimately succeed or fall short of such a lofty theoretical goal, the idea that the discipline of communication would benefit from a unified meta-theoretical approach is worthy of scholarly consideration. A single set of principles, Bormann and his colleagues argue, "would allow the findings from several studies to be synthesized into generations" (Bormann et al., 1994, p. 269). Gunn (2003) is concerned that the end result of SCT is to effect all elements of communication and Mohrmann (1982b) states it even more strongly, that if SCT is validated then we are faced with the "terrifying conclusion" that "the history of thought must be rewritten. ... all recorded thought and action [must be] encapsulated in appropriate fantasies" (p. 313). Bormann and his followers, however, do not consider such concerns as necessarily negative factors in SCT, but are rather seeking, through combinations of critical and social scientific studies, to determine if SCT could eventually comprise a unified set of principles that would

underpin a general theory of communication and rhetoric. While not insisting on "rewriting the history of all thought," Bormann et al. (1994) do argue that the theory of symbolic convergence is "a general one that applies to all human communication no matter the context" (p. 275).

A dominant theme among the critics of SCT is that the entire concept of fantasy themes is based upon the precepts of Freud and is therefore limited in their theoretical application. Freud's concepts, they argue, do not allow for the generalization of fantasies beyond the context of the small group and if fantasies are parallel concepts to Freud's dream-state then they are "always deceptive and . . . cannot reveal motive" (Gunn, 2003, p. 51). This argument, however, is based on the Freudian underpinnings of the small group studies of Bales (1970) and not derived from any claim of SCT researchers that the theory and fantasy theme analysis method are based on the principles and concepts of Freud. This thread of critique has the potential to evoke much additional study and discussion into Freudian concepts and their potential or limitations in the sharing and motivational factors of imagination and fantasies, but Bormann et al. (2003) state simply that "rhetorical fantasies" as SCT envisions them, are "not Freudian fantasies" (p. 368) despite Bales' theoretical underpinnings as a Freudian in his work. Bormann et al. (2003) contend that "rhetorical motives differ from Freud's subconscious desires" and "rhetorical fantasies are not deceptive" but can be discovered and understood through fantasy theme analysis and are translatable because the "meaning, emotion, value, and motive for action are present in the communication, not hidden in individual psyches" (p. 368). In an additional critique of SCT, Gunn (2003) specifically faults Bormann's insistence on fantasy themes being created by autonomous rhetors rather than an unconscious act of a collective as the primary and possibly fundamental flaw of SCT. Gunn (2003) argues that "Bormann's reluctance to admit that collective fantasies were motivated by unconscious, structuring logics in the process of group

invention and . . . not the product of the creative rational individual" (p. 52) negates all other aspects of the approach.

Bormann et al. (2003) recognize that there may be a perception that SCT is inconsistent because "it maintains a humanistic rhetor while advocating a decentered, post-modern, coconstruction of reality via publicly shared fantasies" (p. 366), but they maintain that SCT is a bridge between modern and post-modern thought. They argue there is "a connection between rhetorical visions and community consciousness" (Bormann, 1982, p. 289), while maintaining that SCT is a theoretical explanation of how "multiple rhetors use their conscious imaginations to create symbolic realities (rhetorical visions)" (Bormann et al., 2003, p. 369). Gunn (2003) counters that "community consciousness' is the primary locus of fantasy, and no one theme. type, or vision originates in the solitary individual" (p.49). While such arguments can open scholarly explorations into the origins and the ontological expression of the imagination and make for potentially rich studies on their own, I do not necessarily agree with either Bormann or Gunn that the origin of fantasies must be solely through either individual agency or collective unconscious; fantasies as conceived within SCT can, most probably, be created by either mechanism separately or both collaboratively. I believe the workings of the imagination are left to be fully explored through a variety of methods, but the SCT-based empirical studies referred to above seem to indicate that such fantasies do exist and can be seen to move audiences toward motivation and action. I do feel, however, that the fantasy themes arrived at and exhibited in many discursive forms do have a resonance within the collective unconscious. We see fantasy archetypes repeated within and across cultures to such an extent that their derivation and their chaining must have a strong collective constructionist element, while certainly the individual imagination is capable of tapping into and extending and reinventing these themes for specific

communicative or rhetorical purposes. Using the grounded theory approach that SCT proponents advocate, I see this argument as not negating the theory and its methods, but rather providing a rich area for further exploration and understanding and one that I investigate to a certain extent within this study on the rhetoric of *Gasland*.

The final critique of SCT to be addressed here is that the entire theoretical approach is unnecessary, that it is reinventing the wheel and essentially provides nothing new to the theoretical basis of communication or rhetoric. Leff (1980) asserts that "attempts at theoretical innovations [such as SCT] often merely substitute new modes for the old" (p. 341). Gunn (2003) seconds a similar charge by Mohrmann when he argues that nothing is achieved in "the idiom of fantasy that could not be achieved with Kenneth Burke's dramatistic vocabulary (in particular, the 'pentad') or the semiotic analysis of myth advanced by Roland Barthes" (p. 50). Bormann and his colleagues (1994) argue that each theory deserves its own technical terms in order to convey that theory's unique perspective and suggest that SCT does, in actuality, add to communication theory a focus on the "importance of imaginative language (and the imagination) in nonverbal and verbal transactions" (pp. 264-265). In a summation of what is relevant about SCT, the theory's developers and defenders reply that "fantasy theme points the scholar to imaginative language, that [the theory] stresses not a unique reading of myth, metaphor, narrative, or story but provides a clear technical vocabulary for the general analysis of imaginative language" (Bormann et al., 1994, p. 276). I suggest that the major critics of Bormann and SCT posit arguments that do not necessarily repudiate the theory and its methods, but rather raise questions that can strengthen the usefulness of the theory, especially when viewed from a grounded theory perspective. SCT's harshest critics even give the overarching theory significant credit, as for example when Gunn (2003) states that "symbolic convergence theory was the first

to advance a more contingent understanding of rhetorical agency, suggesting fruitful directions for ideological criticism" (p. 42) and when Mohrmann (1982) says that "modifying their approach, the [fantasy theme] critics might take us much further toward an understanding of rhetoric and its place in epistemology" (p. 313). Although questioning the viability of the fantasy theme methodology, Mohrmann (1982) recognizes the "excellence apparent in some of the fantasy theme studies" (p. 313), which leads one to ask whether a method that leads to quality scholarship and is transparent to a study's findings does not characterize a desirable approach to criticism? Bormann et al. (1994) sum up their concept of the value of SCT by noting:

Whenever communities of people come to share a common rhetorical vision, SCT provides a way to study and understand the consciousness-creating communication that brought the vision into being and created the consciousness, the consciousness-raising communication that drew new converts to the consciousness, and the consciousness-sustaining communication that aimed to keep the true believers committed to the vision (p. 276).

I use SCT and fantasy theme analysis as a focal point for my methodology in this study in the same way that previous researchers have envisioned it as being developed and tested, within the concept of a grounded theory, both in applying it to and receiving feedback from criticism to enhance the understanding of its theoretical constructs. I hope that this study also serves the further extension of the concepts into the grounded cycle between theory and practice, as might be determined by the application of the theory and its methods to the rhetorical criticism of the text of a documentary film and its intertextual materials.

Theme and vision analysis. In analyzing a work from an SCT perspective, a critic first seeks to identify fantasy themes within the work that, when taken together, form a rhetorical

vision, or as Foss (2009) puts it, a rhetorical vision can be seen as a "swirling together of fantasy themes to provide a particular interpretation of reality" (p. 100). Bormann et al. (2001) consider a fantasy theme to be "a dramatizing message that depicts characters engaged in action in a setting that accounts for and explains human experience" (p. 282). Fantasy used within this context is not the fanciful concept of general usage, but is rather a "creative or imaginative interpretation of events which fulfills a psychological or rhetorical need" (Bormann, 1983, p. 434). When shared, such fantasies can work to form the essential assumptive systems that provide the basis for arguments at the center of a persuasive position. Foss (2009) recommends approaching an artifact through two analytical steps, (1) "coding the artifact for setting, character, and action themes," corresponding to the elements that comprise the fantasy's dramatic nature, and (2) "constructing the rhetorical vision(s) from the fantasy themes," recognizing that any given work can contain multiple rhetorical visions (p. 101). Some texts may even contain nonhuman entities displaying human-like action or agency; within a fantasy theme or rhetorical vision these may be considered as viable "character" agents. The critic will seek to group patterns of fantasy themes into one or more prevalent rhetorical visions which guide a particular work.

In this study, I will also be attempting to link fantasy themes and rhetorical visions across individual works, looking for relationships between works and within the broad rhetorical text of the issue network. As such, within works and across the text, I will be inquiring into rhetorical strategies used to accomplish specific objectives, messages that the themes and visions are crafting and conveying, and the implications of such visions for achieving persuasive ends or social impact. While I plan to adhere in general to the methodologies based upon Bormann's SCT, I also recognize the theory's indebtedness to other theoretical constructs, particularly Burke's (1957, 1966, 1969) influential dramatist theories, Barthes' (1977) work in semiotics and

mythologies, and Fisher's (1987) narrative paradigm, and do not feel compelled to adhere to a rigid reconstruction of the Bormann-derived methodology. Possibly more importantly, within the spirit of the grounded theory approach to which SCT researchers subscribe, I believe that there is room for flexibility in looking to the basic elements of the close reading process to keep my analytical approach open to the presence of other rhetorical strategies in the text that may, in fact, enhance the construction of rhetorical visions, but may also act tangentially or separate from fantasies and visions, while still being an element of a rhetor's persuasive tapestry.

Rhetorical Visions and Environmental Rhetoric

Scholarly application of rhetorical criticism to the investigation and understanding of environmental texts is relatively new as Waddell, writing in 1998, noted, "a literature on rhetoric and the environment has only recently begun to emerge" and "the journal literature in this area has only about a twenty-year history [1978-1998]" (p. xi). It seems reasonable that this interest in rhetorical scholarship emerges in response to the growth in the modern environmental movement beginning in the 1970s. Buell (2005) points specifically to the "marked increase in sophistication of environmentality as an issue since the 1980s as being significant in the environmental turn in many humanist studies" (p. 22). Studies of environmental texts have frequently entailed the application of rhetoric, which is understandable, for as Buell (2005) states, "Rhetoric comprehends all genres of expression, literary or academic or popular, at the point where the properties of language and the agendas of persuasion meet" (p. 45). As we have seen from a review of environmental discourse, the intent of most elements of environmental movements have been to persuade—to influence attitudes and change behaviors. Through policy decisions or the choices and actions of individuals, these movements seek social change in response to a constructed vision of environmental issues, concerns, and objectives. At a deeper level, the

discursive actions of these movements are rhetorically constructing the essential realities of issues, outcomes, and solutions around the human-nature relationship. Through a rhetorical perspective, we look at the ways diverse voices seek to influence our behavior and perception toward the environment; rhetorical criticism as a method guides us to focus, not only on the "purposeful and consequential efforts" (Cox, 2010, p. 53) to influence attitudes and behavior, but also on those invisible or unconscious rhetorical choices that are made by rhetors within the context of environmental issues. Cox (2010) further encourages us to view environmental rhetoric as a pragmatic vehicle—one of praxis—when it is used by "citizens, environmental groups, and others to educate, alert, persuade, or mobilize" (p. 60) and also as a critical methodology, which helps us in the analysis and understanding of rhetorical moves that are in effect and in challenging the moves of the dominant discourses in environmental communication.

Environmental rhetoric is, in essence, about an idea—the environment—and about the discourses and texts created to talk about that idea. I maintain that the rhetorical vision concept has the power to constitute strong motivation by rhetors relative to environmental issues and that many times over rhetors have constructed such rhetorical visions within the environmental community and that these visions grow from consistent themes across the history and awareness of our relationship with nature. Environmental rhetors, to be more effective in constructing desirable attitudes and behaviors, can help their audiences to envision an obtainable future, according to Moser and Dilling (2007). These authors say that such visions should evoke "hope" and "empower people," but won't unleash their "full power until [they] become integrated into a common problem understanding and a common vision of a desirable future. . . . Such visions maintain a critical role in maintaining people's engagement" (Moser & Dilling, 2007, p. 503).

While not invoking the specific "rhetorical vision" concept of Bormann (1972, 1982), these authors state the relevance that just the term "vision" can have in environmental rhetoric; rhetorical vision gives the critic an even more robust concept with which to evaluate and understand persuasive and constitutive discourse within the context of the environment. My use of the perspective of rhetorical visions seeks a greater understanding of the persuasive power of those thematic types and narratives of the past and the ideal future we find in historic and current environmental texts and discourse. It is this shared past experience when combined with the dream of an ideal future that evokes for Archer (2007) the "emotional ratification of the audience, who is led to believe that the rhetor has learned everything possible about past successes and failures" (p. 13) and can now put forth viable alternatives. I argue that rhetorical visions have been "chained out" into the world of environmental movements throughout the history of such movements and that these visions can be found in original or slightly modified versions in the discourse of the environmental movement today. These themes and visions continue to resonate with activists and audiences within the context of environmental issues and still represent the core arguments for rhetors attempting to change attitudes and behaviors regarding these issues. The next chapter explores the extant literature of environmental communication and identifies and discusses the more prominent of these rhetorical thematic types and visions.

Chapter 3 — Human, Nature, the Environment, and Discourse

In seeking to determine the presence and efficacy of rhetorical visions in artifacts of environmental communication within and impacting upon an issue network, it is desirable to review previous studies of environmental communication to seek out indications of rhetorical visions and themes in the works of other scholars. Because there has been limited work from a rhetorical visions perspective in environmental communication studies, such discursive occurrences are more commonly referred to as narratives or singled out as a phenomenon, but not given a theoretical or analytical metalabel. Cox (2010) identifies such "distinct forms or types of speech" sharing similar characteristics as "rhetorical genres," which environmental rhetors rely on "to influence perceptions of an issue or problem" (p. 60) He includes as examples several of the narratives I identify in this chapter, such as the *sublime*, *apocalyptic* rhetoric, and the *jeremiad*. From the perspective of symbolic convergence theorists, however, I argue that these narratives can be constructively viewed as fantasy types (Bormann, 1972, 1982, 1985a, 1985b, 1989; Bormann & Itaba, 1992; Bormann et al., 1978, 1994, 1997, 2001, 2003; Cragan & Shields, 1977, 1992, 1995, 1998; Duffy, 1997; Endres, 1989, 1994, 1997; Foss & Littlejohn, 1984; Nimmo & Combs, 1982; Rarick et al., 1977; and Shields, 1981b). Such shared thematic types are "well-known dramatic form[s]" (Bormann et al., 2001, p.25) referred to as "the workhorse of rhetorical visions" that can construct a new vision serving to "give the old familiar drama a new production" (Bormann et al., 1996, p. 3). Admittedly, however, determining in practice whether these narratives are best termed themes, types, or visions is not an unproblematic exercise; but I suggest that considering them as components of a constructed rhetorical vision that carry with them cultural imprints as to their constitution and their message is a strategy that can assist in discovering purpose and motivation for persuasive acts. These are

fantasies of the past, present, or future that are in common enough use within environmental communication, usually over an extended period of time, that have become familiar to audiences and enable them to more readily understand complex issues and problems and relate to proposed solutions. We can begin to compare these thematic types by their use of similar rhetorical elements and strategies and by their ability to evoke attitude and behavioral changes. I have found 13 of these types in a literature review of environmental discourse, many that have, interestingly enough, persisted across decades and several changes in the nature and issues of environmental movements. Certainly other authors might find more or less, or disagree with how I have separated or combined various elements into those discussed here, but I argue that their persistent and consistent evocation in a variety of forms and genres of discourse over the years speaks loudly to the power of the rhetorical vision within environmental communication. In this chapter we first look to better understand the relationship between the human and the natural and its evolution to where it is today. This relationship underlies everything we think and do regarding the environment, including the issues that are contested and the rhetorical visions constructed to address those issues. Next we briefly explore the evolution of the American environmental movement, particularly focusing upon the movement through changes in its discourse, changes that lead to the development and continuation of rhetorical visions within the communicative landscape. And finally, the chapter takes us through those rhetorical visions that I have identified within the selected works of environmental communication that I have reviewed. The following chapters of this report will endeavor to determine if any of these visions, in whole or in part, are to be identified within the text under critical study.

The Human-Nature Relationship

Our past and current environmental issues, causes, and movements—environmental ills and cures—grow directly from the various and complex social constructions about how humans are to relate to nature, or even if there is a relationship rather than a unity. In exploring persuasive strategies of rhetors involved in environmental issues and particularly in understanding the historical and social context of such strategies, we need to begin with exploring this basic human-nature construct. By beginning here, we will be able to better understand how current themes and narratives have much of their basis in this relationship and interplay between the human and the nonhuman of the world and we will see the genesis of common narrative threads that run throughout the environmental movement. In such a review, we find that constitutive discourse about the human-nature relationship is ancient and pervasive and, counter to Western cultural constructs of today, most cultures' earliest texts portray wilderness as the antithesis of all that was orderly and good—it was the darkness, the unknown, the disordered, and the dangerous. As Nash (2001) recounts, the "largest portion of the energy of early civilization was directed at conquering wildness in nature and eliminating it in human nature" (p. xii). But the very concept of wilderness could only exist as an outgrowth of civilization itself; "For nomadic hunters and gatherers, who represented our species for most of its existence, 'wilderness' had no meaning. Everything was simply habitat' (Nash, 2001, p. xi). In his classic 1967 article, White argues that much of our current conflicted relationship with the natural originated with the dualistic split between man and nature found in Christianity and in the religion's reliance on man's God-given directive to dominate nature. White (1967) goes on to point to Christianity as mandating that it "is God's will to exploit nature for his proper ends" (p. 1205). But even in this earliest of writings about the human-nature relationship, we find

controversy and conflicting perspectives; Myerson and Rydin (1996), for example, point more to the Christian directive to "cultivate" as indicative of a stewardship relationship between the human and the natural. Along with them, Gore (1993) notes that in recognizing the sacredness of creation, "[Christian] believers are called upon to remember that even as they 'till' the Earth they also must 'keep' it . . . the concept of dominion" Gore notes, "is quite different from that of domination" (p. 243).

The more hostile construct of wilderness, however, generally dominated Western culture well into the 18th century, as Cronon (1996b) says, "the most common usage of the word 'wilderness' in the English language referred to landscapes that generally carried adjectives far different from the ones they attract today" (p. 70). This ongoing perspective of wilderness as savage, deserted, desolate, barren, or, in short, a wasteland, coupled with the prevalent Western religion's admonishment to dominate nature, broadly informed humankind's approach to nature as it moved into the period of the 17th century known as the Enlightenment. Strongly influenced by the philosophies and teachings of Francis Bacon and his followers, religion as the element of domination over nature was replaced in large part by the twin forces of science and technology. With the stage set by Christianity's early separation of the human from nature, the growth of scientific thought pushed nature even more toward the ontological role of object to the human's subject—nature was meant to be studied and controlled. We find then, that this complex stew of religion and science, and separation of humans and nature held great influence during the migration of Europeans into the Western hemisphere and was still at play in the New World. Nash (2001) cites William Bradford in writing of settlers' hardships at Plymouth in 1620 carrying on this long "tradition of repugnance for nature" when he describes the landscape beyond the colony as a "hideous and desolate wilderness" (p. 24). Merton (1973) notes the

Puritans viewed the wilderness of "North America as though it was filled with conscious malevolence against them" (p. 41).

Change in this relationship, however, was coming to the West, beginning with a Romantic movement in European literature and arts that subsequently informed a group of early American philosophers, the Transcendentalists. In the 19th century this influential group, consisting of notables such as Ralph Waldo Emerson, Henry David Thoreau, and John Muir, protested against Christian literalism and Enlightenment and sought to create a vision of nature and wilderness as emblematic of a "flow of a divine spirit" (Opie & Elliot, 1996, p. 21). Oravec (1996), in her study of the sublime noted that by promoting the practical advocacy of the aesthetic in nature, these philosophers and their followers sought a radical reordering of human priorities toward recognition of nature's preeminent importance and spiritual value. In the writings of these Transcendentalists and in subsequent representations in art and in photographs of the American West, nature was constructed more and more as a concrete phenomenon and as a mirror of spiritual truth. Thoreau (1893) insists, ultimately, that "in wildness is the preservation of the world" (p. 275). Cox (1980) notes the transition to "wildness" as being viewed as the "source or origin of creativity, nourishment, and renewal for civilization" (p. 13). Among many artists and photographers also carrying this same message, Clark et al. (1996) single out the artist Thomas Cole, whose legacy in visual rhetoric was to establish a new aesthetic standard that found "in the wild American landscape the divinely beautiful and true"; Cole painted "sacred texts in which American nature is pure and wild" (p. 278). For these writers and artists, and the growing number of Americans who shared their views, "Satan's home had become God's own temple" as Cronon (1996b) suggests, and the source of this "astonishing transformation," he argues, can be gathered under two broad headings: "the sublime and the frontier" (p. 72). In the

combination of the "sacred grandeur of the sublime with the primitive simplicity of the frontier," Cronon (1996b) states, the wilderness was created as "the place where we can see the world as it really is, and so know ourselves as we really are—or ought to be" (p. 80).

Of significance to the establishment of the unique American environmental experience, was the "ending" of the American frontier in the 1890s; according to Nash (2001), this was a "psychologically important" transformational period for the country (p. xiv). As cited by Cronon (1996b), Frederick Jackson Turner said that the world of the American frontier and all of its attractions depended on free land—on wilderness. With its perceived loss, Nash (2001) notes, "the scarcity theory of value began to work on behalf of wilderness" (p. xiv). In the myth of the vanishing frontier we find the seeds of the wilderness preservation movement in the United States and a shift of thought in Western culture to the value of the wilderness being worth saving. The duality of human and nature remained, however, and still seen as a separate object, nature was not only to be protected, but also to be used and consumed as needed. As Meister and Japp (2002) put it, "the environment is thus a product to be consumed, whether in the form of new materials for production of goods, the source of experiences to be appropriated, or aesthetic images to enjoy or promote a product" (p. 7). Killingsworth and Palmer (1996a) note that America's preoccupation with nature is curiously double sided: "On one side the environment is revered and worshipped as awe-inspiringly sublime (and therefore inviolate), while on the other it is used and abused as the site of our manifest destiny" (p. 41). This ongoing duality is thus both spiritual and political and remains the primary driving dichotomy as the West, America, and its citizens move further into the 21st century.

But we must also recognize that wilderness and the environment, of course, are not specific objects; the environment is not something you can go out and find in the world, argue

Herndl and Brown (1996), "it is a concept and an associated set of cultural values that we have constructed through the way we use language" (p. 3). We cannot find the existence of an environment separate from the words we use to represent it, as Cronon (1996b) argues, "Far from being the one place on earth that stands apart from humanity, it is quite profoundly a human creation" (p. 69). Created, we might argue, through rhetorical mechanisms, as Cox (2010) points out, "the rhetorical shaping of the environment and our relation to it reminds us that, whatever else they may be, *nature* and *environment* are powerful ideas whose meanings are always being defined and contested" (p. 65; emphasis in original). Wickliff (2000) makes the point that Yosemite Valley and Yellowstone Park were both "natural wonders and rhetorical and aesthetic constructions, shaped in large measure by the geological surveys that first described them for Eastern audiences" (p. 109). I believe, along with DeLuca (2002), that in order for communication and rhetorical studies to "remain intellectually vital and politically relevant; in order to intervene in the crucial questions of our time, they need to place the nature-humanity problematic at the center of their projects" (p. 165). I do this in this study by looking closely at how words and images have rhetorically constituted visions of the environment and what that ultimately might mean to the human-nature relational construct. This effort next warrants a review of how the discourse of the American environmental movement was informed by our changing visions of this relationship and then, within that historical context, we will be able to review those powerful and consistent visional themes that permeate the movement.

Pathways of Environmental Discourse

The environmental movement within which we seek to develop a better understanding of rhetorical strategies has derived from the intertwining forces of the human-nature relationship described thus far. In exploring the historical and cultural path of the environmental movement

through its discourse, we will begin to see those ebbs and flows that have created the predominant and persistent visions that rhetors have most frequently called upon when attempting to sound the alarm, or to move entrenched attitudes, or to spur action on behalf of their cause. Such an understanding will help us in discovering and interrogating the visions. themes, and narratives we might find in our current rhetorical artifacts. And we even find broad consistent areas of concern within the environmental world. As Bullard (1994) notes, the environmental movement in the United States has emerged with "agendas that focused on such areas as wilderness and wildlife preservation, resource conservation, pollution abatement, and population control" (p. 1). Cox (2010) places the first serious efforts to question the exploitation of America's wilderness in the late 18th century, which was in contrast to a centuries-old tradition of "seeking to subdue wild nature," (p. 47) and coinciding with the early introduction of the sublime landscapes of the European Romantics. Many scholars, including Bullard (1994), however, speak of environmentalism in the United States as growing out of the progressive conservation movement that began in the 1890s in apparent response to the closing of the frontier. Related to the demise of the mythic frontier, Gottlieb (1993) also cites this conservation movement as being in response to the "rapid urbanization and industrialization" (p. 36) that was taking place at the same time. And Oravec (1981) notes that the American preservation movement, "or the movement to set aside areas of natural scenery or wilderness for appreciation and enjoyment, is one of the oldest and most visible segments of present day environmentalism" (p. 245). Activists in these early movements, such as John Muir and Henry David Thoreau, helped create and also exploit the concept of wilderness as sublime and the tension between it and its imminent destruction by the end of the frontier and rising industrialism, argues Oravec (1996) among others. Petulla (1980) notes the adherents of the "socially marginalized

preservation movement of the nineteenth century" perceived the value of nature as residing in its ability as the "ultimate restorer and purifier of a humanity corrupted by civilization" (p. 228). Those within this movement were interested in the preservation of wilderness areas that possess "their own aesthetic, spiritual and moral values" (Petulla, 1980, p. 228). The root concept of these movements is the rhetorical construction of nature as "pristine and separate from human culture" as pointed out by DeLuca and Demo (2000, p. 57). Conservation and preservation were the driving forces of environmental concerns for decades and resulted in the vast expanses of protected or managed, national parks, national forests, and other areas of wildlife protection.

Cox (2010), however, argues that there was "no such thing as an environmental movement in the United States" (p. 52), in the sense of what Sale (1993) calls a "concerted, populous, vocal, influential, active" (p. 62) force until the mid-twentieth century. It was Rachel Carson's Silent Spring in 1962 that scholars and environmentalists (Cox, 2010; Sale, 1993; Killingsworth & Palmer, 1996a) generally agree "inaugurated the modern environmental movement" with the well-crafted claim that "not only are we using up our resources at a dangerous rate . . . but we may well be killing ourselves more directly and literally with the widespread use of chemical pesticides" (Killingsworth & Palmer, 1996a, p. 26). In raising the issue of human health, Carson and her contemporaries, such as Paul Ehrlich and Lois Gibbs, were proposing that there was more "at stake in the environmental movement than the preservation of wild nature," that people are directly and adversely affected by "overpopulation and the misuse of natural resources and chemical technologies" (Killingsworth & Palmer, 1998, p. 35 and p. 36). Gottlieb (1993) agrees with the importance of Carson's work and cites her and lesser known occupational health pioneer Alice Hamilton as transformative figures whose language transcended the "narrow, limiting discourse of their era" (p. 403) and brought a

dramatic new dimension to environmental concerns; but Gottlieb (1993) credits the actual beginning of the current environmental movement to the first national Earth Day in 1970. Gottlieb (1993) felt that this pivotal event "came to anchor new forms of environmental policy and management based on the cleanup and control of pollution" (p. 35). This mid-century turn is most commonly selected as dividing the earlier conservation era, when as Gottlieb (1993) puts it, "battles took place concerning national parks, forest lands, resource development, and recreational resources" and today's environmental movement when "pollution and environmental hazards dominate contemporary policy agendas" (pp. 35-36).

There is actually a deeper transformation beginning to take place with this new Carsoninspired direction, one that has yet to enter the mainstream of environmentalism, but that is growing in influence. Carson (1962), in presenting a strong case for the health hazards to humans from pesticides, introduced the concept that humans are not separate from their environment, but intimately entangled with it. She eloquently presents the vision of the human body as permeable to the nature around it and begins the rhetorical construct of melding humans and nature back into one entity. This concept was built upon by what was termed "radical environmentalism" of the 1970s and 1980s, which was driven by the philosophical concept of "deep ecology," a countercultural movement developed by Arne Naess (1989) that rejects the anthropocentric Western view of the world, for an ecological or biocentric view that places nature and other species on equality with humans. Further inheritance from Carson's warning of hazards from environmental pollution has been the effort by environmental groups to make a clean environment a social justice and human rights issue. By merging industrial products with the environment and the urban with nature, Carson began moving us down a path to becoming ever more aware of the disparity of the effects of pollution and poisons on the poor and marginalized

of our society. As activist Dana Alston said in a 1991 speech, "our vision of the environment is woven into an overall framework of social, racial, and economic justice . . . the environment for us, is where we live, where we work, and where we play" (Gottlieb, 1993, p. 34), Cox (2010) echoes this perspective, when he notes that "The pluralistic vision of environmental justice [connects] the safety and quality of the environments where people lived, worked, played, and learned with concerns for social and economic justice" (p. 55). This social justice aspect of environmentalism has developed in tandem with the move to align the environment with the urban; as Killingsworth and Palmer (1996b) note, environmentalism in the 1990s "won wide support in the United States as a collective search for a clean human habitat and a lifestyle that brings prosperity without threatening the continued existence of other life forms and ways of life" (p. 219). The recognition of needing to coexist with nature and other life forms, combined with an increasing awareness of a growing potential for more scarce resources, especially energy resources, has also spawned the concept of sustainability. This is a complex issue, but one that essentially seeks a balance between human, economic, and industrial needs with those of the environment and other species, and is that aspect of environmentalism that looks to actions such as recycling, purchasing renewable energy, using local food sources and other community- and individual-based forms of activism.

Today, we find the environmental movement "contains a diverse set of organizations, ideas, and approaches" that includes professional environmental groups, environmental justice advocates, traditional conservationists or protectionists, local grassroots protest groups, and direct-action groups (Gottlieb, 1993, p. 34). Citing the diversity of the environmental movement, Meister and Gilstrap (2010) speak in terms of many different political styles in existence, and note that "from home recycling to tree spiking, the movement has many different perspectives,

all of which prescribe different means for 'saving our Earth'" (p. 336). Anderson (1990) identifies four distinct elements of environmentalism that all use "instrumental discourse to encourage and direct their adherents" to a completion of their goals; these constructs give us a sense of the broad diversity of today's environmentalism, and Anderson (1990) presents them as:

1) Politicos, Washington lobbyists and special-interest groups; 2) Greens, or deep ecologists or social ecologists, radicals seeking structural changes; 3) Grassroots activists, community members associated with local projects; 4) Globals, support proactive efforts for sustainable development (pp. 52-53; emphasis in original).

There is a wide range of how environmentalism is organized and pursued, with environmental organizations ranging from multimillion-dollar operations run by professional managers, chief executive officers, and boards of directors to ad hoc neighborhood associations. As Gottlieb (1993) points out, "Some environmental groups speak the language of science; others criticize the way science is used to direct policy" (p. 34). Gale (1983) was already identifying a difference between classic environmentalism that has "a heavy emphasis on preservation and outdoor recreation" and mature environmentalism that is busy in "tightening regulations, seeking adequate funding for agencies, occasionally focusing on compliance with existing statutes through court action, and opposing corporate efforts to repeal environmental legislation or weaken standards" (p. 184).

Driving much environmental discourse of the last couple of decades has been the issue of global warming, or more accurately, global climate change. This issue has come to dominate recent discourse on the environment, largely because it has taken on an economic element as proposed solutions have financial consequences and affect multinational corporations and national interests. The discourse has gone beyond mere environmental argumentation to include

challenges to basic scientific methodology and credibility, the interplay between government and science, and other issues that strike at liberal democracy. Much of the discussion about and scholarly inquiry into environmental rhetoric and communication revolves around this issue and associated topics, such as exploration of the boundaries of science and politics, communication's role in social movements, and communicating science. A large part of climate change discourse, as well as ongoing discourse of all environmental issues as presented in this overview of environmentalism is, I would argue, the construction and application of rhetorical visions, a topic that also grows directly from our discussions of the human-nature relationship and its representation in the various diverse aspects of the environmental movements of Western culture; and the topic we address next.

Thematic Types Found in Environmental Discourse

As we have seen, there is a wide range and diversity of environmentalism and environmental discourse, but we find recurring and persistent themes throughout its development. These represent those rhetorical strategies that we might expect to find rhetors (re)using, expanding, or (re)envisioning as they craft arguments around current environmental issues and will, most likely, be playing prominent roles in my current search for rhetorical visions in my critical text. We see that views of the environment, as framed by Barry et al. (2008) are "articulated in a variety of discourses, each of which rests on certain assumptions, values and judgments about the world and which are shared by those with similar motives which create competing 'discourse coalitions'" (p. 68). As discussed previously, these discourses are referred to variously as narratives, themes, storylines, scenarios, and visions, but can be considered, I argue, within the concept of fantasy types as defined within the context of symbolic convergence theory. They are discursive representations of aspects of environmental movements

that speak to the values and beliefs shared by persons subscribing to that perspective of the environment. They are the ways people explain and present their system of beliefs to themselves, others in their group, and to those outside their group. Herndl and Brown (1996) in developing a rhetorical model for environmental discourse and Taylor (1999) in his study of the radical environmental group, Earth First! used similar descriptive form to depict characteristics and motives for different factions of environmental belief systems. Such representations are the discursive sense making with which they persuade themselves and others as to their positions on concepts of value to them. Rhetorical discursive treatments regarding our environment, as Oravec (1996) claims, "necessarily express an attitudinal orientation toward the natural world, while informing us of its material condition" and this powerful dual nature of environmental discourse gives rhetorical conventions enormous persuasive force (p. 73). As such, they represent pasts, presents, or futures that are commensurate with a set of views of what the environment is, how it should be treated, and the outcomes of various treatments. They articulate alternative perceptions of the relationship between society and the environment and, often, seek to inform environmental decision making by defining a range of values that might bring about a change in social practice. As we explore how such rhetorical visions function to construct the reality of a human-nature relationship and to persuade others as to the efficacy of that particular relationship, we must first look from a rhetorical stance at what have been the visionary threads in environmentalism that maintain and persist. These visions tend to have come from certain phases of the development of environmental discourse, but they are not necessarily synchronous with those phases, often being carried over to newer aspects of environmental movements, or, continuing as narratives that are outside of or beyond any single element of environmentalism, they become independent and powerful discursive constructs on their own.

The sublime. We begin by considering the rhetorical convention of the "sublime," which Oravec (1996) calls the "founding narrative—the primary trope—in the rhetoric of environmentalism" (p. 73). Oravec (1996) considers the sublime to be one of the most important discursive elements in the study of environmental communication. In functioning as a rhetorical convention, the sublime prescribes a form of language and visual elements for representing nature and encourages a specific set of responses to nature that informs our actions toward the natural environment. Consequently, "it became useful for fulfilling rhetorical purposes of all kinds" and acts as "a screen or projection of human preferences upon the natural scene . . . we view nature through the conventions of sublimity" (Oravec, 1996, p. 58 and p. 89). While it can be found among the classical philosophers, the modern doctrine of the sublime grew from the theories of Edmund Burke, Immanuel Kant, and William Gilpin and by the late 18th century had come to embody the sense of wilderness as a landscape where the supernatural lay just beneath the surface. According to Cronon (1996b), sublime landscapes were those rare places on earth where one had more chance than elsewhere to "glimpse the face of God" (p. 73). Edmund Burke (1757/2008) was perhaps the most eloquent when it comes to expressing the ethereal quality of the sublime and for him, it was much more than Cronon's "face of God," as DeLuca and Demo (2000) explain, for Burke, the sublime is an "intense passion rooted in horror, fear, or terror in the face of objects that suggest vastness, infinity, power, massiveness, mystery, and death" (p. 246). For Burke and others in the development of the convention, the sublime is powerful and awe-inspiring and, as such, a concept of terror as well as magnificence. Burke (1757/2008) lists among the sources of the sublime, such characteristics we find in the vast Western landscapes of the United States: infinity, magnificence, and greatness of dimension. From this treatise on the sublime, romanticists easily applied the concept to the landscapes they found in the vast

expanses of America, especially in areas of the American West and, as Demars (1991) notes, they tended to "perceive a sublime landscape as a nondirect expression of God himself" and we can find the "greatness of extent, vast and boundless prospects, and the exertion of great power and force" (p. 12-13) of which Burke spoke in these Western landscapes. These emotions were conveyed by the Romantic writers and artists in Europe and America in the 18th and 19th centuries. The sublime, as Cox (2010) notes, was an "aesthetic category that associated God's influence with the feelings of awe and exultation that some experienced in the presence of wilderness" (p. 41).

The Hudson River artists of New York took up the pastoral landscapes of Europe and transferred them to America and extended the form, portraying human figures as observing the scene and showing their emotional reaction to it, thus, as Orayec (1996) argues, heightening the effect and providing a model for the viewer's own behavior. John Muir also used the "sublime response" to excellent effect, according to Oravec (1996), to "recreate in his audience the sensation of mountain grandeur" (p. 248) and he succeeded in transforming his "readers' imaginative experience" of this grandeur into an obligation to participate in the preservationist movement of which Muir was a part. Oravec (1996) points to this ability to convert "passive aesthetic responses into pragmatic action" as an important example of using the sublime for persuasive ends (p. 246). This is but one instance of many showing the power of the sublime when used by an eloquent rhetor through the eras of environmentalism down to today. Dunaway (2005) speaks of the power of the sublime in later conservationist actions, when early photographers of the western landscape, such as Herbert Gleason and Charles Pratt, used the sublime in a visual sense to move it into what Dunaway refers to as the "ecological sublime," that "affirms the interdependence between humans and nature" and calls for "a sense of

stewardship not just for fragments of beauty outside of historical time but also for the ordinary and the everyday" (p. 212). We find the sublime still a powerful persuasive force as Frentz and Rosteck (2008) speak of it as being at work in the images of Gore's successful documentary, *An Inconvenient Truth* (2006), warning of the destructive powers of climate change.

Apocalyptic narratives. As ubiquitous as the construct of the sublime in environmental discourse is the apocalyptic theme; a theme that preceded the Western concept of the environment, but one that has been adopted to one degree or another by all aspects of environmentalism. Apocalyptic narratives have from the founding of the modern environmental movement in the 1960s "served as a standard feature of environmental polemic" (Killingsworth & Palmer, 1996a, p. 21). Foust and Murphy (2009) also found that "the hallmarks of apocalyptic rhetoric—a linear temporality emphasizing a catastrophic end-point that is . . . outside the purview of human agency—permeate selected [environmental] discourse" (p. 151). Zencey (1989) argues that much of the ecological movement primarily follows apocalyptic form because it expects "discontinuity, a dramatic change, a momentous upheaval out of which would come a new society that was wise to the lessons of ecology" (p. 91). From the very beginning of time, it seems, humankind has been pondering and predicting the end of time. Every culture and religious tradition, from Hinduism to Christianity, has, as O'Leary (1994) notes, exhibited a common concern: "to understand the successive human ages and their culmination in a catastrophic struggle between the forces of good and evil" (p. 5). Wojcik (1990) notes, "in nearly every culture, sacred narrative are told about world-wide cataclysm, the regeneration of the Earth, and the creation of a terrestrial paradise" (p. 297)—the essential structure of an apocalyptic narrative. The concept of the apocalypse is related to eschatology, or the study or discourse about last things, but the term "apocalypse" literally means "revelation," in the sense

of unveiling or uncovering, and became used in reference to the "knowing" or "revealing" a vision of ultimate destiny, of the great mystery of the coming of the end. The narratives as they have developed in Western culture, particularly in the United States, while now largely secular, have their origins in the Judaic prophetic tradition during the century or so preceding Christ, as Zamora (1982) states, adding that "apocalypse emphasizes future events and exhorts men to endure their present suffering with the assurance of a blessed future life" (p. 2). Over the ages the term has come to stand for the cataclysmic ending of all things.

There is a large body of literature on apocalyptic discourse, including such as Brummett (1991), Carpenter (1978), Emsley (1982), O'Leary (1993, 1994, 1997), Pye (2009), Wojcik (1996), and Zamora (1982), and another on the application of the apocalyptic narratives to environmental discourse, including Bartlett (2009), Cox (2010), Cronon (1996b), Foust and Murphy (2009), Keränen (2011), Killingsworth and Palmer (1996a), McKibbin (1989), Merchant (1980, 1996), Opie and Elliot (1996), Taylor (1999), and Zencey (1989). Representing two differing rhetorical views of apocalypse are Brummett and O'Leary. For Brummett (1994), apocalyptic narratives make up a unique rhetorical form and as such, represent a rhetorical genre with set structure and content. Brummett (1994) states, the genre "bemoans the distressing state of the world, predicts a radical end to this epoch by way of cosmic, total, cataclysmic change," while also foreshadowing the establishment of a "radically new order in which good and righteousness are triumphant" (p. 285). The rhetorical genre of apocalypse works for the comfort and survival of a group, community, or nation by "empowering its audience to live in a time of disorientation and disorder by revealing to them a fundamental plan within the cosmos" (Brummett, 1991, p. 9). The narratives perform a rhetorical function in working to place struggles of the present within a cosmic context; all is for a purpose and fits within a plan, as

Brummett (1991) states, it allows us to realize that "history is reaching a state that will both reveal and fulfill the underlying order and purpose in history" (p. 10). The apocalyptic argues that bewildering or troubling events being experienced by an audience actually make sense within the context of an impending fulfillment of history. Wojcik (1996) states, "In a world believed to be increasingly evil and out of control, with even greater threats appearing on the horizon, apocalyptic beliefs explain current crises and suffering as a purposeful part of God's endtimes script" (p. 320).

While disagreeing with underlying theory about apocalyptic rhetoric, O'Leary does agree with Brummett that these narratives serve a useful purpose for society. The discourse of apocalypse, claims O'Leary (1994), "develops symbolic resources that enable societies to define and address the problem of evil . . . locating the problem of evil in time and looking forward to its imminent resolution" (p. 6). Pye (2009) summarizes for us that while Brummett argues for a formistic model of apocalyptic discourse, O'Leary (1994) opts for a dramatistic approach and describes apocalyptic discourse as "intended to persuade with an emphasis on logic and rationality" (p. 14). Pye (2009) argues that rather than requiring the apocalyptic to fulfill generic standards, O'Leary seeks an "understanding of apocalyptic discourse . . . as an event 'alive in its present,' attempting to discover how it influences and is influenced by the discursive practices that surround it" (p. 15). While recognizing that O'Leary is not enforcing generic standards and that apocalyptic rhetoric varies widely, Pye (2009) does note that O'Leary cites some general similarities that make up this rhetoric:

A sense of the unity and structure of history conceived as a divinely predetermined totality . . . pessimism about the present and conviction of its imminent crisis . . . belief in the proximate judgment of evil and triumph of good (p. 15).

Pye (2009) interprets O'Leary as maintaining that a dramatistic and argumentative analytical approach, "guided by the root metaphor of contextualism" (p. 15) is the better treatment of apocalyptic narrative. It is the drama of the apocalypse that yields a set of symbols, which allows interpreters and their audiences to view historical events as part of a cosmic pattern. Considering apocalyptic from the dramatistic perspective of Kenneth Burke, O'Leary (1994) believes, "enables scholars to examine the original form of the apocalyptic myth as a cosmic drama, and to see the enactment of this drama in the social processes by which apocalyptic claims are advanced, warranted and refuted" (p. 295). From this perspective, then, apocalyptic argument may be seen as a dialectical exchange between rhetor and audience that can be examined with argumentative analysis, as well as a *script* following a dramatistic pattern that has been informed by the original endtime, or eschatological narrative.

Whether we view the apocalyptic through the lens of Brummett or O'Leary, we see it as a body of discourse with a wide range of possibilities and several of what Brummett would term subgenres; in fact, Brummett considers *apocalyptic* an *umbrella* term under which subgenres reflect the fact that apocalyptic is used in so many varying ways. In some respects, we find, as Moorhead (1987) warns, "that the term *apocalyptic* may be extended too far, to cover too many kinds of discourse" (p. 22; his emphasis). Using the predominant literature of the field, however, we can place some boundaries around its use, beginning with the exploration of two important aspects of the narratives that are derived from the form's Christian origination, that of *postmillennial* and *premillennial* traditions of the apocalyptic, which compose what is usually referred to as American millennial movements. While scenarios within these subgenres can become quite detailed and specific and there are variations within each, in general, the premillennial view is the more pessimistic of the two. Hensley (1975) says that in the

premillennial form, "the world progressively deteriorates morally and spiritually until Christ personally intervenes to establish a 1,000 year reign and subdue wickedness" after which period, "Judgment, heaven, and hell" follow (p. 252). Brummett (1991) agrees that the premillennial apocalyptic speaks to a radical change in the near future, after which comes the millennium—a period of peace and perfection. In contrast, the postmillennial vision places this millennial period as a "gradually evolving perfection of this world that will eventually result in an apocalypse at the end of history" (p. 16). The postmillennial narrative can be interpreted to place a heavy burden on humankind, as it was in the earliest European settlement of North America, when the Puritan religious group felt it was their calling to bring about this millennial period of perfection here on Earth, in the pristine wilderness of the New World. Barkun (1997) notes that "millenarian and apocalyptic strains are in constant tension . . . and the explicit fantasy scenarios of victory compete with implicit nightmare visions of defeat and obliteration" (p. 255).

While today's American apocalyptic has its roots in the Judeo-Christian religious tradition, it has been adapted within the environmental movement as a purely secular range of visions, as Moorhead (1987) claims, it is not only religious discourse, but "a common cultural vocabulary through which persons could enunciate their hopes and fears for the future" (20). Van Der Meer (1978) sees secular apocalyptic as including "social-ecological and political alarms," such as "the exhaustion of the earth's natural resources, the pollution of air and sea" (p. 11). As it moves to the secular, apocalyptic struggles to hold true to the form's generic standards, but it still, in a variety of forms, proposes that catastrophe is imminent and that it is a cataclysm with meaning: "one that has as its final purpose not destruction but creation" (Bromley, 1997, p. 35). Taylor (1999) insists that in order to understand radical environmental apocalyptic, we must have a clear understanding of the ambivalent stance it takes toward catastrophe. Disaster is imminent

and probably unavoidable; it represents a desecration of a sacred world and while we must resist it with all of our power and passion, it is also, almost certainly, "the only conceivable path back to a paradise where humans live in harmony within the sacred natural order" (Taylor, 1999, p. 382). Paradoxically, at the final moment, disaster may need to be embraced. But in recent decades, the apocalyptic view has become more pessimistic, argues Wojcik (1996), and during the last half of the 20th century, "widespread beliefs about a meaningless apocalypse have emerged" (p. 297), feared first from a nuclear Armageddon and in recent decades from disastrous scenarios involving "environmental destruction, the greenhouse effect, ozone depletion, and deadly viruses" (p. 298).

A significant part of the persuasive power of Carson's *Silent Spring* is credited to her eloquent use of the apocalyptic. Her opening section, "A Fable for Tomorrow," is constructed with language that "resonates with the fear of the end of the world, which though mythic in proportion and venerable in intertextual possibilities, takes on new meaning" when she constructs her vision within the shadow of nuclear destruction (Killingsworth & Palmer, 1996, p. 30). Carson effectively links her new environmental threat to the world to the known fear of atomic devastation; throughout the book's narrative, she creates a viable rhetorical vision of Earth's destruction by environmental pollution and gives it a distinct secular discursive tone. Carson's contemporary, Ehrlich, in his influential 1968 book, *The Population Bomb*, "found his voice in a stripped-down plain style," framing a likewise apocalyptic narrative that "refused to hedge or understate the dimensions of the problem, but favored . . . the presentation of 'worst-case-scenarios' as foregone conclusions" (Killingsworth & Palmer, 1996, p. 32). The radical environmental group, Earth First! relies on apocalyptic as a rhetoric of persuasion that has roots in science and is based on an understanding of population dynamics and environmental

degradation to argue that "an escalating, anthropogenic extinction episode threatens millions if not billions of humans" (Taylor, 1999, p. 383). Taylor (1999) indicates that the Earth First! activists are convinced that the "human war on nature" has gone so far that "widespread collapse of ecosystems is guaranteed and even underway, presaging the fall of industrial civilization" (p. 383). Arguing for disintegration prior to actual physical destruction of our world, Gelbspan (1998) insists that our free social systems will be an early casualty of an apocalyptic reading of climate change: "democracy will disintegrate under the stress of ecological disasters and their social consequences" and "the stress caused by climate change is lethal to democratic political processes and individual freedoms" (pp. 153-54). Commenting on Gore's documentary film *An Inconvenient Truth*, Schulte (2006) says that it presents the "frightening future promised by global warming—an apocalyptic world of deadly hurricanes, rising oceans, disease, draught, and famine" (p. 39).

While the broad and persistent discursive use of apocalypse as a motivator to inspire certain actions and beliefs might lead us to consider it indeed a powerful persuasive force, other writers question the effectiveness of the apocalyptic vision. Keller (1999) suggests that in this new millennium, we suffer from "apocalyptic oversaturation" and that there just might be too many "disaster narratives, living on our slick television screens, worming into our biblically larded imaginations, all converging upon some cataclysmic endtime scenario" (p. 41). Cox (2010) is likewise concerned about an over reliance on apocalyptic rhetoric generating skepticism or fears that its claims are exaggerated; he suggests that concerned scientists today face a serious dilemma, "how to raise awareness of future, serious effects from climate changes . . . without relying on visions of apocalypse?" (p. 61). Beder (2002) indicates the weakness of an apocalyptic argument being that the opposition need only poke holes in the most extreme stance

of that vision in order to create a stagnation of action, a strategy that we see in many of those opposing action to avert global climate change. The analyses of these opponents question the "most extreme predictions" coming from climate change in order to "cast doubt on the scientific consensus about more moderate consequences" (Beder, 2002, p. 93). Leseirowitz (2007) also claims that apocalyptic framing encourages skeptics to discredit the findings of scientists and opens "change-seekers" to the charge of "crying wolf," or creating catastrophe to fit their political goals. Foust et al. (2008) conducted a media study that identified several editorialists and reviewers that "expressed skepticism about climate change because of its apocalyptic framing" (p. 24). Pye (2009) believes that the use of apocalyptic rhetoric as a persuasive strategy has the distinct potential to be patently negative and unethical because the "threat of an imminent apocalypse necessarily inspires paranoia, and if each moment is potentially apocalyptic, an invocation of such discourse creates a never-ending state of anxiety for anyone persuaded by it" (p. 22). Possibly Williams (1989) best puts the apocalyptic in perspective:

In the end there is no end to the conversation; the revelation of the end, the apocalypse of the end, is to begin again, to engage in the endless process of interpretation, and to find what joy, what affirmation we may in it, for to cease the process of interpretation is to invite the Apocalypse without remainder (p. 218).

After an introduction to the apocalyptic, it is appropriate that we now visit a closely related narrative that Ellis (1993) suggests to us when noting that the "rhetoric of many activist groups refers to both 'impending catastrophe and future redemption' and discourse characterized by a simultaneous warning of a coming cataclysm while holding out hope of a millennial future"; we hear, he concludes, "echoes of the American Jeremiad" in the rhetoric of many environmentalists (p. 171).

American Jeremiad. The Jeremiad has been called apocalyptic's nearest neighbor, but comprises a genre that is quite distinct and yet often conflated with it. Carpenter (1978) defines the Jeremiad as a "treatise which accomplishes its goals rhetorically by a process leading readers to view themselves as a chosen people confronted with a timely if not urgent warning that unless a certain course of atoning action is followed, dire consequences will ensue" (p. 287). Like the apocalyptic, the Jeremiad carries with it an impending disaster, often of cataclysmic proportions, but in the rhetorical form of the Jeremiad, we find the focus on the warning of such doom and the knowledge that if proper actions are taken, it can be averted. The apocalyptic event is not inevitable, but preventable; the millennial period can be brought about without the pain of the catastrophe just by the audience heeding the Jeremiad cry. The Jeremiad is a mode of discourse that "urges people to change their ways so as to avert or avoid threatened changes and upheavals" (Brummett, 1991, p. 17). Cox (2010) refers to the genre as "speech or writing that laments or denounces the behavior of a people or society and warns of future consequences if society does not change its ways" (p. 61). As with the apocalyptic, the Jeremiad finds its origins in Christian traditions and in America from the particular "political sermons that took their text from the Old Testament book of the prophet Jeremiah and, as such, were ritualistic castigations of the people for having defaulted on their bond with the Lord" (Opie & Elliot, 1996, p. 10). It was a unique form to America, in that the early colonial religious leaders, such as Samuel Danforth and Jonathan Edwards, used it in sermons as a key persuasive strategy in their efforts to bring the millennium into existence from the wilderness through their own piety and atoning actions. In their analysis of the American Jeremiad as it has moved from religious to secular in form, Opie and Elliot (1996) see in it a unity and structure as it has been employed by Jeremiad rhetors. In each instance, an audience is chastised for its failures, the chastisement is used as a

persuasive discourse, the Jeremiad is ritualized enabling the American effort to revitalize itself, and, finally, it is used "to obviate dissimilar views, providing a message of hope" (Opie & Elliot, 1996, p. 10). The Jeremiad does not condemn, it is "castigated in order to correct," Opie and Elliot (1996, p. 10) assert. The Jeremiad leads the audience to exhibit correct religious behavior, which would then lead to secular success—a physical heaven on earth. Its ultimate goal is the fusion of the secular and the sacred and this was the force that shaped the unique form of the American Jeremiad.

We can find the Jeremiad strategy used as persuasive discourse and as a rhetoric of advocacy since the early conservationist movement, when writers of that time used their creative powers and the "intrinsic qualities of the Jeremiad to elicit from audiences a specific emotion, conviction, or action" (Kinneavy, 1980, p. 211). During the Great Depression, New Deal film documentarians Pare Lorentz and Robert Flaherty re-created through their art the sublime power of nature, while also providing their audience with a vicarious experience of the environmental disaster of the Dust Bowl. Dunaway (2005) points out their use of the Puritan legacy of the Jeremiad as they "combined moving images with the voice of the narrator to condemn the nation's abuse of its natural endowment" (p. xx). Ellis (1993) cites the discourse of many environmental activist groups as containing both impending catastrophe and future redemption and characterized by a simultaneous warning of a "coming cataclysm while holding out hope of a millennial future" (p. 171). Opie and Elliot (1996) find the tone of the Jeremiad in the texts of environmental writers such as Carson (1962), McKibben (1989), and Gore (1992), with each of their works containing the portrayal of the fall of a beautiful, God-given world that can be prevented through our "intuitive and inspired response for its survival" (p. 31). Even in the Earth First! rhetoric that is so heavily apocalyptic, Taylor (1999) notes that their discourse "holds out

at least some hope that, perhaps, humans will act to avert disaster" (p. 381); another echo of the Jeremiad. Bringing the use of the Jeremiad by environmental activists into the 21st century, the rhetorical analysis of Gore's film, *An Inconvenient Truth*, by Frentz and Rosteck (2008) finds strong elements of the Jeremiad in its persuasive visual discourse. They state that they:

Believe that Gore's use of myth provides . . . a model for our own responses demanded by the documentary materials and Jeremiad advocacy" (p. 22) and "what we hear in the final sections of [the film] are the residues of this rhetorical form—the Jeremiad. . . . The warning of impending doom is only half the message. The other half is about salvation if we act as we are capable of acting (p. 12).

Opie and Elliot (1996) believe we have not seen the end of the persuasive powers of the Jeremiad; they believe it will endure because it is the best rhetorical device for handling the representation of the American people in their environment: "the Jeremiad affords our culture the opportunity to rage with displeasure, to evoke the beauty of metaphor, to find safety in method, and to reconcile oppositions" (p. 35).

Utopian narratives. In thinking of rhetorical visions of the environment, we may often conjure up the concept of the utopian narrative; it seems as though it is a form based upon the creating of fanciful visions of perfect, unlikely futures. But, of course, there is more to both the concepts of rhetorical visions and utopian narratives than that. As Feller (2004) explains, "Utopian narratives present an alternative society that has definitely solved the critical problems of today" (p. 63) and Morson (1981) argues utopian narratives are a form of "wisdom literature, in which the plot is driven by the disclosure of the secrets of how to solve a seemingly unsolvable problem" (p. 84). Utopias are not merely self-gratifying fictions, rather "they challenge the dominant culture by providing alternative values and lifestyles" and imply that the

status quo must justify itself (Feller, 2004, p. 57). The persuasive power of the utopian narrative rests in large part on its creation of extreme visions against which we might measure the more modest objectives of visions constructed by "reform environmentalism and the . . . modest goals followed by citizen recycling groups and Earth Day committees" (Killingsworth & Palmer, 1992, p. 195). Rogers (1998) claims, in fact, that "environmental rhetoric is utopian because it has at its base a firm conviction that it can change things" (p. 256). Utopian narrative strategies open environmental issues to re-visioning and in so doing may create a form of environmental consciousness more receptive to new types of agendas by activist groups. Utopian visions can often be found as persuasive strategies in environmental discourse, but Killingsworth and Palmer (1992) explore one of the best known examples in their analysis of Ernest Callenbach's 1975 novel, *Ecotopia*, and found in it a complex model of the form. The novel projects a "vision of environmentalist history as it might have developed if a region of the United States had seceded from the Union to form a society based on ecological values" (Killingsworth & Palmer, 1992, p.195). The expansive rhetorical vision presented in the work exemplifies the characteristics of the narrative and particularly acts on the "architechtonic, or constructive, impulse of utopianism" (Killingsworth & Palmer, 1992, p.195) and successfully articulates the message of what the world would look like if it followed the premises of the "deep ecology" ethos of the 1970s. From these examples, we can see that the fanciful "utopia" constructed in any of several environmental discourses can act in diverse complex ways to persuade and motivate as rhetorical practices.

Nature as Eden. We have seen so far that many of the themes, narratives, or visions of environmental discourse have their origins in religion and, for Western discourse, that religion is often the Judeo-Christian tradition. That is most obviously true of the theme of nature as Eden, or the Edenic narratives. Nature as Eden is a core myth of this religious tradition and it is so deeply

embedded in Western thought that it often becomes part of any discourse about nature. Nash (2001) notes that the "capstone of . . . civilized dreams was the idea of paradise—an environment perfectly suited to human interests" (p. xii). Cronon (1996a) speaks of the myth of Eden as describing a perfect landscape, "a place so benign and beautiful and good that the imperative to preserve or restore it could be questioned only by those who ally themselves with evil' (p. 37). While the more common response is to conceive of wilderness as an Eden to be protected and preserved, a popular variation of the theme is the recovery plot or the garden scenario. As Merchant (1996) defines it, "the recovery plot is the long, slow process of returning humans to the Garden of Eden through labor in the earth" (p. 133). Merchant (1996) notes that beginning in the 17th century and into the present, "New World colonists have undertaken a massive effort to reinvent the whole earth in the image of the Garden of Eden . . . a vast cultivated garden" (p. 134). The garden scenario, as described by Nash (2001), is a similar vision to the recovery plot, but speaks of human control of nature as total, but beneficent: "the environmentalists have been heard: we occupy a bounteous, beautiful, sustainable garden" (p. 380). The garden scenario is possibly a more environmentally sensitive response to the recovery narrative, which has been subject to criticism for its Enlightenment assumptions; assumptions that see a decline from a prior golden age, not a progressive ascent to a new garden on Earth. In either case, the Edenic narratives portray a vision that is fundamental to the Western concept of nature and wilderness and that is often found in persuasive environmental discourse. A related narrative is a virginity metaphor for wilderness as an untouched, pristine landscape. This narrative has been important to both traditional and counter-cultural meanings of wilderness, but it too, as Plumwood (1998) points out is a highly problematic rhetorical device in that it forces a dualistic conception of land as either totally untouched or not "really being nature" (p. 560)

Nature as spirit. In the early Christian church and throughout the Greek East, nature was envisioned as a symbolic system through which God speaks to humankind. This view continued as a prominent one for the American Transcendentalist movement and its preservationist rhetoric, as Cox (1980) states, "for Emerson, nature points the way to another, spiritual realm, a 'higher' reality; seen in terms of *loci* of essence and order, nature assumes value for us precisely because of its link to this other reality" (p. 15; his emphasis). Cox (1980) also cites a similar point of view by Thoreau, who Cox believed identified nature with the unique and described it in terms of "the *original* source of vitality and spiritual health" (p. 16; emphasis in original). In discussing the impact of early conservationist photographers, Dunaway (2005) spoke of Herbert Gleason as experiencing nature as a form of salvation, that "nature showed a way to recapture religious emotions in a secularizing culture" and goes on to note, "since Gleason's time, environmental image makers have used a similar language of sin and loss, beauty and salvation" (p. 29). We can continue to look for and find examples of environmental rhetoric that invoke this "nature as spirit," or "nature as God" vision as persuasive discourse for a range of environmental actions.

An ecocentric or biocentric vision. Beginning with Carson's *Silent Spring* (1962), and coming into a full effect in the "deep ecology" movement of the 1970s, a component of the modern Western environmental movement has taken the stance that human and nonhuman forms of life, even nonlife forms, are intertwined, and all have an equal status on Earth; the human life form should not be privileged. These philosophical lines reject the common anthropocentric view of the world—that privileges humans in all cases—for an ecocentric or biocentric view, one that privileges all life together or, even more broadly, all of the ecological system. We find this perspective to some extent in the Transcendentalist writers, when, for example, Thoreau wrote,

as cited by Nash (2001), "What we call wilderness is a civilization other than our own" (p. 390). Nash (2001) goes on to speak of how this was a new ecocentric rationale for wilderness that demonstrates "respect for this larger community of life and process" (p. 390). Peterson (1997) discusses how a later, equally influential naturalist writer, Aldo Leopold (1949/1968), in the midtwentieth century, called for a revolution in human consciousness that proposed an "ecological conscience' as a basis for collective responsibility . . . this ethic extended the human community to include the land and all that live on it" (p. 8). Arne Naess and his deep ecology movement, beginning in the 1970s, was based on this concept; as Naess (2005) wrote of his movement, "we are biocentric or ecocentric . . . for us it is the ecosphere, the whole planet, Gaia, that is the basic unit, and every living thing has intrinsic value" (p. 18). Devall and Sessions (1985) explain this view as a biocentric equality that says that "all things in the biosphere have an equal right to live and blossom and to reach their own individual forms of unfolding and self-realization" (pp. 66-67). Setterberg (1986) in his analysis of the concept of deep ecology believes that the movement's rhetoric holds that "human beings should participate in but not dominate the natural world" (p. 26) and Short (1991) gives as its meaning that nature should be seen as "a relationship, not an entity" (p. 172).

These visions describe the human-nature relationship not as a relationship at all, but actually as a unity. Devall and Sessions (1985) note that they are in sharp contrast, and possibly even conflict, with the dominant worldview of "technocratic-industrial societies which regard humans as isolated and fundamentally separate from the rest of Nature, as superior to, and in charge of, the rest of creation" (p. 65). The supposed action arm of the deep ecology movement, Earth First!, is willing to meet this contrast head-on in their rhetoric and activist engagements and Cooper (1996) speaks of the group's commitment to the principles that "the well-being and

flourishing of human and nonhuman life on Earth have value in themselves," and that "these values are independent of the usefulness of the nonhuman world for human purposes" (p. 238). This theme is often seen as marginalized within the broader environmental movement, but in recent decades some of its proponents are transforming it into a possibly more palatable form of social ecology, "in which institutions, communities, and individual people promote forms of development rooted in scientific understanding, ecological wisdom, small-scale production, environmentally conscious consumption, and community-based ethics" (Killingsworth & Palmer, 1992, p. 240). For many, biocentricism and ecocentrism have grown into the newer rhetorical visions of sustainability or sustainable development.

Sustainable development. The term sustainable development actually gained public notice with the 1987 publication of the World Commission for Environment and Development report, *Our Common Future*. Peterson (1997) says that "this groundbreaking report revised the international environmental debate by postulating that environmentally sound development was in the best interests of all nations" (p. 31). For Peterson (1997), "sustainable development is a banner under which transformed environmentalism has marched into the public consciousness" and he defines the basic premise as being that "care for the environment is essential to economic progress . . . that natural resources of our planet are the base of all agriculture and industry . . . and that only by sustaining that base can we sustain human development" (p. 6). The *Our Common Future* report, Waddell (2000) points out, defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (p. 5). In an interesting example of how rhetorical visions can conflict and evolve, O'Leary (1997) notes that the radical ecology movement, from which the vision of sustainable development first came, did itself rely in part on apocalyptic rhetoric, "a

mentality that was, by its very nature, not sustainable" (p. 310). Schutten (2008) points to the radical shift required by moving to an ethic of environmental sustainability and argues that it demands "considerable relinquishing of control and a heightened vulnerability of humans to other-than-human-forces" (p. 198).

Myerson and Rydin (1996) see arguments for sustainable development linking into a spiritual dimension, wherein we are "led to a concept of sustainable development for this satisfaction of human needs which protects the planet also for its own sake" (p. 123). Sustainable development opens up a question that increases the complexity of the standard, simplistic representation of the environmental issues as being a "stark choice between economic prosperity and an Edenic vision of nature" (Cooper, 1996, p. 236). The more complex, possibly more serious question that sustainability raises, Cooper (1996) says, is "how much biodiversity do we need in order to have a 'healthy' environment? Is a healthy environment one that sustains human life, or must it also sustain as many other life forms as possible?" (p. 236). Merchant (1996) frames the sustainable concept in vision of a "partnership ethic between humans, and between humans and nonhuman nature"; she sees such an ethic creating a relationship that would be "dynamically balanced, more nearly equal" as people were guided to select technologies that "sustained the natural environment" (p.158). There is, of course, at least some dark side to this enlightened vision, as Meister and Japp (2002) caution that in a "commodity culture," when sustainability becomes a substitute for progress, "even pastoral nature is a commodity, something that can be desired, sought out, purchased, and enjoyed as essential to the quality of life" (p. 30). Nature, Meister and Japp (2002) say, with its "rhetorical/cultural connotations of ecology, sustainable development, sustainable agriculture, business ecology, and spirituality, becomes an intrinsic component in how we buy and sell commodities" (p. 7). From a more positive

perspective, Peterson (1997) believes that sustainability may well provide an appropriate and valuable substitute for progress "because it is less boastful and confident, but it remains equally ephemeral and contested" (p. 32). Whether a commodity or a viable replacement for progress, or both, we find sustainability and sustainable development have become nearly household words in today's Western culture and carry a persuasive panache for projects and products of varied purposes and ends. One significant way that the "sustainability" vision has migrated into most people's everyday lives is through the closely related visions of a *green society*, *green consumerism*, or just *green*.

Green society. The concept of *green* has become a referent for moving the sustainable development philosophy into individual action, as well as a corporate business strategy. But the green society and its most prominent variant known as green consumerism has developed a very strong vision of its own, beyond the generalized concept of sustainability. The green consumer movement has come to exist as an action-oriented alternative to the broad goals of mainstream environmentalism. According to Killingsworth and Palmer (1996b), it has created "ritual signs out of household items and actions" and redirected the "symbolic energy as well as the practical activity of householders by relating ordinary work to environmental values"; most remarkably, "it uses the technological context of everyday life—the very things that seem to alienate us from the Earth—to embed saving the Earth as a theme in human consciousness and political life" (p. 238). The green movement constructs for the ordinary person a feeling of empowerment that is left out of many of the grander environmental visions. It allows people to have a positive impact on the environment without significantly compromising their way of life and to actively move out of "their anxious despair over the state of the environment" (Killingsworth & Palmer, 1996b, p. 238). This vision argues that ordinary citizens, by making only slight adjustments in their life,

can produce powerful environmental effects, "if not in the government, then in the political economy of the marketplace" (Killingsworth & Palmer, 1996b, p. 230). A significant part of the narrative of the green society is the return to community values: using local products, especially food products, and living in smaller community centers where you also shop and possibly work. The characteristics of a green society are envisioned in some detail by the deep ecology founder, Arne Naess (1989, 2005), and call up visions of a decentralized society, a grassroots democracy with great social responsibility. Naess (2005) asks that people live in "voluntary simplicity, with a high degree of self-reliance and moderate mobility" and believes that there should be an "absence of social hierarchy and an absence of male domination" (p. 14). Naess (2005) admits that these concepts specifically "lack any kind of reference to nature or to ecology, but they are . . . basic to a vision of a green society" (p. 14). While the vision of Naess may be a bit acerbic for the average American, that is where the beauty of the green consumer movement becomes apparent in that it says we do not have to be that extreme, we can move only incrementally toward that goal and be socially responsible one product at a time.

Technology as savior. The sustainable movement and the green movement both rely to a great extent on a vision of some environmentalists or environmental apologists that technological development will save us from environmental destruction. We see this as a theme in much environmental rhetoric, but even more so in these two visions for the future. Sustainability counts to a large degree on technologies, such as renewable energy, allowing us to maintain our standard of living while being easier on the environment. Green consumerism is all about technology, looking for scientific and technological development to create goods and products that do not threaten the Western culture's standard of living while eliminating or reducing environmental harm. Myerson and Rydin (1996) speak of this when they write of a "technical"

vision with an emphasis on scenarios that can be chosen between and made real" with specific potential for a technical vision that "promise us a low energy scenario in a new era" to counter climate change and other environmental problems (p. 125). Dunaway (2005) in his portrait of New Deal documentary film maker, Pare Lorentz, describes Lorentz's early vision of technology as savior when he "merged narratives of decline and recovery into a seamless vision of America as an organic machine, a nation that could avoid catastrophe by engineering a new world of abundance" (p. 86). That sense of technological innovation permeates many of today's rhetorical stances on issues such as climate change and the related concern about pollution from burning fossil fuels for energy. Dilling and Farhar (2007) address this when they speak of relying on technological innovation to build "energy efficiency and renewable energy into our products and power grids" in order to give consumers sustainable energy as "a built-in part of the menu of choices that consumers make every day" (p. 359). The desire and need to employ technological development as part of a vision to resolve critical environmental issues is as big a piece of environmental rhetoric as it ever has been, and possibly even more significant in the high-tech society of the 21st century.

Nature as threatening/powerful/resilient. In the views of early civilizations, as we have seen, wilderness was a "scary place," something threatening to the survival of humankind and to be subdued. Today, the predominant view is more along the lines previously discussed of nature as Eden, peaceful, or inspirational. We still find abundant reason to fear nature, however, as we experience—even from afar—global disasters, such as earthquakes, tsunamis, floods, and fires that take hundreds of thousands of lives. Some speculation about global warming, in fact, takes this direction and Ellis (1996) notes that for some, the threats of climate change indicate that "nature is not something that needs protection and understanding," but it is, rather, "fickle,

constantly threatening our existence, and therefore something against which we may justifiably employ all of our scientific and technological capabilities in order to survive" (p. 257). Schutten (2008), in his discussion of *Grizzly Man* (2005), a film documenting the killing of Timothy Treadwell by a grizzly bear, notes the paradox of Treadwell's story as a self-proclaimed naturalist and eco-warrior: "in following the recovery narrative, we go into nature to recover from the ills of civilization, but in Treadwell's case nature is not a peaceful Eden but a dangerous place where one's recovery is threatened by death" (pp. 198-199). Others engaged in the political controversy over climate change take the view that we need have no concerns for our planet because nature is powerful and resilient. That Earth can endure and outlive anything mere humans can do to it is the message proffered by climate change debunkers such as Hoffman and Simmons (2008) and others. So we can see that this theme still plays out in our environmental discourse, from individual anecdotal cases such as that of Treadwell to a global scale of the power and threats of nature or its resilience to anything humans can create or inflict; the Earth, after all was here before us and will be here after us, so some say.

Virtual nature. Some studies postulate our future as being one of complete control of nature, an ultimate extension of the national park preservationist frame, leading to a manicured, managed representation of the natural. Cronon (1996a) claims that Orange County, California's newer residential areas, elaborate malls, and entertainment parks manage to subsume nature into its manufactured landscape. People here only find nature as constituted by these physical rhetorical spaces and, Cronon (1996a) says that it "is a place so constructed that it verges on becoming still another form of nature: *nature as virtual reality*" (p. 43; his emphasis). Davis (1997), in her discussion of the rhetorical space of the Sea World entertainment complex near San Diego, California, makes a strong case that such careful and complete control of a

representation of nature is a vision of a possible future for all of nature. Such *nature theme parks* featuring elements of the natural environment, including numerous species of captive animals carefully contained for viewing and experiencing, are extremely popular, profitable, and growing. Davis (1997) asks, "Could places like Sea World come to typify our contract with nature better than walks on the beach, hikes in the hills, or struggles with the garden?" (p. 236). She then posits the ultimate question for us to consider, not only in this report, but more broadly, "if theme parks do become our commonsense models for nature, should we care?" (Davis, 1997, p. 236).

Island civilization. In Nash's (2001) treatise on the *Wilderness and the American Mind*, he presents an alternative vision for a global resolution to the human/nature relational struggle. The imaginative concept seems to be unique to him, but he goes into some detail explaining how the most important vision of the future for humankind is what he terms *Island Civilization*. It is an ultimate version of the technology as savior theme discussed above, but unique in its application in that Nash (2001) sees technology enabling humans to live in civilized, urban pockets separated by vast areas of wilderness—completely unmanaged and uninhabited by humans—but connected through highly sophisticated means of transport and communication.

Nash (2001) envisions this use of technology "actually *reducing* the impact of civilization," with the key concept being "implosion" (p 381; emphasis in original). In his words, "A thousand years from now human beings . . . could occupy several hundred concentrated 'habitats' . . . the rest of the planet, indeed almost all of it, would be let alone, uncontrolled, and wild" (Nash, 2001, pp. 381-382). While some might question the reasonableness of such a world coming to be, it may not be too much more fanciful a perspective than several of the visions we have

already visited, some of which may already be coming to pass; Nash, to his credit, is considering a substantial time frame for his vision to be realized.

Conclusion

From this review of the literature of environmental communication, I believe I have identified and described several consistent, issue- and movement-crossing narratives and themes that can be considered as fantasy types, or possibly even under the more broad term of rhetorical visions, within the theoretical construct of symbolic convergence. While the origins for most of these themes are not readily apparent, nor are within the scope of this review, they have grown from those beginnings to be thematic types easily recognized by those exposed to environmental issues and that convey more complex scenarios in shorthand to even the general public. But these diverse discursive phenomena already exist as narratives and themes; of what value to scholarship is it to now categorize them all under the rubric of "fantasy types" or "rhetorical visions?" Part of the answer to this question is that these are all, indeed, very *diverse* entities, ranging from stories of mythical proportions to new ideas created to carve a preferable path for the future or explain intransigencies of the present. Gathering these narratives within the concepts of rhetorical vision analysis and, importantly, its theoretical underpinnings of the symbolic convergence theory, allows us to investigate and better understand the effect of the communicative and persuasive force of imagination and imaginary language on human action using a unifying set of concepts. The imaginative language, in all of its discursive forms verbal, written, and visual—in this theoretical context "accounts not only for the irrational and non-rational aspects of persuasion but . . . it creates the ground for the rational elements as well" (Bormann et al., 1994, p. 265). As fantasies, all of these narratives and themes over the decades of environmental movements can be viewed and understood as the composite dramas that they

are—dramas that represent "the consciousness of its adherents regarding a particular topic" (Bormann et al., 2001, p. 274) and we can begin to understand how humans come to share a common symbolic consciousness such as apocalyptic narratives, "nature as Eden," or a "green society." With this theoretical construct, we even have a vehicle for tracking a rhetorical vision from its inception to its more universal acceptance as with the origins of such relatively new visions as "Sustainable Development," first heard of in the 1987 World Commission report, or the "Island Civilization" of Nash (2001). Not the least consideration is that SCT offers the beginnings of a taxonomy for discursive events that gives us the ability to "generalize across cases and [replicate] findings in research" (Bormann et al., 2001, p. 300). In short, this theoretical framework allows me, I believe, to analyze and compare rhetorical visions discovered within my broad text of the documentary film Gasland and its surrounding intertextual materials with those fantasy types and rhetorical visions we have found to be consistent and powerful communicative forces across environmental issues and times. In the remainder of this study I hope to be able to explain the "impact of the communicative force of fantasy on creating a consciousness that entails meaning, emotion, motive, and value for action" (Bormann et al., 2001, p. 300) for the audience of the rhetorical visions in my selected text and relate them in a meaningful manner to the historic visions dominant in environmental movements over the years. The next chapter begins this effort with the analysis of the film itself in an attempt to identify and examine rhetorical visions that have been created and exist within the work.

Chapter 4 — Devastation and Hope: Themes of Gasland

Josh Fox, in his award-winning documentary, Gasland, has constructed a rhetorical vision around the issue of natural gas drilling that strongly resonates with film critics, audiences, and environmental advocates, while invoking a detailed rebuttal from the natural gas industry. The vision so effectively created by Fox in Gasland can be summarized as: The all-powerful natural gas industry is laying waste to vast areas of America and devastating the lives and homes of thousands of American citizens in its unending, greedy quest for more and more profits from producing natural gas wherever they can find it. The persuasiveness of the vision is enhanced, however, by Fox's construction of rich detail consisting of additional layers of complexity and definition that extend and expand the vision: In this exploitation, the natural gas industry has been aided by powerful forces at the highest levels of government and has effectively neutered the regulatory processes at the local, state, and federal levels of control. Our people, our water, and our land are all connected and this barren and bleak world of "Gasland" is coming to you—your homes, your streams and your backyards—unless we do something about it—now! This multi-faceted rhetorical vision, which can also be reduced to a simple statement, is carefully crafted by Fox through the intertwining and interacting of many dramatic elements, with the building blocks of fantasy themes at their core. As discussed in the previous chapter, such themes comprise the essence of the rhetorical vision as they are created to "interpret events in the past, envision events in the future, or depict current events" (Foss, 2009, p. 98). While coalescing into a unified vision, however, the fantasy themes also combine into thematic types that are found to repeat and persist through cultures and communities, such as the fantasy types I have illuminated in Chapter 3 for the modern environmental movement. Fox weaves these fantasy types into the structure of his vision, helping to give it recognition and familiarity for its

viewers, although I find it unclear if he is doing this consciously or subconsciously. I have identified three primary thematic types at work in Fox's rhetorical vision: The apocalyptic narrative, the American Jeremiad, and nature as Eden. Not only do these culturally familiar archetypes strengthen the rhetorical vision of Gasland, but Fox strings these together employing the narrative structure of the "Hero's Journey." Best defined by Joseph Campbell (1949/1972), the hero's journey constitutes a complex mythic narrative that has been involved in human storytelling for thousands of years. But the vision, fantasy types, and narrative structure all hinge on Fox's construction and development of a series of fantasy themes inhabited by "real people," or rather, the film's representation of real people, who are grappling with complex and difficult issues that involve technology, human health, and environmental risks of significant magnitude. As used in many fantasy theme analyses and reflecting their dramatistic elements, fantasy themes "fall into three distinct categories: setting, characters, and action or plotline" (Layng, 1998, pl 103). In this chapter, after a brief discussion of historical context for the film, I discover and describe several fantasy themes within each of these dramatistic categories and relate them to the overarching vision and its fantasy types.

Contextual Background

Gasland was written, directed, and co-produced by Josh Fox, who also did most of the camera operating using a semi-portable, but full broadcast-quality capable, professional digital video camera that was either hand-held or tripod mounted. The credits recognize Molly Gandour as a secondary camera operator. Film editing is always an important creative factor in determining the quality of a film and for Gasland Matthew Sanchez is credited as editor. Fox is also a producer of the film as are Trish Adlesic and Molly Gandour. In addition to the originally shot footage, Fox integrates historic footage shot either in digital or film format by participants in

the film, his family, and other non-cited sources. This footage is merged seamlessly with Fox's original video, which is a credit both to Fox and the editor, Sanchez; this additional footage is not identified in any way during the film as historic or previously shot video. Fox's own "grainy" resolution for his original video footage is most likely a purposeful attempt to not only give the film a feeling of "reality," but also to allow for the integration of lower resolution historic footage without a "resolution shock" of jumping from well-defined to fuzzier images. It is clear that Fox, as he tells an interviewer, "set out to make a film on a very personal level, telling my own story, because I thought that was the only way of really conveying this historic environmental crisis" (indieWIRE, 2010, ¶6)¹ and again in the same interview, "it was my ambition to make a personal document" (indieWIRE, 2010, ¶9). The film follows Fox after he receives a letter from an oil and gas production company offering to lease his land for natural gas exploration and development for which he would receive nearly \$100,000 just for signing, with more to come in subsequent years. But the offer aroused his suspicion, he says, "It seemed . . . like an offer that was too good to be true, and I wanted to look into it" (National Public Radio, 2010, ¶10). Look into it he does, as he travels by car across America, visiting numerous states where natural gas development is currently active, and in many cases has been active for decades. While he "went to 25 different states . . . the film focuses on about 10 different states" (National Public Radio, 2010, ¶37), but primarily Pennsylvania, Colorado, Wyoming, Texas, and Louisiana. During Fox's travels, he visits with many ordinary people who live and work in areas where gas development and production is taking place. He personally videotapes interviews with these people and records their problems and concerns arising from the gas development. He also meets and interviews various professionals who are conducting research into the situation and

¹ Interviews with Fox have been recovered as online articles or blogs that will have different page formatting depending upon how they are printed; quotations from interviews, therefore, refer to a source and a sequential number for the paragraph in which they appear.

recording and studying the effects of natural gas activities, including illnesses, air pollution, water contamination, and hazardous chemicals involved in the exploration and production processes. In addition, Fox interviews journalists who are covering these issues and uses archived television news footage about some of the events; he records interviews with local and national political figures and films meetings they hold with constituents and industry. At the beginning and ending of the film Fox integrates footage showing comments from politicians and industry representatives at congressional hearings into the hydraulic fracturing process held in Washington, DC. My analysis of *Gasland* reveals several clear and distinct fantasy themes and I describe these beginning with those that establish settings for the film's vision. The primary setting themes are Fox's home and the area around his home and the visional territory of Gasland; Fox is the protagonist of the film, the "villain" of the piece is the natural gas industry, and there are several "supporting" characters, such as the residents of Gasland, experts, and journalists; and the predominant plotlines consist of thematic elements such as threats to home, a journey, connectedness, contamination, and illness.

Setting Themes

Setting themes are words and phrases that make up a description of where dramatic characters reside and manifest their actions. Such a setting is the location of the actions of the fantasy theme drama and it can be situated in time and/or space, but it does more than "name the scene of the action," it also describes "the characteristics of that scene" (Foss, 2009, p. 99). The setting carries within it the look, feel, and tone of where the drama is set and it can give the audience detail enough to make it a location that is recognizable and identifiable for them. Fox builds a rich narrative that creates for the audience strongly differentiated regions of fantasy that are consistent with his overall grand rhetorical vision. I believe that a large part of the rhetorical

effectiveness of the film is how well-crafted these regional settings are and how well they provide the underlying frame for Fox's plotlines and give "homes" for his characters. Also part of the strength of his settings are that they are not purely imaginary, but they are constructed from actual geographic locales; he begins with "real" places and then rearranges them in new and imaginative ways that provide the scenes in which his actions make sense and take place. In the film of *Gasland*, I have identified two major settings, one of which I term "Fox's Home" and the other the "Territory of Gasland." Both of these reside within an overarching, somewhat ambiguous setting called "America" and, importantly, these scenes occur within cycles of temporal relationships and interplay.

Fox's home. One of the major settings encountered early in the film is Fox's home, but it is more than the immediate locale of the actual house where he grew up. It is a metaphor for all of the seemingly pristine lands that are currently untouched by natural gas development and that exist in many places across America, although in the film we get the distinct impression that these untouched areas are primarily in the eastern United States, since these are the areas specifically portrayed in visual images. As we shall see, however, these regions are not pristine in the sense of wilderness or "wildness," but are presented as a sort of idyllic blend of the urban and natural, where homes have large acres of forested land between them and we find small town America; all being somewhat reminiscent of a fantasy of earlier decades in the United States. From this sense, this *Home* is not just a spatial location, but a temporal one as well. Fox introduces this setting with strong references to his past—the place his parents founded and where he grew up. The setting is inextricably bound in a romanticized past; but it exists not only in the past, but in the present as well, as the viewer is led to believe it is where Fox still lives. The future of this setting, of course, is what is most in question and is at the heart of this film. As

Fox reveals this idyllic scene of his home in the woods by a peaceful stream through visuals and narration, it becomes clear that this setting is not a wilderness; it is more of a *Biblical Eden*, where humans live in peace and harmony with nature. But the visuals also give a sense of the environmental theme of the sublime, which is significant to the construction of Fox's vision as it has been called the "founding narrative" of environmentalism (Oravec, 1996, p. 73) and as such carries with it rhetorical power that encourages familiar responses of "awe and exultation" (Cox. 2010, p. 41) from the audience. But Fox, by introducing this idyllic setting as also his home, moves the concept in the direction of Dunaway's (2005) "ecological sublime" that calls up a relationship of stewardship and interdependence between nature and humans (p. 212). Ultimately, the characterization of Fox's home becomes coincident with the thematic type of "Nature as Eden;" the idea, bolstered by its Judeo-Christian roots, of a paradise that is perfect for peaceful and fruitful human habitation. This is his home and as might be suitable for an imaginary Eden, it has a mystical and eternal quality to it. It is not only "a place that runs through my mind and [is] always there," it feels to him "like it's the source of all life" (0:08:46). Significantly for Fox's construction of his rhetorical vision, his film portrays this setting as being threatened by destruction from gas development and, as Cronan (1996a) notes, this Edenic landscape is so perfect, benign, and beautiful that threats to it could only come from "those who align themselves with evil" (p. 37; emphasis mine). Calling upon the fundamental emotions attached to this fantasy type, Fox cleverly and successfully implicates the natural gas industry as being aligned with the concept of "evil." The film introduces this idyllic setting in some early scenes representing what is apparently rural Pennsylvania, as Fox says in voice-over narration, his property is "tucked away on a dirt road" in Mylanville, Pennsylvania (0:2:33). The viewer

² In this chapter, a quotation taken from the film will be referenced by numerals representing the time in hours, minutes, and seconds at which the quote begins in the film. While every effort is made for these to be accurate time

sees his home through two lenses: there are first video images of today, showing beautiful lush woods, a small clear creek, and his modest family house, painted red and then there is a montage of still photographs from earlier days of his parents and their "hippie friends" building the house and of Fox growing up there. It is this "Eden" from which Fox must journey to learn about what leasing his land to a natural gas company would actually mean to him, his home, and his neighbors. Fox begins his journey with a visit to Dimock, Pennsylvania, a place not far from his home and one that he remembers in similar terms when he describes it as "a small place with no major highways . . . where you could easily forget the world . . . disappear completely" (00:0:22). Fox's action theme of connectedness also begins here as he shows us that his "Eden" is not isolated, but exists elsewhere, possibly in your backyard.

The territory of Gasland. The second major setting that the film creates is another imaginary land that is an amalgam of geography, imagination, and the temporal; it consists of the parts of the United States where natural gas development is now occurring and, in several cases, has been occurring for decades. I refer to this region just as the film does, as the eponymous "Gasland" and Fox effectively uses it to conjure the powerful thematic type of the "apocalyptic narrative" and its associated feelings of dread and fear. An ancient narrative form, the concept of the apocalypse has come to be a "standard" rhetorical feature of the modern environmental movement (Killingsworth and Palmer, 1996a; Foust and Murphy, 2009) and can be found as a thematic element in discourse ranging from Caron's *Silent Spring* (1962) to Gore's *An Inconvenient Truth* (2006). This thematic type possesses many variations and subtleties, but it has come to be synthesized as the concept of the cataclysmic ending of the world, or of

civilization; either from a source beyond human control or as the inevitable result of human (mis)behavior. Gasland is not a contiguous land, but is composed of parts of as many as 34 states across the country. As Fox travels to those areas in which gas development has been taking place for some time, the viewer as fellow-traveler enters a landscape much different from that represented by Fox's home. This apocalyptic land begins just down the road from this home in the small town of Dimock, Pennsylvania, and when first entering the gas development region, Fox reveals a cold and barren land populated by drilling rigs, production tanks and pipes, and signs warning us of the presence of poisons, toxic chemicals, and other hazards, all images that are repeated often throughout Fox's journey. Over and over again the audience sees visual montages of a bleak landscape of brown grass and leafless trees with shots of livestock and farming intercut with condensate tanks, drill rigs, and production operations. There is also, at one point, an aerial view of a heavily drilled area in Wyoming with devastating results: a nearly barren moonscape covered with thousands of drilling pads connected by a tangle of roads. We get the sense that the natural gas industry is like a swarm of giant locusts, devastating broad swaths of land as far as the eye can see or a person can travel. These images depict a graphically real view of an apocalyptic landscape, made even more powerful because it exists now, not at some point in the distant future. Even worse, the narrator—Fox—and interviewees in the film convey the fear that this desolation cannot be escaped. Fox speaks of wanting to get out as quickly as he can, but that "there was nowhere to go" (1:09:07) and we hear from John Fenton, a rancher, "Where else could I go? This is happening everywhere" (0:41:58). To reinforce this feeling, Fox presents repeated shots of this destruction from his car window or at the homes of his interview subjects. There are, for example, toxic fumes coming off of condensate tanks as made visible through an infrared camera, video images of a brown blanket of toxic clouds over

residences and animals, and shots of a home engulfed by a white haze of contaminants. There are muddy pits containing water or liquid that is, the narrator informs the audience, contaminated with toxic material. There are not merely a dozen or so of these images, but many more; the visual imagery of the film is primarily made up of them. The homes of the individuals that Fox visits and interviews are likewise blighted for the most part; such repeated visual imagery of mud, barren yards, and leafless trees and accompanying narration and interviews conveying messages of contamination, pollution, and sickness encourages the audience to feel the desolation of this apocalyptic land and connect natural gas development as the cause of the cataclysm.

Much of the graphic imagery of the scenes of bleakness and apparent desolation in the imaginary territory of Gasland is due to the film being shot in winter in areas of the Great Plains of the Midwest. The sense of dread is further, and effectively accentuated, however, by the choice of scenes; the jerkiness of the hand-held camera method often used; and the low-resolution, unfocused, and gritty production qualities of the film. There have been other films staged in winter that have beautiful cinematography and convey a much different feeling because of production quality and choice of scenes. Even in *Gasland*, Fox's home area is shot beautifully in the winter, although it is also apparent that many of the shots of the "home" were taken during a different season when green foliage was still present. I do not know if the shooting of the gas development areas in winter was a conscious artistic choice or just a coincidence of a necessary production schedule, because Fox has spoken of the need to make the film quickly in order to get the word out to the people who needed to know, saying, "It was literally a race against time" (indieWIRE, 2010, ¶7). The winter setting, however, does significantly contribute to the dark feeling of the film for an audience and, of course, the shooting style and editing for effect was a

conscious choice on the part of the filmmaker. While limited to a degree by the variety of relevant images available to tell the story and illustrate the issue, Fox uses this constraint to his advantage by showing repeated images of the bleakness and destruction we find in the gas development areas. The audience views many redundant scenes and with various landscape backgrounds and images of the industrial dominating the natural—and even the human. The repetition of many similar shots of drill rigs, production sites, trucks, and condensate tanks adds to the audience's feelings of desolation, despair, and fear that comes from Fox's visit to this region of Gasland.

America. While the two primary settings of Fox's film are his home and his destination of Gasland, the viewer is also reminded at key times and in emotional tones that both of these scenes exist in America; this past and potential future are here in the United States. By providing this overarching perspective of scene, Fox is perhaps seeking a vehicle to unite his audience and is doing so by calling upon the long-standing dramatic saga of the vision of America as a bastion of freedom and independence. While Fox is issuing a warning that the destruction of Gasland may move into territory near viewers, he is also founding this warning in the American ideal that individual rights and property are respected and that its people have inherent liberties and value. Wilson, the federal whistleblower, is particularly incredulous that "this is America!" where the corporations are keeping secrets and he is dismayed that its citizens are being "exposed to secret chemicals," exclaiming that "it's un-American" (0:31:16). While there is the sense that all this is happening within the overarching setting of "America," the rest of the country beyond these two main geographical scenes is left out of the film. The audience is presented with only two choices; an Eden of harmony and peace, or the devastation of Gasland. This is, of course, a perfectly

understandable rhetorical choice of Fox, as it serves to focus the audience on the issue at hand and on the oppositional visions he is presenting.

Time and space. In *Gasland*, Fox visits diverse geographic settings, ranging from Pennsylvania to Colorado, Texas, and Louisiana; as referred to above, however, he takes us not only through space but also through time. With him, the viewer travels from the present to the past and at the same time envisions a future as well. Bormann (1980) notes, "Fantasy theme analysis studies the way communicators discuss fictitious and nonfictitious events in the past or in the future or at some other place than the here-and-now of the immediate communication episode" (p. 190). The significance of passing from the past to the future in the case of Gasland lies in its enhancing the power of the American Jeremiad theme type. As discussed previously, in the Jeremiad form, the prophet is warning his people of the need to change their behaviors in order to avert disaster and this communicative form usually needs to rely on merely the prediction of a future scenario; but in Gasland, Fox is able to take his audience to the past and show them the future. The horrors and destruction of his territory of Gasland are, indeed, coming to your neighborhood soon. These images and these stories will be the audiences' future, if they do not heed Fox's warnings. Part of the effectiveness of this contrivance is that Fox never explicitly states this relationship, but he accomplishes it subliminally as he takes the audience on this tour of the past, which is also the present and the future to come. Many of the places to which Fox travels are able to represent the past as well as the present because they have been under natural gas development for up to 20 years and they still are today; the audience can see and hear how this all began and how the damage is continuing. He says about his travels to Texas: "The Dallas-Fort Worth metroplex, the Barnett shale . . . the place where all this started" (1:11:10) and when visiting Colorado's Western Slope, he notes that the towns there "are all part

of one of the first populated areas to get a major gas rush" (0:54:23). Significantly for the rhetorical strategy of the film, the past he is showing us is also what the future will be, for his home and for anywhere else where the development of natural gas resources is being introduced today. Fox is taking the audience not only on a spatial journey across America today, but he is showing us the past and is effectively—to use the theme of an earlier popular fictional film, taking us "Back to the Future." While most of Fox's future vision is his warning of the devastation that goes with gas development as shown by the results of past actions, at the end of the film he gives a brief glimpse of an alternate future. Beneath the closing credits the audience sees they are once again traveling with Fox; this time, however, outside the car window are seen not industrial tanks and rigs cluttering the landscape, but instead the graceful sweep and flow of rows of wind turbines. If all of us can learn what he has learned in his travels, it is implied, these wind turbines could be the scene of the future instead of the *Gasland* devastation he has shown before.

Character Themes

Each fantasy theme or rhetorical vision contains characters who inhabit and effect the settings or scenes and who give life and energy to the plotlines and dramatic movement to the narrative construction. Also described by some symbolic convergence theorists as *dramatis personae*—to better define these roles as players in a drama and to relate them to that of a postmodern "persona" that presents only one element of a complex individuation. Foss (2009) defines character themes as being used by a rhetor to "describe the agents or actors in the drama, ascribe characteristics and qualities to them, and assign motives to them" (p. 100). Following the sense of the dramatic inherent in this form of criticism, characters may play the roles of heroes—the protagonists—of the piece, villains and adversaries—the antagonists—of the

drama, or various supporting characters that represent different aspects of the dramatistic structure or serve to further the actions or plot. In particular, the roles of hero and villain can be identifying elements for the rhetorical community of the film's vision. As Schrag et al. (1981) express it, "Heroes are those people . . . which represent the ideal for the group, a person or thing elevated to a higher status because it is symbolic of the vision" and, in turn, the "villain allows group members to more clearly establish what they value by personifying that which they do not value" (p. 3). It is important to note that within the context of the symbolic convergence theory (SCT) these characters can be individual or collective. Often rhetorical visions inscribe singular actions and characteristics to a collective, such as when Gasland treats the total natural gas industry as a single character acting with a single motivation. Most of the characters in the film are treated as collectives, including the residents of the fictitious Gasland and the experts, politicians, and regulators Fox meets along his journey. Fox is the only character portrayed as an individual; this choice singles Fox out from the other characters and helps to give him clear narrative authority. While rendering an entire group as a single actor can have the effect of diminishing an accurate portrayal of any issue or situation, it is a strategy often used in fantasy themes and rhetorical visions as a way to reduce the structure to a level more easily understood and identified with by large groups of people. For this and other structural implications of fantasy themes and rhetorical visions, SCT has been criticized by some as being too simplistic and "extraordinarily ordinary" where "heroes and villains trod the boards through simple plots, and little sense of true dramatic action emerges" (Mohrmann, 1982, p. 311). There may be some sense in which this critique has merit, but I argue that in many dramas the structure calls for a certain simplicity, a removal of complex elements, in order to focus on a primary storyline. Gasland is constructed around a complex issue and the effects of that issue are equally complex,

but the film simplifies much of this in its characters and plotline. Fox is characterized as a hero on a quest for knowledge, the gas industry as villain callously performs malevolent deeds, and the supporting players in the drama of *Gasland* are acted upon by the protagonist and the antagonist so as to move the plotline forward. But in looking more closely at these characters, we can see multiple layers of complexity and see the strengths and weakness of humanity at their core.

Josh Fox: the hero. Fox places himself at the center of his film from the very beginning as both the narrator and the primary character throughout. Fox says in his 2010 interview with indieWIRE, "I made the film as a personal journey. I brought along my banjo as a companion" (¶9). It is in some sense, then, an autoethnographic record of his effort to learn all he could about the effects of natural gas development so that he could share this information with those he felt needed to know, in his words, "My biggest challenge remains the burden of getting all of this information to the public" (indieWIRE, 2010, ¶10) and "I am really hoping that the film can bring people new knowledge about the issue" (indieWIRE, ¶11). Within the rhetorical narrative of the film, however, Fox is more than our narrator and guide, he is the hero or the protagonist of the film and in placing himself in that role—he is also the director of the film—he is at the center of the powerful narrative structure of the hero's journey or quest. He shares the motivations of that mythic character as he seeks to learn and educate others by attaining "a transcendent way of knowing" and having the chance to offer a "vision to the world at large" (Mackey-Kallis, 2001, p. 2) and like the mythological hero, he is "lured, carried away, or else voluntarily proceeds to the threshold of adventure," where he overcomes adversity and gains wisdom (Campbell, 1949/1972, p. 245-246). The audience travels with him in his journey as he reaches out to those suffering and as he struggles to come to grips with the knowledge of the destruction facing our

country as a result of this technology. He sympathizes with those damaged, he confronts those responsible, and he seeks answers on all of our behalves as he relentlessly covers thousands of miles and painstakingly documents it all. We see Fox at the very beginning of the film, as he is in the opening shot even before the Gasland title rolls, as the literal and figurative driver of the drama that is about to unfold. The scene is of two drill rigs, with snow-capped mountains in the distance, and an as-yet unidentified individual backs into the center of the scene, wearing a white t-shirt and gas mask and holding a banjo. This first glimpse immediately sets off the individual as unique, quirky, and a bit humorous in an attention-getting scene that arouses curiosity about what is to follow and who this person might be. The audience is verbally introduced to their host, guide, and narrator, Josh Fox, at about two minutes into the film, although they never really learn very much about him at any point in the narrative. He never explains who he is, exactly, what he does for a living, or that he is the initiator, co-producer, writer, director, and primary cinematographer of this film. Nor does he tell of his nearly 15-year background as a playwright, director, producer, and filmmaker. At the opening, he does seem to be a "good guy" who expects the best of folks, as he confides to the audience in voice-over that he is "not a pessimist" and he has "always had a great deal of faith in people" (0:00:04). The viewer also learns that he has roots as he shows and describes his home in Pennsylvania; a home that was built by his parents and their "hippie friends" in the year he was born, 1972. There is the feeling that he grew up in a pretty regular—if hippie—family in this home and may, in fact, have stayed there all his life.

Throughout the film, Fox presents his persona as a "regular guy," like all of us, with roots in his home and neighborhood, who has been thrust into this role of amateur filmmaker and detective by events beyond his control. This search for answers was apparently thrust upon him by the receipt of the letter from the natural gas company offering to lease his land, a role that

seems to resonate with his off-screen life as he speaks of the seminal contact from the gas company in a 2010 interview about the film, "I don't know what happened to me. I wanted to know more and I went on line and tried to research this and there was nothing" (Now on PBS. 2010, 2:10). He reinforces his on-screen persona of just a normal neighbor or friend, an amateur with a camera, early in the film when he narrates that the folks he was interviewing "apparently". . . were buying this act of me being a documentary filmmaker" and he goes on to say, "I guess because you have a camera in your hand, you know what you're doing" (0:15:43). Just a few minutes later in the film, he adds that the role of detective has also been forced upon him by the people he is interviewing when he self-queries, "was I actually going to become a kind of natural gas drilling detective?" and then reluctantly takes on the assignment with an, "Okay, I guess" (0:19:02). Later he again puts forth his status as an amateur filmmaker and investigator, as well as expressing his feeling of being overwhelmed by the task: "As a detective, I was totally out of my league." (1:10:41). At one point we see Fox bending over and looking into the camera as if to see if it is working or adjusted properly (0:46:13); a brief vignette that visually reinforces Fox as a "citizen with a camera," rather than an experienced filmmaker. Finally, as Fox is facing off in an interview with the director of the Pennsylvania regulatory agency, who accuses him of being someone "behind the camera" who doesn't have to deal and live with real problems and decision-making, Fox responds that he is not just "a person behind the camera," but he is a "person who lives in Pennsylvania . . . a person whose water is in jeopardy" (1:26:18). Certainly this is a part of Fox as an individual both on- and off-screen: a land owner in Pennsylvania who is truly concerned about the dangers and risks of natural gas development on his and his neighbor's lands. Fox, as the protagonist and central figure in the creation and exposition of Gasland is more complex and multi-layered than a simple fantasy hero might be. The primary

role of the character he portrays on-screen is that of a concerned homeowner who has taken a camera along with him as he journeys out to find the truth about the natural gas development that threatens his home. He is also, however, an amateur filmmaker and detective, a researcher struggling to understand the intricacies of complex risks to human health and the environment and finally, he is an angry activist/citizen of the United States asking for responsible regulation. All of these facets of Fox's persona helps in bringing him credibility in this on-screen presence and helps the audience identify with him and his journey. He summarizes this approach himself in an interview where he is talking about making a personal film with no pretense because he felt that "lack of pretentiousness" enabled him to make a film that he believes people will find "very touching, straight forward and compelling on a human level" (indieWIRE, 2010, ¶9).

Natural gas industry: the villain. With Josh Fox as the obvious protagonist of the film's dramatic structure, the antagonist, or *villain*, quickly emerges as the natural gas industry, a character that is conceived of by Fox and enacted within the film as a monolithic collective that acts and speaks with the same voice and motivations. While the film introduces individual persons and corporate entities with various levels of agency and power within this collective character, they are set forth only as representatives that carry forward the unified actions and motivations of the collective. There are no indications of dissenting or alternative voices for this character within Fox's vision, with the single exception of the field workers that are briefly introduced. The audience learns that these frontline workers and their supervisors are exposed on a regular basis to extremely hazardous materials about which they have no knowledge and are not informed. Fox implies that at the lowest levels of the industry, there also exist victims; it seems that the character of the "industry" is unified in action and thought at the management level and above. The natural gas industry is introduced as a character at only 40 seconds into the

film, when industry representatives are giving testimony to a congressional hearing. This collective persona is made up of natural gas companies, associations of those companies, individual executives or representatives of those companies and associations, and politicians and leaders also associated with or supported by the natural gas industry. Companies that develop petroleum instead of natural gas are indicated once or twice as being aligned with the gas producers, but the focus of the film's plotlines are essentially exclusive to the natural gas industry. One of the industry members presenting to congress is symbolic of the collective nature of the industry as character when he states that he is "representing the 30 member states of the Interstate Oil and Gas Compact Commission who produce 99% of our domestic oil and gas" (0:01:06). Throughout the film, the industry is primarily referred to as a collective entity, although the viewer is also introduced to some of the individual companies by name in specific areas of the country and in respect to specific acts. These include Cabot Oil and Gas, Noble Energy, Chesapeake, EnCana, Conoco, and others, notably including the giant corporation, Halliburton, a company that provides services to the oil and gas industries and is responsible for much of the hydraulic fracturing technology in use today.

But the audience is also led to believe that there may be a larger and more malevolent power behind or above the industry as such. This is implied when the viewer meets one of the individual members of the collective, Dick Cheney, who, prior to becoming Vice President of the United States, was the chief executive officer of Halliburton. The film portrays Cheney as being active on the industry's behalf while vice-president and nearly single-handedly responsible for the legislative and policy actions that reduced federal regulations on the industry and created the "hands off" environment in which it now operates. Fox implies further linkage between Cheney, Halliburton, George W. Bush, and the natural gas industry in a visual montage (0:30:17).

Contrasted with these well-known and apparently powerful political and industry leaders, the natural gas executives testifying at the congressional hearing are represented as less than daunting. In their actions and words we find them characterized as bland, middle management individuals, not as leaders of a powerful industry; they speak in nondescript fashion and say little, either in words or substance. They equivocate on answering questions and make generic statements about their industry. Visually, they look uncomfortable there and while not exactly "squirming" in their seats, they do not present themselves as defiant leaders of a powerful and righteous group. As I explore at greater length in the sections below dealing with actions, the primary characteristics of the natural gas industry as a character in the film is an entity motivated only by greed and whose actions speak loudly of duplicity, indifference, and denial. Fox makes no allowance for individual differences that any one company or individual may exhibit; they are all shown to share the same motivation and goals and to take part in the same actions as the collective villain. The film shows this villain in monumental lies and in outlandish denials of actions and consequences in the face of overwhelming evidence to the contrary and represents the antagonist as being responsible for all of the damage and destruction visited upon Gasland.

Residents of Gasland. Gasland the film, as well as Gasland—Fox's imagined territory—is primarily populated by everyday citizens who live and work in the areas of natural gas development and who are presented by the film as the victims of the natural gas industry's actions and regulatory agencies' neglect. These people also make up a collective character in the film because they share suffering at the hands of the industry and respond with shared actions and motivations. Although treated as a collective character, however, the audience of the film sees the individuals of which it is comprised more often than with the collective character of the gas industry. The character of the *residents* of Gasland is represented by individuals or families,

usually in rural settings. No explicit mention of race is included in this characterization, although all of the residents portrayed are white or Hispanic; and those interviewed appear to be evenly divided by gender. It is beyond the scope of this study to assess meanings or interpretations of the question of race or gender in Fox's portrayal of this or his other characters, other than in relation to the development of fantasy themes and a rhetorical vision. It might be questioned as to the identification with or sharing of any *Gasland* rhetorical vision with races or ethnic groups other than white or Hispanic, when these are not represented within the construction of the themes and visions. This would appear to be a valid topic for an additional fantasy theme analysis by researchers. There are 79 of the individual representatives of this character interviewed in the film; most briefly, but a few extensively. By sheer numbers, the predominant actor in the film is the collective of these residents and they, their individual stories and experiences, and their actions are one of the primary engines that drive the plotline of the film.

The individuals and families that comprise this dramatis persona share and appear to be bonded together by several common characteristics. All of the individuals share a strong bond with the land and most, especially those in the rural areas that Fox visited, have lived on their lands for decades. Jeff and Rhonda Locker, for example, "had been living here for at least 30 years (0:32:42)," Norma Fiorentino has lived "next to these people for 30 or 40 years (0:11:51)," and John and Kathy Fenton are living on land that has been his wife's "family farm" and his "family heritage" (0:41:58). Kathy notes that she "was raised here and at one time there was nothing. I mean there was no oil or nothing" (0:38:50). The citizens are also *regular* folks: steady, dependable, and communal. John Fenton is one of the strongest representatives of this individual type and he tells Fox that his father and grandfather were "old-time cowboys" and "farmers in Nebraska" (0:41:58) and we hear John speak straight and honest—from the heart—

as he fears for and attempts to protect his wife and family and the heritage of his land. We listen closely, as to a friend, when John speaks of the destruction of his land by natural gas development:

They tear up a football-field-sized area and drill a hole out there. They spread toxic chemicals and on top of that you've got gravel and rocks and big pieces of metal and they pipeline everywhere and it just cuts us to pieces (0:39:17).

Kathy supports John's concerns with her own, "if they do any more drilling out here . . . it's going to force us out of business . . . off our land" (0:41:10).

We find echoes of this strong "American" character in many of the other individuals visited by Fox. We also find the citizens defiant and brave, although they are obviously helpless in the face of the industry's actions and power. Amee Ellsworth says that, despite all that has happened, she does still "believe in the good in people" and vows that she "will stand up for what I believe and I will fight to the end" (0:26:07). We hear perhaps the strongest cry for fighting back, even in the face of almost certain defeat, from John:

But by God if your way of life is being besieged and your health is under attack . . . what we need to do is we need to get together and we need to stand up. We need to speak with a unified voice and we need to stand up to these assholes (0:41:58).

This collective character Fox has created here is worthy of some of the great themes of American film, the fictionalizations that we have seen before in narrative films such as *Grapes of Wrath* (1940), and even documentaries of the 1930s, such as *The Plow That Broke The Plains* (1936). Balancing this courage and resistance, however, Fox shows us that a major element of this character is that of fear. We see and hear the "residents" over and over again express their fear of sickness, of destruction, of losing their home, and of what will happen to their children from all

of this. This fear and the reasons for it will be explained at some detail in the section below on actions, but Fox has given this character a fairly rich complexity of bravery and endurance, as well as fear, helplessness, and hopelessness. We are almost attracted to this character as a possible protagonist in the film's vision, but we are dissuaded from this by the ultimate powerlessness of this character to make changes to the situation or to take effective action in any way other than to survive for as long as possible.

Politicians. As we leave descriptions of the primary dramatic characters of Fox, the natural gas industry, and the residents of Gasland, we enter the realm of additional supporting characters. These actors serve to support the role of the protagonist or antagonist, provide expository information for the audience, and move the plotlines along the desired arc. One of these encountered often in the film is that of the policymaker, or politician. Fox appears to offer two opposing views on this collective character. He first introduces Dick Cheney and the George W. Bush administration as primary architects of the devastating shale gas boom in the United States, partly because of the commercialization of the fracking technology by Cheney's firm, Halliburton, but more importantly by their collusion with the industry that resulted in substantial lessening of regulation of this industry. On the other hand, Fox's depictions of all the other elected officials at the federal, state, and local levels that appear in the film indicate that these people are also horrified by the destructive force of the gas industry and are working hard for their constituents to protect them. Does this dual representation create two personae or is Fox's vision leading somewhere else? My interpretation is that Cheney and Bush are presented as very high-level politicians who have significantly "sold out" to the natural gas industry, or more correctly, come from it in the first place. These two individuals are portrayed by Fox less as elected officials and more as members of the gas industry collective character who have gained

national power. From this perspective, then, all of the other elected officials in the film are depicted as part of a collective character I term politicians. There are six such individuals featured in Gasland, including members of the United States Congress, members of the New York City Council, and a small-town mayor. The politicians featured in the film are those who, from Fox's perspective, might be considered "good guys," or supportive of the average citizen and the mitigation or prevention of environmental risks. This seems to run counter to general attitudes toward politicians in the United States in the early twenty-first century. We do find one congressional representative who is overtly favorable to the gas industry and agrees with their claim that there "has not been a problem with hydraulic fracturing" (1:33:03), but all the rest are portrayed as being on the side of those concerned with the dangers of the process. By portraying the politicians in the film in this light, Fox seems to be again implying that this problem is more dangerous and reaches higher levels of power than we had ever thought. If our well-meaning senators and representatives at the federal and state levels and our mayors and council people are outraged, but still cannot stop this "insanity," then, the questions for the viewer become who is ultimately responsible and who can stop it?

Regulators. Regulatory agencies are charged by both legislation and policy to oversee certain industries; the activities of natural gas exploration, development, and production fall under several of these agencies, including the U.S. Environmental Protection Agency (EPA), the U.S. Bureau of Land Management, and several state and local agencies, such as the Texas Commission on Environmental Quality, the Pennsylvania Department of Environmental Protection (DEP), the Colorado Oil and Gas Commission (COGC), and the Wyoming Department of Environmental Quality; although this film makes the case that the industry is excluded from many of the regulations that these agencies enforce. In the film there is frequent

reference to the agencies themselves, but only a couple of individuals are actually shown who directly work with those agencies. As a collective character, the regulator is depicted as primarily ineffectual, although it is not clear if that is because of incompetence, being in "the pocket" of the industry, or lack of funding and support from government. As agencies and individuals, the film generally shows them to be nonresponsive to the needs of troubled citizens and they are accused by at least one as being there for the "industry" and not the American citizen. As a supporting character, the regulator serves as a foil for the citizens and for Fox as they seek answers to the serious concerns raised by this issue of natural gas development. The character is generally representational of a large bureaucratic entity that is aiding and assisting the industry through the abdication of its responsibilities. In the film, however, Fox gives us other characters of more help to himself, the citizens, and the audience, and primary among these is the "expert."

Experts. Fox interjects the collective character of expert and their expert testimony at key points throughout the film primarily to add exposition for the audience and credibility to Fox's arguments. This character serves to give technical and scientific verification for the more anecdotal testimony of the residents and Fox and the experts move the action forward by often providing a transition either into or out of a set of interviews. There are five experts named and one not named in *Gasland*, and all of those interviewed by Fox report on data, analysis, and results that are supportive of Fox's thesis of the hazards of natural gas development and counter to the claims of the industry. These experts are collecting and synthesizing raw data, conducting analyses, and making the data and their results public; something the industry could be doing and the regulatory agencies should be doing as Fox implies and the experts declare. The experts frequently are referenced as providing information and warnings that the agencies will not or cannot do. The audience encounters these experts at various stages of Fox's journey in Colorado.

Texas, Pennsylvania, and Louisiana, and with each introduction impressive credentials are presented to establish narrative authority. Theo Colborn, for example, is recognized by Fox as, "Winner of five Rachel Carson Awards, a *Time Magazine* Environmentalist of the Year, a Congressional Fellow; her accolades are too numerous to mention" (0:58:09). Wilma Subra's first introduction is accompanied by a slate reading, "Chemist, First Responder and MacArthur 'Genius Award' recipient" (1:18:08). The essence of the collective expert character in the film is represented by the strong and vivid presence of the individual experts interviewed by Fox and by the numerous detailed scientific reports they and their laboratories produce and that Fox often shows in the film.

Journalists. Fox inserts individual journalists at a few points during the film in their roles of television anchors and reporters and at least one print journalist. Combined, I consider these as the supporting collective character of "journalist," although we find that their characteristics and roles are not as consistently presented as with other collective characters. One of the cases of contaminated water that Fox has unearthed in Colorado is covered by a Fox television station in Denver and the film contains video clips of this story as reported on the ten o'clock news by anchors Libby Weaver and Ron Zappolo and an in-the-field reporter identified as Heidi. This appears to serve the purposes of the film by giving some credibility to one of Fox's earliest cases of contaminated water and the one that is possibly the most iconic of the film: burning tap water right out of the faucet. The film contains—beginning at the 25-minute mark—two separate reports by the same news outlet on flaming tap water in Weld County, Colorado, and in both, the reporters are serious, take the approach that this is a real phenomenon that is related to natural gas production, and express their extreme concern at this frightening occurrence. The audience never sees the anchors do any follow up, however, to the "scary" story,

nor interview any gas industry representatives or regulatory agency staff. We do not know if this was included in the full story, but Fox does not show it if it was. These clips appear to be used by Fox as early corroboration in the film that he is, indeed, reporting facts and not biased imaginings. This effect is heightened in the sequence by the televised reporting images being intercut with Fox's own footage of the same people and the "burning water" phenomenon; the audience is left with the impression that these "fact-reporting" newscasters are verifying Fox's story.

While possibly being used to enhance Fox's credibility, the primary characteristic that comes from the role of journalists in the film is that the media is essentially ineffectual. The media is shown only reporting on the exciting parts of the story without following it with more detailed information and challenges to those who might be responsible. That the character of journalist is relatively ineffectual and concerned more about titillation than facts is highlighted again as Fox tapes a press conference in New York that was called in relation to a hearing on water contamination being held by the city council. For this event, the press does not even bother to show up and New York Councilman James Gennaro wonders if "Maybe this story is not sexy enough, maybe it's not important enough, maybe the drinking water supply for nine million people doesn't quite get people's attention" (1:30:48). The only other individual journalist character in the film is introduced when Fox visits the Western Slope of Colorado; the woman, Tara Meixsell, is a print reporter for a regional paper who has devoted herself to finding and printing stories of victims of natural gas development. This journalist, however, is more of an advocate for the victims, saying that she speaks for "friends who couldn't speak for themselves" (0:54:10) and covering in detail the plight of local residents. Even here, however, Tara, as with the television reporters we saw earlier is essentially an observer and—true to her calling—a

reporter of events. Fox does not show her interviewing or challenging the gas companies or regulatory agencies and there appears to be no benefit to her diligent and passionate reporting. Her speechless friends still suffer and the gas industry continues with its work. So while this character is only briefly represented in the film and in both instances seems to report in terms favorable to the victims, its primary characteristics are presented as being a reporter of the facts, yet being ineffective at challenging the perpetrators or investigating further an admittedly serious issue.

Technology. The technology of hydraulic fracturing, or fracking, is put forth as a prominent non-human character in the film. It is essentially at the heart of the film: its existence and its dramatic implementation over the last couple of decades, and the unregulated freedom to use it by the industry is the cause of Fox's initial concerns and of all of the distress and destruction that he reveals through the telling of the story of Gasland. Not only is it referred to constantly through the film by Fox, interviewees, experts, and other Gasland characters and plotlines, but Fox carves out a substantial piece of cinematic territory in the middle of the film in his "Anatomy of a Gas Well" section between the 0:47:40 and 0:50:49 minute marks to describe how the fracking process and the associated drilling and production processes work; what their technical and practical elements are; and what risks, hazards, and pollutants are associated with each phase. For Fox, the technology itself is generally presented in neutral terms; there are not comments or implications to the effect that this technology is inherently "evil" in any way. The film attacks more the concepts that the technology is used carelessly by industry for their own selfish purposes and is allowed to be completely uncontrolled and unregulated by government. This concept of being uncontrolled is raised often, as when Fox is describing the various processes involved in natural gas development:

After a while the gas rig just seems like a car made in 1890, a car without a windshield, without safety bolts to hold the seats in, without an airbag, without seatbelts, without crash test ratings . . . something fundamentally unsafe (0:51:13).

Again, when Fox travels to one of the largest gas fields in the country, the Johah Gas Field in Wyoming, he speaks of all of this huge development going on in a completely uncontrolled and chaotic fashion:

I zipped around and got lost on the snaking, winding roads that lead in and out of the gas field, roads that aren't marked; each access road leading to another site, to another site, to another site. Nobody was monitoring it . . . No one told me to leave, no one told me I shouldn't be there (0:51:55).

As if to further illustrate the limits of this chaotic environment, Fox shares with the audience that even, apparently, "there were no restrictions on banjo playing either" (0:52:22) as he strikes up a tune in the same iconic scene of the drilling rigs and mountains and a banjo player in a gas mask that initially opened the film.

Lack of control and oversight of this potentially dangerous technology is also revealed when John Fenton talks about gas development on his ranch and expresses his firm belief that no one is paying any attention:

There is no rhyme or reason as to how they do things out here. They do it different on every hole. They have different people out here; nobody's watching over them . . . you know . . . it's a free for all (0:39:17).

So the film depicts this dramatis persona of technology as powerful and complex, but unthinking and neutral. It is obviously designed with one purpose, to extract as much natural gas as possible from tenacious environments and to do it as efficiently as possible, but it has no malevolent

intent in its actions. Although this seems on the surface to be how Fox views and characterizes this technology, the overwhelming results we see in the film tell a different story. All of the blight, all of the devastation, all of the contamination, all of the terrible illnesses that the film floods the audience with is due primarily to this technology. While the technology is presented in neutral tones and the technology does produce an energy source that is of value to our modernized, industrial culture, the ultimate and visible results of this technology are certainly considered as "evil" within the construct of the film. This is a paradox that might be argued is the essence of Western culture's experience with technology over generations. The technologies are considered neutral, but whether the results are the deprivations of the industrial revolution, the horrors of nuclear holocaust, or the tragic global consequences of climate change, the Western world's technologies seem to result in a harvest of damage and destruction to humans and the environment. Beneath its surface, *Gasland* carries forward this fundamental, paradoxical relationship with technology that modern humans experience.

Action Themes

Action themes, as the name implies, present the activities of the characters within the respective settings. In keeping with the concept of themes as drama, these are also referred to as plotlines and this terminology may better imply that these action themes may be isolated, single events, or may be linked together in a thematic storyline that extends through the entire film. These actions can be things the actors have agency over or they can be things that happen to the actors, over which they have no control; they are also often inventions of Fox that make a point, set a tone, or move the story along toward its conclusion. Fox inadvertently sums up most of the actions in the film when he lists off all of the things that have happened in Dimock,

Pennsylvania, the gas development area he first visits:

Water trouble, health problems, hazardous explosive conditions inside the house, destruction of land, lack of confidence in state regulatory commissions, a feeling of having been deceived, a feeling of powerlessness, dead or sick animals, the difficulty of obtaining good information about gas drilling, and the idea that there's a cover-up taking place; in other words a total loss of normal life (0:17:21).

A complete loss of normal life is what those who live with gas development experience and what, the film tells us, everyone will experience when gas development moves into their neighborhood. These actions form fragments of or full plotlines within the film that carry forth this message to the audience.

Threats to home. The concept of "home" is particularly potent in American culture. Selcer (1990) notes that "the family home has always been central to American life" and that the "self-contained private home . . . represents the highest ideal of American life" (p. 54). This inherent value in home is possibly due in large part to America existing as an essentially immigrant experience. Everyone in America comes from somewhere else and all left their own homes, either voluntarily or forcibly, to come here. As Mackey-Kallis (2001) says, "home—its initial loss as well as the subsequent quest to regain it—are a defining characteristic of the American experience" (p. 127). We then seek to reclaim this home for ourselves and see the concept as the essence of the American dream. According to Selcer (1990), in America, the home is an institution and, "During the good times in our history, it has been a symbol of everything good in American life. During the bad times, its status has been used as a yardstick for the decline of America" (p. 55). In *Gasland* then, Fox is drawing upon a powerful image sacred to Americans when the threat from the antagonist and the natural gas technology is to his home, *our home*. This is how the movie begins and appears to be the motivating factor for its

entire plotline: Fox's family homestead is being threatened by something unknown. Even worse than this, however, is that for nearly all of the people Fox visits and interviews, the threat is also to their home, and often even to their family "homestead" as well. While personal health issues are a significant factor in the film, this too is tangential to the threat to the home. How much worse is sickness, the film seems to ask, when it attacks people from an outside source and comes to them in their own homes? This plotline is powerful in the film and often repeated, as when a reporter accentuates the concern that comes from drinking water that can burn by saying, "that's right, flames shooting from faucets inside a home" (0:25:04). Further in the same story, a reporter directly explains the "terror" a woman is feeling because she is "living in a home that could explode" (0:26:48). In another sequence in the film, Fox narrates about the hazards of poisonous chemicals, saving, "John Fenton's home . . . [is] surrounded by venting condensate tanks" (0:40:45) and later as Fox notes the severity of the destruction, "These people's health are ruined. They can't function. They can't live in their homes anymore" (0:53:46). The film seems to present a villain that is actually robbing these people of the safety and sanctity of their own homes.

A journey. From the beginning to the closing credits, the primary action line of the film is structured around traveling; the film is not only a figurative journey, but a literal one that Fox takes from his home into a strange land and back again. The audience quickly finds itself in the midst of Fox's travels early in the film when the view is from the windshield of a car traveling through a heavy snowstorm and we are introduced to the thematic structure of the journey. This early sequence of shots also seems to be warning the viewer that it is going to be a difficult journey, often through storms. Most of the visual imagery of the film, in fact, is seen looking outward from the windows of Fox's automobile, or the truck or car of another character in which

he is riding. The landscape of his home and the imaginary Gasland is seen predominantly from the point of view of Fox, the driver, looking ahead through the windshield or out the side windows. Fox not only traverses miles on highways and back roads in his car, he also places much other action within this context. Fox takes phone calls in his car; studies maps, reports, and evidence; and stores water samples and animal carcasses there. All of these images establish Fox's use of the narrative of the "American road trip" as a structural frame for much of his creation of his vision. While it is a road trip, it is clear that it is not a journey of pleasure, nor is it one that Fox has necessarily chosen to take. He has been called to this journey and is drawn along to its completion by forces outside himself. As discussed previously, the journey is set in motion by Fox's receiving the offer to lease his property to a natural gas company, but he says that he is soon compelled to take to the road to find answers by a "frantic series of distress calls" from a resident in nearby Dimock, Pennsylvania (0:10:04). The words "frantic" and "distress" set the tone we are to expect from this journey, as well as provide motivation for traveling to help—to find the truth—that none of us could ignore. The more he learns about the hazards and dangers of natural gas development the more Fox is pulled into this intriguing adventure by events and people, "I could feel myself getting sucked in deeper and deeper" (0:15:11). Much later in the film, Fox expresses a desire to take a break from this forced journey, having been made weary by all that he has seen and heard, but he is again drawn back by a call about test results on a "mysterious" Dimock water sample given to him by a landowner there.

During his journey, Fox reaches his emotional limit at a couple of significant stages in the film. At the first lighting on fire of faucet water by Mike Markham, Fox looks perplexed and upset and when he lights it himself he is clearly emotional at the experience, "It's really upsetting, actually. It's not supposed to do that" (0:23:35). There seems to be a deep sense of

being threatened within the safety and sanctity of our very homes by something so dangerous and inexplicable. This is the first time we see Fox personally showing emotion at what is transpiring. The next important point for Fox in this journey and really the turning point for him is when he is learning about the natural gas seepage in Divide Creek, Colorado, that was responsible for polluting a stream, a die-out of fish and animals, and quite possibly the death of Robert Blackcloud. He visits the stream and says, "I had tried to keep anger and sorrow at bay, but the moment I knelt down at Divide Creek I looked upstream and noticed the bend. It reminded me of home and I broke apart" (1:05:23). This can be seen as one of the "trials" of the hero's quest myth, or where the hero is "sorely tested" in his search (Mackey-Kallis, 2001, p. 13). This was the point where Fox reaches his limit, but he cannot be defeated here and although he says shortly after this, "All I wanted to do was clear my head . . . get out of crisis mode," he nevertheless persists with his increasingly difficult trip to learn even more and to reach its conclusion. Fox's travels come full circle cinematically as near the end of the film Fox returns to the Congressional hearings with which he began the film; here he reaches the symbolic seat of power in the nation and he will at last hear from the antagonist of the film, representatives of the gas industry. While this brings some closure to the story, it is neither the end of the film nor the end of the journey. The film's narrative ends finally back at his home where the audience again sees visuals of beautiful scenes of the wilderness and Fox's creek. But as the closing credits roll, Fox is again travelling—a new trip—and we are back in the car with him, only this time outside of his window we see not desolation, but fields of wind turbines with their blades turning in the wind.

Connectedness. From the beginning of the film to its end, Fox carries the theme of being connected, of everything connecting to everything else. He first visually connects the building of

his family house with the contemporaneous construction of the World Trade Center towers in New York to show that the countryside is united with the city and possibly to show that if even something as great as the towers can be destroyed, then certainly his humble home can be also. Pete Seeger's *This Land is Your Land* is an anthem played early in the film that stresses that we are all connected, that we all share the same land. While it is primarily the narration of Fox that carries this theme of connectedness, it is also expressed by at least one of the interviewees in the film, John Fenton, a particularly sympathetic Gasland *resident*, who speaks with great meaning about what his land and his occupation as rancher means to him. In an emotional sequence, John relates his concerns about his cattle, his livelihood, and the concept that what is happening on his land and to his livestock effects many others in the country—and very directly:

These little guys [his calves] are really enjoyable to watch and to be around. We want to raise the best and most natural clean product that we can raise and, by God, if you're breathing in dirty air and you're drinking water that could be tainted . . . what's going into these girls and what's coming out in those cows, you know? You've got to be sure that what you're putting in them to raise that meat is as pure as it can be. Cute as they are in a year or two they're going to be on somebody's dinner plate (0:43:16).

Later in the film Fox carefully explains that all of the waterways in America are a great network of interconnections. The small stream on his property is part of the great watershed area for Pennsylvania, New Jersey, and New York, and contamination of this creek will, he speaks of elsewhere in the story, ultimately pollute the fine drinking water of nine million people in New York City and elsewhere. As he comes full circle on his journey, returning home, he brings with him a new knowledge, a new paradigm that changes the very home to which he returns. He now possesses the wisdom that, "My backyard wasn't my backyard anymore; it belonged to

everybody else too" (1:37:49). This wisdom, this new perspective on his home and his life is the gift he has earned in his quest and journey into the foreign world of Gasland. As Campbell (1949/1972) puts it, within the narrative frame of the hero's journey, it is this "boon that he brings [that] restores the world" (p. 245-246). But the true wisdom he's gained is that more is connected than geography. We are connected to each other and, importantly, the past is connected to the present and to the future; in telling us of his journey, Fox is showing us a past and a present that will most surely be the future for many of us if we do not act against this threat.

Contamination and pollution. Most of the film is concerned with exploring and exposing the grave environmental risks associated with natural gas development. Fox focuses primarily on water contamination and air pollution as well as leading his audience through the complex concoction of chemicals that emanate from the drilling, fracking, and production processes. While water and air contamination seem to be core threats of gas development, Fox's choice of emphasizing these also plays an effective rhetorical role in the construction of his vision in that air and water are mediums that most obviously connect across peoples and across space and time. Soil contamination, for example, remains where it is and affects its locality, but air and water move and flow. Air and water are also recognized as sources of life, giving a primordial texture to Fox's vision. The film emphasizes the chemicals associated with the fluid used in the process of hydraulic fracturing, although it also looks at other sources of pollution. The audience learns that the fracking fluid consists of a "mix of over 596 chemicals" that are combined in a "brew" of deadly sounding "corrosion inhibitors, gellants, drilling additives, biocides, shale control inhibitors, liquid breaker aids, viscosifiers, and liquid gel concentrates" (0:05:27). These are the broad categories of chemicals introduced early in the film; later and

more than once Fox lists specific chemicals that range from the "unknown to the unpronounceable" (0:05:29). This specificity is reminiscent of Rachel Carson's detailed treatment of environmentally poisonous chemicals in *Silent Spring* (1962); it has an equally chilling effect here. Fox is giving his rhetorical vision of environmental destruction a sense of "reality" by defining, at length, the chemicals that are threatening the world; to emphasize this point, several other comments regarding the dangerous character of these chemicals are made in the film. One expert, during the Congressional hearings, makes the fairly common-sense statement, "anytime you put chemicals like are used in fracking into the environment it's a risk to water supply" (1:37:01). Another expert says, "the materials used for hydro-fracking don't biodegrade. Once they're in the environment, they're in the environment to stay" (1:32:41).

Visuals accompanying the interview with the EPA whistle-blower, Weston Wilson, when he is telling us of the dysfunction of the EPA are a series of slates listing chemicals and their adverse health effects. The placement of these images here underscores the risks of these chemicals and the insanity of having an EPA that is not doing its job. Another expert, Theo Colson, believes that the public will be angry once the story of these chemicals gets out and will demand to know why someone was not "out there monitoring," but that "we can't monitor until we know what they're using" (1:00:17), referring to the secrecy with which the gas industry protects the chemical content of its fracking fluids. Theo is the fact-finding expert who has "identified 596 different chemicals in 900 chemical products" in the hydraulic fracturing process (0:58:30). At the end of the film in the context of the Congressional hearings, an industry representative gives a long list of the kinds of chemicals that are found all through the process of natural gas development; he replies to a question from Representative Hinchey about disclosing the chemicals used:

Did you want me to go through all of them Sir? I'll start with hydrochloric or muriatic acid as a chemical that would help dissolve some of the muds in the well bore; we would use an antibacterial agent such as Glutaraldehyde; we would need a breaker that would take away some of the viscosity from our fluid, for that we would use an ammonium sulfate; we would need a corrosion inhibitor to allow the casing strings and the pipes we used to be preserved, it's Dimethyl formaldehyde. The cross linker we would use would be a borate salt; then use also a friction reducer, a petroleum distillate . . . an iron control agent in some applications; a citric acid, potassium chloride; we would also use a oxygen scavenger (1:35:37).

Another expert, Wilma Surba, speaks of the toxic sludge that has been deposited by the oil and gas industry for decades off the Gulf Coast and that was washed inland with the hurricanes Irene and Katrina. These included, among many others, "benzene, toluene, solulene, ethyl benzene, a lot of formaldehyde, a lot of the semi-volatiles . . . the heavy metals associated with the drilling fluids, barium, arsenic, lead, cadmium, chromium, mercury" (1:19:19). Such a litany of exotic sounding chemicals let loose into the world would certainly appear to be not conducive to a healthy environment and the repetition of these chemical throughout the film has a cumulative effect of conveying an image of significant risk and danger.

Fox emphasizes these risks in the area of water, specifically contaminated groundwater resulting in polluted and poisoned wells and drinking water. Rhetorically, this choice strengthens his ultimate vision of connectedness, the primary lesson of his journey that changes his perception of his home. He begins his journey with his stream at his parent's home, he reaches an epiphany at West Divide Creek, and ends it by recognizing the connection of his stream and the water supply of millions of people. Water is a visual phenomenon that can be seen to flow as

a metaphor of life as well as a basis of life itself. It is a powerful rhetorical choice for Fox that he apparently made early in his conception of the film. Through his numerous interviews with home and land owners in the gas development areas he is constantly discovering accounts of contaminated well water that are linked to gas drilling. As one of the Maye family tells him, "our water was perfectly fine and like right after they started drilling . . . propane and stuff like that all went in it" (0:13:57). An anonymous source of a water sample offered that it was "about as bad stuff as you can get. Take some and find out what's in it" (0:15:43). From Jeff Locker: "I finally got water samples and that's when we found out the water was totally unfit for consumption. It was just immediate" (0:32:11) in response to the re-stimulation of a well near his home. An expert hydrogeologist (not on camera) reported to one of the land holders that "everything is intermingled in a frack job and that is the cause of the well contamination" (0:36:01). While this statement is questionable geologic engineering, it is just one of the many anecdotal claims made in the film that tie groundwater and stream contamination to gas development. We find Fox making several implied connections between drilling and water contamination because of coincidence of timing: first comes some drilling or fracking activity and then homeowners find their well contaminated. One of the most iconic images produced by the film is that of lighting ordinary faucet water on fire in the homes of the Markham's and Ellsworth's (0:22:42; 0:25:04). Probably the most impressive such image comes when Mike Markham lets his water flow for a while as he tries to light it with a lighter. Over this brief period enough methane accumulates in the sink to burst into a large flame when it finally ignites. Mike admits to this being "the best I've done" (0:22:43); Fox attempts this and achieves the same result. Later the scene is reenacted at the Ellsworth home and then repeated several times in briefer versions as Fox continues to tour Colorado and Wyoming. This is so eye-catching that the film includes a news

report of both homes on the evening news in Denver. The same scene is also repeated at a gas seep on Divide Creek in Colorado. We see Robert Blackcloud in a home video lighting gas emanating from the bubbling creek. His daughter, Lisa, relates that the "year of the seep . . . he [Robert] had been drinking out of the creek for a month. He was dead two years later of pancreatic cancer" (1:03:33). There are several cases of water contamination where gas companies have it tested and either maintain that obviously polluted water is not, or conclude that it is not fit to drink but deny that it was due to their drilling. Paradoxically, in most of these cases the gas company provided money to mediate the problem, either through filters or hauling in fresh water. In concerns about water, Fox also includes pieces about the vast quantities of water that the drilling and fracking processes require. He claims that "they need between 1 and 7 million gallons of water" for each well they drill and "Each time they go back and frack an existing well they need an additional 1 to 7 million gallons of water" (0:06:05). Of all the water that "goes down only about half of it comes back up" (0:47:40), and all of that return—or produced—water is contaminated with fracking chemicals.

The film also presents the issue of the pollution of air by gas development and provides some fairly damaging information. There is strong rhetorical force to presenting the dangers of air pollution, as there is with water, in that air is also a source of life and is a medium that flows through geography and time. Air is not as situated in space nor as visually representational as water and that may be one reason for Fox building his vision around water and waterways. The film talks of the many air pollution advisories issued in Wyoming's sparsely populated, largely rural Sublette County by the Wyoming Department of Environmental Quality that stated, "ozone in the air had reached unsafe levels" (0:50:14). Sublette County is home to one of the largest gas shale fields in America. Fox also found air pollution when visiting Fort Worth, Texas, where the

gas shale play began some 20 years ago. An independent analyst working for the Environmental Defense Fund determined that there are "about 200 tons a day" of emissions produced by the natural gas industry, the same amount of emissions produced by all of the automobiles in the Fort Worth area in a day. Fox visited the small town of Dish, which is also within the massive Barnett shale gas play of Texas and finds the mayor equally concerned about air pollution in his city. Dish is at the center of a complex of 10 gas pipelines and, as the mayor explains, "Those 10 lines carry a billion cubic feet of gas a day, so we have 10 billion cubic feet of gas going through the town of Dish every day" (1:14:11). An analytical laboratory returned a report on the air in the town and found "amazing and very high levels of known and suspected human carcinogens and neurotoxins" (1:15:35). The mayor, Calvin Tillman, says, "there is a cloud lingering over one of our subdivisions. When things like this happen most of the people in the community think that they've just taken their last breath" (1:15:09). This report might be considered even more powerful considering it is coming from an official of a small town in Texas—what might be expected to be a supportive area for the oil and gas industry. There is additional evidence when the film reveals an infrared video showing normally invisible fumes flowing from the tops of condensate tanks associated with gas production. Fox has shot images of these tanks everywhere there is gas production and he has even climbed up on a couple of them. Similar pollution is expected to emanate from the separator equipment at a gas production site. Fox, as narrator, graphically explains that these separators are each "just sitting there like a big explosive battery steaming off volatile organics directly into the atmosphere 24 hours per day" (0:50:14). A further source of pollution is shown to be the use of evaporative sprayers in "flow-back pits" that hold the production water returning to the surface from the process of hydraulic fracturing. As Fox explains:

Water is sprayed into the air in the sunlight so that it evaporates faster [necessitating less hauling of production water]. Now, of course you're probably saying to yourself, that's insane, that water contains all the fracking chemicals, which are toxic and all the volatile organics, which are also toxic" (0:49:27).

Fox postulates that this evaporative spraying is probably creating ozone, hazardous air pollutants, and acid rain. The reports and documentation of contamination and pollution due to natural gas development that Fox presents throughout the film are unrelenting and consistent, building a strong rational and emotional argument for his concerns about the hazards of this technology.

Natural gas industry denials and indifference. While one significant theme of the film is the recording of complaints and concerns of people affected by actions of the gas industry, another is the portrayal of the reaction of the gas industry to such concerns as being either in a state of denial or indifference. With denial, the industry either refuses to accept that the problems reported exist or its representatives deny that gas development is in any way responsible for those problems. This is a consistent reaction characteristic of the industry throughout the film and is seen early in the film when industry representatives are testifying before Congress; even in the face of a large body of evidence, the industry simply refutes the claims as being unfounded. An industry representative testifying before the hearing, for example, states, "Press reports and websites alleg[e] that six states have documented over 1,000 incidents of groundwater contamination resulting from the practice of hydraulic fracturing. Such reports are not accurate" (0:01:06). Recognizing the existence of reports of over 1,000 cases of contamination, the industry representatives not only deny that any of them are correct, but they go on to state, "the subject of hydraulic fracturing is adequately regulated by the states and it needs no further study" (0:01:48). We hear from Ron Carter, a farmer interviewed by Fox, an example of the

indifference of the industry when he reports the gas company asked him if he "could prove it [the contamination] was because of them" (0:11:11, my emphasis). Here the company is challenging the landowner to prove that its development activities caused the contamination; Ron replies in his interview with Fox, "We've lived here 40 years and never had a problem with the water and they drilled . . . after they drilled the water was bad" (0:11:11). A gas company, Noble Energy, contracted with a laboratory to test the water on Mike Markham's land and told him "there's nothing wrong with the water that could be affected by the oil and gas production in your area" (0:19:57). Mike and his partner Marsha, along with Fox, are skeptical as the film shows scenes of them setting Mike's tap water on fire. In visiting Louis Meeks, Fox says, "numerous water tests turned up various forms of hydrocarbons and glycol ethers. EnCana, the company doing the fracking, claimed no responsibility" (0:35:02). Louis goes on to speak about the gas company's representatives, "I've never seen such lying . . . their word ain't no good" (0:36:56) and further from a neighbor of Louis, "the whole concept of democracy and looking out for the little guy does not apply here" (0:36:56). Kathy Fenton speaks of the indifference of the gas companies from her experience with them: "It doesn't seem to matter that we are affected . . . that humans are being affected" (0:41:10). The industry cites studies—that are implied by Fox to be questionable—by agencies and groups over "the last 11 years" that have "found no credible threat to underground drinking water from hydraulic fracturing" (1:33:34), even though some of those studies have subsequently been refuted. Several cases of contamination are shown in the film where the company apparently admits it does exist, denies responsibility for it, but then takes actions to mediate the problem anyway. While visiting the Ellsworth family, Fox notes, "They [the gas company] said it wasn't their fault and yet at the same time they're providing you with water" (0:25:38). With the Lockers, the gas company paid for a filtration system while also

denying responsibility and Louis questions why the natural gas company, EnCana, is replacing his water, "If nothing's wrong, why are they bringing it?" (0:36:01). A favorite position for the homeowners and Fox to take is to challenge members of industry or regulatory agencies to drink the water that they say is safe. In one case, Pat Farnelli tells the camera, "When Cabot [a natural gas producer] and them came in to get the water and told me it was okay to drink, I said 'okay then, go ahead and drink it.' And they wouldn't drink it" (0:10:14).

All of these events lead to some summations of what the business strategy for the gas industry seems to be in these cases and in natural gas development in general. The film claims that this strategy prevails no matter which individual company is involved; it is truly presented as a collective strategy of the industry persona. In a summary that echoes the rhetorical vision of the film, Lisa Bracken says:

The corporate business model is to come into an area, develop it as fast as you can, and if you trash anything, you make the people who you impact prove it. You make them argue it in a court of law and the last person standing gets bought off and you move on. (1:04:37).

We hear from Wilson with EPA that the entire history of this industry is to buy power and silence. The industry buys land and leases, signs and enforces secrecy and nondisclosure agreements, while financially supporting politicians. Wilson claims, "One could characterize this entire industry as having 100 years of history of purchasing those they contaminate" (0:30:55). Fox records several instances of damaged people having to agree to silence in order to receive remedial payment. The Lockers are a family that needed to sign a nondisclosure agreement and the journalist, Tara, found herself speaking for those who could not, "people who are in lawsuits or who had settlements that stipulated once they received their money they could no longer go

public with their story" (0:55:10). Possibly as an outgrowth of this strategy of denial and silence, Fox was not able to obtain any interviews on camera with representatives of the gas industry. In a couple segments of the film he appears to try diligently to get someone from the industry to speak with him. This is done through montages of Fox making phone calls and waiting impatiently for return calls, while the audio consists of voices on the phone stalling or diverting his calls. In each of the sequences, Fox ends up seeming frustrated and discouraged. The business model seems to be consistent; the industry is indifferent to suffering and refuses to engage except on their terms. At the end of the film, the audience finally hears from the industry as its representatives testify before Congress. The audience has by now seen an hour-and-a-half of testimony from average citizens, similar to themselves, who are suffering greatly, and they have heard detailed testimony from experts as to the dangers and risks of gas development. When the industry representatives blatantly deny reports of "over 1,000 incidences of groundwater contamination" (1:32:19), the audience could easily be moved to see these individuals as liars refusing to address the evidence in a realistic and open manner. The industry panel goes on to equivocate and deny the need for more regulation of their activities. This is a response that runs counter to the messages the film's audience has experienced, seemingly first hand, as they have traveled with Fox through the bleak wastelands of natural gas development. The dramatic persona of the "natural gas industry" appears to more than adequately live up to its assigned role of villain in Fox's cinematic vision.

Conspiracy. Gasland contains several vague references to the concept of a conspiracy involving the industry colluding with people at various levels in the government that has resulted in the industry's activities being excluded over the years from numerous state and federal regulations. These exclusions, as well as the lack of any monitoring or enforcement from

regulatory agencies, have allowed the industry to get away with wholesale pollution of air and water. Without giving many specific answers, Fox leaves his audience wondering how this could happen here in America and who is responsible? The film does point his audiences in a few directions and suggests some linkages; particularly focusing on Dick Cheney, former vicepresident under George W. Bush, as a high-placed political ally of the industry and especially on his role in the passage of the 2005 Energy Act. This bill, Fox and others in the film claim, exempted the oil and natural gas industries from the Safe Drinking Water Act; an exemption that means the industry does not have to disclose the chemical composition of any of the chemicals in the fracking process, plus also excluding them from other constraints of the act. In exploring this exemption, Fox tells his audience that the energy bill was "pushed through Congress by Dick Cheney," and adds that the industry is "also exempt from the Clean Air Act, Clean Water Act, the Superfund law, and about a dozen other environmental and democratic regulations" (0:04:54). The 2005 Energy Act cleared the way for natural gas companies to use the relatively new hydraulic fracturing technology that had been developed by the Texas-based, multinational oil and gas service company, Halliburton, to begin the "largest and most extensive domestic gas drilling campaign in history" (0:04:54). Prior to being vice president of the United States, Cheney spent several years as the chief executive officer of Halliburton. Immediately upon becoming vice president, he formed what became known as the energy task force to develop new energy policies. Fox notes, "They met up to 40 times with industry leaders; they met only once with members from environmental groups" (0:30:17).

The film gives a sense of the amount of political clout held by the industry and although it stresses actions during the years of the Republican Bush administration, the industry's exemptions and lack of attention from all of the other regulatory legislation and policies over a

couple of decades would indicate there may be some long-term, bi-partisan bias toward protecting the industry from government regulation. At any rate, Fox credits the energy task force and a \$100 million lobbying effort by industry with passing "what's called the Halliburton loophole to the Safe Drinking Water Act. Under this exclusion, oil and gas drillers are authorized exclusively to inject known hazardous materials unchecked directly into or adjacent to underground drinking water supplies" (0:30:17). Fox returns to the linkage between Cheney, the Bush administration, and the industry in visual form at places in the film where montages juxtapose images of Cheney and Bush with drill rigs, condensate tanks, and aerial views of vast areas covered with drill pads and roads. Fox also attributes Cheney's pressuring of the U.S. Bureau of Land Management with enabling the leasing of millions of acres to gas companies for exploration and drilling in "what some call the greatest transfer of public lands to private hands in history" (0:47:21). The film implies that having the President and Vice-President on their side is not the limit of the control that the industry holds; there may even be more powerful—and mysterious—forces arrayed in their favor. We hear of an incident in 2004 where the EPA was investigating a case of groundwater contamination in Alabama caused by hydraulic fracturing, but a mysterious "panel rejected the inquiry stating that although hazardous materials were being injected underground, EPA did not need to investigate" (0:29:48). In an apparent "stacking" of the peer panel that came to this conclusion by someone, "five of seven members appeared to have conflicts of interest and would benefit from the EPA's decision not to conduct the further investigation" (0:29:51).

In another incident, Fox had secured an interview with the Director of the Pennsylvania Department of Environmental Protection (DEP) for the film and while the director's interview was not particularly helpful or informative, Fox's narration after the segment is more telling when he notes that just a few short months after his interview, the DEP "suffered the worst budget cuts in history, amounting to over 350 full-time positions being eliminated and 25% of their total budget cut" (1:27:11). This was done in the middle of "what could be the largest natural gas drilling campaign in Pennsylvania history" (1:27:15). The audience might be left wondering how this could happen, who would authorize such a thing, and was it in retribution for the interview granted to Fox? All of the reporting of these instances builds a sense of paranoia and conspiracy that the gas industry's influence stretches to the very top of our supposed democratic leadership—no matter which party is in office—and quite possibly has influence in every state in the Union. Such a broad sense of conspiracy is echoed in the vast expanse of the problem itself as portrayed by Fox. From the testimonies of homeowners, experts, and Fox himself, the film repeatedly encourages a feeling that this is a vast and overwhelming problem. Fox notes that everywhere he visits, "everyone had the same look of worry" (0:51:55) and he says that there "was nowhere to go . . . I hadn't been on a single road between Arkansas and Santa Fe that didn't have a gas well on it" (1:09:07). He and many of his interviewees share the feeling that "the sheer scope of this massive drilling campaign boggled the mind" (1:10:41). An overwhelming problem that is "everywhere" and that has unknown and unlimited amounts of power behind it becomes a fearful vision of the gas industry and its political allies that is forcefully built through the course of the film.

Illness. Among the homeowners and landowners—the residents of Gasland—Fox visits with on his travels, the most significant theme is illness; the variety of health problems and health threats chronicled by Fox's film appear to be staggering. Each family or individual that he visits has some sort of a health concern, often of a serious, life-threatening nature. The occurrences are, truly, too numerous to mention here in any depth of detail. The audience is

exposed to sickness as a prevalent characteristic of living in a natural gas development area—it seems to be a way of life in Gasland. The various illnesses are attributed to contaminated drinking water or poisonous chemicals in the air resulting usually from "normal" gas drilling. hydraulic fracturing, and production operations, but occasionally from extraordinary events such as a gas well explosion or a water well blow-out. Renee McClure, for example, talks of sickness as being common for her now, "it just seems like in the last year-and-a-half I'm never healthy" (0:27:21). The occurrences of sickness are so common that we see one homeowner, Pat Farnelli, has been keeping a handwritten chart recording the illnesses of her neighbors and friends that have been, apparently, brought on by gas development. When Fox visits Western Colorado to see firsthand the effects of several years of gas production, he says, "so when I got calls from people in Garfield County they were calls from people who have severe health problems" (0:54:23); it is inferred that this is a blighted region, that most people here are seriously ill. The Texas journalist, Tara, speaks of friends and neighbors who are "violently ill all night," whose health is ruined. She speaks of Susan, who now wears a respirator and of another "woman who had the brain tumors" and is now "an invalid . . . a walking nightmare of a mess, physically" (0:53:46). In one particularly effective sequence, Fox intercuts footage of the expert Theo Colson talking about symptoms caused by the contamination that she has seen with clips of people talking about their specifically experienced illnesses. Their comments directly follow and confirm Theo's expectations for them. They speak of being dizzy, having "massive" headaches, losing their sense of smell and taste, and of having "excruciating" pains all over their body (0:55:10; 0:59:33). Just before the audience hears from a woman about the lesions on her brain, Theo says that eventually the victims end up with "what is called peripheral neuropathy and when you get to this stage you have irreversible brain damage" (0:59:13). Jeff Locker tells Fox

that they were drinking their contaminated well water for a while, "but about four-and-a-half years ago Rhonda got really sick with extreme neuropathy and is in a lot of pain . . . she just faded fast" (0:34:06). Theo states that "every environmental law" that has been written to protect public health has been ignored by the natural gas developers and speaks of how "insidious" the neurological effects are proving to be (0:58:50). Tara seems to be writing a final epitaph for all of the residents of Gasland when she says, "They know that their time is over" (0:54:10).

Within the broader theme of sickness in general is an even more devastating message from Fox, a plotline of the threat of natural gas-caused poisoning to children. While Fox shows only a few actually sick children, he often speaks of and portrays them as being in danger, being threatened. On many of his visits to the homes in Gasland blighted with contamination and illness there are children outside playing or working on the ranches and farms. In one case it seems as though even innocent infants are in danger when Pat notes, "The Mayes, they have bad water and there's a newborn in the house" (0:10:14). When Dee Hoffmeister speaks of all the cases of illness from a gas well explosion, she mentions children were in the house and "all four of them got asthma . . . and two of my daughter's children got asthma" (0:57:17). Renee tells the audience that her "whole family gets headaches," even the kids, but her headaches "get so bad where I just have to go lay down" (0:27:20). There is constant fear for their health and for their children, as Dee says, "We had beautiful playgrounds, but it got to the point you never leave your kids out to play" (0:57:18). In his visit to Fort Worth, Texas, Fox pays particular attention to the occurrence of an infrared mapping showing toxic fumes spilling from condensate tanks immediately adjacent to a school. Air pollution is reported in the populated area of Fort Worth by an "expert" to be at "amazing and very high levels of . . . human carcinogens and neurotoxins" (1:15:35). The film depicts immediate and extremely dangerous risks to health in

major urban centers, with particular risks and exposure for children. But not only are humans—adults and children—suffering from devastating illnesses in Gasland, so are animals. Debbie Maye shows Fox her sick cats with their hair falling out and relates that "one of her cats was projectile vomiting" (0:13:06). Debbie also had a sick horse that was losing her hair and losing weight; all of this began after the gas drilling started. Wildlife is also susceptible as is shown in the case of the gas seep on Divide Creek, Colorado, which killed numerous fish, some birds, and a rabbit. Lisa, the resident who froze the animals, tells Fox that freezing them and saving them for an autopsy someday is "so foreign and creepy and alien . . . it's creepy and weird . . . unnatural" (1:07:33) and remarks emotionally about the dead rabbit, "Look at this little guy, he didn't even have a chance" (1:06:43). Spoken within this exhaustive litany of human and animal sickness and death, the audience might justifiably wonder if any of us have a chance.

Fear and horror. Given the inundation of troubles and trials the citizens living with gas development experience, it would seem reasonable that fear is a common narrative theme among them. It is heard frequently, as when Amee Ellsworth says of her burning tap water, "I'm terrified, there are no other words for it, I'm absolutely terrified" (0:25:04). Just a bit later she tells a television news reporter, "Shock is one word for it, terror is probably more effective" (0:26:48). Fox speaks of something having "gone *terribly* wrong in Dimock" (0:14:19; emphasis mine) and references the mystery or thriller genre of fiction films when he speaks with a tone of suspense of "hearing reports of a family," a secretive family that could light their tap water on fire, but who "wasn't speaking to the press." He then receives a phone call from an anonymous source that asks him to come by and take some "mysterious fluid" and find out what is in it.

They tell him that he is "taking a big risk yourself, going around and doing what you're doing" (0:15:17). Fox goes further in his imitation of or references to the fictional film horror or thriller

genres as he uses specific and recognizable elements of these film archetypes to heighten the experience of fear and dread by the audience. He does this primarily at two spots in the film, although there are echoes of this genre in many of the other scenes in the film, especially those involving the interviewees. At about 15 minutes into the film, Fox receives an anonymous phone call while sitting in his car from a source that claims to have samples of contaminated water. This source does not give her name and does not want to be on camera; Fox proceeds to the house to get the samples, where he shows only the feet of the family. While moving back and forth in this segment, however, Fox's hand-held camera is angled askew as he goes from his car across a road into the home. We see exteriors and interiors at odd angles; as he narrates, the video reveals a bleak and dark wooded landscape. Especially threatening in appearance is a shot of birds silhouetted in a leafless tree at dusk. These images imitate and conjure up in the viewer's mind iconic horror films such as Alfred Hitchcock's The Birds (1963) and The Blair Witch *Project* (1999). A similar treatment is found when Fox is collecting dead specimens from Lisa's freezer to take back for analysis. Here he uses the same hand-held skewed viewpoint shot in the dark and harshly lit by headlights and flashlights. This is imitative of the horror genre and also fits well with Fox's "act" of being an amateur filmmaker.

Politicians as advocates. As discussed in the section on characters, the politicians, or policymakers, who appear directly in the film, perform actions that place them among those fighting against the contaminating and polluting acts of the gas companies. The politicians, with one exception at the Congressional hearings, all seem to be striving to correct the excesses of the gas companies and to speak for the average American. The representatives Diana DeGette (Colorado) and Maurice Hinchey (New York) introduce a bill to Congress that would correct the "Halliburton loophole" and eliminate the exclusion of the oil and gas industry from the Safe

Drinking Water Act. They call for Congressional hearings to gather testimony from natural gas industry executives as to why this exclusion should not be eliminated and they persistently question the members of industry at the hearing to get answers to their questions. In one sequence toward the end of the film, the industry representatives are saying that they have voluntarily disclosed the chemicals and that they pose no threat to the environment, so there is no need to further regulate the hydraulic fracturing process. DeGette responds that if that is true and the chemicals are truly harmless, then "why would [the industry] object to the disclosure of the chemicals used in the fracking process under the Safe Drinking Water Act?" (1:33:43). The industry does not answer this question to the two representatives' satisfaction, but they finally do admit that they oppose the DeGette-Hinchey bill. James Gennaro, a New York city councilman also holds a public hearing in New York to explore the risks to the city's drinking water supply posed by proposed natural gas drilling and fracking in the New York watershed. He calls this "the number one environmental crisis we face in the city" and as he announces in a longer statement about the actions of the gas industry, "I'm trying to keep myself composed, but speaking as a geologist, as an environmental scientist, as a policymaker, this is insanity" (1:29:56). He finds the notion that "adults could sit around the table" and determine how to develop natural gas within an unfiltered source of drinking water for nine million people "beyond ludicrous" (1:29:36). We also see the mayor of Dish, Texas, sincerely concerned for the people of his city and the significant threats to their health from the gas industry. Unfortunately, despite all of these well-meaning efforts, little results from it in the film. DeGette and Hinchey are having a hard fight just to get a simple, common-sense bill passed that places minor, reasonable constraints on the industry (this bill remains not passed as of this writing). The mayor of Dish is a couple of decades late in trying to get any relief for his constituents and is not even

suggesting a plan of action and the New York councilperson cannot get the state's environmental regulatory agency to attend his hearing or the press to come to his press conference. The audience would certainly be excused if they came away from the film feeling little hope from our elected officials.

Regulatory agencies as ineffective and regulations as ineffectual. The audience isn't likely to feel any additional comfort from the actions of the regulatory agencies charged with protecting the environment and human health or policing the gas industry. The regulators do not play a conspicuous role in the film and only a handful of representatives of federal or state agencies are interviewed or heard from directly as Fox travels the country. There are, however, several references to these agencies from the citizens and experts interviewed by Fox. In general, there is much disappointment and some anger expressed about the responses of these agencies to the risks and hazards of gas development; they are uniformly spoken of as indifferent, incompetent, or in the pockets of the gas industry. Marsha Mendenhall expresses her disappointment when after she gives testimony at a hearing of the Colorado state environmental agency about the difficulties her family has suffered, the Director of the Colorado Oil and Gas Conservation Commission (COGCC) merely said, "next question" (0:20:58). Fox asks another resident what she felt like when the Pennsylvania DEP refused to help her, she replies, "Like I was talking to a tree" (1:23:44). Fox later questions the Secretary of the DEP if it is really adequate just to replace water that is contaminated by gas development with cisterns; he wonders how far that logic can carry you, "Can you replace a stream?" (1:26:18), to which he gets no adequate response. While visibly coughing from her illness, Renee McClure expresses her severe disappointment from her experiences with the COGCC:

What blows my mind is that the Oil and Gas Conservation Commission, I thought they were there to work for the people. They're not there to work for the people. They are there to work and help the oil and gas companies and I asked them who is there for the people? And he told me nobody; call an attorney. That's what they told me. (0:27:58).

The few times when we meet the representatives of the regulatory agencies, we are not much encouraged at their ability or desire to manage these problems. We have a scene where Dave Neslin, Director of the COGCC, turns down an interview with Fox after finding out the topic of the documentary he is filming. No excuse is provided other than saying, "I'd be happy to talk to you off the record with some background information if that's helpful. I just can't do it now" (0:21:25). In a much longer interview with Mr. Hanger, Secretary of the Pennsylvania DEP, the director seems earnest enough, but he equivocates on his answers, does not respond directly, and appears to be making excuses for not better assisting the people in Dimock. He offers only that "there is no such thing as a perfect source of energy" and "I have to make trade-offs" (1:24:10; 1:25:16). This would seem to be of little comfort to those plagued by illness from gas development and we, the audience, who have just seen case after case of sick and distraught people and devastating contamination, find ourselves asking exactly what tradeoffs are worth this destruction of life, health, and land. The situation is not helped any when Wilson, the EPA whistleblower, reveals that because of pressure from higher levels of power, the EPA is not functioning effectively, it is "effectively neutered" and even several years after the Bush administration it is "still not acting" (0:31:16); which could be the general indictment of the regulatory bodies as portrayed in Gasland.

Experts finding the truth. While the regulatory agencies are depicted as largely ineffectual in the film, Fox, our protagonist, finds technical support from and relies greatly on

independent experts for data, conclusions, and insights into the problems caused by natural gas development. The experts that Fox interviews help the audience understand the elements of these problems and provide details and explanations that informs and moves the story on to its conclusion. They perform an important expository role for the audience, while giving the concerns of Fox and the evidence offered by his interviewees' credibility. Without these experts, the film would be left with only anecdotal evidence from witnesses who have, along with Fox, very little technical knowledge of this complex issue. These experts are presented uniformly within the film as unbiased, objective researchers and observers with excellent credentials. Fox lets it be known with full confidence that the audience can trust these experts and, it turns out, what they testify to supports the victims and rebukes the industry. Fox and the experts themselves effectively make the case that these experts are doing the job that the regulatory agencies should be doing and this is even further evidence of the incompetence or complicity of the regulators. One expert, Theo Colson, says that she is accumulating and analyzing "data that the government should be collecting, but isn't collecting" (0:58:22) and Fox praises her efforts saying, "The only reason we know anything about the fracking chemicals is because of the work of Theo Colburn" (0:58:30). In the same vein, the expert Al Amendariz, defends his need to determine the truth about emissions in the Fort Worth area:

The state had just admitted publicly that they didn't know what the emissions were, that their numbers were grossly under estimated. So we did our own. We now know that the emissions from this sector are greater than the accumulated emissions of all passenger vehicles . . . all the cars and trucks in Dallas and Fort Worth (1:11:27).

Wilma Surba gives us similar testimony from the Gulf Coast where she has been studying the toxic wastes being dumped in the Gulf that have washed ashore in recent hurricanes. She has

found the entire area to be "contaminated with a lot of heavy metals . . . barium . . . arsenic, cadmium, chromium, lead" (1:18:08). Spaced throughout the film according to the regions Fox visits, each of these experts are portrayed as selfless scientists who are shocked by the facts they are discovering; it seems that all of the accusations the film is making are fully substantiated by these select members of the scientific community. The horrors of Gasland the region and *Gasland* the film are given the privileged imprimatur of science as well as the personal and emotional testimonies of those affected.

Conclusion

Fox's film constructs a strong and consistent rhetorical vision that is rich with imaginative settings, characters, and plots that, while having layers to them, can be simplified to effectively convey Fox's narrative of the dangers and destruction of natural gas development. This dramatistic element of the fantasy theme is arrayed in the film in various incarnations that support one another and successfully coalesce to tell a story and impart the story's moral, while still seeming to remain true to what they are. It can certainly be argued that these are overly simplified generalizations, even stereotypes, which do not have "real" counterparts in life as it is generally lived. Is it to be considered an accurate presentation of the various participants in the natural gas industry, for example, to present each individual as having the same motivation of greed and taking the same callous attitudes to the environment and to sick and dying people? Of course not. Even within the film itself, if we look very closely we might find a few clues that indicate some companies were far worse offenders than others, and that some may have ethical or civic concerns about their actions. This same argument could be made for each of the themes that Fox has created for the film's purposes and his own. Of course, from the constructivist perspective taken by this study, as well as the symbolic convergence theory, these characters and themes, such as the collective persona of the natural gas companies, are discursive constructions and can be understood from many different perspectives, including those of their own members, to have vastly different characteristics and purposes. From this viewpoint then, and certainly from the dramatistic theoretical perspective, Fox must be credited in constructing dramatic elements that are for the most part internally consistent and that blend well to convey motivations and actions within the context of the cinematic structure. I would argue that this cohesive intertwining of settings, characters, and plotlines weave together to construct its primary rhetorical vision, while also working to make the film a critical success and a rhetorically effective piece. The fantasy themes that Fox has constructed are even more powerful when compiled as a rhetorical vision because they also rely on and continue powerful narrative themes found throughout decades of the environmental movement and cultural narrative themes found over generations, particularly the apocalyptic narrative, the American Jeremiad, and nature as Eden. I will explore the rhetorical vision and themes as developed in the film and as expanded and extended by the film's intertextual materials in more detail in Chapter 6 of this study, but first I will look at the visions and themes constructed within these intertextual materials in the next chapter.

Chapter 5 — Denial and Outrage: Responses to Gasland

In my extension of the text-intertext analytical method of Ceccarelli (2001), I have constructed an overarching critical text consisting of the documentary Gasland and the materials that have been created in response to the film in order to determine the degree to which the fantasies and visions created within the film are shared among the various audiences of the film. The sharing of the fantasies and visions of a work is at the core of the symbolic convergence theory and the fantasy theme analysis methodology. The critic seeks evidence that these constructions are shared by searching for "similar dramatizing material" to be found in different messages and different contexts (Bormann et al., 1984, p. 289). Through this sharing, individuals and collectives "can make sense out of the experiences that prior to them may have been confusing" (Endres, 1989, 135) because the rhetorical vision is able to "forge a symbolic consciousness that is constitutive of reality" (Bormann et al., 2001, p. 271). I also seek to discover the rhetorical effectiveness of Fox's vision at persuading an audience to change its attitude or behavior. The rhetorical value of the vision of Gasland is in bringing "new converts to the consciousness" and in keeping the believers "committed to the vision" (Bormann et al., 1994, p. 276). Analysis of the intertextual materials enables the exploration of ways in which the audience extends or expands the vision of the film. As Foss and Littlejohn (1984) say, "fantasytheme analysis of single pieces of discourse such as films . . . by themselves cannot reveal the rhetorical vision in its fullness" (p. 29). My reading of responsive artifacts will seek to discover not only the effect of the strategies and visions employed in the film, but also the construction of intertwining or larger visions that occurs within the interactions of the film's audience groups between themselves and with the film. The questions I ask include: Do these intertextual materials reflect or continue the themes of the film, do they construct some of their own unique

themes around this issue or around the film, and do these collective respondents create their own rhetorical visions or do they "buy into" or expand those of *Gasland*?

In my construction of the critical text I have chosen to analyze intertextual discourses produced by the natural gas industry following distribution of Gasland and comments generated by viewers of the film. The members of the natural gas industry are central figures of the issue network in which the film is engaged and the viewers of the film is the audience that the film's producer is seeking to inform or educate, and ultimately move to action. The intertextual material, as much as the film, however, must be analyzed with a firm understanding of its historical context and its place within the issue network. As discussed previously, the documentary film, Gasland, was produced within a period of rapid expansion of exploration for and development of natural gas reserves as a domestic energy source for the United States. This expansion was due primarily to advancements made in drilling and extraction technologies and practices that allowed the production of natural gas from "tight" shale formations that were previously uneconomical to develop, particularly the technologies of horizontal drilling and hydraulic fracturing. Increases in the price of natural gas also contributed to this recent growth in the industry, which began in the Barnett shale in Texas in the late 1990s. As the economic and technical effectiveness of the drilling and production processes continued to improve, development has moved from Texas into other areas of the United States; regions that are not traditional oil and gas production areas. The concepts of mineral rights, land leases, exploration and development drilling, and on-site production facilities were totally new to many thousands of homeowners and landowners in these regions. The sheer size of the development and the relative rapidity of the advance of the industry into these areas began to cause concern among citizens and environmental advocacy groups and the issue of environmental and health risks of this

development became increasingly important to these groups. The natural gas industry has sought to resist or ameliorate such concerns not only legislatively and legally, but also in public education and awareness campaigns. The public communicative actions of the industry are conducted to some extent by individual companies, but are more commonly performed by industry associations, often regional or state-based, that are formed by oil and gas production companies active in those areas. These associations, in turn, form industry advocacy organizations that manage websites and produce and disseminate information through online, print, and video media that present arguments to general audiences as to the value and relative harmlessness of natural gas development. The individual companies, associations, and advocacy groups tend to consolidate their information and messages; frequently referencing each others' websites and materials and connecting to them through hyperlinks. The primary rhetorical thrust of the natural gas industry is that natural gas is a cleaner burning fuel than other fossil fuels, generating fewer greenhouse gases. Natural gas is plentiful and relatively inexpensive and is a domestic fuel source that lessens our dependence on foreign sources of petroleum and natural gas. In seeking to better understand the rhetorical components of Gasland, the interactions of the players in the issue network of which it is a part, particularly those of Gasland's producers and the industry representatives, can also be explored and their motives evaluated. Much of this interaction is reflective of a deeper struggle for ownership over the issue and the gaining of a position of legitimacy in regard to speaking to the issue; having the authority for carrying the "truth" to public.

It is into this climate that Josh Fox began the production of his film in an apparent response to a request he received to lease his parent's land in rural Pennsylvania for gas development. His intent, as he has explained in published interviews, was to educate himself

about the industry and its technology and to produce a film to educate his neighbors and others in the affected areas. It seems apparent that many similar efforts have been and are made annually by environmental advocates, but very few of these are acknowledged by the gas industry. A brief review of various industry-oriented websites turns up informational and educational outreach materials with only a very few directed specifically toward political or environmental opponents. The film's favorable reception at Sundance in January 2010, but apparently even more its nationwide showing on the HBO Network in late June 2010 caused an unusually strong response from the natural gas industry and its advocates. The industry's direct answer to the challenges of the film was the production in mid- to late-2010 of a few select artifacts accessible online that were then referenced widely by industry associations and advocacy groups. Studying these responses as part of the intertextual material of *Gasland* helps to better understand the rhetorical strategies of the film and to better determine those strategies that appear to be most effective based upon the reaction they incited.

The other perspective of intertextual materials comes from the general viewers of the film, the primary audience to which Fox is targeting his film. The reactions, responses, and changes in attitude or behavior of this audience are of significance in seeking to understand the effectiveness of the rhetorical strategies of an artifact. From viewer reactions, the critical analyst may be able to evaluate the strategies or rhetorical visions and themes that most resonant with the audience and those with which audience members most identify. While obtaining such information for a film can be accomplished by surveys of audiences following a screening of the film, the expense and infrastructure requirements for this method are frequently a constraint, and this form of data collection was not available for this study. In today's digital age, however, responses from audience viewings are publically available from various Internet sources and are

inexpensively and easily accessed. This informative data is comprised of unstructured, selfselected samples that are anecdotal rather than carrying with them social scientific rigor, but they fit well within the scope of this study as they represent an important source of intertextual material in quantities not easily available in discursive form until the advent of websites focused on distributing film and video materials. I begin this section with an analysis of key discursive artifacts generated by the natural gas industry in apparent response to the increasingly broad distribution and critical acclaim for the film in the time period when the film was gaining notoriety through showings in film festivals and on a national cable channel. I continue the chapter with an analysis of comments and responses from general viewers of the film as available on video and film distribution websites. This analysis illustrates the competing visions constructed by these intertextual materials and allows comparisons with the rhetorical vision as constructed in the film, as discussed in Chapter 4. The industry develops a truly competing vision that runs counter to that of Fox, while the viewers accept Fox's predominant visional elements, but modify and expand some, changing the vision's perspective and altering expected actions.

Natural Gas Industry Responses

Direct responses by the natural gas industry to the distribution and viewing of *Gasland* take the form of articles and blogs posted online by industry advocacy groups and associations that attack the veracity of the film's claims and the credibility of its creator. I have selected as most representative and significant of these responses postings on the websites of America's Natural Gas Alliance, the Barnett Shale Energy Education Council, Energy in Depth, and Natural Gas Now!—all posted in 2010. On its website, America's Natural Gas Alliance (ANGA) states that it "Represent[s] 30 of North America's largest independent natural gas exploration and

production companies and the leading developers of the shale plays now transforming the clean energy landscape" and explains that its mission is "to promote the economic, environmental and national security benefits of greater use of clean, abundant, domestic natural gas" (ANGA website, 2011, http://www.anga.us/about-us). The Barnett Shale Energy Education Council (BSEEC) was founded in 2007 by a "consortium of leading Barnett Shale production companies" and states that it is "a community resource that provides information to the public about gas drilling and production in the Barnett Shale region in North Texas" (BSEEC website, 2011, http://www.bseec.org/). Energy in Depth (EID) is an oil and gas industry advocate group/website that is sponsored by several other industry associations, such as the Independent Petroleum Association of America, the Pennsylvania Independent Oil & Gas Association, and the Ohio Oil and Gas Association. EID defines itself as:

A research, education and public outreach campaign focused on getting the facts out about the promise and potential of responsibly developing America's onshore energy resource base—especially abundant sources of oil and natural gas from shale and other "tight" reservoirs across the country. (EID website, 2011,

http://www.energyindepth.org/whats-eid/)

The website Natural Gas Now! (NGN) does not disclose its sponsorship or authorship, but it does state that it is "dedicated to promoting the natural gas industry in the upper portions of the Delaware River Basin," indicating its existence as a natural gas industry advocate (NGN website, 2011, http://www.naturalgasnow.org/). The postings on these sites that respond to *Gasland* follow two specific discursive strategies, the first being to promote the value of natural gas as a clean source of domestic energy for the country and the second being to attack several of the specific iconic images and claims of the film in order, apparently, to discredit Fox and the film in

general. These specific approaches work together, however, to construct themes and visions around this issue of natural gas development that are substantively different than those of Fox's film. In particular, these sites seek to characterize the industry as an objective and legitimate source of information on natural gas development by presenting themselves as a "community" and "information" resource, which are primarily "educational" in nature. The sites also indicate their role as speaking to the "benefits" of natural gas development, explicitly representing the actions of the industry as beneficial, rather than harmful. Although, as shall be seen below, the industry's specific responses to *Gasland* use its visional elements, they twist them to their own ends and they do so under the collective persona that these sites portray, that of the industry as a trustworthy source of information that is working in the best interests of the nation and its individual citizens and fully cooperating with or exceeding beneficial regulatory requirements.

America's Natural Gas Alliance. A positive view of the value of the natural gas industry is effectively summed up in an ANGA article:

Natural gas is a clean, abundant and domestic energy source that holds vast potential to promote cleaner air, grow local economies and enhance energy security in the United States and, increasingly, around the world. (ANGA, 2010, p. 1)

Further, the posting states that the "natural gas community is committed to the safe and responsible development of this energy source" and welcomes the introduction of Fox's documentary as an opportunity to "set the record straight in a fact-based way" (ANGA, 2010, p. 1). There is a consistent rhetorical strategy in these responses that characterizes the industry as telling the truth and as "fact-based," while arguing the film is incorrect, inaccurate, or just lying. As the article explains, there are "several examples where the film veers from the facts" and natural gas is frequently "falsely accused" in the cases cited in the film (ANGA, 2010, p. 1). The

ANGA article quotes John Hanger, the secretary of the Pennsylvania Department of Environmental Protection, who was interviewed by Fox in *Gasland*, as saying the "film is 'fundamentally dishonest' and 'a deliberately false presentation for dramatic effect'" (ANGA, 2010, p. 1). The ANGA article repeats the tone of the general industry responses with three statements:

- "Natural gas production is subject to federal, state, and local regulations that cover everything from initial permits to well construction to water disposal";
- "The natural gas community is committed to the safe and responsible development of this abundant resource"; and
- "The process of hydraulic fracturing has been routinely and safely used in communities throughout the nation for decades" (ANGA, 2010, p. 1).

This artifact gives an overall image of the industry's vision of natural gas development without going into a level of detail that reveals more specific dramatistic elements, such as characters and plotlines.

Barnett Shale Energy Education Council. The posting, "Debunking Gasland" on the BSEEC website states flatly that, "the movie 'Gasland' promotes ideas about natural gas drilling that have been found to be false, inaccurate and misleading" (BSEEC, 2010, p. 1). This piece refutes claims by the film that gas production is exempt from federal regulations and repeats the "fact" that the process is "subject to a host of federal, state and local regulations that cover everything from initial permits to well construction to water disposal" (BSEEC, 2010, p. 1). This artifact also repudiates the film's iconic image of flaming tap water as being caused by natural gas drilling, citing it as "naturally occurring," and states that the fish kill in Dunkard Creek, Pennsylvania, is the result of "coal mine runoff" (BSEEC, 2010, p. 1). Finally, the piece states

the chemical composition of fracturing fluid is not unknown at all, as Fox claims, but the "chemical additives have always been included on the material safety data sheets at drilling locations" and voluntarily posted at fracfocus.org (BSEEC, 2010, p. 1). The ANGA article is unique among these industry responses, however, in that it does at least admit that "incidents" can occur, although only in "rare cases" and then the companies work with regulators to "promptly identify and correct the issue, and implement measures to ensure it does not recur" (ANGA, 2010, p. 1). This type of admission is rarely found in other industry responses or websites; the predominant message of industry being that reports of contamination or pollution in natural gas drilling areas are false or incorrect, or if they do exist, they are not related to natural gas drilling and production.

Energy in Depth. What appears to be the most extensive response from the natural gas industry and its advocates came on June 9, 2010, when EID posted an article on its website titled "Gasland Debunked: Debunking Gasland." This article appeared a little more than a week before *Gasland* was to premiere on the HBO Network and it seems to be the first major response by industry advocates to the film. The piece set the tone and the particulars of subsequent responses to the film by other industry associations and industry-favorable media outlets, such as Fox News. Most of the other industry associations, such as the Marcellus Shale Coalition, the Independent Petroleum Association, the Pennsylvania Independent Oil & Gas Association, and the New York Independent Gas & Oil Association, make only brief generalized statements on their respective websites regarding the film and then refer the visitor to the "Gasland Debunked" article through a hyperlink. As such a reference point, the EID article can be viewed as establishing the primary vision for the industry to follow in its efforts to persuade the broader public audience to reject the rhetorical visions and messages of Fox's film. The two primary

thrusts of the article are that the film's creator, Fox, is a marginal character at best and a charlatan at worst, with no credibility or reputation in the technology and economics of natural gas development and that the film is inaccurate at its core—either through malicious intent or incompetence. But overarching these two arguments is the building of a more complex vision that dramatically opposes that of Gasland. The content of "Gasland Debunked" is divided within five headings that are titled so as to associate negative concepts with the film: "Misstating the Law," "Misrepresenting the Rules," "Mischaracterizing the Process," "Flat-Out Making Stuff Up," and "Recycling Discredited Points from the Past." Under each heading, the article repeats quotes from the film and then provides a series of bullet-points that refute, discredit, or correct the statement, although in several cases the article also diverges from directly addressing the quote to making critical comments on related or nonrelated issues. The essence of this approach is to give the appearance of analytical dissection of the film with point-by-point examples of errors and inaccuracies in Fox's message, leaving the reader with the cumulative effect of discrediting the entire film and its producer. Even while focusing on some elements of the film and omitting others, the article constructs a series of dramatic elements that run counter to that of the film. These thematic elements are established primarily within the context of redefining and recharacterizing those set by Fox in his film and we can explore these using the dramatistic categories of settings, characters, and action, as I did for the film in the previous chapter.

Settings. In themes related to dramatic settings, the article does not appear to subscribe to the existence of the fanciful territory of Gasland that the film has artfully constructed. The article does not seem to construct a sense of place at all, although it does speak of "energy-producing states" at one point (EID, 2010, p. 4). Possibly in its point-by-point rebuttals of the accusations in the film, the article is implicitly focusing its attention on only that narrative territory of the film

that is Gasland; it does not treat the unspoiled land of Eden—Fox's home—in any way. More likely, however, because the article makes the case that the industry is well-regulated and has not created any problems with contamination or pollution, it seems consistent not to find a difference between those areas of America where gas is being developed and those areas where it is not being developed. In the themes as constructed by the industry in this artifact, there appears to be only the one setting of "America."

Characters. The EID article carries through with some of the essential dramatis personae developed in Fox's film, while inverting Fox's characterizations of them, but it leaves others out. It spends the majority of its discursive territory revisualizing the perception of Fox, while treating other characters less often and less directly but in each instance seeking to marginalize or discredit them. Ultimately, the community that will join in Fox's vision is placing its trust in the characterizations portrayed in the film versus that portrayed in the industry materials. These are each, of course, constituted rhetorical characters and contrasting the industry's vision with that of the film, as Keränen (2010, p. x) says, "reveals the significant force of rhetoric in engendering trust or suspicion" in the contested characters residing in each dramatistic visualization. As constituted and contested characters, their respective visions seek to place them in positions to challenge and alter the characterizations that the other visions have created for them. The acceptance or rejection of these key dramatis personae are essential for the audience in subscribing to one reality or the other. The "facts" of the issue are too complex for most of the audience to grasp, and are hotly debated by scientists; there is not enough evidence presented in either vision for this type of evaluation to take place, and both sides of the issue have exaggerated or misrepresented information from third parties; as Keränen (2010) says, the audiences'

Understanding of the controversy will thus have less to do with the bare facts of science *per se* than with how the facts are animated, challenged, and sustained by rhetorical characterizations, and with how these characterizations, in turn, constrain epistemic policy, and evaluative judgments and outcomes. (p. 7)

In the same way, the audiences' acceptance of one or the other of the characterizations, and thus the attached vision, will have less to do with "bare facts" than with the narrative strength and relevance of the fantasy themes used by the rhetors. In the industry vision, the industry itself is presented as the protagonist and the arbiter of "truth," while Fox is a mistrustful manipulator.

Josh Fox. The EID article is apparently intended to give this epic hero-figure, as created by the narrative of Gasland, feet of clay by attacking his basic on-screen persona and his credibility regarding all aspects of the natural gas industry. In its treatment of the character of Fox, the article's constructed themes shift him to the role of antagonist and strongly imply that Fox brings little credibility to any of the issues treated in the film. He is initially referred to as an "avant-garde filmmaker" whose "previous work has been recognized by the 'Fringe Festival' of New York City" (EID, 2010, p. 1).³ This sentence attempts to destabilize the character for a mainstream American audience by implication that Fox is a "fringe" character, inhabiting the "avant-garde" of the East Coast. The article later makes a point of highlighting that New York is Fox's "adopted state," appearing to again place him as an outsider—not as one of "us," but an "adopted" other—but also as no longer a resident of Pennsylvania as the film portrays him (EID, 2010, p. 3). At another point, the article says that if such an "outrageous thing" existed as current law actually allowing energy producers to "inject hazardous chemicals 'directly into' underground drinking water," it would certainly not have "taken five years and a purveyor of the

 $^{^3}$ In referencing this article, page numbers refer to the PDF format file as downloaded from the Energy In Depth website and printed as an $81/2 \times 11$ page document, single-spaced.

avant-garde to bring it to light" (EID, 2010, p. 2). Elsewhere the article claims that Fox's statistics on "truck trips" related to a gas well are apparently derived from a "back-of-the-envelope calculation" (EID, 2010, p. 4). The article summarizes its view of Fox and his film by claiming, "accuracy is too often pushed aside for simplicity, evidence too often sacrificed for exaggeration" (EID, 2010, p. 1). In the industry's theme for the character of Fox, he is not portrayed as an "evil" villain, but more as a marginal "troublemaker;" an antagonist who is self-serving and manipulative to the detriment of the nation.

Natural gas industry. While the EID article does not directly create a portrayal of an "industry" character in its vision, the industry places itself in the role of narrative authority as the creator of the article. This rhetorical thrust casts this character within hero themes that attempt to fully rehabilitate its depiction as the "villain" of Fox's vision. Positioned as the author and with its website the host of "Gasland Debunked," EID places the natural gas industry in a favorable light with the implication that it is the arbiter of the "truth." By taking the care to proceed point-by-point through the film and addressing the issues quote-by-quote, it is implied that the industry is the cautious and responsible party in this argument. The message seems to be that the industry and its advocates are reasonable and are offering the truth to the American public about this film and about natural gas development; the industry is the trustworthy character, the source of information for the public, while its attackers, especially Fox, are devious, dishonest, and manipulative.

Residents. The character of citizens or residents are basically absent in the industry's themes as crafted in "Gasland Debunked." While the residents of Fox's imagined Gasland take up the majority of the film, they are largely invisible and appear only briefly and peripherally in the industry's primary rebuttal to the film. They are only mentioned in connection with specific

cases within the context of those cases being refuted by the "facts" as presented in the piece. There is no mention of individual injuries, illnesses, or sufferings other than when refuting a few select instances as in when the text seeks to marginalize the instance of Mike Markham's tap water burning by labeling it as "not true" and that it was due to natural gas exploration, and when it states that Lisa Bracken's belief that West Divide Creek pollution was caused by natural gas development has also been "debunked" (EID, 2010, p. 6). In those few specific cases, alternative reasons are given for the occurrence of the problem, or it is denied. The overall concerns of the citizens or the large number of occurrences are not treated as pertinent to the issue by the article. The industry's vision appears to place the citizens claiming harm in the same category as other citizens of the country, although perhaps more mistaken in their attribution of their problems to gas development. In the overarching message on the EID website, the association assures the visitor that all will benefit from developing the clean energy of natural gas.

Regulators. The EID article also contests one of the supporting characters of the film, regulators and regulatory agencies. While again it does not address a redefinition of this character directly, it implicitly refers to the character only in a positive light, primarily as a source of accurate data on such things as fracturing fluid chemicals, and as an adequate and capable overseer of the industry. The article states for example, that the industry has "been regulated ably and aggressively by the states" and it cites websites "hosted by regulators" in Pennsylvania, New York, and Virginia as viable sources of information on fracking chemicals. Such a portrayal runs counter to Fox's depiction of regulators being completely ineffective in dealing with the critical issues of natural gas development, of not collecting vital data, and of being incompetent or "in bed" with industry. In the industry's vision, the readers can take comfort in knowing that the regulators are protecting their best interests.

Experts. With the expert character of Fox's themes, the EID article does not create its own version, but again it chooses to marginalize and discredit this character. The article singles out one of Galsand's key supportive experts, Weston Wilson of the Environmental Protection Agency, and seeks to marginalize him as a troublemaker, claiming he "has a well-documented history of aggressive opposition to responsible resource and mineral development" (EID, 2010, p. 6). The article is a bit kinder to another key expert witness, Theo Coborn, when it refers to her as an "eminent environmental activist" but it refutes her primary claim that she went to extraordinary lengths to discover and report the chemicals involved in the fracking process because the industry refuses to divulge that information. The EID article gives several examples of where they claim this information can be easily found on many state websites, as well as those run by the industry, environmental advocates, and the U.S. Department of Energy. These claims appear to misrepresent the actual circumstance of this issue, but they serve to be consistent in discrediting the third-party experts cited in the film. Possibly by not replacing this character with industry-favorable experts of its own, EID is strengthening its role as the true "expert" in its rhetorical vision.

Actions or plotlines. In its strategy of refuting the existence of the problems cited within Fox's film, most of "Gasland Debunked" is directed toward constituting a competing vision that reconceptualizes the action themes, or plotlines, that *Gasland* constructs for its audience, as my analysis has delineated in the previous chapter. The EID article confronts certain plotlines while ignoring others. In each instance it puts forth arguments that reverse the meanings of the action themes as I interpret to be established by Fox, while it then adds a new plotline that portrays the industry's development of resources and economic success. The reader, then, is challenged with a choice between two opposing interpretations of events—or non-events. In such a situation, the

audience of the artifact will rely upon "perceptions of character [to] act as barometers of whether or not or to what degree stakeholders accept particular scientific truth claims" (Keranen, 2010, p. 28).

Contamination and pollution. The EID article does not address the overall claim of Gasland that all elements of natural gas development are hazardous and polluting, including not only the hydraulic fracturing aspect, but also contamination from water leakage, air pollution from well-site production and storage facilities, heavy truck traffic, and significant water use. The article specifically addresses a few of these issues, but does not mention others and, in its rebuttal, it often chooses only a few specific comments or concepts to attack. This strategy recognizes the need to attack the persona of Fox rather than the science; it introduces doubt as to Fox's general credibility rather than countering each of the arguments that the film makes about the industry. The argument seems to be that if these parts, or these statements, are wrong, then Fox's character is not trustworthy and his entire argument is suspect. The article also consistently takes the position that there is really nothing wrong here at all. For example, these so-called dangerous fluids are actually only water and sand, with maybe a few other harmless ingredients; or there are not so many trucks traveling around out there as suggested; or containment pits are all well-regulated and pose no threat to the environment. The article seems to support its position on the non-polluting character of the industry by claiming that Fox has drastically mischaracterized the hydraulic fracturing process. It argues that there are few, if any, risks associated with the process and these are adequately provided for by regulations and industry's responsible practices. It points out, for example, that the composition of fracturing fluids is "99.5 percent . . . comprised of water and sand" and the rest of the chemicals used in delivering water to the fracture zone are "typically components found and used around the house" (EID, 2010, p.

3). To further emphasize the overstatement of risk from this process, the "most prominent" of these other fracking materials, it says, is guar gum, an "emulsifier more commonly found in ice cream" (EID, 2010, p. 3). The article quotes a report sponsored by the U.S. Department of Energy (2009) that says of all of the chemicals that could be used in the fracturing fluid, "any single fracturing job would only use a few of the available additives" and not the 596 reported by the film (EID, 2010, p. 3). In addressing the large number of truck trips for each well completion as cited in the film, EID implies that the calculation is inaccurate or incorrect. It suggests that certainly the number of truck trips varies widely for each individual hole, so it is not correct to suggest there is an average of 1,150 truck trips for all wells; it notes that this number does not have a source for it and states that the film fails to note that 60 percent of the production water in Pennsylvania is reused and recycled or that "drilling with compressed air is becoming increasingly popular" (EID, 2010, p. 3). The article also challenges the film's characterization of leaking and unregulated waste water pits by stating that all of the states visited by Fox have "explicit laws on the books governing the type of containment structures" used for temporarily storing "flowback water" (EID, 2010, p. 4). Through its use of selected quantification of its argument, the EID is seeking to bolster credibility for its chosen role as a narrative authority.

Illness. The article does not specifically address any of the numerous cases of illness cited in the film, but it does make an effort to disassociate several of the individual cases of contamination from the hydraulic fracturing process, thereby also removing gas development as a cause for any ailments that may actually exist. The pollution of Dunkard Creek, Mike Markham's drinking water, and West Divide Creek are all stated to be the result of normally occurring shallow pockets of biogenic methane or an algae bloom from "mine drainage" (EID, 2010, p. 6); also, in none of these cases was there "any indication that the seepage . . . observed

is related to oil and gas activity" (EID, 2010, p. 7). The article gives a final refutation of the claims of air pollution that were recorded by Fox's experts in the Fort Worth area by quoting a Texas state report that a 2010 investigation of "biological test results" from Dish, Texas, indicated that the exposure to residents from "certain contaminants was not greater than that of the general U.S. population" and noted, "The only residents who had higher levels of benzene in their blood were smokers," because, the article goes on, "cigarette smoke contains benzene" (EID, 2010, p. 7). Again, the industry argument is that there is no pollution in the Dish area, despite findings by some experts to the contrary, and any risk or danger is a result, it is implied, of the residents' own behaviors, not the gas development. This plotline continues the efforts to build a vision that diminishes the value of and erode the resident character in Fox's film.

Fear and horror. The article rejects any need for fear of natural gas development or that there is a dangerous conspiracy in action, by reassuring the reader that the key claims made by the film are false or irresponsibly exaggerated. At no point in the article does it open the door to the possibility that there is anything wrong at all with the use of the hydraulic fracturing process or any risks or dangers presented by natural gas development. The industry's vision leaves the reader with the implication that all of the risks and hazards are fully understood and accounted for by the industry and the regulatory agencies that oversee it. By addressing a few select, specific statements from the film, the article implies that Fox is either incompetent or dishonest in completely misrepresenting these points. The article references Fox's charge that the Environmental Protection Agency was stopped by a mysterious source from further investigation of hydraulic fracturing contamination in Alabama by stating that "no record of the investigation" exists, but suggests that it might be "possible" that Fox is referring to a study in the mid-1990s that resulted, according to the then-administrator, in a failure to "show any chemicals that would

indicate the presence of fracturing fluids" (EID, 2010, p. 5). Further, in addressing the concept of conspiracies, the article mentions the significant budget cuts effecting the Pennsylvania Department of Environmental Protection following Fox's interview with its director by referencing a 2010 press release from the governor of the state that says the agency will "begin hiring 68 new personnel" to help regulate drilling companies (EID, 2010, p. 5).

Regulatory agencies as responsible and regulations as effective. In its contestation of one of Fox's dramatic elements, the EID article consistently constructs and carries the theme that local, state, and federal regulators and regulations are fully effective in monitoring the natural gas industry. The industry message in "Gasland Debunked" maintains that its operations have been and are completely overseen by all regulating agencies necessary and that it is covered under every one of the laws from which the film claims it was excluded. The industry's consistent message in this area is that it has been regulated over its 60-year history. It also points out that "far from being 'pushed through congress by Dick Cheney,' the Energy Policy Act of 2005 earned the support of nearly three-quarters of the U.S. Senate," including a "former junior senator from Illinois named Barack Obama" (EID, 2010, p. 1). It further claims that it was never regulated under the Safe Drinking Water Act (SDWA) in the "60-year history of the technology, the 36-year history of the law, or the 40-year history of EPA [Environmental Protection Agency]," so EID does not understand "which 'restrictions' in the law" were removed by the energy bill (EID, 2010, p. 2). It calls Fox's assertion that with the passage of the "Halliburton Loophole" in the 2005 energy act the industry was allowed to inject known hazardous materials directly into underground drinking water reservoirs to be "a blatant falsehood," in large part because there could not be a loophole as hydraulic fracturing was not regulated by EPA prior to 2005, but it was and is "regulated ably and aggressively by the states" (EID, 2010, p. 2). The

same approach is taken to discount the film's coverage of the "FRAC Act" (the Fracking Responsibility and Awareness of Chemicals Act), sponsored by representatives Diana DeGette, John Salazar, and Maurice Hinchey, as shown in the Congressional hearing footage in the film. Rather than restoring regulation, the article claims that this bill requires a "wholesale re-writing" of the SDWA, which is, again, unnecessary as the process and the industry is fully and adequately regulated. Fox and his experts repeatedly make the claim, along with the political figures of DeGette and Hinchey, that the chemical contents of the fracking fluid are unreported by the industry and this makes it more difficult to study their potential adverse effects on the public and the environment. The EID specifically argues that these portrayals are false and that this information is readily available on numerous websites "hosted" by state regulators; watchdogs, such as the Ground Water Protection Council, the U.S. Department of Energy, and industry advocates. Environmental regulations in various states regularly require that drilling companies "must disclose the names of all chemicals to be stored and used at a drilling site" (EID, 2010, p. 3).

Natural Gas Now! The arguments that apparently originated in "Gasland Debunked" are repeated and extended in a fact sheet published by Natural Gas Now! (NGN) and posted on that website, "The Truth About Gas." The two-page fact sheet addresses the *Gasland* myth as it refers to the film's arguments and begins with several quotes attributed to the Pennsylvania Department of Environmental Protection that convey the same industry messages that are seen in other *Gasland* rebuttals:

- "Fracking has been standard operating procedure in Pennsylvania since the '50s"
- Current wells are built "to exceed DEP current regulatory standards";

- The industry at its peak "will be using less water than our [Pennsylvania's] golf courses and ski resorts"; and
- "We've never seen an impact to fresh groundwater directly from fracking" (NGN, 2010, p. 1).

The fact sheet gives an incorrect online source for these comments, but they are generally taken from a videotaped presentation given by Scott Perry, Director of Oil & Gas Management with the Pennsylvania Department of Environmental Protection that was, itself, posted by the Marcellus Coalition industry advocate group in May 2010 (at this writing the presentation can be found at the online address of http://www.youtube.com/watch?v=Iheb5QS8rbM). In the same presentation, when asked how many drinking water wells fracturing has damaged, Perry responds, "In our experience, it's been zero" (NGN, 2010, p. 1). This fact sheet argues that the natural gas industry offers an opportunity to the areas of the Marcellus shale gas in the Delaware River Basin to address its "dire economic needs" but warns that there are "wealthy, powerful special interests from outside . . . who are allied against it," although these special interests are not further defined in the piece. The fact sheet particularly addresses an area in Pennsylvania referred to as the Tri-County Region as having shale gas potential and as being an area with "very low average incomes" and one facing "declining school enrollments" because of its aging population, and is "losing farms" and has seen its "construction industry collapse" (NGN, 2010, p. 2). The natural gas industry can "build a new future" and give "children a reason to stay" (NGN, 2010, p. 2). The paper cites third-party studies that estimate that shale gas development will add over "\$10 billion and 111,000 jobs" to Pennsylvania in 2011 and goes on to note similar gains in New York state. With all of these statements, the NGN piece constructs an image of the natural gas industry as a significant benefactor to the regions in which it operates; the industry is

envisioned in this article as a positive force for the community that provides jobs and economic bounty.

But the fact sheet also follows the strategy of the other industry rebuttals by specifically attacking perceived errors in the film and lists six bullet points that are titled "Exposed." Each gives a brief rebuttal for specific points of Gasland that echo and appear to be taken directly from the longer piece, "Gasland Debunked," by EID. They attribute the "flaming faucet" to natural causes not related to natural gas drilling; state that the hair loss from a horse is due to "rain rot": attribute the fish kill to coal mine drainage: claim that the Sage Grouse in Wyoming is still being allowed to be hunted, so is not endangered as the film states; claim that high benzene levels in the blood of Texas residents is due to smoking; and state that fracking is not exempt from regulation, but has been regulated by states throughout its 60-year history. This fact sheet does address the specific area of Dimock, Pennsylvania, covered extensively by Gasland, and seems to recognize that there was some industry fault there, although not to the extent of the "wild claims" in the film. The piece admits that the natural gas developer Cabot Oil & Gas may have made mistakes and particularly failed in two ways. First, Cabot did not adequately study the history of water wells in the area. This fault made it impossible to prove that there was a history of "methane migration into water sources," but it also lead Cabot to do poor planning for such migration, which might have been prevented. Second, in a similar vein, Cabot is faulted for not testing water wells in the area prior to drilling that would have provided a baseline to argue that drilling did not cause these problems. Cabots' errors, the fact sheet seems to emphasize, are more of failing to be able to prove that fracking was not responsible for the contamination and pollution seen in the film's coverage of Dimock then by any wrongdoing in the drilling and development process. It is clear for the author of this fact sheet that "methane migration, rather

than the fracking often alleged in poorly researched news articles by lazy journalists, has been the issue" (NGN, 2010, p. 2).

Fox's rebuttal to the industry. In July 2010, following the posting of the EID article, "Gasland Debunked," Fox and his associates published a rebuttal piece on the film's website entitled "Affirming Gasland: A De-debunking Document in Response to Specious and Misleading Gas Industry Claims Against the Film." This article was introduced by a one-page letter and consists of 40 pages of detailed treatment of each of the points raised by industry. The format repeats portions of each section of the EID report and then presents a detailed discussion or explanation. Because this discourse is in response to the industry's critique of the film, I consider it as a "second generation" artifact, if you will, twice removed from the original rhetorical visions created in the film itself. I have, therefore, not included a detailed review and analysis of this piece by Fox but have, rather, used the article as background information for the film and its arguments. My study is not intended to compare and contrast in detail arguments about the construction of "facts" as seen in various media treatments of the same topic, although I do treat the general concept of these rhetors "seeking truth" in Chapter 6. I am focused primarily on the development of rhetorical visions by Fox in his film and by how the industry may or may not accept this vision as a basis for argument or use them in a rebuttal of the argument.

Viewers' Comments and Reviews

In order to explore the effect *Gasland* has on its intended audience, I have selected comments written by self-identified viewers of the documentary that were posted on two websites that distribute videos and films, Amazon and the Internet Movie Database (IMDB). These sites have a long presence on the Internet and have credibility as Internet product and

information providers that regularly host comments by viewers; these comments are easily accessed and publicly available at the respective websites. The comments are presented within the context of "reviews" intended to assist other visitors to the website in making a decision to buy, rent, or otherwise view the film or video being reviewed. For the film Gasland from the Amazon website, I have downloaded 103 reviews that were posted from September 2010 to November 2011, and have subsequently coded and analyzed them; from the IMDB website I downloaded and completed the same process for 22 reviews posted between April 2010 and December 2011. Of the total of 125 individual comments, 14 expressed views that were critical of the premise, the message, or the quality of Fox's film and 111 were favorable to or supportive of most or all aspects of the film. Because of the qualitative nature of the samples and because it is not possible to access the motivations or characteristics of these viewers, I am not able to determine if this sampling fairly represents the views of the broader audience that has screened the film or if, for some reason, this is a self-selected set of reviewers that are disproportionally supportive of the film. Based on the critical reviews and awards the film has received, as previously mentioned, it might be appropriate to equate this level of acceptance to be reflective of a broader audience. Both of these websites contain numerous comments that are self-identified as being from international viewers; there were several viewers posting comments from Australia, with others representing locations in Pakistan, the United Kingdom, Germany, Chile, France, and South Africa.

In keeping with the concept of these comments being "reviews" intended to provide guidance to those considering the purchase or viewing of the film, most of the comments contain summary statements categorizing the general quality of the film as the respective viewer perceives it. Recognizing the proportion of favorable reviews as indicated above, the great

majority of these general "rating" comments are positive toward the film. The most common statements are that this is an "excellent" film, a "must see," "important," and "entertaining." A few representative comments give a flavor of the positive views of the documentary held by the great majority of reviewers on these two sites:

- "Outstanding, terrifying and brilliant" (Amazon, March 7, 2011, Brandstetter).
- "Brilliant documentary, a must see" (IMDB, Dec. 29, 2010, "mranderson").
- "Extremely Important Documentary" (Amazon, Sept. 17, 2011, Elliott).
- "Gasland is an artistic masterpiece" (Amazon, Dec. 15, 2010, Adolph).
- "A masterpiece of investigative journalism" (Amazon, May 11, 2011, Stearns).
- "The film is positively gripping" (Amazon, May 11, 2011, Stearns).
- "It is considered by many eco-activists around the U.S. to be one of the best eco-documentaries ever made" (Amazon, Dec. 15, 2011, Orr).

Also within the context of "reviews" of the film created by individual viewers, much of the content of these comments essentially recaps the plotlines of the film. I have not considered thematic elements from these segments as elements of rhetorical strategies or visions of the viewers themselves because they are intended merely to repeat or summarize the characters and plotlines of the film, presumably for a visitor to the website who is interested in opinions of the film and deciding rather to purchase or rent the video. I have selected fantasy theme-related statements from other comments made by the "reviewers" where they are adding their own interpretations and imaginations to what they have seen. Because all of these comments are in direct response to the film and are contextually intended to be of assistance to others in deciding

⁴ In referencing these viewers' comments, after each comment I give the website followed by the date of the posting and the name of the individual who created the posting. Individuals are identified by the websites as either using their actual names or posting under self-created "user names." I put user names in quotation marks. All of the 125 comments can be found in Appendix B of this study.

on the value of viewing the film, many of the comments reflect the dramatistic elements that Fox has constructed within the film.

In a few cases, a viewer constructs his or her own complete rhetorical visions, as when one suggests that watching the film it is as though "you're watching a nightmare scenario of what would happen if our lands were taken over by evil aliens, intent on sucking the earth dry, regardless of the consequences to the planet—and to us" (Amazon, Nov. 12, 2010, "jeanie"). Another viewer constructed a more elaborate vision in which the shale gas area of Texas "once looked like the present day northern tier of Pennsylvania," which, the viewer says, is known as the "Endless Mountains" and the "Pennsylvania Wilds." But then, so goes the viewer's narrative, "gas development began" and as it grew and its infrastructure spread, the "streams and rivers dried up," trees were removed or died from drought, people moved into crowded urban areas, and rural land was left abandoned, "unfit for human and animal habitation." The mountains were "ultimately flattened, hollows filled in" and the result? "Texas" (Amazon, Dec. 14, 2010, Kisberg). Reminiscent of Caron's Silent Spring fable, a reader of this review does not know if it is, indeed, as claimed a "myth going around" Pennsylvania or if it is a fable created by the viewer after seeing Gasland. It is, however, an excellent example of a vision growing from another visional representation that is rich in detail, irony, and anger. These two extensions of Fox's themes, along with similar chaining exhibited in other comments, show viewers as being quick to respond to and even expand the thematic type of the apocalyptic narrative in the film's construction. While there do not seem to be indicators as to this ready attraction for viewers, it might be partly explained by the general resonance with the genre, as O'Leary (1994) explains, "From the beginning of time, humanity has attempted to imagine and predict the end of time" (p. 4-5). Viewing the world through the perspective of the apocalyptic serves to give some comfort

to the observer by placing inexplicable events within a context; Brummett (1991) tells us the apocalyptic is "a mode of thought and discourse that empowers its audience to live in a time of disorientation and disorder by revealing to them a fundamental plan within the cosmos" (p. 9). While these themes as constructed by the film and by the viewers do not complete the apocalyptic scenario with a glorious millennium afterwards, just having it fit the model of the narrative that leads to salvation may be enough to offer comfort in a very difficult time. Collectively, the viewers create a different perspective in several cases of all three of the dramatic components of settings, characters, and actions or plotlines. In the perspective of the viewers' comments, there is no well-defined setting presented other than a reflection of those settings developed by Fox; the viewers mostly subscribe to the film's rendering of protagonist and antagonist characterizations, but conflate regulators and politicians into a single collective and ineffectual entity of government, while nearly ignoring the character of resident; and in actions, the viewers focus on contamination and unequal power, while neglecting the theme of illness.

Settings. These commentators do not present themes of spatial or temporal settings with any regularity. They refer to locations where people are suffering from the destruction of natural gas drilling and in a few instances comments are made about the pristine beauty of Pennsylvania. These comments reflect the geographical sections in *Gasland* of the poisoned territory of Gasland and the Eden of Fox's home, but the thematic elements are very weak in the viewers' comments and without the film as a reference point, an analysis of these responses likely would not find a well-defined representation of a location or setting.

Characters. While the viewers are obviously beginning with the character elements as constructed by Fox in his vision, they have placed their own collective interpretation on these

characters and altered them to varying degrees. In these reviewer comments, Fox clearly remains as the protagonist of the vision and is directly identified by some viewers as a hero. Also consistent with Fox's vision, most of the viewers see the natural gas industry as the antagonist, which is, in one instance, actually referred to as "the villain." Because of the legitimizing authority of the "starring" roles of hero and villain in a dramatistic artifact, these characters are particularly problematized in fantasy theme construction. As Brummett (2004) observes, "That villains are central to rhetorical narratives both real and imagined should come as no surprise to communication scholars" even though it is generally thought that science has pulled civilization beyond polarized "primeval symbolism" (p. 93). Politicians and regulatory agencies, however, are conflated by these viewers into one entity—that of "government"—and government is seen to be in collusion with the industry. While the "residents" of Gasland command most of the focus of the film, they are not highlighted as much in the viewers' comments; they are, however, referenced as good people and are viewed as victims of the development processes. Fox's experts, who provide much exposition and technical support in the film are not constructed as a character by the viewers, being referred to only once, although they are honored there by being considered as "genuine scientific heroes" (Amazon, Dec. 14, 2010, Kisberg). The character of "journalist" is not specifically mentioned, although a more broad characterization of "media" is brought to task for being "corporate" and conspiring with industry.

Josh Fox. Many of the viewers 125 comments reviewed here seem to revolve around Josh Fox, either his filmmaking or the persona he sets forth for himself in the film. There is a strong sense in these comments that the audience fully subscribes to Fox as protagonist and hero and to his on-screen persona of just a "man with a camera" and an "accidental filmmaker." A viewer summarizes Fox's role succinctly, "On screen, unintentionally, Fox proves himself one of

the heroes he brings into focus [sic]" and goes on to credit him with a "friendly, empathetic manner" and being "open minded, curious, funny, non-judgmental . . . a bit disheveled and very determined" (Amazon, Dec. 14, 2010, Kisberg). Another calls Fox a "brave soul" for venturing "out into the heart of America" (Amazon, Nov. 12, 2010, "jeanie") to confront the damages done to citizens by gas development and one casts him as a hero of Biblical proportions when asking, "Will *Gasland* prove the stone with which David-like Josh Fox fells the Goliath that is Big Energy?" (Amazon, Nov. 16, 2010, LaRegina). Not surprisingly, the viewers also recognize that the film is built around Fox's travels. It is "a true road trip movie" (Amazon, May 6, 2011, "Jasne") where Fox "embarks on a quest" (Amazon, Dec. 14, 2010, Kisbergy) that is "founded on a journey of the heart to the Heartland" (Amazon, May 11, 2011, Stearns).

These comments also reflect an understanding by the audience that Fox portrays this as a personal, passionate, and accidental journey of discovery of which the film is essentially "a diary of his travels around the country" (Amazon, Jan. 30, 2011, Lebryk). With an element of eloquence, one viewer expands this concept by saying that as "Fox makes his way across the country, into dozens of areas crippled by decade-past drilling efforts, he collects bottles of yellow-brown water like postcards in some macabre travel diary" (IMDB, April 17, 2010, "George"). Employing the lens of a diary reflects upon Fox's argument for this as a personal journey: we hear, "He's just an average guy with a video camera" (Amazon, Nov. 28, 2011, "Bob") and he is "just a modest ordinary guy who has gotten worried about the environment . . . with a hand-held camera and little education in film-making" (Amazon, Oct. 25, 2011, "Bruno"). Gasland is a "sobering one-man documentary" (Amazon, Aug. 3, 2011, Gaefke) with "grassroots research" (IMDB, June 26, 2010, "jmknapp") in which "the filmmaker tried hard to remain as objective as possible" (IMDB, Jan. 30, 2011, Bacquet). Fox's passion is recognized by at least

one viewer who claims that "Fox's intimate approach and genuine stake in the issue is 'Gasland's greatest asset" (IMDB, April 17, 2010, "George"). The audience tends to see that Fox is creating "an accidental documentary that the producer just stumbled in to" (Amazon, June 30, 2011, Mertz) and that this is a movie that "Josh fell into making after he learned he could be next [in the path of gas development]" (Amazon, Dec. 15, 2010, "Open"). Another envisions Fox as a "man who just wanted a quiet life and to be left alone, but was courted by the oil & gas industry" (Amazon, Nov. 7, 2011, Allman).

Natural gas industry. The comments from the viewers indicate that audiences—as represented by the postings on these websites—fully support Fox's depiction of the natural gas industry as the collective villain of his dramatistic vision, as illustrated by one example: "Is there nothing these villains won't destroy? America . . . is being destroyed for the outrageous . . . profit of the few and/or the stupid" (Amazon, Jan. 10, 2011, "Anonymous"). These viewers take from the film that corporations, particularly natural gas companies, are irresponsible about their behavior and callous about the results of that behavior, posting comments such as, "Why do we allow corporations to roll over people's lives" (Amazon, Dec. 14, 2010, Kisberg) and, "it is impossible for [the corporations] and their execs to give a flying you-know-what about tomorrow's children or the world they will face" (Amazon, May 29, 2011, Littrell). Viewers' comments are also closely aligned with those residents interviewed by Fox in believing the cause of all this destruction is pure greed, as summarized by one viewer, "The film highlights . . . our resources being exploited, environment destroyed and health impacted by the reckless pursuit of wealth by greedy corporations" (Amazon, Dec. 24, 2010, "Struggling"). Another viewer says, "Our environment and the drinking water is being compromised by the greed of oil and gas companies" (Amazon, April 8, 2011, "Dunlo"); another believes that "corporate greed . . . is

destroying one of the most beautiful landscapes in the world" (IMDB, Jan. 30, 2011, Bancquet); and still another marvels at "the callousness and greed with which these companies operate" (Amazon, March 18, 2011, "Cold in Seattle"). There are many more similar comments made by the reviewers of the film on these two websites and it appears that these viewers support the thesis of corporate greed and irresponsibility being at the core of this issue as presented by Fox and the citizens of his Gasland.

As well as buying into Fox's vision of who the villain is in his narrative, the viewers also tend to agree with Fox's interpretation of the gas industry's approach to critics of their operations. One viewer notes that "these companies pick on those who cannot easily move or band together to fight back" (Amazon, March 10, 2011, "bunnyrabbit4") and another that "powerful industries will do anything to protect their interests and keep people quiet about their lies and methods for keeping the general public deceived about what they really do" (IMDB, Jan. 30, 2011, Bacquet). As illustrative of the industry's strategy of denial as espoused by Fox, several viewers refer sarcastically to a video advertisement that began after the film was distributed that is "cheerfully consoling us that safe, clean, natural gas can be easily extracted from the ground while happy people live above, leading clean and healthier lives" (Amazon, Aug. 20, 2011, Brough). There is a small minority of viewers' comments that speak against this prevailing view of the industry. Representative of these comments, one calls the film "A documentary without the facts" (IMDB, June 21, 2010, "nbulling"); another says, "this is a movie with flaming faucets and little science" (Amazon, Jan. 12, 2011, Westgard): and another, "This film would have been much more realistic if they would have stuck to the facts, instead of trying to lay the blame on Bush and Cheney" (Amazon, March 4, 2011, "Bronco"). One of the more specific of these comments is:

From misstating that an oil and gas industry exemption is in the Safe Drinking Water Act, to arguing that a frac uses 596 chemicals, and that chemical make-up is hidden from the public, when every state's oil and gas regulatory board has the exact chemical makeup, Josh Fox makes false assertions throughout this "documentary." (IMDB, June 21, 2010, "nolijnyk")

These comments follow in similar manner to question the neutrality of Fox and to point to examples of errors or misstatements. Many of these comments focus on the difference between the shallow occurrences of natural gas that are "normal" and are stated to be responsible for most or all of the contamination of drinking water.

Residents of Gasland. The ubiquitous citizens who make up the greatest portion of the film are referenced by the viewers of the films, but primarily when describing the plotlines and story arc of the film and not in making thematic constructions. They are described, not unexpectedly, in terms similar to how Fox portrays them in the film. One viewer notes that identification with them is easy and that "the people featured in the film become your friends, you cannot help but like them" (Amazon, Nov. 5, 2010, "Ozark") and from another, "these are ordinary people whose lives have been destroyed" (IMDB, March 30, 2011, "Simonster"). They are described as brave and as fighters, although also recognized as "now powerless to do anything" (IMDB, Nov. 21, 2010, "ihrtfilms"); their courage is shown by the "ability of the people . . . to still manage a smile despite what is happening to them" (Amazon, Nov. 5, 2010, "Ozark"); and that "they're fighting" (Amazon, May 29, 2011, Littrell). A Pennsylvania resident on the fringes of Gasland says, "I live in a great community of strong good people and they are taking on the fight to stop the fracking here" (Amazon, April 27, 2011, "pK"). One resident, in particular, was singled out as an important member of this collective persona: John Fenton, the

cattle rancher in Wyoming previously discussed. The viewers refer to him as being in "one of the film's most touching moments" (Amazon, Feb. 27, 2011, Cooper), where it is not possible for the audience to "not be emotionally moved?" (Amazon, Dec. 14, 2010, Kisberg). Viewers go on to cite the part of Fenton's story that connects his ranch to our dinner table and continues with Fox's thread of connectedness. Fenton proves to be as interesting and vital a character to others of the film's audience as he was to my own analysis in the previous chapter, as being almost an archetype standing in for the whole of the resident collective and creating an individual with which viewers are able to identify.

Government. As mentioned above, the viewers and reviewers posting to these websites have conflated Fox's characters of "politician" and "regulator" into the collective persona of "government" and they have not followed the director's inclination to portray elected officials as standing up against the perceived excesses of the gas industry. The government persona is strongly identified by the viewers with Dick Cheney and his relationship to the Bush administration and that administration's perceived support of the oil and gas industry. While I have interpreted Fox's visional themes as grouping Cheney-Bush with the industry rather than with the character of elected officials, who are portrayed as fighting against industry abuses, the viewer collective sees Cheney as an elected official who has chosen to be in collusion with the gas industry to the detriment of the American public. They go on to include all elected officials and members of the regulatory agencies in the same characterization. In suitably dramatistic terms, one viewer sums up this perspective, "the finger of guilt is . . . firmly pointed at the Darth Vader of the Bush Administration: Dick Cheyney [sic] and his Halliburton Evil Empire" (IMDB, Oct. 28, 2010, "ptb-8"). All other government officials are included as being in collusion with the natural gas industry and the viewers generally agree the officials do not deserve our trust or

confidence, as one says, "we can no longer trust our state and federal officials to protect us from the corporations that often elect them into office" (Amazon, March 10, 2011, "bunnyrabbit4") and another, "Fox helps us understand government corruption, greed, stupidity" (Amazon, Jan. 27, 2011, "Leader"). The trust is not there as all levels of government are seen as being inextricably tied to industry: "Unfortunately our governments have simply fallen into bed with the Global Corporations [sic]" (IMDB, July 10, 2010, "nimollo") and the film is seen as "a frightening look at how huge companies and the government can work in conjunction on projects that clearly put citizens at risk" (IMDB, Jan. 29, 2011, Ferguson). Regulators are included in this bleak thematic representation, as a viewer claims, "most regulatory officials have been 'bought' by gas companies" (Amazon, Oct. 8, 2011, "Lakeman") and another says, "The . . . horror depicted in 'Gasland' is the ineffectiveness and/or collusion of our environmental regulatory agencies" (Amazon, Oct. 25, 2011, "Bruno"). But in addition to being "bought," the regulatory agencies and processes are generally considered to be failing the public, a view accompanied by some incredulity, "Through much of the film my mouth hung open in total disbelief. How could anyone, particularly local, state and the Federal government allow such things to happen?" (Amazon, Dec. 13, 2010, Kisberg); while another questions, "Why are representatives and bureaucrats so unresponsive and unemotional when presented with evidence of ill treatment of their constituents?" (Amazon, Dec. 14, 2010, Kisberg). Typical of these comments: "regulatory oversight is often not there" (Amazon, April 24, 2011, Cox); "the scariest parts [in the film] were where it becomes obvious that regulation is so hodge-podge, that politicians are so wary of challenging gas industry interests" (Amazon, Dec. 20, 2010, Glenn); and "It shows to us the dangers of removing legislation that was once in place" (Amazon, Dec. 20, 2010, "Gencast"). There was only one comment favorable to regulatory agencies and that viewer noted that a panel

appointed by the Interstate Oil and Gas Compact Commission investigated and determined that Pennsylvania's Department of Environmental Protection "was doing an effective job" (Amazon, Jan. 12, 2011, Westgard).

Media. The media as a possible character is treated only briefly by the viewers, possibly in response to the brief role of journalists in the film, and it is also considered to be in the shadow of the industry. One viewer notes that natural gas development is being done in secrecy "because the mainstream media is owned by the same people [the industry] and knowledge of what they are doing would make americans rather upset [sic]" (Amazon, Feb. 23, 2011, "jeremiha"). Even if outright ownership is not the reason for the media's complacency, then influence by the industry is, "It isn't safe for the local media to spend too much time talking about the open oil field waste pits or gas injection wells. They have learned that 'bad press' isn't in the best interest of their advertisers" (Amazon, March 10, 2011, "bunnyrabbit4"). From the perspective of these viewers, then, it would appear that the press is of no assistance in championing the cause of either Fox or the people adversely affected by natural gas development.

Action themes.

Contamination and pollution. Viewers' comments reflected an understanding of many of the hazards and risks presented by gas development in the film. While the great majority of comments repeated the claims and experiences of the film, much like a plot summary, in other cases, the viewers added to the narrative of the film by recounting their own experiences in Pennsylvania or other existing areas of Gasland. One speaks of a "Blowout' of a gas well" that released "toxic frack fluid over farms, land and a stream that flows into the Susquehanna River" (Amazon, April 24, 2011, "JungleCatJane"); another, "it is certainly easier to pretend that no one

knows why cancer strikes so many people here. We even call one part of the state along the river 'cancer alley'" (Amazon, March 10, 2011, "bunnyrabbit4"); and another, "The Crum well is earshot from my property. There are no words to describe this monstrosity" (Amazon, July 21, 2011, "NE PA Resident"). Even if not citing occurrences in their own areas, most of the viewers' comments reflect the concerns raised in the film about hazards and pollution, including "The amount of toxic pollution caused by these natural gas companies is disgusting" (Amazon, Sept. 17, 2011, Elliott), "Our land and our water is in irreversible danger" (Amazon, May 3, 2011, Burfield), and "This gas exploration in the US looks like a cancer" (Amazon, June 4, 2011). There were expressions of fear, as when one viewer commented about being concerned about almost signing a gas lease, "because I may be very likely in the close vicinity. Me and my husband and our baby" (Amazon, Aug. 3, 2011, Gaefke). Another viewer expressed personal experience with the lure of financial gain for homeowners without an understanding of the risks:

Everybody in our sub-division [in Michigan] except us sold their mineral rights for \$100. Pretty cheap for a soul . . . Soon after, new drilling began in the area . . . and people could then see what Hell they had bought for their \$100. (Amazon, Jan. 10, 2011, "Anonymous")

Although this case refers to a relatively small amount of gain, another speaks of a much greater lure, "Does the 'what if' of everyone in the family becoming a millionaire balance out the possible destruction?" (Amazon, Jan. 14, 2011, Roe). Viewers also took from the film a broader message about natural gas, as one says, "Natural gas is not a clean energy, and if this is our bridge fuel, we aren't going far" (Amazon, Dec. 14, 2010, Wilson), another, "it is clear natural gas is a very complex thing to mine. In the end it is also a very toxic resource to extract from the

ground" (Amazon, Jan. 30, 2011, Lebryk); and another, "the term 'natural gas' is a hoax. There's nothing natural about it!" (Amazon, Nov. 7, 2011, Allman).

Power. The comments from viewers touched upon the question of power as shown in the film and focused nearly equally on the two sides of power, those with it—the powerful—and those without it—the helpless. The film shows "how the economic interests of a few large corporations trump the lives of countless number of people" (Amazon, May 29, 2011, Littrell) and how we are living under a "tyranny of big corporations who aren't willing to give up their power" (Amazon, June 4, 2011, Denutte). Further, Gasland "shows how the wealthy few are stealing the lives and livelihoods of the unpowerful many backed by the bought or at least unfeeling politicians" (Amazon, May 14, 2011, Van Maren). The sense of helplessness was expressed by references to this being a "depressing documentary" (Amazon, Nov. 28, 2011, "Bob") and to its examples giving a "very truthful hopeless feeling about the future of our country and its people" (Amazon, Sept. 7, 2011, Burns). Some are even more fatalistic, as when a Gasland resident says, "It is too late for us" (Amazon, March 10, 2011, "bunnyrabbit4"), or another comments, "legislation will never fully decontaminate these activities" (IMDB, March 11, 2011, "A.N."), or when speaking of a bleak future:

Gasland should be shown in every elementary, high school, and college classroom. At least that way, when our children grow into adults, they will know why there is no such thing anymore as fresh water in America. And they will know who was responsible.

(Amazon, November 12, 2011, "jeanie")

The vision of the powerful dominating the helpless through manipulation and false financial enticements runs through these reviewers' comments. The comments tend to reflect a bit more cynicism and fatalism than is shown in the film, although this could be an interpretation that the

viewers are taking from Fox's vision, thus reflecting the despair of the immensity and intractability of the problem.

Fear. The reviewers' comments display a strong resonance with the element of fear that the film depicted: the residents' fear of the illness and devastation, Fox's fear for his home, and the general sense of fear and horror engendered by the cinematic strategies of Fox. One comment leads us into this area, as it might lead a viewer into the film, "Greetings . . . from the darkness" (IMDB, Jan. 29, 2011, Ferguson) and another gives us a similar introduction, "This is perhaps one of the most shocking and disturbing films I've seen and the fact that it's all true is even more terrifying" (IMDB, Nov. 21, 2010, "ihrtfilms"). A few examples of entries from viewers:

- "Scary and really shocking" (IMDB, July 8, 2011, "khan2705").
- "A terrifying must see" (Amazon, Dec. 20, 2010, "Gemcast").
- "Scariest movie ever" (Amazon, April 25, 2011, Parker).
- "The most terrifying film of 2010" (Amazon, Oct. 25, 2011, "Bruno").

Viewers also seem to identify and relate to those cinematic elements that Fox employs from the fictional horror genre, as mentioned previously. One comments that it is "like the *Blair Witch Project* . . . Low budget, straight forward and scary as hell!" (Amazon, July 14, 2011, Fergins); another calls it a "Nightmare in my neighborhood" (Amazon, July 21, 2011, "NE PA Resident"); and another asks if "You like 'horror' films?" (Amazon, Oct. 25, 2011, "Bruno"). The apocalyptic theme is not neglected either, as one comments that Fox is a "documenter of the newest environmental Armageddon waiting to occur" (Amazon Jan. 27, 2011, "Leader") and another believes that the film tells us "the way the world ends" (Amazon, April 22, 2011, "Racie").

Filmmaking critiques. As a documentary filmmaker treating a politicized topic, it is perhaps not surprising that there are several comparisons by these viewers of Fox to Michael Moore, the controversial documentary producer of Roger & Me (1989), Fahrenheit 9/11 (2004). and Sicko (2007), among others. The comparisons are favorable to Fox as he is praised for making his film entertaining by taking a "welcome page from the Michael Moore book of documentary film-making" while, at the same time, avoiding the "hard leftist political grandstanding" of Moore (IMDB, April 17, "George"). Others agree that Fox does not exhibit "as much overt sarcasm as Michael Moore" (IMDB, June 21, 2010, "artemis-23"); he is "a more likable guy than Moore" (Amazon, Oct. 25, 2011, "Bruno"); the film is "much less heavyhanded as an expose than documentaries by Michael Moore" (Amazon, Dec. 20, 2010, Glenn); and "Unlike Moore, whose preaching has become a turn off, Fox is laid back, non-dramatic, letting people tell their stories" (IMDB, March 30, 2011, "Simonster"). Some reviewers did have issue with Fox's filmmaking style, or as some express, his lack of style and technical knowledge. These comments centered on Fox's choice of many hand-held camera shots that resulted in shaky images, as well as some faltering focusing and a general presentation in lower resolution than narrative films. Typical comments are that "the film is a bit amateurish and sometimes the camera work is downright awful" (IMDB, Jan. 28, 2011, Ferguson) and that the "shaky cam and frenetic editing were annoying and distracting" (IMDB, June 26, 2010, "jmknapp"). In a possibly harsher, but arguable criticism a viewer says, "The film is so badly done it completely takes away from the importance of the story" (Amazon, Jan. 27, 2011, "sue") and, "Technically this is probably some of the worst camera work ever recorded on video" (Amazon, Jan. 30, 2011, Lebryk). Others, however, see Fox's style as purposeful, creative, and effective, with one liking the "immature quality of the presentation" for making finding a solution "seem dramatically

imperative" (Amazon, Sept. 7, 2011, Burns). Another finds Fox's cinemagraphic approach particularly effective: "the editing is sharp, the camera inventive and the voice over is smart, poetic, at the right level of irony and satire" (IMDB, Jan. 5, 2011, "bboulad"). Another viewer believes, "Gasland features a well written narration as well as a beautifully sequenced pace which creates a work of art as well as a meaningful revelation of a very complex subject" and ends proclaiming that "Gasland' could be as significant as 'Silent Spring'" (Amazon, April 20, 2011, Harrington). Several viewers recognized Fox's objective for the film as an informative, educational tool intended to get the truth to those who need to know. It is called "an admirable piece of education" (IMDB, Jan. 28, 2011, "Gorlomi") with the purpose "not to make a beautiful film" but "to educate . . . to awaken people" (IMDB, Jan. 29, 2011, Ferguson). Other reviewers said the film "succeeded of trying to inform the audience yet entertain them at the same time" (IMDB, Dec. 27, 2010, "jnguyen46117") and that Fox "delivers an excellent message with this film, it is important to become educated about our environment" (Amazon, Jan. 30, 2011, Lebryk).

Rhetorical Effects: Motivating to Action, Changing Attitudes

While the production of a documentary film is an outlet for creative expression, perhaps especially in the case of one that is as personal and individually-produced as *Gasland*, the primary motivation for Fox, as he explains it in various interviews, was to first learn more about the natural gas development that was going to take place on his land and then to educate others about it. He wanted to not only educate other home and landowners who would be affected by gas development, but he felt the population in general should be informed. In interviews immediately subsequent to the production of the film and in *Gasland* itself, there is no indication of encouraging his viewers to take specific action, so it appears that informing and educating was

the initial intent of any rhetorical strategies in the film. Of course, given Fox's apparent emotional response to the issue of natural gas development, the extent of the harm and danger that can result from this activity, and his passionate lesson of all things being connected, we might expect that he would hope for more in the way of resistance to be created by his film. Indeed, in an interview published in 2010 about the time of the film's showing on HBO, he calls specifically for the enactment of a national five-year moratorium on new natural gas development (Egner, 2010, p. 4). In reading the responses to the film from viewers, we can see what they took away from the film in terms of the need for, or interest in, taking action. As has been noted previously, environmental discourse highlighting environmental issues tend to be long on problems but short on solutions offered; the frequently overwhelming and oppressive character of the issues can bring about despair in an audience rather than provide an incentive to take action. In these viewers' responses to Gasland, however, only one lamented the lack of solutions offered by Fox to the problems depicted in the film, wishing that "Mr. Fox had spent a little time offering an alternative to the harmful natural gas drilling discussed in his film" (Amazon, Jan. 29, 2011, Byrd). Most others were led to ideas of action in general or specific ways and there were several that recognized the professed intent of Fox to educate and inform. One noted the film was a "definite watch—to educate Americans" (Amazon, April 24, 2011, Cox) and another felt that it presented "an excellent opportunity to discuss the environmentalist's side of the issue" (Amazon, April 24, 2011, "Michelle"). Some saw the process of informing and educating as *the* call to action from the film and in response to the question, "What can we do?" one viewer responds, "We can be informed" (Amazon, March 17, 2011, Reich) and another agrees, "So many aspects of industry are destroying our future and quality of life, and it's important to be educated" (Amazon, No. 27, 2011, Hayek).

Other responses that suggest or imply actions taken or attitudes changed from the film range from more general feelings and actions to those more specific. For many, the film apparently succeeds simply by pointing out the problem and raising the question for them; "What can I do about it?" as one viewer asks (Amazon, Nov. 5, 2010, "Ozark"). More than raising the question in their own minds, other viewers came away with a diffused feeling of being motivated to do something, although that something is not at all specific. Comments include, "this film will make you think and more importantly . . . act" (Amazon, April 6, 2011, "California"); "If this film doesn't make you think about the future and motivate you to action, check your pulse" (Amazon, Dec. 14, 2010, Wilson); and others that urge, "go and do something about it" (IMDB, Jan. 30, 2011, Bacquet), "Stand up! Do something!" (IMDB, June 21, 2010), "take a stand" (IMDB, April 17, 2010, "George"), and "take action" (Amazon, July 21, 2011, "NE PA Resident"). These responses to the film express the generalized motivation to "act" or to "take a stand," without specifically indicating what action is required, or what action is suggested by the film. More passively, one viewer is hopeful that "the documentary will help bring about positive change in protecting us" (Amazon, May 19, 2011, Dudley). These commentators, however, do not express any concern over the generality of these suggestions, but seem to imply or explicitly state that such a call to generic action is to be commended and is a worthy outcome of the film. There are no complaints about lack of specificity and one finds a "glimmer of hope" that the film shows there are a "small selection of activists and politicians making a stand" (IMDB, Nov. 21, "ihrtfilms"). Another recognizes Fox's intent for the film and the limits he seems to have in suggesting courses of action, "Fox can only ask that the public make themselves aware of the issue and take a stand before it's too late" (IMDB, April 17, 2010, "George"). In moving from more general awareness and the need to "take action," a group of viewers identify the

government as the key to solutions to these issues, although they still do not get into specifics.

One comments, "government regulation is our only protection" (Amazon, Oct. 25, 2011, "Bruno"), another suggests that "we property owners must ensure that our governments . . . regulate this industry" while proposing that this can be done through citizen involvement that "will help preserve our natural resources" (Amazon, April 3, 2011, "ddolan"). Another viewer strongly recommends action, though without specifics: "start lobbying your politicians!" (Amazon, April 25, 2011, Parker) and one viewer feels that they have been changed by the film and "will be more active with encouraging people to ask tough questions and hold each politician accountable for any compromise" (Amazon, Nov. 16, 2011, Bey).

Several viewers did come away from the film with suggestions for more specific actions to be taken in response to Fox's message. These are presented within the context of these reviews as suggestions for actions that others can take, although we might expect that the viewer making the comments has been motivated also to take similar actions. A couple of viewers encourage the acquisition and distribution of the DVD of *Gasland* as the best way to address the issue. Such an act speaks to the idea that educating and informing will do some good, but makes the extra suggestion to purchase several copies, "I bought 10 to pass to politicians and farmers" (Amazon, May 29, 2011, Beetham) or to "give your copy to a friend with the request that he or she buys another . . . and distributes both" (Amazon, Dec. 2, 2010, "Kevin"). The impetus for action that is taken by several others is to reach out and make your concerns known directly to political representatives. Those concerned should "do your civic duty and call your representatives" (Amazon, Oct. 9, 2011, "Livesay"); "write your congressman, demonstrate at rallies, or contribute however you can" (Amazon, March 23, 2011, "Janice"); and "those who see it [Gasland] need to become proactive and write their elected representatives" (IMDB, July 17,

2010, "Imas"). A few viewers have even more specific actions to suggest, such as when one asks others to "take the time to urge your senators and congressmen to sponsor The Fracturing" Responsibility and Awareness of Chemicals Act" (Amazon, Dec. 24, 2010, "Struggling"), another to "pressure . . . Congress to shore up the Safe Clean Drinking Water act again and reinstitute the EPA into testing and monitoring" (Amazon, March 18, 2011, "Cold in Seattle"), and another to "call Albany [NY] and ask them to not poison New York's drinking water by supporting the Englebright/Adabo bill" (IMDB, June 21, 2010, "Reasonable"). Among the 125 comments and reviews, however, there were very few specific references to legislative bills and acts to support or fight for them at either the federal or state level. Rather than being motivated to specific action, however, a few viewers found that the film had a definite effect on their attitudes, as one does in referring to the film as "Life changing. It is raw, intense, and illuminating" (Amazon, Jan. 8, 2011, Abel). In this vein, one viewer says, "Gasland will forever change the way you think about Natural Gas Drilling [sic]" (Amazon, Dec. 15, 2011, "meganc") and another, "once you've seen water catch fire coming out of the faucet you'll never think about natural gas the same way again" (Amazon, April 22, 2011, "Racie").

Accuracy and the Logical Argument

As discussed above, most of the attacks on the film from the natural gas industry are directed at what those representatives claim to be are gross inaccuracies in the film. The argument is that the film does not get its facts right—either through incompetence or purposefully—and that many of the cases shown in the film, especially those that were highlighted or portrayed most dramatically were completely wrong. A strong thread of the viewers' comments also proceeded along this path, with several commending the strength and accuracy of Fox's arguments, while others echoing the natural gas industry's concerns about

accuracy. One viewer noted, for example that "The film is filled with unmistakable and undeniable evidence" (IMDB, Jan. 30, 2011, Bacquet); another that it is "a very thorough, well thought-out concise documentary" (Amazon, Sept. 22, 2010, Potts); while another believed it was "full of ordinary facts that allow credibility to simply present itself" (IMDB, Oct. 28, 2010, "ptb-8"). The film was found by some to be "very scientific and informative" and one that "follows through on every point in a logical manner" (Amazon, May 11, 2011, Mound). Several others, however, took Fox to task for making a movie "with flaming faucets and little science" (Amazon, Jan. 12, 2011, Westgard) and found it to be "full of half-truths and inaccuracies that do the honest, worthwhile oil and gas debates an injustice" (IMDB, June 21, 2010, "nbulling"). Other comments say the film's argument is "completely absurd" (Amazon, March 7, 2011, "Explorer"); "it is poorly researched, riddled with inaccuracies" (Amazon, June 14, 2011, "David J."); and "Fox makes false assertions throughout this 'documentary" (IMDB, June 21, 2010, "nbulling"). Many comments also repeated much of the industry's argument that shallow pockets of methane commonly occur, particularly in areas in which natural gas deposits at depth occur, and that all of the instances of flaming faucets and contaminated streams can be attributed to this phenomena and have nothing to do with drilling for natural gas at depth: "The scene with the flame coming out of the kitchen faucet can be attributed to shallow gas (stray gas) that has been a regular occurrence in the gas producing areas of Pennsylvania and surrounding states for many decades" (Amazon, April 14, 2011, "Billdad"). Implicating natural gas drilling in the cases of faucet water catching on fire is "wildly inaccurate and irresponsible" (IMDB, Oct. 18, 2010, "nolijnyk") and "nine different tests . . . determined that all of the Bracken property gas [in the stream] is biogenic unrelated to drilling" (Amazon, Jan. 12, 2011, Westgard). One viewer, however, sums up the back-and-forth nature of these allegations:

It kind of just comes down to who seems like a more trustworthy source of information: big business looking only out for their own best interests or common home owners and other citizens looking out for the environment and people's safety. (IMDB, Feb. 17, 2011, "Hellman")

Another noted with some cynicism that the amount of criticism toward this film coming from the gas industry and some regulatory agencies is an indicator that it "struck a raw nerve with them" and that there is "even more 'dirt' the industry would like to keep secret" (Amazon, Jan. 18, 2011, "George").

Conclusion

The film is changed, its visions, its meanings, its interpretations are modified, evolved, and expanded through its interaction with these intertextual artifacts. The result is a complex and emergent textual construct around the issues of the film and even beyond its issues as the responding audience extends the impact of the film's visions. From these responses, it is apparent that the film has set a ripple motion in effect that spreads and continues, initially by responses and actions from industry groups and viewers, but then through additional constructs growing from those responses. Members of industry and viewers continue forward with artifacts and actions that embellish and re-create the vision of Fox and even lead to the constructions of new inventive visions by those who have seen the film. The industry responses and Fox's rebuttals to them raise questions related to rational argument—to the discovery of the "truth" of an argument—but this is done within the context of rhetoric and the constructed truths are used in developing and bolstering a complex rhetorical vision presented by both sides of this argument. The viewers of the film respond to a degree to these arguments of what is true and what happened or did not happen, but are more driven by a response to the vision portrayed by

Fox in the film. The audience predominantly accepts Fox's major premises and moves forward with their own forms of action, hope, or disillusionment. As critic, I have the exciting position of "connecting the dots" as it were, by attempting to trace the visionary elements of Fox into and through the respondents to his work and to then examine how the elements converge and diverge into new directions. In the next chapter, I take the analysis of the full text—the documentary, the industry responses, and the viewers' responses—and explore its themes and its visions and their interaction with the issue, the film's producer, and its audience.

Chapter 6 — Rhetorical Artistry of Gasland

At the core of Bormann's (1972, 1982, 1994, 2001) symbolic convergence theory is the ability of rhetors to construct rhetorical visions and for these visions to be shared by individuals and collectives across time and space. This "chaining out" of a rhetorical vision, in Bormann's terms, goes beyond the original context of group interactions with the process "operating in the media, in other audience and speaker situations, in reading texts, and in historical documents," arguably in "every communication situation" (Bormann et al., 2001, p. 277). Ultimately, it is this shared vision that diverse parties come to accept as a "social reality," which they repeat and around which they form opinions and take action. Through a well-crafted and shared vision, "one is 'transported' to a world which seems somehow even more real than the everyday world" in which "one may feel exalted, fascinated, perhaps horrified or threatened, or powerfully impelled to action, but in any case, involved" (Bales, 1970, p. 152). Josh Fox, in his critically-acclaimed documentary film, Gasland, has crafted such a rhetorical vision and, possibly more to the heart of rhetorical inquiry, this vision has been "chained out" to and shared by viewers and by the natural gas industry and it has motivated changes in beliefs and actions. The creation and sharing of this vision within the context of environmental communication has significance to the study of environmental rhetoric and its practice because it can give the rhetorical critic insight into the complexity that lies beneath this vision and forms a rich dramatic experience which constitutes a motivation for change and action in the audience. At the heart of such a constructed reality, of course, are my findings that a rhetorical vision has been constructed and is at work within the film and it is shared among viewers of the film. The rhetorical vision of Gasland asks of its viewers to accept the themes that the natural gas industry is operating unrestrained out of a motive of greed and selfishness, that American citizens and landscapes are suffering as a result,

and that this apocalypse exists now in a part of American called Gasland and is spreading. It must be stopped and we can stop it by becoming more aware and encouraging others to "stand up." A prominent fantasy thread carrying this narrative forward is a model for action and motivation for the film's potential rhetorical community in the character of Fox, as the protagonist who leaves his home to seek answers and, in turn, shares these answers with the audience. As a stand-in for the average person, Fox illustrates for those concerned about this overwhelming issue that, indeed, "one person can make a difference." The rhetorical vision and its themes provide the emotive core of a call to the film's audience, while the Fox character and plotline proves an exemplar for action and encouragement for individual responses to the tragedy portrayed. At the same time, however, Fox's visual representation of the natural gas industry as an unrepentant "villain" and himself as a truth-seeking "hero" polarizes the issue while problematizing alternative solutions that might be sought within the issue network. Moreover, some scholars might posit that the hero/villain configuration eviscerates political action because romanticizing the hero distracts from a focus on broader structural issues and stands in the way of solidarity.

As important as determining the existence of these visional elements and exploring their values, however, is asking how does such a vision come to be shared so strongly by those that support and subscribe to it, but even more so by those opposed to it? I argue that my analysis of the film and the intertextual materials created in response to it reveals that Fox produced a rhetorical vision that is rich in its narrative structure, its use of fantasy themes, and its integration of thematic types of environmental communication and that the sharing of a constructed reality in the form of Fox's vision emphatically exists within his audience. This results in a rhetorical vision that resonates strongly with the viewers of the film and, at the same time, invokes a need

to retaliate by a threatened gas industry; a retaliation that runs counter to the industry's usual public communication efforts. This industry response and the identification with the film's vision by a substantial majority of its viewers speak to the effectiveness of Fox's vision in being shared by his audience. There are also a minority of the viewers' comments that reject these themes and the overall constructed vision. The industry, in its response also appears to reject the vision, although I argue that by building a competing vision using the same thematic elements as Gasland, the industry is sharing and giving power to Fox's premises. My analysis of the film's related intertextual works indicates the symbolic convergence of the rhetorical vision of Gasland within the film's audience; there is, indeed, as Layng (1998) puts it in a different analytical context, "evidence of fantasy-theme chaining out to an audience" (p. 102). In the viewers' adopting of Fox's vision and, possibly more significantly, their modifying and reconfiguring of some of its dramatistic elements, they are actively participating in the chaining process that is of significance in symbolic convergence theory. My findings of statements by numerous viewers and of the industry's harsh criticism, argues persuasively, I believe, against the critic Mohrmann (1982b) when he resists the concept that a "fantasy chain" can be replicated in "form, content, and impact" in various forms of communicative discourse (p. 309).

The viewers' comments in regard to the film consistently echo the elements of *Gasland*'s visions, particularly the primary vision, with an appropriation of Fox's dramatistic elements and terms. Fox is repeatedly seen as the brave and sympathetic hero striking out on his own to find answers, while the industry is accepted as the "villain." The viewers provide a few modifications to the narrative concepts, such as conflating all politicians and regulators into an ineffectual "government" entity, but even here they are subscribing to Fox's dramatic movement while embellishing it. As Swartz (1999) expresses this phenomenon, "chains of fantasies extend as

group members add links. With each link and extension, the fantasy becomes more 'real' and its significance becomes increasingly apparent" (Swartz, 1999, p. 45). The viewers collectively chain this new representation through their comments, but still maintain the essence of Fox's vision. The rhetorical vision becomes, over time and usage, "more complete and the culture that is created becomes more significant" (Swartz, 1999, p. 45). As previously mentioned, nearly 90% of the viewers' comments resonated with the visions of the film, and while it might be expected that reviewers of the film would reflect the film's dramatistic elements, I argue that evidence of sharing is found in the frequency and intensity of the comments and their relevance to the visional concepts as I detailed in Chapter 5. An additional factor of sharing might be considered as the number of viewers comments found on the film distribution websites from which the data was gathered. For a similar environmental film, Tapped (2009), which also received festival awards and some critical praise, there were less than 30 comments posted to these websites at the time of this writing. For Gasland, the number of postings was reaching 150. By further comparison, An Inconvenient Truth (2006), the documentary credited by some with making climate change a household word, had more than 1,000 comments posted.

One of my findings is the extent to which the natural gas industry shares in the primary vision of the adverse effects of gas development, even while contesting it. The industry responds with exceptional vigor to the rhetorical vision constructed by the film, suggesting that it recognizes the persuasive effectiveness of the vision and it crafts its repudiation of the vision's arguments by using the same dramatistic elements as the vision itself as it constructs a competing rhetorical vision while attempting to redefine the drama in its own terms. The industry also accepts Fox's dramatic elements and honors them, in a way, by responding to the film's vision by developing a mirror image of it in order to refute it. Where *Gasland* presents Fox as the hero,

the industry portrays him as the villain; while the gas industry is the villain of the vision in the film, the same industry responds by depicting itself as the honest arbiter of the "truth," the trustworthy provider of clean, American energy and jobs. In turning his vision on its head, however, the industry lacks the consistent and recognizable trope of Fox's quest and road trip narratives and fails to give its audience rhetorical themes that can counter the powerful emotional images of the apocalypse seen in the film. I argue the industry's vision proves the chaining of Fox's rhetorical vision by its reliance on the same dramatistic elements, but it also leaves its vision lacking a unique narrative character and cohesion that would allow for a greater acceptance by the viewers. These emotional responses to the rhetorical vision by viewers who make such strong statements in support or in castigation of the vision as well as their actively modifying, extending, or reversing the vision using the vision's own constructs gives additional relevance to the contention of Bormann et al. (1994) that symbolic convergence theory is effective in including the consideration of an audience in rhetorical acts, that "fantasy theme analysis put[s] the audience back into the rhetorical paradigm" and that it fully involves the concept of "rhetorical community" (p. 268) as when Fox's well-crafted vision chains out to the supportive community within his audience. To the extent his audience accepts the dramatistic duality of hero and villain, however, the film's vision can also be interpreted as solidifying the polarization of positions within the issue network, and working against more open discussion leading to possible compromises and resolutions.

But I argue that there is a rhetorical artistry to Fox's film that truly becomes apparent when viewed through the lenses of fantasy theme and rhetorical vision analysis. The intricate, coherent, and consistent method in which Fox constructs the themes, thematic types, and visions within the film's visual narrative structure are, I suggest, what gives the film its critical success

and encourages many of its viewers to share in its vision. Nonfictional documentaries generally do not follow the traditional narrative path of the fictional cinematic piece; they bring with them a sense of representation of reality and not the telling of a "story" that audiences expect from the narrative film. Within the documentary genre, narrative structure is not usually obvious and critics and audiences tend not to identify settings, characters, and plots within the film. It is by applying the tools of fantasy theme analysis that the critic can see this underlying narrative structure more clearly and better determine and document how the "power of a film" is connected to "social change" (Barrett & Leddy, 2008, p.2). When viewed as persuasive, "documentary often seemingly hides its intention" and argues "while [its] own rhetorical structure seeks to remain largely invisible" (Frentz & Rosteck, 2008, p.6). An effective vision will consist of narrative structures and meaningful, relatable thematic elements; Fox's vision in Gasland is constructed by mapping known and relatable thematic elements of the environmental movement onto narrative structures that are both ancient and identifiable to his unique American audience. The use of the mythical narrative structure of the hero's journey, while intertwining it with the modern road trip theme builds the rhetorical vision using "collective narratives reaching beyond the boundaries of any specialized body of knowledge and touching the heart of a society's emotional, spiritual and intellectual consciousness" (Killingsworth & Palmer, 2000, p. 177). Gasland has narrative components that work together to create the overall rhetorical vision and more than create it, these narrative elements bring the audience into alignment with the story being told and work to create strong identification between the audience and the screen. The rhetorical vision of Gasland works with its audience to allow for the construction of a reality that can make sense of a confusing, and possibly threatening, situation. Fox's viewers can galvanize around the issue as portrayed by Fox and become in some small way an advocate; as Swartz

(1999) says, "Rhetoric is an invitation to be something" (p. 7; emphasis in original). This is in part due to the rhetorical skill with which Fox creates his themes and vision and in part due to the innate power of the narratives and themes he chooses, consciously or subconsciously, to use. Fox selects as narrative frames on which to drape his themes two rich concepts that carry his primary structural track of a "journey to find the truth"; the "truth" being, of course, the rapacious nature and actions of the natural gas industry in bringing destruction down upon a vast area of land and upon numerous innocent American citizens. These narratives are those of the "Hero's Journey," in which wisdom is gained through a quest to a "challenging, unfamiliar world" in which many obstacles are faced and overcome, and the related, uniquely American "road trip" as a fabled source of discovery and learning in the American psyche. Onto these narrative frames, Fox then weaves the fantasy themes—crafted within the dramatistic elements of setting, character, and action—into thematic types that I have found previously to be prevalent and consistent throughout the modern Western environmental movement, those of the apocalyptic narrative, the American Jeremiad, and nature as Eden. The use of these themes by Fox supports Archer (2007) in his arguing that rhetors can "enhance or build" their arguments by adopting and adapting "themes as they already exist in our culture" (p. 6). These fantasy types, in particular, work to allow the audience to generate a common response by generalizing from a specific referent in Fox's visional narrative without the "abstractness that characterizes much generalization; giving the archetypal-fantasy both the 'sense-making advantages of generalization and the persuasive power of the specific" (Bormann, 1985, p. 132). The familiar narrative structures give comfort to the audience as Fox more fully forms a primary vision using fantasy types that are at the core of environmental rhetoric and that lead a Western audience to an anticipated conclusion.

Crafting an Effective Rhetorical Vision

Specifically then, how did Fox construct his cinematic vision so that it resulted in a "complete symbolically created reality" (Shields & Preston, 1985, p. 104) that moved its audience to both vigorous and passionate accolades and animosity? The critic should, of course, recognize that the term "effective" is itself problematic in the sense that while I argue that Foxis vision is shared and acted upon, it must also be suggested that the actions resulting from this shared rhetorical community may or may not be moving the issue of concern nearer to resolution. As discussed previously, work on this rhetorical construction originated when Fox found himself caught up in events emanating from natural gas development in new and uncharted areas of the United States and his response led him to use his skills as a writer and producer of plays and his more fledgling skills as a cinematographer and director to seek some answers for himself and his neighbors and to present them in the genre of documentary film. In creating this film, Fox constructed what Bormann (1982a) would call "an organized artistic explanation of happenings" that expressed itself as a rhetorical vision "that makes sense out of the blooming buzzing confusion of the experience" (p. 134). The sense-making of the film, Gasland, and its fantasy themes and types, and its resulting rhetorical vision, was not only created for Fox and a few neighbors, but Fox desired that it carry learning to a larger audience and to do that, the vision must be shared by that audience and adopted by it as "a symbolic consciousness that is constitutive of [its] reality" (Bormann et al., 2001, p. 271). In achieving such a consciousness, Fox created a dramatic rhetorical piece that brought known and identifiable themes to bear on this evocative issue. Fox's rhetorical vision of a villainous, powerful industry laying waste to large parts of our country and ruining the lives of countless men, women, and children, with nothing being done to stop it is a message that creates

excitement and resonance with not only the film industry, but a section of its viewership, as well as sparking retaliation by that "evil" industry. Fox primarily speaks to his audience and builds his vision through the personal stories of the residents of his imaginative creation, the "territory of Gasland." Fox insists there is a "real" Gasland and the audience is exposed to it through his travels as he shows images and recordings of the residents' personal stories. Fox graphically portrays Gasland as a land of devastation and contamination and pollution that is the result of specific actions of the natural gas industry motivated by greed and propelled by a total indifference to or self-denial of the harm these actions are causing to the environment and to humans. The industry and its powerful partners in government have subverted the regulatory processes of the states and the nation, exempting their actions from regulatory oversight, buying or bullying the cooperation or indifference of regulatory agencies, or being instrumental in reducing budgetary support to the agencies, resulting in understaffing and incompetence. In this vision, the industry has effectively neutered the regulatory process at the local, state, and federal levels; the industry is out of control and acting on its worst impulses, purely for excessive economic gain. The vision argues that this gain for the industry is at great cost to the environment and to those living in Gasland and, ultimately, the nation. In contrast to the apocalyptic devastation of Gasland, there are other parts of America that are untouched by gas development; these remain as beautiful "Edens," where humans and nature live harmoniously together. But these areas are now under severe threat of destruction from the juggernaut of the natural gas industry's development and, if this development is left unchecked and uncontrolled, these virgin areas will be destroyed in the same fashion as Gasland. The vision culminates in the overarching concept that everything is connected, we are all connected; if we let them contaminate and pollute in one place and make one person sick it effects us all.

The rhetorical vision just described is not explicitly stated in the text of the film, but its essence is most closely expressed by Gasland resident Lisa Bracken at what appears to be at the point of epiphany for the film persona of Fox, when she says:

The corporate business model is to come into an area, develop it as fast as you can, and if you trash anything, you make the people who you impact prove it. You make them argue it in a court of law and the last person standing gets bought off and you move on.

(1:04:37)

Significantly, it is this point in the film that is a dramatic turning point for the film's protagonist as Fox meets and overcomes his most emotional trial and achieves the awareness that is at the heart of the film. Fox is shown by himself on Lisa's property by the side of the polluted West Divide Creek, by the bend in the stream, and he narrates, "I had tried to keep anger and sorrow at bay, but the moment I knelt down at Divide Creek I looked upstream and noticed the bend. It reminded me of home and I broke apart" (1:05: 23). He rises from the creek and continues with his pilgrimage, but he has experienced the reality of connectedness and now knows—has internalized—that what is happening here can happen anywhere; it can happen everywhere and to anyone.

The vision is straightforward, but its strength and persuasiveness is in its telling and more importantly in its construction. Fox is relentless over the two hours of the film in recounting, visually and audibly, the horrors that the gas industry is committing to the country. The film pounds the audience with bleak images of devastated countryside, first rolling endlessly past the car as he travels through the blighted area and then surrounding the homes of each resident he visits: brown grass, gray skies, leafless trees, clouds of pollution, and an industrial wasteland of tanks, drill rigs, and filthy pits. Industrial technology and mechanical edifices have taken over

entirely. This is a true apocalyptic theme of near total destruction; possibly worse than total destruction because the people are left to suffer there—it is a Hell on earth. This desolation is more powerful because it is dramatically and abruptly juxtaposed with idvllic views of what the country was before, a rural Eden with lush vegetation, clear streams, and people living in complete harmony with nature. This Eden is now threatened; the apocalypse is moving relentlessly across the country destroying all within its path. Possibly more threatening, this apocalypse is not, like the fable in Carson's Silent Spring (1962), "caused by the people themselves," it is being done to the people, either directly against their will or through devious manipulation, by an all-powerful, faceless, soulless entity against which they are helpless. In some respects, it may be this element of aggression that contributes to the creation of a supportive rhetorical community and the hostility and defensiveness of the industry's response. Audibly, the blight is conveyed through the voices of ordinary people, much like those in the audience, as they recount the never-ending afflictions of contamination, illness, and death on them by the natural gas industry. Individuals in their own yards and in their own homes tell of specific harm that has come to their property and to themselves. This theme, I believe, resonates with many in the audience because all of this tragedy has occurred within the homes of the residents. Their very drinking water in their own kitchen is not safe; it is a bright fiery hazard to them. Their homes are threatened by drilling rigs, gas wells that can and do explode, condensate tanks that put out poisonous fumes, and deadly chemicals that invade their drinking water—the very source of life. Pointedly the most threatened appear to be women and children, with the most ill being mothers and wives; and with children being at risk, parents cannot even let their children outside to play.

This desolation and its fault lying with industry are further authenticated by interviews with and information from a series of well-meaning, impartial experts. They recount the "facts" of the matter, the tons of pollutants being put into the air and the water, the frightening litany of diseases and ailments that are inflicting the residents of Gasland, from nerve and brain damage to death. This group of scientists has the facts to give the citizen's anecdotal evidence credibility. although the most powerful credibility comes from the testimonies of these innocent people themselves. They are being damaged and have no motive to lie about it. The experts and the residents both give damaging testimony to the indifference and/or the incompetence of those who are supposed to be protecting us all, the regulatory agencies. These are the people, the only people, commissioned to look out for the interests of the less powerful, to protect the citizens of this country from hazards and risks of industrial actions. The people cannot fight against the power and money of vast corporations, but must rely on the ability and effectiveness of the regulatory agencies and the regulations they enforce to protect them. Fox makes the case over and over again that these agencies and the policymakers who put the regulations in place have completely failed these residents and us all. Fox gives the natural gas industry no way out of these accusations; the film offers no redeeming quality to this industry at any point in the narration and in so doing, the film's vision appears to negate any efforts to reason or negotiate with the natural gas industry. The residents give repeated evidence of the industry representatives being callous in their indifference to their suffering. Repeatedly and consistently the industry denies first there is anything wrong at all, second, if there is something possibly wrong, it has nothing to do with gas development, and third, they will pay to silence the most forceful of the complainants. The film portrays the industry persona as dishonorable and untrustworthy. When water is replaced or other damages compensated, the action is always accompanied by a

nondisclosure agreement requiring the victim to remain silent about the problem and the payment; if any of those so compensated continue to speak out they will be legally obligated to return the compensation amount, plus also being in violation of a legal agreement. The vision created here does not raise the issue of natural gas being of value to the country because it is a clean energy resource domestically available, nor does Fox introduce the concept that gas development can bring economic development to economically depressed parts of the country. The film is unrelenting in its viewpoint, by omitting these possible benefits of the resource, that there is no value worth the cost, worth the wholesale destruction of people's lives and land and it relegates action to the realm of resistance and not comprise.

Bleak as this apocalyptic vision is, all is not lost, if we heed the word of Fox as a Jeremiad prophet. There are good politicians fighting for the people and against the industry out there, and they are supported by well-meaning experts and regulatory maverick "whistleblowers." The people must listen and learn about this horrific situation and realize, most importantly, that everyone—with the notable exception of members of industry—is in this together; *all* are in trouble. It is not just those who have suffered from the horrors of Gasland, or those, like Fox and his neighbors, who are in the path of this natural gas juggernaut, but it is everyone who has not yet been touched by this wave of destruction. Those homes in Gasland are the same as Fox's pure, clean land in Pennsylvania, and the homes of the audience are the same as his and theirs. If the uncontrolled, greedy natural gas industry can do this to them, it can do it to us. We must learn all about it, be aware of what is going on, and then, apparently, take action to stop it. One option appears to be to support a transition to renewable energy. Those politicians on the front lines of resistance need our support and our help; we must step up to the plate with them. Fox weaves together this rhetorical vision using known narrative structures and threads of

thematic types that especially resonate within the environmental movement, which I will now explore more fully.

Narrative Structures

As frames for his themes, Fox employs, consciously or unconsciously, two familiar narratives that serve to provide movement and unity for the dramatistic elements of his vision. First there is the mythic narrative of the "hero's journey" as best defined for us by Joseph Campbell (1949/1972, 1991), but as a narrative structure that has been involved in human story telling for thousands of years. The second is a related, but uniquely American narrative of the "road trip." These structures provide Fox a direct link into the narrative paradigm of Fisher (1987) and gives his approach a connection to humans as innate story tellers who willingly construct their realities through stories, while still having the shared consciousness experience of a rhetorical vision.

The hero's journey. Fox's overarching narrative structure strongly echoes the mythic story construction of the "Hero's Journey," as explicated by Campbell (1949/1972) or the American environmental variation, "American Heroic Recovery Narrative," as explored by Merchant (1996) and Schutten (2008). Categorized as a mythic narrative, Versenyi (1974) explains that myth is "neither true nor false," but essentially means a story told by "word of mouth" rather than written; stories that are "orally related and transmitted from generation to generation" (p. 1). Campbell (1949/1972) extends the term to define the myth as "the secret opening through which the inexhaustible energies of the cosmos pour into human cultural manifestations" (p. 3). Myths then, are narratives that surpass specific times and places and speak to the essential questions of humanity and, as such, carry with them the power of cultural identification; they "draw upon a surprisingly universal storehouse of archetypal information

about what it means to be human and how to live a meaningful human life" (Mackey-Kallis, 2001, p. 14). Not only in the past, however, mythical structures and archetypes can carry into the future and provide guidance during times of transition when coming to the end of one time and the beginning of a new one; such a time, when "Armageddon" may be threatening, requires "myths that will identify the individual not with his local group but with his planet" (Campbell, 1991, p. 24). Fox's journey certainly results in his connecting the plight of those in Gasland with himself, his neighbors, and the world, calling his audience to extend their provincial views to the planet. His journey follows the mythical narrative that Campbell (1949/1972) labels the Hero's Journey or Quest, or the "Monomyth," meaning the primary myth from which others come, of which the central elements are "a separation from the world, a penetration to some source of power, and a life-enhancing return" (p. 35). As Mackey-Kallis (2001) says, "The universal quest myth . . . emerges in cultural myths . . . historically and culturally grounded interpretations of archetypic stories" (p. 125). This monomyth is a "central universal story in which the archetypic events of separation, initiation, and return are acted out" (Mackey-Kallis, 2001, p. 14). Following this narrative arc, Fox is called to leave his home and journey to a foreign land—Gasland—there to endure and survive trials, be granted a boon, and then to return home to share that boon. Overcoming the trials of his trip into this blighted land, Fox gains deep wisdom and knowledge of the risks of gas drilling and, much more importantly, the insight or "gift" that all humans and humans and nature are linked together; what is done in one place to one person effects us all.

In this plotline, the protagonist acts as a visionary or prophet and by moving through the phases of the Quest results in "healing the culture by [his] ability to transcend the dualities of human existence, seek unity from separation, and move culture to the next level of consciousness" (Mackey-Kallis, 2001, p. 27). The Russian folklorist Vladimir Propp (1958) also

recognized the essential characteristics of the myth, as cited by Merchant (1996) in her recounting of Propp's six stages of the mythic hero narrative:

(1) the hero's initial absence, (2) his transference from one place to another, (3) the combat between hero and villain, (4) the hero's receipt of a gift, (5) the victory, and (6) the final repair of the hero's initial absence. (p. 140)

Merchant (1996) begins with Propp (1958) as she explores a variation of the hero's quest, the recovery plot, in her applying this mythical context to environmental communication. This plotline is "the long, slow process of returning humans to the Garden of Eden through labor in the earth" (Merchant, 1996, p. 133) and changes the journey to one of bringing the hero into a new land that he leads to a return to Edenic qualities, although much remains the same as he battles with a villain and secures a gift or victory. In Schuttens' (2008) representation of the recovery plot, however, he reverts to the hero's quest and has the protagonist returning to "civilization' where there is a 'repair' or recovery of social ills" (p. 199). It is such variation in interpretation and understanding of this mythic narrative that leads Mackey-Kallis (2001) to suggest that myth, "by its very nature is an open form," not meaning that any variation will do, but "open in the sense that the range of interpretations of meaning is broader than narrower, polysemic rather than monolithic" (p. 233). While there are elements of the recovery plot in Fox's work, he most closely follows the structure presented by Campbell (1949/1972, 1991) as his journey outward away from his home takes him through a land that is strange to him, presents trials in which he is sometimes aided by mentors or shamans—the experts of Gasland, and possibly the elected officials—in order to gain a gift that he then brings home to "share with the culture" (Mackey-Kallis, 2001, p. 13), not only his neighbors, but audiences across the world.

Campbell (1949/1972) believes this boon is awarded the hero at the "nadir of mythological round where he under goes a supreme ordeal" (p. 245-246), which I believe is shown in the film by Fox's experience at West Divide Creek, where he breaks down under the realization of the horrors he has seen and experienced and finally recognizes the connectedness of all life. In some renditions of the hero's journey, this gift that is awarded takes the form of a Grail, and the epic becomes a "Grail romance," the theme of which is that "the land, the country, the whole territory . . . has been laid waste; it is a wasteland . . . where everybody is living an inauthentic life" (Campbell, 1949/1972, p. 32). The Grail is what is needed to bring authentic life back to the wasteland. Fox has visited the wasteland and although it appears that it is lost, it can be recovered in a sense if the "Grail" of wisdom he has brought back can save the rest of the world from a similar fate. This journey, however, is more than the physical one that Fox takes, it is ultimately an internal journey where his vision of the world is forever changed; a vision that he is compelled to share with the world. This change "requires a journey inward—if the hero is to grow—and ultimately necessitates a journey homeward—if the hero is to understand his or her grail or boon and is to share it with the culture at large" (Mackey-Kallis, 2001, p. 1). There are many examples of the hero's quest in film, such as Raiders of the Lost Ark (1981), The Natural (1984), and The Lion King (1994), and this may speak to film being a powerful format for the archetypical material of which the myth consists. The composite of image, voice, and representation of the "real" found in both narrative and documentary film can appear to be formed as "memories, reflections, or dreams, where images combine, face or dissolve, contrary to physical restrictions of time, space, object constancy, and causality" (Davis et al., 1982, p. 333).

A journey homeward and home, itself, are not only central concepts to the hero's journey or the recovery plot, they are also central to Fox's cinematic and rhetorical vision. The mythical hero, as does Fox, completes a mandalic movement from home and back again; because of the journey, however, the home is not the same as he left, it is transformed by his deeper understanding of life because of the gift he has been granted. In Gasland, though, home is not only the beginning and the end, it is a theme running throughout the film. It is possible that having "home" and "threats to home" as a central thread through Gasland is one reason why Fox's vision strongly resonates with audiences and it may be one of the more persuasive narratives of the film. Fox visits many homes in his journey and finds them all to be damaged or severely threatened by the enemy and the enemy's devastating and cruel actions. This threat is the more horrible because it attacks homes, it enters homes and makes them unlivable; all of which makes the threat to Fox's home more appalling and more immediate, and quite possibly more meaningful and relatable to Fox's audiences. More significantly, home is not just the physical presence in rural Pennsylvania, but it is "a state of mind or a way of seeing not possible before the hero departs" (Mackey-Kallis, 2001, p. 1). Home is also a popular theme in many films, several of which also include plotlines reflecting the hero's journey, just a select few include The Wizard of Oz (1939), Gone with the Wind (1939), It's a Wonderful Life (1946), Field of Dreams (1989), and the Star Wars series (1977-2005) among many others. In fact Selcer (1990) argues no myth in American cinema "is stronger or more persistent than the myth of home as the best possible place in the world" (p. 54). The popularity and persistence of these films over many decades, Mackey-Kallis (2001) argues, and I agree, may "rest in their ability to reinterpret the quest for home in a fashion that speaks to our collective unconscious while also reinvigorating our private and collective searches for meaning and growth in an era of separation

and fragmentation" (p. 235). I argue that *Gasland* and its effective use of such themes also speak to this collective unconscious in calling its audience to action. Many such films revolve around the loss of home and at least two of the most well known and respected—*Gone with the Wind* (1939) and *The Wizard of Oz* (1939)—are built on the terrible risks to and loss of home during the great depression of the 1930s. I would argue that it is not just a coincidence, but is possibly operating on Fox's unconscious presentation of his film that *Gasland* was produced during the great recession of 2007 that was initiated by a cataclysmic destruction of the housing market, untold mortgage defaults, and bankruptcies. And like the 1930s, this loss of home was not due to the forces of nature, as Mackey-Kallis (2001) notes, it was due also to the "relentless pursuit of capital, signified by the increasing number of monopolies in business and industry and the consolidation of wealth into fewer and fewer hands" (p. 131). In this way then, Fox's rhetorical vision of his film is using ancient narratives that are equally reflected in cinematic culture of the United States today; touching, I argue, on innate sensitivities of today's audiences and striking powerful chords of recognition and identification.

The road trip in America. *Gasland* not only maps its themes and fantasy types on the narrative frame of the Hero's Journey, it also prominently uses the structure of a variant of that mythic formula, the "American road trip" as the mechanism for the hero's movement. Swartz (1999) says that "the 'road' represents an odyssey; it itself is a drama . . . a wilderness" (p. 66). The road trip narrative is as powerful as the structure of the hero's journey, or possibly even more powerful and relevant to the American and Western audiences for whom the film was created. As Dettelbach (1976) says, "in America, the automobile shapes—and haunts—the imagination" (p. 120). The road trip narrative is particularly effective for fulfilling Fox's expectations for his film as it grows out of the concept of travel as a form of growth, change, and

learning, adapted for the expansive American landscape. Lackey (1997) places the beginning of a rhetoric of modern travel well before this period in America as a time when "the knight chose his journey" (p. 7) and saw it as an "opportunity to demonstrate an identity—as freedom, selfdisplay, and self-discovery" (Leed. 1991, p. 13). And Leed (1991) further posits that travel "has long been a means of changing selves, a method of altering social status, of acquiring fame, fortune, and honor" (p. 263). Travel in the United States, "a nation constructed by movement into and beyond flexible frontiers," has been manifest as a "journey into the unknown [that] has served to define national history and identity" (Carden, 2009, p. 78). This American experience of travel evolved into to the post-war family road trip that is familiar to today's audiences, and is referenced as having "helped Americans understand their status as citizens in the American nation;" even from the earlier tourist travels of the 1800s, "travel has been used by Americans to see themselves as citizens of a mighty nation" (Rugh, 2008, p. 14). The "road trip" might be rhetorically viewed as a uniquely American phenomenon, growing out of the country's expanse of territory and resonating with the American saga of "Manifest Destiny" and the great move west as the country was formed and settled. Indeed, the loss of the mythical American Frontier is credited with the establishment of the American environmental movement as the wilderness became "scarce" and began to be created as a sacred place where we can "know ourselves as we really are—or ought to be" (Cronon, 1996b, p. 80). The advent of road trips west to seek this frontier as the nation experienced growth in the ownership of the automobile and the development of better roads is also credited with sparking a "broader environmental movement" as conservationists feared such "tourism would damage the national wilderness," and the movement was in turn supported by those who had seen the wilderness for themselves and had "camped in the national parks" (Rugh, 2008, p. 7). Perhaps some of the mystical quality of the

American road trip experience is to be found in an effort to both experience the spirituality of this fading wilderness and reclaim the romance of the now-vanished frontier. Fox builds his film and his vision around this concept of the road trip and, in so doing, I argue, takes advantage of a persistent dramatic theme of American culture. It is also a theme that is the subject of many narrative films that have resonated with the American public, such as Easy Rider (1969) and Thelma and Louise (1991). But Fox's use of the journey taps into something even more ancient than the American road when it is intertwined with his use of the mythical narrative of the hero's quest, a "universal story that appears in cultures across time" (Mackey-Kallis, 2001, 17) and that features a hero that "journeys through a world of unfamiliar yet strangely intimate forces" (Campbell, 1949/1972, p. 245-246) from which he returns with a boon or a prize. By including the dramatic elements of both the "road trip" and the "hero's journey," Fox has built his vision around an amalgamated frame with firm roots in Western and American cultural archetypes and one that (re)creates within the minds of his audience feelings of adventure, discovery, and ultimate gain that not only carries them into the vision, but also lets them endure the horrors they see in Gasland—the film and the place. Indeed, "the rhetoric of discovery" incited by visions built around these American travels, "remains vital after almost a century of American nonfiction automotive narratives and road novels" and films (Lackey, 1997, p. 4). Travel in America is readily identifiable with the protagonist of the "quest" because, Carden (2009) argues, "From Pilgrims to frontier explorers, from John Smith and Lewis and Clark to Daniel Boone and Davey Crockett, American heroes have been travelers" (p. 78). Although beyond the scope of this work to explore further, I should note that travel rhetoric in America is problematized with racial and gender overtones. For the racial minority in America, travel was a far different experience than for the white majority and while the black traveler also found such travel a symbolic

undertaking, "discrimination against black travelers meant that vacationing . . . was an uncertain, even fear-filled, experience," one "beset by fear and harassment" rather than a carefree trip of discovery (Rugh, 2008, p. 69-70). Western ideas about travel, and the road trip in particular, have also generally "reinforced patriarchal values and ideology from one male generation to the next" and have been too often "conceived as the rite of passage to manhood" (Van den Abbeele, 1992, p. xxv-xxvi). It is worth further study to investigate the effect that the biases inherent in this road travel narrative might have for the audiences and their participation in Fox's rhetorical vision.

Within the vision of Gasland, Fox's employing of the road trip narrative causes further tensions between the concept of home and Fox's overarching plotline of travel. Fox's home in Pennsylvania offers tradition and tranquility, while the road leads into a nightmarish apocalyptic scene; although also yielding education and wisdom. Clarke (2007) reinforces this concept, "The presence of the car complicates the increasingly fragile sense of home in late-twentieth-century America. Often serving as a literal shelter, it highlights the instability of home" (p. 8). This is thematic in Gasland for while "the road" is frightening, Fox takes his home with him in the form of his automobile. In it he is separate and safe from the nightmare he sees outside his windows and windshield. He uses it as an office, to make phone calls and to continue his search for answers; but he is never threatened there, we see he is thoughtful and concerned, but is able to use the machine to safely both "mix" with the others of a strange land, while still being "contained" within this extension of his world (Larson, 2009). For Fox, travel continues to be a source of learning, of knowledge, even beyond the ending of this journey into Gasland. At the end of the film, as the credits roll, the view is once again from a traveling automobile looking out toward passing wind turbines, suggesting a better, alternative future possibility and also

suggesting that there are more journeys to take and much more to learn. We are reminded, possibly, that "while we inevitably end at conclusions, as journeys end at arrivals, these resting points . . . must be seen as temporary; they are places to catch our breath before we move on to other places" (Swartz, 1999, p. 95). Fox purposefully chose the narrative of the road trip, although he apparently was not necessarily conscious of the deep roots and meaning the structure would have for his audience. He saw its usefulness as a narrative structure to convey movement and create greater audience interest in his topic and its interview-driven narrative. In an interview he stated, "We chose to structure it as the trip, as the road movie, because that was more interesting than going segment to segment, topic to topic" (Egner, 2010, p. 3). Interestingly, a similar justification was given for the iconic road trip narrative of *On the Road* by Kerouac when he noted that his "fear of boring the reader" with recounting of childhood memories, "could be abated . . . by pretending to be driving on the road" (Larson, 2009, p. 39). The American road trip is a narrative easily and readily accessible to and identifiable with by Fox's audience and a frame that is rhetorically effective for carrying the fantasy themes and types he weaves into his vision and which we explore next.

Environmental Fantasy Types in Gasland

As with other analysts using the fantasy theme methodology, I have found that the themes of Fox's work combine into specific fantasy types, a term defined by Foss (2009) as a "stock scenario" that is capable of being easily recognized by an audience and that carry across time and discourses. This is a narrative mechanism that allows and encourages audiences to fit new events or experiences into familiar patterns. By recreating a familiar scenario that contains the unfamiliar details of risks and hazards of a technology, such as hydraulic fracturing, the rhetor can make the unfamiliar and out-of-the ordinary more understandable and more

environmental themes that have been with the movement from its earliest beginnings in the eighteenth and nineteenth centuries, as well as others that have been developed since. I have found three primary (re)creations of fantasy types in this work that are familiar to the arguing of environmental issues and are also discussed more fully in Chapter 3: the *apocalyptic narrative*, the *American Jeremiad*, and *nature as Eden*. These work together to construct the vision and carry with them rhetorical imagery with which Western audiences will connect and identify; just the suggestion of parts of these thematic types will create within the audience a host of feelings and expectations that carry them along to the conclusion that Fox seeks. Significantly, also, each of these has strong representations within the media of cinema, primarily the narrative film, but also with documentaries.

The apocalyptic narratives. As a visional building block, Fox stresses the apocalyptic narrative; a dramatistic scenario that readily conjures up fears in the audience of world destruction, or of a complete breakdown of civilization and societal mores. In one version of the post-apocalyptic world, the individual is left without power and without recourse, to survive as best they can in a polluted and lawless world. This has been effectively used in many narrative films, including the *Mad Max* trilogy (1979-1985), *The Terminator* (1984), *Waterworld* (1995), 28 Days Later (2002), and The Day After Tomorrow (2004). Many others treat events that are about to cause the apocalypse, while the protagonist of the film must take action to stop the event or fight the enemy bringing total destruction, such as *Independence Day* (1996), *Armageddon* (1998), and *Andromeda Strain* (2008). All an audience needs to see is the blighted landscape Fox shows through his windshield to trigger the recognition and fear of apocalypse in their minds; they bring with them all the other images and responses developed from previous exposure to

that narrative. As I have discussed previously, there are many scenes of apocalyptic imagery in Gasland, but one of the most effective, I believe, is about one hour into the film when we have a shot of a front vard with bikes and trikes scattered about, but no children visible or heard; no human presence of any kind. Accompanied by a narration of the devastating effects of gas development in the area, we are left with the visual impression that either the risks are so great the children are hidden away or must remain indoors, or this is, indeed, the end of humanity. In this case the narrative is bolstered in its effectiveness by its ancient origins in the narratives of Christianity and by its more modern application in the decades-long fear of a nuclear holocaust. Fox uses this apocalyptic narrative with particular force, I believe, because he has avoided one of the primary weaknesses of the form; the portrayal of the apocalypse is usually a predictive narrative that depends on visualizing an imaginative future based on many parameters coming together to bring it about. All critics of such an environmental apocalyptic scenario must do is to discredit the most extreme stance of the vision to defeat the entirety, as Beder (2002) notes that critics have falsely argued in the case of cataclysmic climate change. With Fox, however, the apocalypse has already begun and he can show pictures of it happening; he can show and speak to eyewitnesses who are living through it. It cannot be refuted. It is shown, it exists. The only question left for the audience, "Is it really spreading? Is it coming to my home?" The film here makes its ultimate argument that, indeed, it is. Your home and your family are no different from those in Gasland, or in the Gaslands of the immediate future; you, your home, and your family are at real risk from this apocalypse in motion.

The American Jeremiad. While Fox's vision is permeated with images of the present and future apocalypse, he does not leave his audience hopeless in the wasteland of Gasland. He offers salvation by employing elements of the American Jeremiad narrative that is frequently

found in the communicative discourses of the environmental movement. Named for the Old Testament prophet Jeremiah and honed through the oration and philosophy of colonial American religious leaders, the American Jeremiad theme concerns the coming of a prophet to foretell of apocalyptic and cataclysmic events that can only be averted if his audience heeds his warnings: the apocalypse is not inevitable, but is actually preventable if, as he urges, his hearers "change their ways" (Brummett, 1991, p.17). Fox casts himself in this role of prophet, needing to warn the people of what is to come. This role is not only consistent with the Jeremiad narrative, but it is also a key element of the narrative form of the hero's journey; the hero must return home with the Grail, the wisdom that will save his world. This call is at the very core of the film, as it is Fox's need to know more and to share what he learns with his neighbors that leads him on his journey in the first place. This need to learn and to educate drives Fox through the arc of his film, as he gains insight into the blight of gas development and as he reaches his ultimate point of wisdom in recognizing the connectedness of it all. Fox's rhetorical vision works to condemn the nation's lack of attention and care that allows the natural gas industry to reek its havoc on innocent people, but is does not chastise its audience as many Jeremiad narratives do; it asks them, rather, to open their ears and listen and learn of the cataclysm that is now and will be coming to them. Fox's vision has much hope that his audience will act to halt the spread of this devastation, once they are aware of it and take action. His quest to learn so that he can warn the rest of the world is highlighted by an exchange with one of the residents he interviews, Lisa Bracken, who shares a dream of hers with him. In keeping with the narrative of an Old Testament prophet, it is particularly meaningful that she has had Fox's role revealed in a dream. She narrates a dream sequence in which she receives a gift, but upon unwrapping it with eager anticipation she finds a substance that she was not expecting, as she tells him that, "crap is crap,

no matter what kind of package you put it in," and she charges Fox with the task to "stop trying to make it pretty. Just do it! Show it for what it is" (1:01:12). Through Lisa, the collective victims of the gas industry are sanctioning Fox with the task of telling the world about this cataclysm; what is happening to them. At least at one point in the film, Fox is clear about his admonishments to the audience with a definitive statement of apocalyptic proportions, "One thing was resoundingly clear . . . this [gas development] would be the end of the Catskills and the Delaware River basin as we knew it . . . it would mean a massive upheaval and redefinition" (0:18:07); Fox is taking up his prophetic mantel to carry this alarm of a future nightmare to others in the form of a Jeremiad narrative. But even more than carrying a message of physical danger, Fox's message is truly prophetic as it carries his ultimate lesson of transformational spirituality that we are all connected; that all life is connected, across time and space. Once this connectedness is truly recognized and internalized through listening and learning, the adversity will be resolved.

Nature as Eden. Countering the dominant imaging of the apocalypse in *Gasland*, Fox calls upon a venerable thematic type associated with early environmental movements, which speaks in terms of "nature as Eden" to portray the regions as yet untouched by natural gas development. This is representative of the Biblical concept of Eden in the Christian and Jewish faiths as a perfect place of infinite beauty that God has given humans to meet all of their needs. It is not a wilderness, but is one and a part of humanity; while a complex narrative, its essence is humans living in complete harmony with nature. This is the idyllic imaging that Fox gives to his family home in Pennsylvania and one that serves to heighten the fear of the impending destruction that gas development will bring. The theme of nature as Eden is one that resonates with his predominantly Western audience as it is a theme that brings forth the same images that

Fox uses to depict his home; as he narrates about his home at the beginning and the end of the film, he shows peaceful scenes of natural beauty, the clean, clear rivers, lush green trees, and the sun shining through—a sun that was notably missing from the devastated scenes of Gasland. In his narration, he says, "This is a place I know. It's a place that runs through my mind and it's always there. It feels to me like it's the source of all life . . . and it is" (0:08:46); he is speaking of his and his family's relationship to the land as having an eternal, spiritual, Edenic quality and the audience will follow these rhetorical cues to see this as a landscape, a setting, that must be protected. It is not just beautiful scenery at risk here—we might trade scenery for jobs and development—but it is the foundational scene of God's original home for his people that is at risk.

Seeking the "Truth"

The film and the intertextual responses to it deal with many complex issues within a wide range of areas: From technology, chemistry, engineering and geology to multi-faceted legislation and arcane regulatory laws and rules. The discourses and the competing visions simplify these issues in order to carry their persuasive arguments regarding environmental risks to a general audience that presumably has little to no technical knowledge in these areas. In doing so, the rhetors are making their arguments amenable to the "public sphere" in which they are operating—the film on television and in public distribution, and the gas industry in public websites. The concept of spheres of argument is arguably best delineated by Goodnight (1982), when he differentiates the rhetorical landscapes of the personal, technical, and public spheres. These "different spheres of argument," as Boyd (2002) says, "carry different expectations of what constitutes appropriate grounds and authorities for claims" (p. 92). According to Goodnight (1982), arguments in the personal sphere require only "the most informal demands for evidence,

proof sequences, claim establishment, and language use" (p. 220). Technical discourse is more commonly addressed to other experts in the field in which it is created and requires "a more limited space of communication that attempts to narrow the range of possible subject matters, and requires more professionalized language and forms of reasoning" than the personal or public spheres (Sovacool, 2008, p. 344). The public sphere is the arena for discourse that bridges the gap between the personal and the technical and in which issues are presented, discussed, and, often, turned into policy; here arguments extend "beyond private needs and the needs of special communities to the interests of the entire community" (Goodnight, 1982, p. 220). While the world of the technical sphere is dominated by professionals, scientists, and other experts, the public sphere's "primary actors are neither citizens nor experts" and it is an "arena where interests openly struggle for power"; it "tends to lack predetermined structure" and encourages "more controversial argumentation, since social actors are invited to appear and stake their claims" (Sovacool, 2008, p. 345).

Gasland introduces the aspect of the technical with its "experts" and their lists of hazardous chemicals, sheets of laboratory results, and infrared images, but its vision primarily relies on a characterization of these experts rather than a detailed exposition found in technical literature. Likewise, the industry responds, not with greater technical information, but with scornful and condescending comments regarding the film's experts and their findings, while it constructs the character of expert for itself. Thus we find that this contest for "truth" fought in the public arena of television, theaters, and websites hinges on the characters constructed by the respective rhetors and on the degree of credibility and trust that have been created for them. As Keränen (2010) says, "the entire scientific project depends on trust in the testimony of strangers" and that trust is largely generated by the characterization of those strangers. At least one of the

film's viewers agrees with this perspective and states, "I've read several rebuttals to claims the film makes but I've also read rebuttals to those rebuttals and it kind of just comes down to who seems like a more trustworthy source of information" (IMDB, Feb. 17, 2011). For Fox and the gas industry, the characters for which trust needs to be built are themselves and their experts that are actively created through the construction of their respective fantasy themes and these "emergent rhetorically constituted characters provide proxies for assessing the credibility of expert knowledge" (Keränen, 2010, p. 157). In this controversy, the public sees only partial representations of the expert data and have no real context for determining the validity of one argument over another; they must rely upon the characterizations constructed in the rhetorical visions to make their judgments. This is particularly challenging in this contested arena because the differing views are simplifications of complex issues that are deeply polarized at essential levels of understanding. Significantly also, the rhetors in this instance are in disagreement about the essential "facts" of this issue—"conjecture" in stasis theory—or the meanings or nature of the issue, the second level of understanding in stasis. In several cases the industry argues that contamination or pollution did not even occur, and in all of the cases where they do agree "something happened," they disagree as to what it is that happened. The pollution or contamination was not caused by industry actions, but by other purely "natural" occurrences. Without the ability to agree at even the most basic levels of stasis, it becomes extremely problematic for the public to determine the "truth" of the matter. These characterizations are further problematized in that both sides make significant errors, misstatements, and misrepresentations. While it is not clear from viewers' comments that any of these missteps have been recognized by the general viewer of the film, it must be asked if ultimately these will work toward degrading the acceptance of arguments on either side of the issue.

In making its arguments, for example, Gasland constructs "facts" or descriptions that do not fit with constructions by other parties, particularly the representatives of the gas industry. In creating their arguments and their visions, both Fox and the gas industry have instances where they have used reported findings from third parties to the advantage of their arguments and in some cases it can be shown where those findings have been misrepresented in their use. In some cases this misrepresentation is a minor turn of perspective or deviation from context, in other cases the misrepresentations are far more significant and blatant enough that it would appear they are purposefully used to "falsely" bolster an argument or strengthen a theme or vision. Many of the treatments of these issues depend upon how factors are perceived, how they are measured, or how they are interpreted; they are all, however, constructions that are created by parties with different perspectives, with different objectives, and with different levels of understanding of the issues themselves. It is beyond the scope of this study to do a quantitative analysis of these misrepresentations to determine which of the two rhetors use them most often or to what degree these misrepresentations are minor or significant, although such a study would be, I believe, most useful because the back and forth of whose stories are constructed as more "correct" is a large component of this debate.

I believe that it might be helpful to this study, however, to look at some specific instances to illustrate this element of the rhetoric. What might be considered one of the more extreme of these is found in the online article posted by EID, "Gasland Debunked," which pulls quotes from the film and then offers a rebuttal to the points those quotes are making. In one such instance, the article is discussing the harmful or harmless effects of methane occurring in drinking water in homes. Arguing that methane in drinking water is not a significant concern because it is

essentially harmless, the article takes a quote from an April 2009 report prepared by a third party, Abrahm Lustgarten with ProPublica:

Context from our friends at ProPublica: "Drinking water with methane, the largest component of natural gas, isn't necessarily harmful. The gas itself isn't toxic—the Environmental Protection Agency doesn't even regulate it—and it escapes from water quickly, like bubbles in a soda." (Abrahm Lustgarten, ProPublica, 4/22/09 as cited in EID, 2010, p. 6)

In Fox's response piece to the EID article, "Affirming Gasland," he and his supporters provide the complete quote from Lustgarten within its full context and it can be seen that EID left out a fairly significant portion of the quote:

Drinking water with methane, the largest component of natural gas, isn't necessarily harmful. The gas itself isn't toxic — the Environmental Protection Agency doesn't even regulate it — and it escapes from water quickly, like bubbles in a soda. But the gas becomes dangerous when it evaporates out of the water and into people's homes, where it can become flammable. It can also suffocate those who breathe it. According to the Agency for Toxic Substances and Disease Registry, a part of the U.S. Department of Health and Human Services, as the concentration of gas increases it can cause headaches, then nausea, brain damage and eventually death. (ProPublica report, cited by Fox, 2010, p. 9)

Such a comparison is illustrative of the extent to which the rhetors in this issue go in order to discredit others involved in the issue network or to bolster their own arguments. In my quest to examine rhetorical visions, such rhetorical strategies as grossly misrepresenting information extracted from third parties can be used effectively or ineffectively in constructing the visions.

Discovery by an audience of a consistent or egregious misrepresentation, however, would seem to undermine the effectiveness of achieving identification with the overall vision.

Fox also makes a potential error in the film that might challenge the credibility of his vision when he explicitly and implicitly indicates that the numerous occurrences of water pollution are directly attributable to natural gas development. He neglects to introduce the concept that it is possible to determine the generic derivation of the methane content of natural gas as either biogenic or thermogenic in origin. Biogenic methane occurs from decomposition of organic materials at very shallow depths near the surface, whereas thermogenic methane is created deeper within the earth. The chemical signatures of these two types of methane are quite distinct and allow for the determination of the source of any natural gas. This does not necessarily mean that sources of biogenic methane might not have been disturbed by drilling, but it indicates that it could be non-gas drilling related. The drilling of a water well can penetrate a pocket of biogenic methane and contaminate the water source. The appearance of thermogenic methane in drinking or surface water, however, would need to be related to deep gas drilling and production activities. In some instances the cases presented by Fox were either prior to, or after the film, determined to be biogenic in source. One of these was the water in the Ellsworth home and another the seep in West Divide Creek on Lisa's property, although a similar seep on an adjacent property was shown to have thermogenic methane. As shall be seen in my later analysis of intertextual materials, the natural gas industry focused much of their discrediting of the film on these discrepancies. In subsequent rebuttals to the gas industry, however, Fox claims to have purposely left this distinction out of his film because he believes that ultimately it is not relevant. He states, "biogenic gas can migrate as a result of gas drilling" and the "fingerprinting" of methane in a particular case "does not identify the migratory pathway of the gas" and he repeats

his argument of timing, that all of these problems with water contamination "happened after fracking occurred nearby" (Fox, 2010b, p. 8).

At least some of the observers of and participants in this issue network sought to grapple with this concern for misrepresentation or the concept of the "truth" of one argument over another. One attempt was made by Soraghan with the Greenwire online magazine to sift through the issue with an "objective" eye in order to determine the credibility of one rhetor over another. Soraghan's article, "Groundtruthing Academy Award Nominee 'Gasland'" (2011), was published online on the New York Times websites in response to the gas industry's somewhat unprecedented appeal, through Energy In Depth, to remove Gasland from its nomination for an Academy Award for best documentary in 2010 on the grounds that the documentary did not live up to the standards set for quality by the awarding body, the Academy of Motion Picture Arts and Sciences. In reading Soraghan's article it becomes clear that even an environmental journalist who specifically sets out to clear up the conflicts within this issue has great trouble in doing so. Soraghan primarily focuses on the disagreements that the EID piece has with the film, although it expands the issue set slightly from that. A critical reader might note that there are very few "yes or no" answers offered by Soraghan (2011) to the original claims by the film or the rebuttals by the industry, although he explores some issues that might help in framing some of the arguments. One such instance is Soraghan's (2011) recognition of Fox's often confusing conflation of the terms "hydraulic fracturing" and "natural gas drilling"; the fracturing is only part of the process of drilling and production, and much of the contamination and pollution presented in the film is due to the overall process of gas development and production and not specifically fracturing. Soraghan (2011) finds only a few specific points of discrepancy such as this one, however, that can be readily clarified. Contrary to the industry's claims, for example,

the 2005 Energy Act does specifically exclude fracturing from the Safe Drinking Water Act and the energy bill also allows for injecting fracturing fluid, "with or without 'hazardous materials' into sources of drinking water" (Soraghan, 2011, p.5). Contrary to Fox's narration in the film. however, there are not "over 596 chemicals" in fracking fluid and Soraghan (2011) notes that this number "might be the size of the smorgasbord that drillers can choose from. But in any given 'frack job,' the figure is more like a dozen" (p. 6). Aside from a few specific instances such as these, most of the statements on all sides of this issue are subject to polysemic interpretations and are characterized by the biases and motivations of the party constructing the claim. Even a brief examination of these various statements, as Soraghan (2011) attempts, illustrates the great value of rhetoric and, I argue in this paper, rhetorical visions in influencing attitudes and behaviors. These issues, I argue, are not readily decided by science and engineering, as much as the purveyors of those fields would like them to be; not only the general public, but experts themselves do not agree on answers or even the questions to be asked. Individuals are primarily swayed, not by logic, but by narratives and visions. In this study then, I do not attempt to dissect, compare, and contrast these various views, but focus on the visions created and responded to by the rhetors and the audience.

Chapter 7 — Reexamining the Human-Nature Relationship

In this dissertation, I have used Bormann's fantasy theme analysis to suggest an explanation for the popularity and impact of Josh Fox's Gasland. I have explored how certain rhetorical practices may foster a reconnection with the natural world and produce ways of constructing and communicating about the human-nature relationship. I argue that this rhetorical effect is achieved through a combination of ancient and modern narrative structures that appeal to a deep cultural consciousness, and environmentally relevant fantasy themes that resonate with socially constituted realities of the modern environmental movement. While creating a rhetorical community that shares this "reality," the film's simplistic duality may also serve to more strongly polarize and politicize elements within its chosen issue network leasing to questioning its "effectiveness" in advancing actual solutions to the issue. The film does suggest that we have clear choices in how we view and interact with the human-natural relationship. By taking the stance of a hierarchical structure and the view of nature as an exploitable resource, we incur an apocalyptic present and future; rather we must achieve, or revert back to, a mutually beneficial and interdependent relationship. In starkly contrasting these world views in the dramatistic fashion of the rhetorical vision, Fox imaginatively conveys to his audience the essence of where these diverse pathways lead. The juxtaposition of a world of death and the Eden of life so graphically portrayed encourages the viewer to move from acceptance of and apathy to corporate aggression toward the environment to a (re)creation of the potentialities of a return to Eden. Fox approaches this subject not from a position of authority, but from a position of identification with his audience, as an "average" individual thrust into a complex and dangerous issue. He sets himself apart from the object of study and becomes representative of us, as audience, seeking understanding and knowledge of difficult and complex situations, over which he, and we, have

little control at present. In the face of such an overwhelming and devastating issue, he suggests there is hope in just learning, understanding, and sharing knowledge, although it appears that this hope leads to resistance rather than conversation. The adherents to Fox's dual constructed realities of corporate greed and individual courage find hope in the possibility for action and a better future in final closing shots of the film, when the apocalyptic visions that have been viewed on his strange road trip are replaced with images of wind turbines in fields rapidly moving past the car's windows. This imagery speaks to the possibility for sustainable, renewable energy technologies to meet the nation's energy needs while reestablishing a mutually beneficial relationship with the natural world.

Research Questions Revisited

This study was motivated by three overarching research questions. By revisiting them, we can reflect on lessons learned from this dissertation.

1. What is the nature of the rhetorical visions of the future that the film Gasland and related artifacts construct?

With *Gasland* we find an example of a "successful" documentary film in terms of garnering awards and accolades from within the film industry and with film critics; similar endorsements of the film's "excellence" and position as a "must see" movie come from numerous viewer comments. As a rhetorical discourse, the film appears to have persuasive force as exhibited by a majority of the viewers accepting its message, as exampled by the many statements of changed attitudes toward natural gas drilling, such as "I will never think of natural gas the same," and pledges to take action. My analysis finds that the forming of a rhetorical community around this film is the result of a richly constructed and resolutely shared and adopted rhetorical vision, the study of which will provide insights as to the nature of such

rhetorical visions within the context of environmental communication. Gasland constructs a rhetorical vision that constitutes a social reality for viewers that enables the formation of a rhetorical community committed to that reality. The vision is constituted not only by the fantasy themes and types of which the symbolic convergence theory speaks, but also of narrative structures that are culturally relevant and resonate strongly with a collective imagination and consciousness. The narratives appear to be best when they are ingrained in an historic and ongoing cultural imagination and the fantasy types of such a vision seem to be best when they resonate with the issue network of which the documentary is a part. In the case of Gasland, the fantasy scenarios have a deep history and relationship with the environmental movement. Fox's vision effectively chains out to its audience because of the viewers' identification with the narrative structure and the dramatistic themes that, at their core, constitute an internalization of motivation for its community of viewers to answer Fox's Jeremiadic call for change and action. Indeed, Williams (1987) notes that "the goal of the fantasy theme analysis is to provide insightful statements concerning the motives of a particular group or movement that may otherwise have been overlooked" (p. 15). Bormann (1972) adds that a critic should begin "with the approach that each rhetorical vision contains as part of its substance the motive that will impel the people caught up in it" (Bormann, 1972, p. 406-407). Fox's rhetorical vision matches Swartz's (1999) proposition that such visions are discourses that define reality for their audience and more; they are "encapsulated ideologies, prophetic inquiries that suggest alternative possibilities for growth and change" (p. 4). But the study also problematizes Fox's rhetorical vision as one that reinforces a duality of hero and villain, good and bad, within the issue network. The critic might best inquire if the rhetorical community so effectively formed by the film's artistry is truly moving the issue closer to resolution or closer to conflict.

Fox's prophetic charge to his audience is to join his Jeremiadic effort by learning about and further spreading the "truths" of the issue of the environmental destruction caused by natual gas development. He uses the emotive force of his apocalyptic vision to create in his audience a sense of heroic response to stop the cataclysm and to protect and save existing and future victims. Fox and the victims within his narrative ask the audience to take a stand against a villain of pure evil, which is threatening families, their children, and their homes. Fortunately for the rhetorical community that is self-identifying with this vision, Fox is not rigid or overly demanding about the response that is needed to defend against this enemy. He is not requiring specific, immediate actions that necessarily involve risk or self-denial or sacrifice; his call to action and the one most connected with by his viewers is simply to learn about the issue and to educate others about it. This action is not only suggested by the narrator in the film, it is powerfully modeled by the film and the actions of the film's hero and is transcended into a metavision for the film—that one person can make a difference, even in the face of such overwhelming circumstances. As Bales (1969) notes, "sometimes fantasy precedes overt action and forecasts it. . . . Sometimes fantasy mirrors behavior as a direct model" (p. 137). Learning and educating are exactly the actions that Fox, himself, takes as he begins his long quest by asking a simple question of a gas company's \$100,000 offer to lease his land for natural gas development: "Could it be that easy?" (0:4:04); and when he says of initially hearing of some of the issues with gas development, "It stirred up something . . . the need to find out what was going on" (0:18:40). One of the film's most effective spokespersons, John Fenton, the Colorado rancher, passionately calls for people to "stand up to these assholes" (0:41:58), a battle-cry that leaves the audience to fill in the definition of what "stand up" means to them. I argue it is this combination of a vivid apocalypse, a one-dimensional villain, and a passionate cry for openended "action" that encourages the audience to find their own way of fighting back and allows them to accept this vision within the context of their own lives and beliefs. The range of the viewers' responses to this call for action is indicative of this. Some feel that they are part of the effort simply by having increased their awareness of the issue; that they are effectively responding to Fox's call just by the act of viewing the film. Many others appear to believe that their action of writing a review of the film on one of the websites and encouraging others to see the film fulfills their role in the visional community, meeting Fox's more explicit call to learn and to educate others. Some of these viewers take the extra step of buying more than one of the DVDs of the film and sharing them and encouraging others to do the same.

By spreading the word, by encouraging others to experience and share the rhetorical vision, the members of the community not only express their acceptance of the vision, but exhibit the action of expanding the community through additional sharing. As Smith (2004) says within the context of another fantasy theme analysis, "The response to the appeal can be considered part of the chaining of the fantasy" (p. 66). At the farther extreme of action motivated by the film are a very small minority of viewers who suggest specific actions, such as writing to respective representatives demanding support of a piece of legislation or making more general comments against the actions of the gas industry. The film is structured so that the encroaching devastation caused by gas development is made graphically clear and the villainy of the industry is singularly focused, but the actions *Gasland* calls for are very much left to polysemous readings, enabling the audience to become a part of the rhetorical community by only making those changes or taking those actions with which they are comfortable or for which they are ready. Fox fixes the meaning of his vision by constructing a core message that does not particularly invite variations by the audience, but he leaves the actions to be taken open and

allows an "insurgent polysemy" that will invite the audience to participate in the vision's rhetorical community as each individual sees best (Campbell, 1990, p.369). By allowing for polysemic interpretations of actions needed to join this rhetorical community, Fox is presenting an ambiguity that is very "liberating for participants in the rhetorical vision" (Smith, 2004, p. 68). Yes, action is desirable and necessary, but the extent of that action is left to each member's own interpretation and the effect of that action on the issue and the communicative network around it is problematic. While a case can be made that this polysemous reading allows for an easier entry into the issue of the film, it might also be questioned as to if the looseness of the charge to act reduces the ultimate level of involvement or deters the resolution of the issue itself.

It is not possible at this time, or within the scope of this study to attribute specific gains in the issue network to the rhetorical community constituted by *Gasland*, but follow-up research might indeed pursue the question of if this community succeeded in implementing meaningful action, or if the general effort to learn and educate was insufficient in the face of the controversy. Likewise, does the overwhelming cloud of the apocalyptic theme discourage the respondents to the vision from taking effective action, as other scholars have reported to be the case? The majority of comments from the viewers do not indicate that they are driven to despair, and their tone is far more oriented toward outrage and anger. But we might validly question if the immensity of the problem has had the effect of deterring this community from more meaningful action, beyond that of raising awareness and encouraging others to continue to raise awareness. Is this a dangerous outcome of the film, perhaps, to invigorate a rhetorical community into attention, only to fail to motivate them in a way that will actually make for change in the issue of gas development? At this stage of movement of the ripples from *Gasland* within the pool of this issue, the critic might indeed come to the conclusion that as well-constructed as the film's

rhetorical vision is, it may fail to have a substantive impact on the nation-wide advance of natural gas development. Indeed, the reliance on Fox's rhetorical vision portraying a stark duality of the hero/villain archetype may place political limitations on its approach to the issue of natural gas development. The hero narrative romanticizes and privileges the individual, constraining and potentially disallowing reaching solidarity within the issue network.

2. How are publics and citizen actors configured within Gasland rhetoric? That is, using Gasland as an exemplar, what can we say about the potential roles documentary films allow for public participation in environmental movements? How do they envision citizen participation in environmental causes?

Publics and citizens take three forms in *Gasland*. The most present and prevailing is that of the protagonist, Fox, who constructs for himself a persona of an average person drawn into this quest for answers against his will by an external act of a gas company to lease his land. He reluctantly ventures out to seek answers and to get information for himself and his neighbors, much like any of his audience might. He takes a camera to record his travels, initially for his own purposes and to share with a few friends—maybe to make a five-minute video; not especially uncommon in today's digital world, where many have video capability in a point-and-shoot camera or an iPhone. But then he gets "sucked" in deeper and deeper as he learns more devastating information about natural gas development and what it is doing to people and landscapes across the country. The Fox persona gives the audience a heroic model for configuration of publics around an environmental movement: a single individual can truly make a difference. The Fox seen on the screen is really no different than individual viewers, he is friendly, sincere, and honest; plus, nearly every American loves a good road trip. The second vision of the public is less reassuring, but quite common in this film and others dealing with

environmental issues, and that is the public as victim. In pure numbers and time on the screen, this is the predominant image of the citizen persona represented in *Gasland*. Over and over, in location after location, Fox presents strong visual and aural exemplars of these victims of natural gas development. These ordinary citizens suffer illness and death from contamination and pollution and their homes are invaded with flaming tap water and threatened by exploding water and gas wells. The residents of Gasland, however, are also represented as survivors who are not giving up; as courageous fighters who continue to struggle against the industry's actions, but ultimately as powerless and hopeless: Their "time is over."

The third model for publics in *Gasland* is that of being an "expert"; a group of citizens using what skills they might have and directing them towards observing and investigating critical environmental issues. The experts that Fox features give vital assistance to him in defining and corroborating the problems he has heard anecdotally from the citizen victims and while they are active in environmental issues, they are not too dissimilar from other professionals within the general population. These experts are chemists, physicists, or engineers who have directed their skills to the environment. They are occasionally bureaucrats, who are fighting to bring to light dangerous behaviors; and at least one is a journalist, with no specific scientific training, who is working to bring forward the personal tragedies created by the industry's actions. While most of the general public may not have the skills necessary to fit this model, many do, and certainly some could provide invaluable assistance to those activists, like Fox, seeking objective information sources or scientific data and answers. Fox calls for all of these categories of citizens to do one primary thing: to learn about these issues and to help others learn about these issues. He seems to believe that education and learning are at the heart of correcting these wrongs and that from learning, action will follow—action that will work to reach solutions. From reviewers'

comments on the film, it is apparent that the Fox screen persona is the one most referenced and the one with which most viewers identify. The residents of Gasland—the victims—are rarely mentioned in the viewers' comments, the one exception being the tragically heroic figure of John Fenton. The actions the viewers take or espouse echo the path of Fox: to learn, to educate, and to increase public awareness of these atrocities. None of the viewers fault Fox for not asking for stronger action on the part of the citizens, but consistently praise his efforts, and, possibly by extension, their own. This may ultimately be a productive model for citizen involvement. By asking them to dip just one toe in the waters of environmental concern, Fox may be inviting his publics across the threshold into more meaningful involvement. That is, after all—subscribing to his onscreen persona—how he began, with a quest for learning, to simply understand the issue; from there he learned a basic truth of how we are all connected and produced an award-winning film. Subsequent to the film, he has gone on to testify to Congress, to actively call for a five-year national moratorium on natural gas development, and to pursue a sequel to his documentary. His personal path, as well as his on-screen persona, would appear to represent a viable pathway for many members of the public to become involved in this issue network.

3. What are the practical implications of these visions both for environmental rhetors and publics?

I believe that my study of the rhetorical vision created by Fox allows for a practitioner of environmental rhetoric, or of the medium of documentary film, to better understand those dramatistic elements that constitute effective, persuasive rhetorical strategies, in particular the construction of successful rhetorical visions. I seek to better equip rhetors within the environmental community to be able to make persuasive arguments that might attract the attention of viewers and generate a rhetorical community, as *Gasland* has done, in order to, as

Cox (2007) suggests, "enhance the ability of society to respond appropriately to environmental signals relevant to the well-being of both human civilization and natural biological systems" (p. 15), I also join with Peterson et al. (2007) in moving beyond pragmatic guidelines for practitioners that might of themselves assist the environmental movement, to what it means to be a communication scholar and practitioner, when they suggest that as rhetoricians, we "become permeability makers as opposed to myth makers" that we contribute to a "porous and . . . broader community that grows increasingly robust and resilient" (p. 84). Cragan & Shields (1981) believe that symbolic convergence theory (SCT) is of most value, not necessarily in enabling critical rhetoric, but in its potential as a "metatheory for constructing rhetorical visions" (p. 31). In following Nothstine et al. (2003), I believe that rhetorical criticism is at its best when producing some insights to assist in *praxis* and to consider the term in the same light as Craig and Tracy (1995, p. 249), when they say that it involves a "fuller conception of practice as reflectively informed, morally accountable human action." In this case I seek to assist with enhancing the reflexivity of practitioners of environmental communication, and specifically documentary film production, to enable them to be better prepared to advance the environmental movement. I seek to allow these practitioners to "think or act differently in socially responsible ways" (p. 4) that fully involves a moral culpability. I do not limit the role of the critic to being only "concerned with effect" (Wichelns, 1925/1993, p. 26), however, but I would hope that this study could in some way benefit the ability of environmental communication discourse to have some of the effect of Gasland.

It would seem apparent that this film has made a significant impact within the issue network of which it is a part and it can, I believe, offer the practitioner some guidance for the creation of discourse with equally effective persuasive results. Beyond the favorable appraisals

granted by the film industry, the film has inspired many in its audience to respond in agreement with its premises and its arguments and it has incurred nearly unprecedented ire on the part of its target, the natural gas industry and its political supporters. By applying the symbolic convergence theory through fantasy theme analysis, the critic seeks to open the work to an exploration of the narrative structures and themes that work together to make an apparently effective artifact of rhetoric. This is not to say that this method of fantasy theme and rhetorical vision analysis is necessarily the only, or even the preferred way, to investigate such a rhetorical piece, but I do argue that it does invite some insights to be made as to how it works to motivate action and change, and even retaliation. I have presented much of this in preceding sections and chapters, but in addressing this research question, I might best speak to the specific practice of documentary filmmaking. This case indicates the rhetorical power that this medium has, especially in this age when a visually aware public gains much, if not all, of its information from visual media, such as television or videos posted on the web. An environmental activist could make a far worse choice than to build a rhetorical message within a documentary film or video. In so doing, she would also benefit, I argue, from understanding the value of (re)creating that message using and/or modifying those thematic types that are familiar to and resonate with the environmental movement.

To be truly effective, the documentarian might best recognize that she is operating within the narrative paradigm where people respond, at their core, to the story and that even the "reality" based form of the documentary requires narrative structure to be successful; and while the well-tested and solid narratives of Western culture can be relied upon, successful narrative and documentary films result from creative inventiveness within a narrative form, or as with *Gasland*, an inventive combining of the ancient hero's journey narrative with the uniquely

American road trip structure. From this study of *Gasland* and its intertextual materials it seems apparent that a well-crafted vision that uses integrated cultural narratives combined with fantasy types consistent within the environmental movement can be "chained out" to members of the general public and effectively motivate them to share the vision and to take action at some level in response. An effective rhetorical vision is most likely to garner strong responses from those identified as the villains in the vision, as *Gasland* did from the gas industry, and as *An Inconvenient Truth* (2006) and *Silent Spring* (1962) did from the industries and groups they respectively attacked. Such a strong response can, indeed, be one measure of persuasive effectiveness and successful sharing of the vision. The communicative genre of the documentary film can be effective in constructing such a vision and moving it into the broader culture and the use of narrative, dramatistic, and fantasy themes can be effectively employed in this medium, one that is often seen as lacking those characteristics in its attempt to "represent" reality.

In discussing the practice of constructing a rhetorical vision, I believe it is relevant to explore the concept of authorship and creative imagination behind such a vision. As discussed in previous chapters, Bormann (1989) strongly advocates for the concept of a rhetorical vision being created by a single individual and being done "so skillfully that it . . . becomes a community's consciousness" (p. 454). From interviews and supporting materials, it appears that Fox is the prime architect of the rhetorical vision of *Gasland*, but the practice of film production is known to be a highly collaborative praxis and in several instances, Fox speaks of "we" when discussing production and in at least one review, Fox's editor is highly praised for his contribution. The narrative structures and themes which Fox employs are those that, in some cases, have ancient roots, and in others have a consistent recurrence within environmental communication for many years. He and his team adopt and adapt these narratives that resonate so

effectively with a cultural consciousness, which leads me to question Bormann's insistence on a "single" creative source of a rhetorical vision. But neither do these elements, I believe, act in support of the SCT critic, Gunn (2003), when he insists on a rhetorical vision being the result of "a collective fantasy" created by the unconscious act of "group invention" (p. 52). I believe that the process of forming an effective rhetorical vision, as seen in the case of Gasland, appears to grow from the spark of a single inventive individual, but is developed and embellished by working with other creative individuals in an atmosphere not dissimilar to Bales' (1950, 1970) early small groups. Such a vision further employs narrative elements that are firmly entrenched within the collective consciousness of a culture. As I suggested in my earlier discussion of the creation of rhetorical visions in Chapter 2, the answer to the source of their construction lies between the two extremes of Bormann and Gunn, and rigidly adhering to either works against the productive critical application of the fantasy theme analysis methodology and its potential findings. The environmental rhetor is encouraged to fully embrace the collaborative nature of filmmaking, while also embracing those myths, stories, and narratives that are relevant to the rhetorical community she is attempting to construct.

Future Research

This study opens up many areas suggestive of further investigation. The first is simply to encourage further exploration of rhetorical visions of environmental documentaries. While this may seem a provincial area for further research, I believe that such exemplars as *An Inconvenient Truth* (2006) and *Gasland* illustrate the potential that this genre has for building issue network communities around a rhetorical vision that also influences attitudes and behavior on a potentially significant scale. The use of SCT is particularly applicable to this discursive form, as has been discussed, because of the ability of fantasy theme analysis to pull usually hidden

narrative structure out of the "reality-based" tenor of the documentary. This method of rhetorical criticism can also begin to build a body of work using similar theoretical syntax and form that possibly helps the critic and the practitioner better understand the dramatistic elements that lie within the representational format of the documentary; enhancing rhetorical strategies within the context of critical environmental issues. Additional studies will begin to build a range of comparisons of rhetorical effectiveness using similar language and concepts for further evidence and confirmation of a "chaining out" of visions constructed in this realm. Another area of study might be the role of gender and race in the construction of such rhetorical visions; how are gender and race problematized in rhetorical visions around environmental issues? I have only touched upon some of these issues in Fox's vision, which essentially excludes racial diversity among all of its character representations. Are environmental visions inherently racially and gender biased, or is such bias the result of the themes and narratives employed that carry with them modernistic representations of the roles and actions of their *dramatis personae*?

Of the rhetorical strategies employed by Fox, for example, I believe further research would be useful around the narrative of the American road trip, not only from the perspective of race and gender, but from the rhetorical lens of its formative roots, its fuller rhetorical meaning to an American audience, and how it has evolved in today's world. Within the context of rising fuel costs and other societal changes, does the rhetorical appeal of the road trip narrative still hold the same emotional appeal to the American public? In more general terms, additional studies could produce more insights into how such visions in documentary films configure citizens and publics or fail to position them as meaningful actors in environmental controversy. There is some evidence, as I have attempted to argue, that viewers of *Gasland* have been motivated to action within the context of Fox's vision, but is that action meaningful? If it is not,

how might a vision better construct motivation for actions that have the potential to truly influence an issue that carries such major impacts for humanity? My study has explored the rhetorical strategies and structures that have made one artifact successfully spark actions and passionate responses from its viewers regarding a specific environmental issue. These actions still persist and reverberate as of this writing; there is ample opportunity to pursue additional, similar studies of other discourses within the mix of critical environmental issues facing humanity and nature.

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Appendix A Transcript of Gasland

Visuals and Text 0:00:00

	Time mark	
¶	Visual	Audio
1.	00:04	Josh Fox: I'm not a pessimist I've always had a great
	Long shot of mountain range	deal of faith in people, that we wouldn't succumb to
	with two drilling rigs in the	frenzy or rage or greed, that we'd figured out a solution
	mid-ground.	without destroying the things that we love.
	Individual wearing white T-	
	shirt and a gas mask holding	
	a banjo backs into the frame.	
2.	00:15	(Thunder-like sound as title comes up.)
	Snaps to title: GASLAND	
3.	00:19	(gavel knocking)
	Mr. Costa, Chairman of the	Costa (Chairman): the subcommittee on energy and
	Subcommittee on Energy	minerals will now come to order
	and Minerals, at panel	
	hearing.	
4.	00:24	(Chant-like music)
	Shot from car driving	
	through heavy snowstorm.	
5.	00:41	Panel member 1: there are numerous deep shale gas

Shots of the panel; close ups basins in the United States which contain trillions of of the desk, water glasses, cubic feet of natural gas. microphones, and individuals representing the natural gas industry speaking; intercut with shots of drilling wells and production facilities. 00:47 6. Panel member 2: in fact North America's natural gas supply is so plentiful that it has been described recently Shots of the panel; close ups by some experts as a virtual ocean of natural gas. We of the desk, water glasses, believe the potential from these four major shale basin is microphones, and individuals representing the natural gas enormous. It is a game changer not only for Americans natural gas industry but also potentially for our nation, industry speaking; intercut our economy, and our environment. with shots of drilling wells and production facilities. 7. 01:06 Panel member 3: I'm here today representing the 30 member states of the Interstate Oil and Gas Compact Shots of the panel; close ups Commission who produce 99% of our domestic oil and of the desk, water glasses, gas. Studies and surveys by GWPC, EPA, and IOGCC microphones, and individuals over the last 11 years have found no real credible threat representing the natural gas to underground drinking water from hydraulic industry speaking; intercut fracturing. Recently however there has been concern with shots of drilling wells

	and production facilities.	raised about the methods to tap these valuable resources.
		Technologies such as the practice of hydraulic
		fracturing have been characterized as environmentally
		risky and inadequately regulated. Press reports and
		websites alleging that 6 states have documented over
		one-thousand incidents of groundwater contamination
		resulting from the practice of hydraulic fracturing. Such
		reports are not accurate.
8.	01:48	Panel member 2: It's my firmly held view and also that
	Shots of the panel; close ups	of IOGCC that the subject of hydraulic fracturing is
	of the desk, water glasses,	adequately regulated by the states and it needs no
	microphones, and individuals	further study.
	representing the natural gas	
	industry speaking; intercut	
	with shots of drilling wells	
	and production facilities.	
9.	01:57	Panel members: Thank you for this opportunity to
	Close ups of panel members.	provide an overview. Thank you. Thank the committee.
10		
10.	Close up of Costa and	Mr. Costa (chairman): and thank you always
	Gohmert.	(smiling, with laughter from the audience).
11.	Close up of Costa and	Mr. Gohmert: you don't know what you just thank him
	Gohmert.	for (smiling).

12.	02:12	Fox: Hi, my name is Josh Fox. Maybe I'll start at the
	Driving through a snow	beginning. This is Dick Cheney ah, no, maybe I'll
	storm.	start a different beginning.
13.	02:33	Fox: This is my house. It's in the middle of the woods,
13.	02.55	
	Shot of exterior of red	tucked away on a dirt road in a place called Mylanville,
	clapboard house. Transition	Pennsylvania. The house was built in 1972 when I was
	to shots of people building	born my parents and their hippie friends built it and my
	house, and old photos of	family, my brothers and sisters and I grew pretty much
	familyimages of stream	the same way I did—little by little. There's a stream that
	in winter and fall.	runs down the property and connects to the Delaware
		River. I've been learning more and more about how
		water is all connected.
14.	02:59	Fox: In 1972, the year I was born, Pete Seeger and a
	Old B&W video of Pete	bunch of banjo playing freaks in the Upper Hudson
	Seeger playing banjo and	Valley reminded New York City that if they polluted the
	singing This Land Is Your	Upper Hudson, especially the water shed areas that New
	Land.	York City's drinking water would be ruined.
15.	03:23	Fox: in 1972 Richard Nixon signed the Clean Water Act
	News footage of Richard	into law. It was an era of environmental progress. The
	Nixon. Transition to text of	Cold War was on but there was a concept of leisure time
	environmental regulations	and leisure suits. Computers and technology were
	passed in the 1970s atom	supposed to bring about the four-day workweek and

	bomb explosion photos	everyone was going to have plenty of time frolicking
	of leisure suits	around the fields and swimming in the rivers.
16.	03:48	Fox: In New York City they were building this.
	B&W video of World Trade	
	Center towers.	
17.	03:51	Fox: But 100 miles upriver in Pennsylvania on the
	Old family movies of his	banks of the Delaware we were building this. My first
	home and growing up.	word was hammer
18.	04:04	Fox: But it's 2009. One day I got a letter in the mail; it
10.		
	President Obama; natural gas	was from a natural gas company. The letter told me my
	lease form; montage of shots	land was on top of a formation called the Marcellus
	of land, trees, stream, and	Shale , which stretched across Pennsylvania, New York,
	Fox reading the lease.	Ohio, and West Virginia. And that the Marcellus Shale
		was the Saudi Arabia of natural gas. I could lease my
		land to this company and I would receive a signing
		bonus of \$4750 an acre; having 19.5 acres, that was
		nearly \$100,000 right there in my hand. Could it be that
		easy?
19.	04:35	Fox: You've probably seen ads on television hailing
	Advertisements for natural	natural gas as the clean burning transition fuel.

20. 04:39 McClendon: American shale basin	ns contain an ocean of
	iis contain an occan of
Image of Aubrey K. natural gas.	
McClendon, Chairman/CEO,	
Chesapeake Energy (#1	
producer of natural gas)	
speaking.	
21. 04:41 Pickens: What I want is to use <i>our</i>	resources in
Image of T. Boone Pickens America. It's cheaper, and it's ours	s. It's ours.
speaking, but unidentified.	
22. 04:46 Fox: what would it mean if the Un	nited States and the
Natural gas ad; cars on rest of the world adopted natural g	gas as the fuel of the
freeways. future?	
23. 04:50 Reporter: we've cracked the code f	for natural gas supply.
TV markets reporter	
24. 04:54 Fox: What I didn't know was that t	the 2005 energy bill
Congress; montage of pushed through Congress by Dick	Cheney exempts the
President Bush signing oil and natural gas industries from	the Safe Drinking
legislation, text of laws and Water Act. They were also exempt	t from the Clean Air
regulations from which	and law, and about a

	natural gas is exempted,	dozen other environmental and democratic regulations.
	corporate logos, and	And when the 2005 energy bill cleared away all the
	finishing with Halliburton	restrictions companies like EnCana, Williams, Cabot Oil
	ads and a map showing the	and Gas, and Chesapeake began to use the new
	shale play areas.	Halliburton technology and begin the largest and most
		extensive domestic gas drilling campaign in history.
		Now occupying 34 states.
25.	05:27	Fox: The method of gas drilling they use is called
	Animation showing drilling	hydraulic fracturing. Or fracking. It blasts a mix of
	and fracking process;	water and chemicals 8000 feet into the ground. The
	montage of drill rigs and title	fracking itself is like a mini earthquake; the intense
	slates with key words from	pressure breaks apart the rock and frees up the gas. In
	the text.	order to frack you need some fracking fluid, a mix of
		over 596 chemicals. From the unpronounceable to the
		unknown to the too well-known. The brew is full of
		corrosion inhibitors, gellants, drilling additives,
		biocides, shale control inhibitors, liquid breaker aids,
		viscousifiers, liquid gel concentrates. On the side of that
		frack fluid truck it should say just add water.
26.	06:05	Fox: Each time they drill a well they need between 1
	Montage of still photos of	and 7 million gallons of water. Each time they go back

	drill rigs and fluid pits.	and frack an existing well they need an additional 1 to 7
	Graphics with text of key	million gallons of water. They can frack a well up to 18
	words and the multiplication	times in its life. They started out West: New Mexico,
	of numbers.	Colorado, Texas, Wyoming, Oklahoma; and in the
		south, Arkansas, Louisiana, Alabama. 450,000 wells,
		times 18, times 1 to 7 million gallons: something like 40
		trillion gallons of water. All of it infused with 596
		chemicals in the fracking fluid.
27.	06:47	Fox: And now they're coming east. They're proposing
	Scenic shots of woods and	50,000 gas wells along a 75-mile stretch of the
	streams and wildlife.	Delaware River. And hundreds of thousands more
		across New York Pennsylvania, Ohio and West
		Virginia. From 1972 until now, my whole life, all this
		has been protected.
		(Phone ringing)
	07:17	
28.	07:31	Aural montage of phone rings, busy signals, recorded
	Fox pacing and telephoning	messages, and live receptionists, with dialogue such as:
	in his living room.	"You may dial 900 at any time Can I take a
		message"
29.	07:33	Fox: Okay this is Josh Fox I'm looking to see if I can
	Fox pacing and telephoning	interview someone on the subject of natural gas
	Fox pacing and telephoning	interview someone on the subject of natural gas

	in his living room.	extraction and hydraulic fracturing.
		Voice on Phone: The best thing to do would be to send
		an email with your request.
30.	07:39	Continued montage of telephone responses: Best thing
	Fox pacing and telephoning	to do would be to send an e-mail request Calbot
	in his living room. At one	corporate affairs did I just talked to you record
	point just sitting and playing	your message at the tone
	his banjo.	Fox: I'd love to find somebody to interview at
		Halliburton, so if you please call me back I'd really
		appreciate it.
		Series of answering machine messages
		what's 405 area code? Oklahoma
		I'd be interested to see if there's any way to get it
		interview with T. Boone Pickens To see if there was
		any possibility of well I'd be happy to that's
		you've reached Cabot Oil and Gas please leave your
		name
	Phone call sounds play	please record your message
	behind scenic shots around	Who would be your audience for this
	Fox's house, with him by stream, close ups of stream.	Fox; general public.
	2.20mi, 22000 apo or orienti.	I think we'll decline but thanks for calling

		(hold muzak playing in the background)
31.	08:46	Fox: now I'm not sure how many of you have direct
	Scenic video of forests and	experience with streams. When I was growing up we
	streams, close ups of	could run up and down the stream for miles, for hours
	streams.	and hours on end. I mean, the moment the stream takes
		a band, you can walk 10 paces and look back and it
		looks like a different place. This is a place I know. It's a
		place that runs through my mind and it's always there. It
		feels to me like it's the source of all life and it is.
		You need water for life.
32.	09:22	Fox: The closest they were drilling to me was in a place
	"Water, water everywhere	called Dimock, Pennsylvania, about 40 miles from the
	and not a drop to drink."	New York Pennsylvania border in the Susquehanna
	Driving through countryside	River basin. A company called Cabot Oil and Gas from
	in winter snow covered	out of Houston had drilled over 40 wells in just under a
	with grass and rocks sticking	few months. It's a small place with no major highways.
	through trees bare	A place where you could easily forget the world, forget
	ending with images of	yourself, disappear completely. I was going there
	drilling rigs and warning	because I've heard a lot of complaints and because I
	signs in the snow.	heard the Pennsylvania Department of Environmental
		Protection and had said everything was going fine.
33.	10:04	(sudden metallic sound, it's a metal gate clanking in the

	Warning signs of oil and gas	wind)
	company, continued snowy	Fox: The story of Dimock starts with a frantic series of
	landscape, rigs, and more	distress calls from Pat Farnelli. If Dimock had a town
	signs.	square she'd be standing in the middle of it shouting for
		help.
34.	10:14	Pat Farnelli: everywhere there's a gap in the trees there
	Pat outside, then in her living	is a well. There's like 10. Sometimes it bubbles and
	room and kitchen with Fox;	hisses when it comes out. I won't drink it. When Cabot
	pours water from faucet for	and them came in to get the water and told me it was
	Fox to drink, but he won't.	okay to drink, I said okay then, go ahead and drink it.
		And they wouldn't drink it. There were days when four
		kids were out of school sick. Everybody was sick,
		including me. We were all our stomachs were really,
		really acting up couldn't handle eating anything for
		over a month and then Jean next door talked to me at
		church and said, "did you notice anything funny about
		your water? Our well's gone bad."
		The Maye's, they have bad water and there's a newborn
		in the house.
	Shows a chart of neighbors	
	listing their problems.	
35.	10:57	Fox: our next trip was just up the road to Ron and Jean

	Ron and Jean in their house,	Carter's. They had a gas well in their front yard. Shortly
	close ups of chemical report	after the well was drilled their water started bubbling
	results.	and fizzing it turned out to be natural gas.
36.	11:11	Ron: I told him I wasn't happy, that our water was good
	Close up of chemical report,	before they started drilling and when they got done it
	Ron being interviewed in his	was bad. They asked if we could prove it was because of
	living room by Fox.	them. My wife asked the guy if he could prove that it
		wasn't. He wouldn't talk to her anymore. We've lived
		here 40 years and never had a problem with the water
		and they drilled after they drilled the water was bad.
37.	11:37	Fox: My next trip was just up the street. Norma
	Drive up forest lined lane,	Fiorentino's water well exploded on New Year's day.
	exterior of Norma's house.	
38.	11:44	Norma: you're kidding! This is my daughter-in-law
	Norma on phone.	calling; she's saying there's a special on at noon.
39.	11:51	News reporter: DEP says Cabot Oil and Gas has
	Norma in living room. Pan to	polluted more than a dozen water wells or drilling for
	TV and shots of TV news	natural gas in Susquehanna County.
	story.	Norma: (gasp gasp) that's my yard, that's my front yard.
		I live next to these people for 30 or 40 years and we're
		good friends, all of us, and we just have the same

		problem.
40.	12:05	Man: DEP guys were out here and I was talking to them
	Man talking in house.	about it you said this water was safe for my mother
		to drink. I'll be right back, I'm going to go get you a
		glass of water. They all put their heads down, DEP and
		everybody, and they said they wouldn't drink it.
41.	12:16	Fox: Next up on my tour of Dimock was Debbie Maye.
	Women and kids in muddy,	
	rural yard; kids on	
	motorbikes.	
42.	12:35	Debbie: in the beginning of November our water turned
	Debbie walking through	color, and it started tasting funny, like metallicy, then it
	woods to buildings; her shirt	turned brown, like mud. Cabot Sent Quantum Labs out
	has a large tear in the back.	to test it and the guy looked at it and said don't drink it,
		don't shower in it, don't do laundry, don't do dishes,
		don't do anything in it.
43.	12:57	Fox: so this is your water well down under there?
	Reaching buildings with tank	Debbie: yes and they put that pipe thing on it.
	and pipe.	
44.	13:03	Fox: and they're venting gas off through this?
	View of pipe in their back	Debbie: yeah.

	yard.	
45.	13:06	Fox: the other thing that was bothering Debbie May was
	Shot of cat, with Debbie	something that was happening with her animals. Their
	pulling hair out.	hair was falling out. One of her cats was projectile
		vomiting.
		Debbie: We have three cats this is happening to.
46.	13:26	Fox: And when you said this to the DEP what did they
	Debbie outside, holding a	tell you?
	couple of pages of a report.	Debbie: they told me I cleaned with too much Lisol.
		And I told one of Cabot's attorneys about it and he's told
		me it comes from telephone poles.
		Fox: so has the cat been out playing with telephone
		poles?
		Debbie The cat doesn't go outside ever.
47.	13:45	Fox: so his hair is falling out?
	Shots of horse in corral.	Debbie: yeah and he's losing weight
		Fox: since basically the same period of time.
		Debbie: yeah
48.	13:57	Maye's son: our water was perfectly fine and like right
	Debbie's son working	after they started drilling propane and stuff like that

	outside on some pipes.	all went in it. At one point we could actually light it on
		fire. Shake it up in the jug and light a match on it and it
		would just light up.
49.	14:10	Debbie: so what's going to happen to my kids so many
	Debbie outside house.	years from now? And then, oh well, it wasn't their
		[Cabot's] fault. They didn't pollute the water.
50.	14:19	Fox: from the cases of Pat, Ron, and Jean; Norma and
	Driving down forested lane	Debbie, it was clear that something had gone terribly
	. leafless trees, muddy road,	wrong in Dimock. But there was something else I
	dreary and somewhat	kept hearing reports of a family a family that could
	threatening looking.	supposedly light their water on fire; a family who wasn't
		speaking to the press. I wondered why and I wondered if
		I could talk my way in?
51.	14:47	Fox: They didn't want their faces to be on camera so I
	Shot in living room of	end up taking pictures of their feet. They did show me
	several people's feet. Water	their water samples, however. They told me, "listen I
	samples in plastic bottles.	know you want to see us light our water on fire, but we
	Shot outside family's	can't do it right now. Basically we've capped our water
	window.	well and we no longer use it. We're afraid to turn it on
		. if we turn on it's possible that it could explode or
		could catch our house on fire. So even though it's a
		pretty spectacular thing, we can't do it for you." I could

		feel myself getting sucked in deeper and deeper and
		deeper.
	15:11	
52.	15:17	Fox: And then I got a phone call
	Very grainy shot of Fox in	Voice on phone: they're not going to do anything,
	his car, talking on mobile	nobody cares because of the holy dollar that's rolling in.
	phone using the speaker	And it's wrong, it's wrong and I don't care. You're taking
	phone.	a big risk yourself going around and doing what you're
		doing. It's not worth it and I'm worried for my life and
		I'm going to be honest with you. So
53.	15:43	Fox: I went across the road to see if I could interview
	Close up, jiggly shots	the people who called me. Or maybe just to say hi. I
	crossing dirt road, side of a	didn't get to say hi. But a man came to the door; he
	car, leafless tree with black	spoke to me hastily and he was nervous. He handed me
	birds, then a jar with liquid	a jar. I said what's this? He said "it's bad stuff." I said
	held up to the light.	what do you mean bad stuff? He said "that's about as
		bad stuff as you can get. Take some find out what's in
		it." Apparently they were buying this act of me being a
		documentary filmmaker. I guess because you have a
		camera in your hand you know what you're doing. So
		somebody thrusts a jar of contaminated something in

		your hand and they say, "hey take this, figure it out."
54.	16:27	Fox: I had an inkling of what this stuff was. I'd heard
	Shaky shots of drill rigs and	reports of oil and gas wastewater, known as produced
	trucks, cold winter	water, the water that comes back up out of the ground
	landscape, dirt roads.	that's contaminated with the fracking fluids, being
		dumped illegally on the fields and into streams. I'd
		heard of workers who had chemical burns on their hands
		and faces and here I was being handed a jar of a
		mysterious yellowish, brownish liquid. I needed more
		information so I called the number again
55.	16:55	Fox: all the things that you said about that jar you gave
	Fox in truck on the phone	me just got me kind of curious. Without naming any
	again.	names—I don't know anything about anything—but that
		was being dumped out? In some place that wasn't
		supposed to be, like a stream or a field or something?
		Voice on phone: yes
		Fox: and that's why it's important to find out what's in
		there?
		Voice on phone: yeah
		Fox: all right, and if I were to be able to analyze that
		you think that would be a good thing?

		Voice on phone: yes.
56.	17:21	Fox: I was starting to compile a list of things that have
	Montage of houses, city	happened in Dimock: water trouble, health problems,
	building, trucks on road,	hazardous explosive conditions inside the house,
	stone walls, trees.	destruction of land, lack of confidence in state
		regulatory commission, a feeling of having been
		deceived, a feeling of powerlessness, dead or sick
		animals, the difficulty of obtaining good information
		about gas drilling, and the idea that there's a cover-up
		taking place. In other words a total loss of normal life.
57.	17:55	Fox: Who knows if they're right, I don't. It's all
	Driving down forest lined	speculation, but these citizens certainly felt as if they'd
	dirt road drill rig	been wronged and that there was no one for them to
		complain to.
58.	18:07	Fox; On my way to drop off the jar at a water testing
	Close up and mid scenic	lab, I said goodbye to my \$100,000. Even more
	shots of snowy landscape,	worrisome to me was the knowledge that everyone all
	rivers flowing through ice,	around me were beginning these leases in the mail and a
	icicles	lot of them had leased already. One thing was
		resoundingly clear, if the industry's projections were
		correct then this would be the end of the Catskills and
		the Delaware River basin as we knew it. And it would

		mean a massive upheaval and redefinition of all of New
		York State and Pennsylvania.
59.	18:40	Fox: But there was no drilling in my area yet on either
	Continued montage: men in	the New York or the Pennsylvania side of the Delaware.
	meeting, scenic shots of trees	New York State had commissioned its Department of
	and streams (a bit grittier	Environmental Conservation to do an environmental
	than previous montage).	impact study and the Delaware River Basin
		Commission, which controlled my area of Pennsylvania,
		had not decided whether or not it wanted to allow gas
		drilling in sensitive watershed areas. It stirred up
		something else in me, the need to find out what was
		going on.
60.	19:02	Fox: Was Dimock an exception or the rule and how was
	Water samples in plastic	I going to find out? Was I actually going to become a
	bottles Fox in woods.	kind of natural gas drilling detective? Okay. I guess
61.	19:15	(Banjo music.)
	Quick cut to driving in car	
	across farmland, flat, with	
	gas condensate plants and	
	rigs Fox behind wheel of	
	truck more fast cut	
	landscapes.	

	Slates: "Life in the Red	
	Zone"	
	"Weld County, Colorado"	
62.	19:43	(dog barking)
	Slate: "Mike Markham & Marsha Mendenhall In Mike's front yard.	Mike: well you be careful, that one's been known to nip butts and it pinches pretty good.
63.	19:57	Marsha Mendenhall: And it's gurgling
	Interior: Mike and Marsha's living room. Mike bringing out a bottle with dirty brown liquid in it. Mike and Marsha talking with Fox.	Fox: oh wow, so that's the sample? Mike Markham: it's all settled out. But that's what our water looked like. Fox: that's just out of the tap? Mike and Marsha: out of the tap! Marsha: so in three weeks they contacted Mike by phone and said we've tested your water and there's nothing wrong with your water Fox: with this? Marsha: with this. Marsha: there's nothing wrong with the water that could

		be affected by the oil and gas production in your area.
		Fox: so what have you been doing?
		Marsha: We put in our own tank and he [Mike] hauls
		water every week.
		Mike: I've got 1000 two 500 gallon tanks and I go to
		town once a week and buy water. It's a coin-operated
		thing. So I've got to put in \$15 worth of quarters.
64.	20:47	Fox: (reading from a letter) the purpose of this letter to
	Close up of a letter shot	inform you that Noble Energy has contracted LT
	of Fox videotaping the letter.	Environmental to conduct an investigation into possible
		natural gas impact on water wells in the vicinity.
65.	20:58	Marsha: again, I was a little disappointed in the state
	Marsha, Mike, and Fox	obviously we have a problem here. Two weeks ago they
	continue interview in kitchen	had the meeting and I prepared a statement kind of
	and living room	outlining everything the director—acting director—
		of the oil and gas said, "next question?
		Fox: that was Dave Neil Neselen? Oh yeah, he
		kicked us out of his office two days ago.
66.	21:25	Dave: so is there like a theme to your documentary, do
	Shot of Dave at a table in a	you have a message you're trying to get across with it?
	conference room, Dave	[Fox apparently answers off camera, or it is edited out]

	leaving the room, Fox	I apologize very much for your inconvenience. I wish
	looking perplexed.	you good luck with your documentary. I'd be happy to
		talk to you off the record with some background
		information if that's helpful. I just can't do it now.
		Again, my apologies. Good luck. Good day.
67.	21:48	Mike: one time when we were going through all the
	In Mike and Marsha's living	gurgling in the well, I decided to put a plastic bag over
	room and kitchen.	the well head and within minutes it filled up that
		bag. So I closed off the bag and I stuck a fuse in it
		and I thought, uh, this might be real stupid. So I came in
		and I told Marsha, "why don't you dial 91 and if this
		doesn't go right
		Marsha: hit the other 1.
		Mike: so I got this bag of who knows what and I lit it
		and it started floating towards the road and I said
		"oh no, a truck is going to come and I'm going to blow
		up a truck (laughing).
68.	22:42	
	In kitchen at sink. Mike with	
	lighter and water turned on	
	slightly, trying to light the	
	water on fire. After a few	

	moments of nothing	
	happening, the water and whole sink burst suddenly	
69.	into flame.	Mike: Jesus Christ! That's the best I've done. I smell hair. Fox: can I try it?
	Fox gives camera to Mike, goes to sink and repeats lighting of water coming out of sink. After just a few moments faucet and sink light on fire. Fox looks perplexed and upset, smiling uncomfortably, but not laughing.	Mike: that one was kind of spooky, and I've been lighting this water quite a bit. Fox: It's really upsetting actually. It's not supposed to do that.
70.	24:21 Mike getting water from well spigot and testing with meter that beeps. Pours into sample jar and Fox takes it to his car.	
71.	24:35	(Banjo music)

	Driving on dirt road past	
	farms, condensate tanks.	
72.	24:46	(Sounds of greetings)
	Slate: Jesse & Amee	
	Ellsworth	
	Fox arrives at Ellsworth	
	house, clean looking brick	
	home, with white picket	
	fence.	
73.	24:56	Jesse Ellsworth: those are all the wells.
	Close up of map showing	Fox: the wells?
	thousands of red dots.	Jesse: yes and that's where we live.
	Jesse and Amee in their	Fox: the Red Zone?
	living room.	Jesse: yes, that's why they call it the red zone.
74.	25:04	Ron Zappolo: new information tonight on a story that
	Cut to television newscast of	you almost have to see to believe.
	Fox News, Denver,	Libby Weaver: that's right, flames shooting from faucets
	Colorado, station. News	inside a home in Fort Lupton.
	story showing pictures of	Reporter: It seemed like such a strange and unusual
	water faucets catching fire.	phenomena. Water so contaminated it catches on fire.

		Amee: I'm terrified there are no other words for it, I'm
		absolutely terrified.
		Reporter: Amee Ellsworth was so scared she had her
		well water tested and found out that groundwater is
		contaminated with natural gas.
75.	25:38	Fox: let's see there's 3, 4 wait did I count that
	On the road in front of the	one already? 11, 2, 3 oh it's hiding behind a tree
	Ellsworth's house, walking	Seven or eight [wells] I can see from here. They said it
	through their fields looking	wasn't their fault and yet at the same time they're
	at yellow survey flags	providing you with water.
		Amee: yeah, well because they're being good
		neighbors, even though they don't have a good neighbor
		program.
76.	26:07	Amee: I am the cup-is-half-full person. I am the most
	Amee at her dining room	optimistic I believe in the good of people. I say this
	table.	three times a day, all the time, I do believe in the good
		in people. I do believe that things will work out the way
		they're supposed to work out. But I will stand up for
		what I believe and I will fight till the end. There's no
		way you can even try to describe that to people you
		can't make them understand how a part of who you are
		is being destroyed by the actions of others for selfish

		purposes. No one should ever have to go through what I
		went through and call them crying and begging for help
		and be told no. And that's where the system is broken.
77.	26:48	Amee: Shock is one word for terror is probably more
	Video of news report	effective.
	showing Amee and Renee on	Reporter: that's because Amee is living in a home that
	screen and Renee lighting	could explode and now we've learned she isn't the only
	her water.	one.
		Renee McClure: it just like popped and caught on fire.
		Reporter: Renee McClure discovered her water is also
		flammable after she saw our story last night.
		Rene: I want to know that we're safe. (tearfully)
		Reporter: Renee worries that her family has been
		drinking the contaminated water for years
78.	27:17	Fox: is this your bus?
	Fox and Renee next to a	Renee: yes my tour bus.
	yellow school bus.	
79.	27:21	Renee: it just seems like in the last year and a half I'm
	Kids playing on trampoline	never healthy. I've always been healthy, that's why I
	. Renee in her kitchen,	don't know what it is. I get headaches all of the time and
	talking kids with horses	you know I mean at least two or three headaches

		per week. Actually the whole family gets headaches but
		mine gets so bad where I just have to go lay down.
		Fox: since you moved here?
		Renee: uhuh, yeah. I'd like to ask the congresspeople
		why (cough, cough) we're supposed to be living in
		Colorado it's supposed to be such a green state; yet
		we can't even get clean water out here. One or two
		glasses might not affect a person, but what about long-
		term.
80.	27:58	Fox: it says here you have trichlorobenzine in the water.
	Fox, reading from a report,	Renee: and what is that?
	in Renee's kitchen.	Fox: it's one of the volatile organic compounds that
		comes up with the production of the gas.
		Renee: (cough, cough, cough) what blows my mind is
		that the oil and gas conservation commission, I thought
		they were there to work for the people. They're not there
		to work for the people. They are there to work and help
		the oil and gas companies and I asked them who is there
		for the people? And he told me nobody; call an attorney.
		That's what they told me.
81.	28:29	(Banjo music)
L		1

	Children playing in yard	
	Fox driving in car	
	visiting more homes	
	lighting more water on fire	
	. visits 3 homes with	
	flammable water shots	
	from windshield driving on	
	dirt, rural roads.	
82.	29:20	Heidi (reporter): the Colorado Oil and Gas Commission
	Television newscast on Fox	is aware of the situation and will probably be doing
	News in Denver, CO.	some additional testing in the area as soon as possible.
	rews in Benver, e.g.	
		Weaver: well, the bottom line is, whose responsibility is
		it to take care of this problem?
		Heidi: they really do have to look a little deeper into this
		because it really does seem to be more widespread than
		we thought.
		Weaver: It's very scary, all right, Hiedi, thanks.
83.	29:36	Wilson (Whistleblower): well let's clear this up. I'm not
	Wilson at conference room	here under the authority of EPA speaking on behalf of
	table being interviewed by	views that the agency represents.
	Fox.	Fox: I will put, "Weston Wilson not speaking on behalf

	Slate: "The Whistleblower"	of the EPA, although he works for the EPA."
	Slate: "Weston Wilson. Not	
	Speaking on Behalf of the	
	EPA (although he works for	
	the EPA)	
84.	29:48	Fox: In 2004 the EPA was investigating a water
	Close up of report cover	contamination incident due to hydraulic fracturing in
	Wilson sitting conference	Alabama, but a panel rejected the inquiry stating that
	room close up shots of	although hazardous materials were being injected
	Wilson's letter.	underground EPA did not need to investigate. Weston
		Wilson, a 20-year veteran of the EPA, wrote a letter to
		Congress objecting. He also noted that on the peer
		review panel that authored the report, five of seven
		members appeared to have conflicts of interest and
		would benefit from the EPA's decision not to conduct
		the further investigation.
85.	30:11	Wilson: they came out with a patently ridiculous
	Wilson in conference room	conclusion. They had shown it was toxic and then said it
		wasn't a risk. It may no sense and only in an Orwellian
		world would you accept that.
86.	30:17	Fox: from 1995 until 2000, when he became vice
	Shots of Cheney, Halliburton	president Dick Cheney was CEO of Halliburton. One of

equipment and Halliburton
workers. . . photos of
members of the task force. . .
shots of Cheney in meetings.
. . Cheney and Bush. . .
close up shots of the Act.

the first things he did when he became vice president was to form what was known as the energy task force.

They met up to 40 times with industry leaders; they only met once with members from environmental groups.

The energy task force and \$100 million lobbying effort on behalf of the industry were significant in the passage of what's called the Halliburton loophole to the Safe Drinking Water Act, which authorizes oil and gas drillers exclusively to inject known hazardous materials unchecked directly into or adjacent to underground drinking water supplies. It passed as part of the Bush administrations' Energy Policy Act of 2005.

87. 30:53

Fox and Wilson in conference room. . . close up on Wilson.

Fox: so all science at that point stopped.

Wilson: all science, all data, everything stopped. We were appalled about burying this kind. . . maybe no pun unintended. . . burying this secret. . . that it was known to be toxic. You know when the president says to its bureaucracy: don't investigate. Expedite things for industry. We do those Jobs well too. One could characterize this entire industry as having 100 years of history of purchasing those they contaminate. So they purchase the land and often with an agreement of

secrecy of somebody who was alleging they had been contaminated by oil and gas production. So the industry itself has that type of practice. 31:16 88. Fox: you're saying that the industry itself should be proving it and not the people. . . Fox and Wilson in conference room. . . close up Wilson: this is America! We shouldn't be assuming that on Wilson. the corporation can keep a secret, especially when they're practicing in our backyard. So, the onus should be on the industry to prove to the government that their practice is benign and not a bad assumption. What you could be picking up from these citizens is what we should be investigating, but we're not. We're still asleep at the wheel and don't assume that since Obama got elected that something's changed at the EPA yet in that regard. Even if it weren't true they deserve an investigation, they are citizens of the United States; and they certainly don't deserve to be exposed to secret chemicals. It's un-American. So I understand your question in frustration and you're seeing how this may be a pattern repeating itself, but so far we're not on duty. We're not present as a government agency to answer your legitimate questions. And we must be

		directed.
89.	31:55	(Music)
	Series of slates mentioning	
	chemicals and adverse health	
	effects.	
90.	32:06	(Music)
	Driving in car condensate	
	tanks with mountains in the	
	background more	
	hazardous chemical signs.	
91.	32:22	Fox: glycol ether, it says extreme danger, extreme health
	Two men by truck shooting	hazard.
	handguns.	Man: Yep, so almost like having a loaded gun in your
		hand isn't it? (laughing)
92.	32:37	Fox: you can zoom in. I'm going to take this nice and
	Fox with handgun, shooting	slow.
	at cans in field next to	
	condensate tanks.	
93.	32:42	Fox: Jeff and Rhonda Locker had been living here for at
	Slate: "Easter in Wyoming"	least 30 years, but at some point in the late 90s there
	Little boy with Easter eggs in	was a gas company re-stimulating a well out behind

	his arms kids and adults	their house. Rhonda was out doing the wash and the
	running about in the yard.	wash went black; they knew they had a small problem
		with the water. And there isn't a laundro-mat for miles.
94.	32:11	Jeff: all of a sudden the washing machine plugged up
	Jeff and Rhonda being	and the water that came out and flooded the back where
	interviewed in their living	the washing machine is, was pure black, black, complete
	room.	black. And of course at that time I went out and stopped
		the pumper when he came through the yard and asked
		him what he done to our water and he said we didn't do
		anything to it. In pursuing it further, I finally got water
		samples and that's when we found out the water was
		totally unfit for consumption. It was just immediate.
95.	33:36	Fox: The Lockers threatened the gas company with a
	Jeff getting in pickup	lawsuit. They settled for \$21,000 to put in a reverse
		osmosis filtration system.
96.	33:49	Jeff: this is the well that was on the property when we
	Jeff showing Fox the well	bought it. We're still using it, but it's the one that went
	and pipes, and other	bad.
	equipment.	
97.	33:56	Fox: Jeff and Rhonda Locker had to sign a
	Shots of the yard tanks	nondisclosure agreement.
	. pumps	

98.	33:58	Rhonda: the day that I signed it I even said to them, I
	Rhonda and Jeff in their	just want you to know that if anyone asks me I would
	living room.	not lie.
99.	34:04	Fox: now they're so frustrated that they're breaking their
	Jeff going into his pump	silence.
	room.	
100.	34:06	Jeff: this is our system; it pumps out of there, it pumps
	Jeff in pump room, showing	through the softener there and it fills this 500-gallon
	filtration tanks, and pumps	tank. This is just a centrifugal pump. It goes through a
	. then shots of interview in	real fine I call it a filter, it's more like a membrane.
	their living room.	We were actually drinking it for a while, but about four-
		and-a-half years ago Rhonda got really sick with
		extreme neuropathy and is in a lot of pain. She just
		faded fast. She's been through spinal taps and everything
		to try to find the cause.
101.	34:33	Fox: Jeff and Rhonda Locker found out that a reverse
	Jeff showing the filter	osmosis unit won't filter out glycol ethers. Glycol ethers
		eat the membranes inside of the filters.
102.	34:42	Jeff: we don't drink it anymore. We haul our water
	In living room	Fox: tell me about hauling your water how do you
		do it where do you get it from?

		Jeff: Wal-Mart, we buy it.
103.	34:50	Fox: like Jeff and Rhonda Locker, after a nearby frack
	Louis Meeks in front yard of	job, Louis Meeks' water went bad. Started smelling like
	his house	gas.
104.	34:57	Louis: in 2004 they drove this well right over here I
	Louis Meeks in front yard of	don't know if you can see it
	his house	
105.	35:02	Fox: numerous water tests turned up various forms of
	Louis Meeks in front yard of	hydrocarbons and glycol ethers. EnCana, the company
	his house	doing the fracking, claimed no responsibility. With his
		back against the wall Louis had no alternative but to try
		to drill a new water well on his property.
106.	35:16	Louis: from 180 to 160 feet you could smell gas; he
	Louis Meeks in front yard of	went in there and he got to 240 and when he put that
	his house	join on and started to blow it out, well, it came at us.
107.	35:25	Fox: (loud mechanical noise, like air escaping) natural
	Video of gas blowing out of	gas exploded out of Lewis Meeks' water well for over
	the drill rig drilling the water	three days. The Department of Homeland Security
	well, frozen water flooding	reported that over 3 million cubic feet of natural gas
	the area Louis's yard	escaped into the atmosphere. Louis had to get an
		injunction from a judge to get EnCana to cement the
		well to stop the flow and to provide him with a

		replacement water source. The big green building next
		to Louis's house contains two cisterns that EnCana fills
		up twice a week.
108.	36:01	Fox: so these are two big water tanks that they're filling
	Entering the green building	up for you. Why are they bringing it?
	. looking at the tanks.	Louis: you tell me. If nothing's wrong why are they
		bringing it?
		Fox: so you actually hired a hydrogeologist to figure out
		what was going on around here? And what did he say?
		Louis: he said that they got everything intermingled.
		Whenever they do anything like frack it, they are going
		to intermingle everything.
109.	36:21	Louis: you are going to see little pearls of stuff come out
	Water flowing from hose	of it like oil, I just already saw one over here.
	into tank	
110.	36:38	Fox: and the water that comes out of Louis Meeks'
	Louis filling a bottle from	original well is only good for some bizarre science
	the hose	experiments and brain altering recreational activities.
111.	36:48	Fox: Oh, man!
	Fox takes a sniff of the bottle	Louis:tell me you'd drink that! Tell me there ain't
	of water	nothing wrong with this water.

112.	36:56	Fox: it smelled like turpentine; that chemical smell that
	Louis outside on his farm	goes straight to your head and get you dizzy almost
	next to his original well	immediately.
		Louis: here's the thing. I think this is criminal. What
		would happen if I took some chemicals like I've got and
		took them to the big boss of EnCana and dumped them
		in his well. They'd have me in the pen so fast my head
		would spin. But look they can come out here and do
		whatever they want to; and they don't even have to
		report it and tell us what they're putting in there.
		Neighbor: the whole concept of democracy and looking
		out for the little guy does not apply here.
		Louis: I'm telling you I'm not lying I've never seen
		such lying, if you know what I mean; I mean, their word
		ain't no good. We was all raised that way, if your word
		ain't no good, you're no good. And you talk to these
		these are grown men lying to you. For what, for money.
		that's it.
		Woman: when we had ours tested and they found glycol
		in it, it cost us \$4400.
113.	37:44	Fox: glycol ethers are odorless, colorless, and a liquid
	Louis putting proprane torch	chemical component of plastic. When Louis took a blow

	to surface of tank filled with	torch to his water I think we found a cheaper way of
	water globules of plastic	testing for glycol ethers. Either that or a secret
	form on the surface of the	Wyoming recipe for homemade plastic. I liked Louis
	water then cut to plastic	immediately. Cool 70s patterned mirrors. Cowboy
	water bottles and the living	statues everywhere and the most comfortable couch in
	room.	the United States.
114.	38:39	Fox: John Fenton and his wife Kathy have 24 gas wells
	Exterior of farm land with	on their property. All of them visible from their front
	condensate tanks in	porch.
	forground	
115.	38:50	Kathy: I was raised here and at one time there was
	Kathy in her living room,	nothing, I mean there was no oil or nothing. Now it's
	intercut with shots of their	everywhere you can see and like we could really sell
	farm and drill sites.	this place with the water situation. Look at it. We don't
		own the mineral rights.
116.	39:17	John: now see this black cow right here with that little
	John, feeding his cattle bales	calf? That little calf is less than 12 hours old, right there.
	of hay.	We've only got a certain amount of water wells to work
		with and, God, I don't know how they even drink it to be
		honest with you. It's the damnedest smelling stuff. It
		comes out different colors all the time, but you've got to
		use it sometimes.

		I think we should strive to be the cleanest and most
		environmentally conscious that we can. A lot of times
		it's right out in the middle of the field and that's where
		we make our money. You see the green grass growing,
		that's money to us. That's fertilizer and that's feed for
		cows; that's everything. And they tear up a football field
		sized area and drill a hole out there. They spread toxic
		chemicals and on top of that you've got gravel and rocks
		and big pieces of metal and then they pipeline
		everywhere and it just cuts us to pieces. There is no
		rhyme or reason as to how they do things out here. They
		do it different on every hole. They have different people
		out here; nobody's watching over them you know
		it's a free for all.
117.	40:45	Fox: John Fenton describes his home as being
	House and farm sitting in	surrounded by venting condensate tanks. At times the
	white-blue haze.	fumes from the condensate tanks are so strong they
		surround the house in a cloud of toxic vapor.
118.	40:50	John: and you can come out here when the sun's coming
	Close up of John talking,	up and there is just brown, the first100 200 feet of
	outside.	air, like a brown blanket playing over the top of
		everything. Not only are all the animals in their

		breathing it and absorbing it through their skin, but all
		the people are too.
119.	41:10	Fox: Kathy and her mother-in-law, who lives right down
	Close up of Kathy speaking	the road, suffers from headaches, dizziness, and a loss of
	in her kitchen.	smell and taste.
		Kathy: I know they say you have to let them drill,
		you've got to come to a compromise. We already know
		that we've already compromised as much as we can
		compromise. If they do anymore drilling out here, you
		know it's going to force people you know, it's
		going to force us out of business off our land. The
		less people they have to deal with out here, the more
		they can drill. But they can drill whether we like it or
		not. It doesn't seem to matter that we are affected
		that humans are being affected.
120.	41:58	John: if I'd known what was going to be like I don't
	Close up of John speaking,	know that I'd brought my family here. I hate to say that
	he's outside on his farm.	because some people might see this and wonder how
		I could like this, but this is my way of life. My father
		and my grandfather were the old-time cowboys and my
		grandfather on my mom's side they were farmers in
		Nebraska. This is my family's heritage. My wife's

		this is her family farm. We're proud of this, but by God
		if your way of life is being besieged and your health is
		under attack I don't know what else you can do. I don't
		know where else I'd go though. Where else could I go?
		This is happening everywhere that's the biggest thing I
		want people to know. You're not alone if this is
		happening to you because I'm in the same boat you are.
		What we need to do is we need to get together and we
		need to stand up. We need to speak with a unified voice
		and we need to stand up to these assholes.
121.	43:16	John: These little guys are really enjoyable to watch and
	Shots of cattle John	to be around. We want to raise the best and most natural
	speaking close up of John	clean product that we can raise and, by God, if you're
	and his cowboy hat.	breathing in dirty air and you're drinking water that
		could be tainted what's going into these girls and
		what's coming out in those cows, you know? You've got
		to be sure that what you're putting in them to raise that
		meat is as pure as it can be. Cute as they are in a year or
		two they're going to be on somebody's dinner plate.
122.	43:55	
	Exterior of condensate tanks	
	and pumping stations	

	Fox and John walking	
	around ethyl glycol,	
	danger, and EnCana signs	
123.	44:42	John: actually this next well we're coming up on was
	John driving in truck on dirt	probably one of the worst ones for Kathy and I. It was a
	roads through gas	neat little secluded spot you could go have a picnic, you
	pumping sites	know, if we wanted to come back and just talk, where
		nobody knew where we were at. It was right here, and it
		was all these kind of cool looking rock formations out
		here, and it's just gone. Everybody kind of has one of
		those and ours is under a dozer. It just disappeared. It
		took them one day and it was just gone, you couldn't
		recognize anymore. It's amazing that what took mother
		nature millions of years to build can be destroyed in a
		few hours of a piece of heavy machinery.
124.	45:31	(a sound like a humming radio signal).
	Segment finishes with John	
	walking up to a sandstone	
	cliff with an ancient	
	hieroglyph on it then	
	mountains in the distance.	
125.	45:55	Fox: I was lucky that between John Fenton's house and

	Fox driving on the highway	where I was going was Wind River Canyon, one of the
	in Wyoming mountains	most beautiful places in the United States. Almost
	on the skyline.	enough to keep my mind off of where I was going next.
126.	46:13	Fox: I was going to one of those moonscapes I'd seen in
	Slate: "Your Land, My Land,	the photographs. One of the biggest and most productive
	Gasland" Aerial shot of	gas fields in the United States. The Jonah Gas Field is in
	prairie landscape blanketed	the foothills of the Grand Tetons, just to the south of
	with drill holes and	Yellowstone Park and the Bridger Teton National
	production well sites and	Forest.
	roads connecting them, for as	
	far as we can see.	
	Slate: "The Jonah Gas	
	Fields, Sublette County,	
	WY" Views from the car of	
	the Grand Tetons.	
	Fox looking into camera to	
	see if it's working.	
127.	46:33	Fox: Sublette County. At 4935 square miles, the county
	Map showing the county	is about the same size as the entire state of Connecticut.
	views of landscapes in	The population is about 6000 people, that means there's
	Wyoming	about one person per square mile. Much of Sublette
		County is BLM land Bureau of land Management

		land our public trust. Your land and mine. You can camp anywhere on BLM land, because it belongs to you, the public. BLM's stated mission is to sustain the health, diversity, and productivity of the public lands for
		the use and enjoyment of present and future generations.
128.	47:21	Fox: The energy task force headed by vice-president
	Photos of Cheney aerial	Dick Cheney asked the BLM in 2001 to find ways to
	views of land covered with	open new federal land to oil and gas leasing; and in
	drill sites mid shot of	what some called the greatest transfer of public lands to
	condensate tanks.	private hands in history, Dick Cheney persuaded the
		BLM leased millions of acres to gas companies for
		exploration and drilling.
129.	47:40	Fox: the derrick tower that you see is the drill rig. The
	Slate:	drill rig moves in for three to four weeks drilling a hole
	"Anatomy of a Gas Well	that's anywhere between 11 and 8 thousand feet down to
	Part 1:	the shale formation. Each well completion, that is, the
	rait 1.	initial drilling phase, plus the first frack job requires
	Drill Rigs"	1,150 truck trips. The breakdown goes like this: drilling
	Shots of drilling rigs and	rig mobilization and drill pad road construction, 10 to 45
	many, many shots of trucks	truckloads; the drilling rig, 30 truckloads; drilling fluid
	driving on the highway and	and materials, 25 to 50 truckloads; drilling equipment
	dirt roads	and casing, drill pipe etc., 25 to 50 truckloads;

completion rig, mobilization and demobilization, about 15 truckloads; completion fluid and materials, 10 to 20 truckloads; completion equipment, 5 truckloads; hydraulic fracture equipment, pump trucks, and tanks equals 150 to 200 truck loads; and here's the big one, hydraulic fracture water, for each well, 400 to 600 tanker trucks. . . 400 to 600 tanker trucks; hydraulic fracture sand, 20 to 25 trucks; flow back water removal, 200 to 300 truckloads, which means that of all the water that goes down only about half of it comes back up. 130. 48:44 Fox: what you see here is the flow back pit of what you Slate: call flow back water, frack water, or what the industry likes to call produced water. Before the water can be "Anatomy of a Gas Well hauled away and disposed of somewhere it has to be Part 2: emptied into a pit; an earthen pit or a clay pit, The Pits" sometimes a lined pit, but a pit. Where a lot of the Several shots of pits of chemicals can seep right back into the ground. Colored various shapes, sizes, and flags. I have no idea what those are there for; maybe it's condition containing mud a grand opening of a new pit. and dark colored water . . . shot of lines of colored flags stretched over pits

131.	49:10	
	Fox wearing gas mask	
	getting out of car and	
	collecting samples of the	
	water.	
132.	49:27	Fox: I mentioned the problem of water removal; 2 to 3
	Slate:	hundred trucks per well. That's a lot of water to clean.
	"Anatomy of a Gas Well	To get around this problem the industry employs
	Part 3:	evaporation sprayers in the flow back pits. Water is
		sprayed into the air in the sunlight so that it evaporates
	Evaporation Sprayers"	faster. Now, of course you're probably saying to
	Shots of the pits with the	yourself, that's insane, that water contains all the
	water being sprayed in a	fracking chemicals, which are toxic and all the volatile
	heavy mist out over the	organics, which are also toxic. They create ozone,
	water.	hazardous air pollutants, and they fall down in the form
		of chemical or acid rain on the grasslands.
133.	49:55	Fox: each well site is equipped with a mini refinery and
	Slate:	storage unit. What you see here is what is called a
	"Anatomy of a Gas Well	separator. When the gas comes up out of the ground it
	Part 4:	comes up wet. The separator heats it up to 212 and boils
	ran 4.	off the water. The betex chemicals, the volatile organics,
	Venting"	benzene, toluene, and xylene and a host of others are all

	Shots of the refining	evaporated right there on the site. The gas is then
	equipment and facilities at a	pumped in to a pipeline to go through further stages of
	well site.	refining.
134.	50:14	Fox: the big tanks you see next to all the gas wells are
	Slate:	condensate tanks. Condensate is stored in the tank until
	"Anatomy of a Gas Well	a truck can come and haul it off. The condensate can be
	Part 5:	anywhere from produced water, which is unusable to a
		low grade jet fuel. It's just sitting there like a big
	Condensate Tanks"	explosive battery steaming off volatile organics directly
	Several shots of condensate	into the atmosphere 24 hours per day. Numerous air
	tanks and pipes finishes	pollution advisories in Sublette County were posted by
	on close up of the air	the Wyoming Department of Environmental Quality
	pollution advisories that	stating that ozone in the air had reached unsafe levels.
	were posted	Ozone is good in the upper atmosphere it keeps out the
		radiation of the sun, but down on the ground it burns
		holes in your lungs. Sublette County, the size of
		Connecticut, 6000 people, had air worse than Los
		Angeles on a typical day.
135.	50:49	Fox: Right there is a pronghorn antelope. Pronghorn
	Shot of antelope(s) in the	antelope is not a part of gas development, but the
	wild with drill rigs in the	Pinedale anticline and the Jonah Gas Fields are directly
	background.	in the path of the thousand-year-old migration corridor

		of pronghorn antelope, mule deer, and sage grouse. And, yeah, each of these species is endangered and has
		suffered a significant decline of their populations since
		2005.
136.	51:13	Fox: After a while the gas rig just seems like a car made
	Gritty footage of drill rigs,	in 1890, a car without a windshield, without safety bolts
	well sites, trucks	to hold the seats in, without an airbag, without seatbelts,
		without crash test ratings something fundamentally
		unsafe. If you think about a car made today there are
		probably thousands and thousands of safety features.
		Looking at these rigs I couldn't help but imagine the
		hundreds of safety features that might be implemented
		including harnessing volatile organics, storing toxic
		wastes off-site or not on the ground, non-toxic fracking
		fluids, hundreds of ways that we might improve upon or
		just say to hell with it, can't we build a solar panel
		instead?
137.	51:55	I zipped around and got lost on the snaking, winding
	Driving in a car Fox	roads that lead in and out of the gas field roads that
	driving with a gas mask on	aren't marked; each access road leading to another site,
		to another site, to another site. Nobody was monitoring
	Several shots of rigs,	it. I could drive right up wherever I wanted. It was BLM

	pumping stations, condensate	land it was mine it belonged to every United
	tanks	States citizen. No one told me to leave, no one told me I
		shouldn't be there.
138.	52:22	(banjo music)
	Two drill rigs in mid-ground,	And apparently there were no restrictions on banjo
	mountains in the distance	playing either.
	the same shot that the film	
	opened with. Fox backs into	
	camera view with gas mask	
	and a banjo and plays a short	
	tune.	
139.	52:53	(Birds chirping, silence broken by truck rushing past)
	Antelope and deer running	
	and grazing birds	
	chirping then large truck	
	rushes by on highway.	
140.	53:17	(romantic, "old-standard" music: "If I Had You")
	Truck passing morphs to a	
	shot of a fiery explosion	
	montage of drill rigs.	
1 / 1	53:46	Voice on abone the gold it was like being hit in the
141.	- JJ.40	Voice on phone: she said it was like being hit in the
	Slate: "Drop Everything,	temple with two 2 by 4s. She dragged herself to her

	Clear Your Schedule"	truck and then managed to get out and became violently
	Fox listening on phone in	ill was violently ill all night. These people's health
	car.	are ruined. They can't function. They can't live in their
		homes anymore and go outside. Susan was wearing a
		respirator; the woman who had the brain tumors, aside
		from the fact that she's just a walking nightmare of a
		mess physically, can't work, you know she's an invalid.
142.	54:10	Tara Meixsell: I've tried to bring attention to these
	Slate: "48 Hours in Garfield	stories. Anytime media comes to town, they drop
	County, Colorado"	everything, they clear their schedules in hopes that what
	Tara Meixsell speaking in	happened to them won't keep happening to other people.
	her office.	They know that their chance is over.
143.	54:23	Fox: I drove south from Wyoming to Colorado's
	Montage of shots of the	beautiful Western slope. Just to the east of Grand
	Western Slope landscape	Junction Garfield County has to have the best names of
	drill rigs well sites and	any county in the United States. The towns of Rifle,
	condensate tanks	Rulison, Parachute, Silk and Battlement Mesa are all
	finishing with a close up of	part of one of the first populated areas to get a major gas
	some of the pages of the	rush. In less than a decade the area became rapidly
	study.	industrialized with over 5000 wells drilled. So going to
		Garfield County is like looking into the future of any
		area slated for drilling. It's also the subject of the first

		preliminary study on the health effects of gas drilling.
		Seven medical researchers from the University of
		Colorado studied the air and the water finding acute
		problems from toxic emissions from gas development.
		So when I got calls from people in Garfield County they
		were calls from people who have severe health
		problems.
144.	55:10	Tara: this is Karen Truelove. She started getting massive
	Close ups of articles about	headaches getting really ill feeling sick, and she
	health problems of county	said it got so bad that she didn't even plan her days
	residents Tara and Fox in	anymore she just tried to get through them. Then my
	her office.	friend Rick has benzene in his blood tolueme.
		Fox: Tara was speaking for her friends, friends who
		couldn't speak for themselves, mostly because of
		nondisclosure agreements, people who are in lawsuits or
		who had settlements that stipulated once they receive
		their money they could no longer go public with their
		story. Tara had one friend who hadn't signed a
		nondisclosure agreement.
		Tara: my great friend Dee Hoffmeister
145.	55:57	Dee; we had just celebrated our 50th wedding
	Dee, speaking in her kitchen.	anniversary; we came back and as we drove into the

		yard there was this huge rig and semis and the smell was
		so intense, the benzene was so intense that we ran for
		our deck. The deck was enveloped in this big gray
		cloud it was like being held on the deck, this big
		gray cloud. So we're in the house I'd say at the most 15
		minutes when I got up and passed out. You get pains all
		over your body; you don't know why you're getting the
		pains and then they come and go and they'll show up in
		another part of your body. I got to the point where I was
		walking with a four prong steel came because I couldn't
		walk on my own.
146.	56:59	Tara: after her first big knock down exposure she wasn't
	Tara in her office close	in very good shape, but than just a couple of years ago
	up of an article on Dee.	
147.	57:08	Fox: Dee Hofmeister's gas well exploded, the
	Shots of the well fire	condensate tanks caught fire and the rig was consumed.
	flames leaping into the night	
	sky.	
148.	57:17	Dee: at three in the morning we heard these pops. Our
	Shots of the fire Dee in	son got up to go look outside and he had to run back in
	her kitchen speaking then	because the deck was so hot. And I opened my eyes and
	going outside the house at	I couldn't keep them open because everything started

	sunset.	spinning and then the next day I was even worse and he
		took me to emergency. We had our son and his wife and
		four kids living upstairs here in the house when this all
		started and all four of them got asthma. And two of my
		daughter's children got asthma. They were on nebulizers
		in the winter to breathe. We had beautiful playgrounds,
		but it got to the point you never leave your kids out to
		play.
149.	58:09	Fox: I kept getting into car after car, hearing symptom
	Cars shaking hands and	after symptom. My first day in Garfield County I did 16
	meeting people mid-shot of	hours worth of interviews and finally I got a chance to
	older women, Theo Colborn	sit down with Theo Colborn. Winner of five Rachel
	sitting at what looks like a	Carson awards, a Time magazine environmentalist of
	car dealership.	the year, a congressional fellow; her accolades are too
	Slate: "Dr. Theo Colborn,	numerous to count.
	Environmental Health	
	Analyst"	
150.	58:22	Theo: we began to look at what's being used to drill a
	Slate: "Dr. Theo Colborn,	well. Data that the government should be collecting, but
	Former US EPA Advisor"	isn't collecting. We've been able to get our hands on
	Theo in her office.	some of that.

151.	58:30	Fox: because of the exemptions, fracking chemicals are
	Shots of drilling rigs	considered proprietary; like the special sauce for a Big
	close up of some of the	Mac or the secret formula for Coca-Cola. The only
	reports on Theo's findings.	reason we know anything about the fracking chemicals
		is because of the work of Theo Colborn. By chasing
		down trucks, combing through material safety data
		sheets, and collecting samples, Theo has identified 596
		different chemicals in 900 chemical products.
152.	58:50	Theo: every environment law we've wrote to protect
	Theo speaking in her office.	public health is ignored, but the neurological effects are
		very insidious.
153.	58:57	Woman: three years ago (tearfully) I started getting
	Woman in her living room.	really dizzy.
154.	58:59	Theo: first you may just have headaches, than the next
	Theo in her office.	thing you might have ringing in your ears.
155.	59:03	Woman: I thought I had an inner ear infection. I went to
	Woman in her living room.	my doctor and she is like your ears are clean.
156.	59:08	Theo: or you may be a little disoriented or you may feel
	Theo in her office.	a little dizzy.
157.	59:11	Woman: so they sent me down for a CAT scan.
	Woman in her living room.	

158.	59:13	Theo: but eventually you may feel what is called
	Theo in her office.	peripheral neuropathy and when you get to this stage
		you have irreversible brain damage.
159.	59:19	Woman: for the last four years I have these lesions on
	Woman in her living room.	my brain don't know where they came from.
160.	59:24	Theo: you begin to get swelling.
	Theo in her office.	
161.	59:26	Second woman: I hurt everywhere in my body, my legs,
	Second woman in her home.	my feet everywhere.
162.	59:29	Theo: your extremities, especially the arms and legs.
	Theo in her office.	
163.	59:31	Man: they couldn't move, I couldn't reach my face to
	Man by his truck.	eat.
164.	59:33	Theo: you never know where the pain is going to be, the
	Theo in her office cut to	pain can be excruciating. You think about the workers
	gas workers	or the people's yards backyards are within 1000 feet
		of their home have a well pad.
165.	59:46	Man: they can't get rid of the tanks and the fumes are all
	Man outside by his truck.	the time.
166.	59:49	Theo: they are inhaling these chemicals 24-7
		around-the-clock.

	Theo in her office	
167.	59:53	Man: I can't smell anything.
	Man outside by his truck.	
168.	59:56	Fox: so you've lost your sense of smell as well
	Fox interviewing man and	Third woman: that is one of the side effects of hydrogen
	woman outside.	sulfide exposure. I don't smell the cat box.
		Fox: That's a good thing (laughing)
		Third woman: Yeah For two years now I have not
		smelled flowers.
169.	1:00:05	Second woman: taste, I can't hardly taste nothin'.
	Second woman in her home.	
170.	1:00:06	Third woman: I can taste salty and I can taste sweets.
	Third woman outside	
171.	1:00:07	Second woman: salty I can taste it. Sweet I can
	Second woman in her home.	taste it.
172.	1:00:11	Third woman: but I don't get any of the subtleties or
	Third woman outside	aromas of food. It's like all texture for me now. Yeah,
		it's not good.
173.	1:00:17	Theo: I go out and I talk to the bosses the men who
	Shots of men working on the	are overlooking what's going on and even their

	drill rigs Theo in her	supervisors, the public relations people that talk to us for
	office.	the industry; they are so surprised, they look at me as if
		I'm crazy when I asked them what are they mixing in the
		chemicals now. Oh, we're not using any chemicals and
		if we are they're safe. Even the bosses don't what they're
		telling those men to handle. Once the public hears the
		story and they'll say, "why aren't we out there
		monitoring?" We can't monitor until we know what
		they're using, there is no way to monitor. You can't.
174.	1:00:50	Fox: in my interview with Theo, driving around, it was
	Shots while driving of rigs,	clear that there'd been no planning at all. In all the gas
	wells, tanks, landscape.	drilling, infrastructure was spread out like a teenager's
		bedroom. A pipe yard over here; a waste pit hidden
		behind a mountain over there thank God my last
		interview had a sense of humor.
175.	1:01:12	Lisa Bracken: so the other night I had this dream that I
	Shots while driving of	was in this high school or this middle school, maybe. I
	landscape	was in this restroom and there was feces everywhere. I
	-	was appalled! Somebody, by God, is responsible for
	Slate: "Lisa Bracken"	this. It's the principal. So I was trying to gather up this
	She's speaking while we are	crap and I was handling it I was trying to put it in
	still driving and seeing	bags, and I thought okay, well, I'm going to present it to
	landscape shots then	The grant of the g

	we're following her along a	the principal. I'm going to put in a bag. I'm going to put
	trail ends with Lisa	it in a really pretty bag. Then I'm going to put ribbons
	talking directly to the	on it, because I really want to get his attention. I want to
	camera.	drop this bag of crap on his desk and I want to shock
		him. So he thinks it's a present, but when he opens it
		it's crap and it will get his attention and he'll take
		responsibility I mean God how symbolic is this dream?
		So you know what? Finally it dawns on me: crap is crap,
		no matter what kind of package you put it in. That was
		my lesson. There ain't no way you can make it pretty,
		Josh. Stop trying to make it pretty. Just do it! Show it
		for what it is.
176.	1:02:35	Lisa: 115 million cubic feet of gas was estimated
	Lisa sitting in her truck.	and acknowledged to have blown out into West
		divide Creek.
177.	1:02:42	Robert: it's on up beyond that and it's on down also goes
	Robert standing in creek.	all the way down probably a quarter of a mile a half
	Slate: "Robert Blackcloud,	mile. It's really bubbling up here, just like Steve said it's
	Lisa's Father"	like a Pepsi bottle.
	Robert showing bubbles of	Lisa: Oh yeah, it burns keep your face out.
	gas coming from creek	
	uses match to light it on fire.	

178.	1:03:08	Lisa: that's divide Creek. That is where the seep
	Shots of small creek running	occurred in 2008 in the summer. There was dead
	through a valley in prairie	crawdads, there was dead rabbits, dead birds, which I
	land Lisa speaking to	still have the bodies. I have the bodies in the freezer.
	Fox outside shots of drill	Yeah, because even DOW hasn't been able—in almost a
	rigs and well sites	year— to figure out who to send them to.
179.	1:03:33	Fox: This is all EnCana?
	Lisa and Fox walking	Lisa: Yeah
		Fox: You feel like you don't want to sit down or get in
		the water?
		Lisa: Yeah, you don't know. My dad he was down there
		all the time, summertime, drinking out of the creek
		the creek was good creek water. The year of the seep, it
		was discovered in April, he had been drinking out of the
		creek for a month. He was dead two years later of
		pancreatic cancer.
180.	1:04:05	Robert: there's no weeds in the funnel, we've taken the
	Robert in the creek	weeds out we're just going to do the gas. Same way.
	places metal cone over gas	over the seep. Now, the whole seep's not covered,
	leak and lights it on fire	it's still bubbling all around it. All right, are you ready?
		Now it's still burning yellow. This is about 12 inches
		high and the flame's probably going up another 12

		inches, so you've got two feet there.
181.	1:04:37	Fox: were they fined for Divide Creek seep?
	Lisa and Fox walking along	Lisa: yeah, the biggest fine in Colorado history,
	trail	\$371,000, I don't think it bankrupted the company. The
		corporate business model is to come into an area,
		develop it as fast as you can, and if you trash anything,
		you make the people who you impact prove it. You
		make them argue it in a court of law and the last person
		standing gets bought off and you move on.
182.	1:05:23	Fox: I had tried to keep anger and sorrow at bay, but the
	Shots of well sites, the creek,	moment I knelt down at Divide Creek I looked upstream
	and landscape Fox sitting	and noticed the bend. It reminded me of home and I
	by stream, apparently	broke apart. She says she has the dead birds and the
	distraught.	frogs that were in the creek in her freezer I want to see
		them. Let's go get the rest of the story.
183.	1:06:43	Lisa: God, you remember that dream? This is it. There is
	Lisa getting bags out of the	one bird. In the summer of 2008 all this black stuff,
	freezer Fox opening them	diesel organic stuff, came up, came into the creek. We
	to reveal birds and animals,	had a kind of mass die off. They ended up in the freezer
	dead and frozen.	as specimens. That's a dove and this is the rabbit. He
		was right down there by the seep. Right down where
		propane and ethane was found in the groundwater. This

		just broke my heart. Look at this little guy, he didn't
		even have a chance.
184.	1:07:33	Fox: did you ever think that you'd be freezing rabbits,
	Lisa outside by her car with	doves, and animals in your freezer that you wanted
	Fox. It's night, dark, but	to get autopsied?
	illuminated by floodlights	Lisa: no that's probably one of the creepiest things this
	and flashlights lingering	is so foreign and creepy and alien to me. To have these
	shots on the dead birds and	critters just die and leave to try to preserve them? It's
	rabbit.	creepy and weird unnatural.
185.	1:08:03	Lisa: and then put them in that bag.
	Fox and Lisa placing the	Fox: In this Wal-Mart bag? You can't get this at Wal-
	specimens in bags	Mart
	outside in the dark with	Lisa: That you know of! (laughing)
	floodlights and flashlights. They hug goodbye.	Fox: All right, thanks.
		Lisa: Think positive.
186.	1:08:25	(Transition music "This is just a nightmare ")
	Nighttime antelope	
	lighted drill rigs.	
187.	1:09:07	Fox: I wanted to get out of gasland as fast as I could, but
	Driving shots of rigs,	there was nowhere to go. I'd been on the road three-and-
	tanks, and landscape	a-half weeks. I realized that I hadn't been on a single

	mountain ranges.	road between Arkansas and Santa Fe that didn't have a
	Transparent slates with states	gas well on it. All the states started swirling together.
	names: Utah, Arkansas, New	Everywhere I went there was this same story.
	Mexico, Oklahoma, Kansas.	
188.	1:09:35	Man: he says, you see this dark spot? That's brain
	Close up of man.	damage.
189.	1:09:37	Fox: huge banks of compressor stations in people's
	Compressor stations and	backyards.
	tanks.	Man: I can't stay here too long.
190.	1:09:41	Fox: Wells drilled right across the street from people's
	Drilling rig.	houses.
	Older woman with small boy	Woman: yeah get a picture of the pretty flowers over
	in front of drilling rig in	there
	background.	
191.	1:09:47	Fox: poison streams in Arkansas.
	Dirty creek, close up of dirty	Man: boy, they're making a beautiful, beautiful piece of
	water.	country and turning it into just a big trash dump.
192.	1:09:55	Fox: huge refineries right next to cemeteries. Land
	Refinery adjacent to a	farms where toxic sludge from waste pits were right
	cemetery piles of dirt	next to residential communities.
	homes front yards with	

	bikes and trikes in them, but	Woman: and the dust blows the toxic waste fumes
	no children.	blow on them.
193.	1:10:14	Fox: too many stories to recount. Like a skipping
	Shots of equipment and	record, a song that you hear over and over again. Like a
	plants a man in a cowboy	scar that runs through you and comes out your face.
	hat looking at the camera.	Everyone had the same look of worry.
194.	1:10:29	Woman: we can't keep going like we are. I've heard that
	Extreme close up of	the White House power plant is supposed to go natural
	woman's face	gas and we tell them, don't do it.
195.	1:10:41	Fox: the sheer scope of this massive drilling campaign
	Driving showing	boggled the mind. As a detective I was totally out of my
	highway stretching out in	league.
	front	
196.	1:10:50	(Series of attempted phone calls to get interviews with
	Fox in hotel room making	Cabot or other gas companies voice messages
	calls looking tired	delays)
197.	1:11:10	Fox: I wanted to get home and get a sense of the bigger
	On highway "Welcome to	picture, then I looked at the map to get home I had
	Texas" sign	to go through the bigger picture: Texas. The Dallas-Fort
	Slate: "The Air Over Fort	Worth Metroplex, the Barnett shale the place where
	Worth"	all this started.

Map of Texas showing
expanse of the Barnett Shale.
.. billboard about the
Barnett.

198. 1:11:27

Al in his small, cluttered office. . . Map of Ft. Worth covered nearly solid with red dots. . .

Air Quality Specialist and
Researcher, Southern
Methodist University"
Al speaking in his office to
Fox.

Slate: "Dr. Al Armendariz,

Al Amendariz: here's a map of the Dallas-Fort Worth metropolitan area. All those dots you're looking at here are the oil and gas wells around Fort Worth. On most of the dots there are multiple wells, so each of those dots is a. . . what they call a pad, and from each of those pads they can sometimes drill 2, 5, 10 wells. So if you take each of those dots and multiply them by 5 to 10, you start to see why we have about 10,000 wells around the city of Fort Worth. The Texas Commission on Environmental Quality had no idea. . . the TCEQ had no idea how many gas wells were being put in and were in the ground around the city of Fort Worth. We were interested in kind of getting a handle on this. What were really the emissions coming out of the oil and gas sector and we didn't want to rely on the state's numbers. The state had just admitted publicly that they didn't know what the emissions were, that their numbers were grossly under estimated. So we did our own. We now know that the emissions from this sector are greater than

		the accumulated emissions of all passenger vehicles all
		the cars and trucks in Dallas and Fort Worth.
199.	1:12:41	Fox: let me get this straight, you're saying that oil and
	Fox, questioning Al in his	gas development in the last, how many years, is greater
	office.	than the total car emissions for the entire city?
200.	1:12:55	Al: that's right. You look at the latest inventories of
	Al speaking in his office to	what emissions are from passenger vehicles, cars, trucks
	Fox shots of cars in	and vans, motorcycles it turns out it's about 200 tons
	speeded up time driving on	per day of emissions, the kinds of things that form
	highway, behind an ugly	ozone particles. Now if you take a look at the latest
	tank with graffiti.	emissions inventory that I worked on for the
		Environmental Defense Fund, the oil and gas sector
		around the city of Fort Worth, it's about 200 tons a day.
201.	1:13:23	Fox: the rigs were burning diesel, some of them 800
	Drilling rigs in the Ft. Worth	gallons a day, but that wasn't all. There was something
	area condensate tanks.	coming off the condensate tanks. I had seen these
		condensate tanks everywhere all across the United
		States, but I never got a chance to look at them through
		an infrared camera that picked up hydrocarbons.
202.	1:13:43	Al: Okay, there tank that's school. Condensate
	Al showing Fox an infrared	venting, you see that?
	video showing plume of	Fox: Oh wow, this is just what's coming off the top.

	material coming off	And that's why you shouldn't walk up that ladder,
	condensate tank and drifting	which I've done. What is all that stuff? I found out what
	toward school buildings	that stuff is when I got a call from the mayor of Dish.
203.	1:14:11	Calvin Tillman: hey we're going to have to turn off the
	Slate: "Calvin Tillman,	TV for a little while; can you go sit at daddy's chair in
	Mayor of Dish"	his desk? The town of Dish is two square miles, it's
	The mayor at a table in a	about 150 people. In 2005, the town changed its name to
	meeting room	dish in exchange for free dish network, so everybody in
		the city gets free dish network for a period of ten years.
		We have 10 huge massive lines coming through here or
		meeting here. Those 10 lines carry a billion cubic feet of
		gas a day, so we have ten billion cubic feet of gas going
		through the town of dish every day.
204.	1:14:56	Fox: at most places where pipelines converge there are
	Pipelines warning signs	compressor stations, huge turbine engines that compress
	. compressor stations.	the gas into the pipeline.
205.	1:15:09	Calvin: pipelines are designed to have this release where
	Calvin speaking to Fox at a	they're shooting natural gas into the air. Of course they
	table in a meeting room	tell you that this all shoots it shoots straight up to the
		moon and there's none left lingering around. There is a
		cloud lingering over one of our subdivisions. When
		things like this happen most of the people in the

		community think that they've just taken their last breath.
206.	1:15:35	Fox: Calvin told me he was so frustrated with the
	Close up of the report's list	TCEQ's inaction that he commissioned his own air
	of chemicals driving	study. The results read sort of like the back of a
	through a Ft. Worth housing	pamphlet that you don't want to pick up at the American
	suburb	Cancer Society. The study found, and I quote, "amazing
		and very high levels of known and suspected human
		carcinogens and neurotoxins." These chemicals include
		Benzene, Dimethyl disulfide, Methyl-ethyl disulfide,
		Ethyl-methylethyl disulfide, Trimethyl benzene, Diethyl
		benzene, Methyl methyl- ethyl benzene, Tetramethyl
		benzene, naphthalene, 1,2,4-Tri-methyl benzene,
		Carbon disulfide, Methyl pyridine, and Diemethyl
		pyridine. Benzene in the air was at 55 times the public
		health standard, carbon disulfide was at 107 times the
		health standard. The report states that acute impacts to
		health will occur with these concentrations of chemicals
		in the air; that cancer and neurotoxins will also have an
		impact over the long term.
207.	1:16:36	Calvin: and one of the sites—it's kind of humorous, but
	Calvin speaking to Fox at a	it's not humorous—is that there's a sign that says no
	table in a meeting room	open flame, no smoking, and then there's a barbecue

		grill sitting underneath it. So some guy is going to be
		cooking his hamburger one day and blow up the town.
208.	1:17:01	Al: one of the problems with the Clean Air Act is that it
	Al speaking in his office to	tends to focus on the largest single sources, but the oil
	Fox intercut with shots of	and gas sector isn't just one large facility. So you have
	drill rigs and waste gas	these massive companies like Devon and Conoco
	burnoff.	Phillips, who because, out in the gas fields and the oil
		fields, have thousands of little sources. Each of those
		little sources is exempted from the Clean Air Act. Now,
		the accumulated emissions from those thousands of
		sources is huge. It can apply to many different places
		because there are lots of different communities that are
		sitting right on top of shale formations. If the drilling
		happens in those formations the way it happened in Fort
		Worth, very unregulated, Wild West, it will be a real
		tragedy. We've learned our lesson here. You've got to
		stay on top of this. You've got to look at the issues as it's
		happening. Don't wait until you've had development for
		10 years the way we do, then it's just a big mess.
209.	1:18:01	Fox: if the cumulative air emissions in Texas were huge,
	Slate: "Louisiana"	what were the cumulative water impacts like?
	Shots of condensate tanks.	

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	past these locations	sludge was all over the place. Everywhere. It just coated
		the land. The organics that are here on site are the
		benzene, toluene, solulene, ethyl benzene, a lot of
		formaldehyde, a lot of the semi-volatiles that are very
		long-lasting like polynuclear aromatic hydrocarbon.
		Then you have all the heavy metals that are associated
		with the drilling fluids, barium, arsenic, lead, cadmium,
		chromium, mercury and all those chemicals are there in
		the tanks, in the floodwalls, in the heater-treaters, in the
		storage tanks but there is no protection from the
		storm surge. Everything that you see below an elevation
		of 6 feet, all that contamination, all those products, got
		washed into the environment.
213.	1:20:31	Fox: and this happened all over where the storm was.
	Wilma speaking in her car	Wilma: all along the coast, Louisiana, Mississippi,
		Alabama, Texas.
		Fox: how many sites is there?
		Wilma: how many sites? Hundreds of thousands of
		sites.
21.1	1.20.40	
214.	1:20:48	Fox I tried to wrap my head around what Wilma was
	Driving past homes	saying. The slow accumulation of 50 years of drilling
		that had created a permanent contamination situation in

		southern Louisiana that could probably never be fully
		cleaned. The thought of the entire coastline from
		Mississippi over to Texas being contaminated with oil
		and gas waste made me think about what the effects
		could be if this drilling on all the rivers that I have
		visited.
215.	1:21:27	Fox: I'd seen a map that showed you actually what the
	Map of US with main river	river systems in the United States really looked like.
	systems expanding into blue	They weren't the skinny lines like veins, but something
	network of tributaries	much more comprehensive. With all these major
	covering the country.	waterways under duress of a 34-state drilling campaign,
		I wondered just how extensive the damage would be if
		this continued for much longer.
216.	1:21:56	Fox: I was on my way home. All I wanted to do was
	Driving on the highway,	clear my head, think things through, get out of crisis
	walking by a river.	mode. The phone rang again. It was the water testing
		lab. That mysterious yellowish, brownish jar of liquid
		from Dimock had given up some of its secrets.
217.	1:22:31	Fox: barium and strontium are drilling muds, they are
	Close up of laboratory	lubricants for the drill bit. Iron and chloride and
	report	conductivity were extremely high. With pure distilled
	Slate: "MBAS Found in	water you have a conductivity of zero. This was off the

	Steven's Creek, Central	charts. But the scariest and most difficult part of the test
	Pennsylvania"	to get my head around were two things I've never heard
		of: Total Kjeldahl Nitrogen and MBAS or Methylene
		blue active substance. MBAS are reactive agents that
		turn blue when it comes into contact with detergents or
		surfactants. Now detergents don't sound so bad, you
		wash your laundry with them, but you don't want to
		drink a detergent. And you certainly don't want to drink
	Shots of apparently dirty	a surfactant. Everything that enters one of your cells
	water with material floating	enters through a surface. A surfactant will allow oil or
	on top.	other substances to pass through surfaces by dissolving
		them. So if a surfactant gets into a stream, near fish, it
		will dissolve the fish's gills.
218.	1:23:17	
	Slate: "35 Mile Fish Kill,	
	Dunkard Creek, Washington	
	County, PA"	

	Shots of dead fish on shore	
	and floating in river.	Fox: So what could one little jar of yellowish, brownish
	Slate: "Undisclosed	liquid near Dimock prove?
	Halliburton Chemical found	Woman on phone: they were told to just release it into a
	in Meshoppen Creek,	stream. It's the same type of thing over and over and
	Dimock PA"	over. You've lost more than what you've gained. What
	Puddles and ponds of muddy	have you gained? A dollar bill and not bring back what
	water	they've taken away. I think everyone is fed up with it
	Slate: "Throwing Water on a	and everybody's afraid that to say anything.
	Drowning Man"	
219.	1:23:44	Fox: I asked my anonymous friend if she'd also talked to
	Slate: "Pennsylvania	the DEP.
	Department of	Woman on phone: they said there was no proof and that
	Environmental Protection"	they needed proof in order to do something.
	Fox in office talking on the	Fox: well when the DEP basically refused to help, how
	phone.	did you feel about that.
	Slate: "Harrisburg,	Woman on the phone: like I was talking to a tree.
	Pennsylvania"	
220.	1:23:57	John Hanger: is my tie okay? There is a clear
	Slate: "John Hanger,	opportunity here in Pennsylvania for major new gas
	Secretary"	production.

	Close up of John Hanger	
	talking in his office	
221.	1:24:05	Fox: I have one quote here from you that says that
	John Hanger being	you're trying to do this in a way that doesn't damage the
	interviewed in his office	environment. You've also said recently that water
	mid to close shots of John.	contamination is inevitable.
222.	1:24:10	Hanger: here, I'll give you the straight answer. There is
	John Hanger being	no such thing as a perfect source of energy. It's
	interviewed in his office	absolutely the case that natural gas production is not
		perfect. The issue of actual contamination by drilling
		chemicals at Dimock has been examined at 39 homes.
		We've done independent testing and there's been no
		contamination of the drinking water by those chemicals
		found.
223.	1:24:43	Fox: well actually I have in here samples that are from
	John Hanger being	all over the country. This one is from Wyoming
	interviewed in his office	Colorado and then one here from Dimock. Now, this
		is tap water, in other words drinking water, and I'm
		wondering if you're interested in drinking some of this.
224.	1:25:00	Hanger: absolutely I'm not interested in people in
	John Hanger being	Dimock and we've stopped it. What I'm doing in
	interviewed in his office	Dimock is absolutely to deal with the problem that you

		are addressing. It's the very last thing in the world we
		want anybody to do, is to drink it.
225.	1:25:13	Fox: there's only four households where water is being
	John Hanger being	replaced by
	interviewed in his office	
226.	1:25:16	Hanger: those are the households where the problem
	John Hanger being	exists. If there were 10 households we would have
	interviewed in his office	required it for 10, if there were 15 households we would
		require it for 15. If there is an individual who has had
		their water contaminated by gas migrating that's not
		getting their water replaced, I want to know about it.
		Every single person who has had that occur to us has
		had their water replaced. The bottom line is what
		matters. We're not going to allow folks who've had their
		water contaminated as a result of drilling to sit there and
		have to drink that kind of water. One of the things about
		being on that side of the camera and this side of the
		camera you guys get to at some level wash your
		hands of everything folks on the side of the camera
		have to make some real decisions in the real world.
		Until somebody comes up with, I guess, the hydrogen
		economy, I don't have perfect answers to all these things

		and I have to make trade-offs. Those trade-offs
		recognize that you're often taking two steps forward and
		perhaps one step back. That's a lot of the decision-
		making that goes on right now.
227.	1:26:18	Fox: I actually view it in the opposite way as not a
	John Hanger being	person behind the camera, as a person who lives in
	interviewed in his office	Pennsylvania, as a person whose water is in jeopardy.
		Do you really believe that it's adequate to replace water
		with cisterns can you replace a stream?
228.	1:26:35	Hanger: well, replace a stream? Which one do you live
	John Hanger being	on?
	interviewed in his office	
229.	1:26:40	Fox: Calkins Creek it's a tributary to the Delaware.
	John Hanger being	
	interviewed in his office	
230.	1:26:44	Hanger: okay. Well, you see a problem there, I want to
	John Hanger being	know about it. This is a serious point
	interviewed in his office	
231.	1:26:49	Fox: this is where the whole project started.
	John Hanger being	r -J
	interviewed in his office	

232.	1:26:50	Hanger: well, that's exactly right. We have a good staff
	John Hanger being	here and they are out there on the sites. We're also
	interviewed in his office	absolutely eager for the public to let us know about
	hands Fox his business card.	problems look here's the card.
233.	1:27:11	Fox: just a few short months after this interview, the
	Fox leaving the interview	Pennsylvania Department of Environmental Protection
	air shots of drilling rigs	suffered the worst budget cuts in history, amounting to
		over 350 full-time positions being eliminated and 25%
		of their total budget cut. In the midst of what could be
		the largest natural gas drilling campaign in Pennsylvania
		history.
234.	1:27:36	Fox: How much water could you replace?
	Transition to air shot of river	
	glistening in pale sunlight	
235.	1:27:52	(Plaintive fiddle music.)
	Small outdoor stage at night,	
	with a map on a screen a	
	fiddler sits beside it playing.	
236.	1:28:10	Fox so I'm going to show you a little bit on the map
	Fox takes the stage Fox	where New York City and New Jersey and
	indicating locations on the	Philadelphia's water comes from. What you have up

	map, intercut with close ups	here in the green area is New York City watershed. It's
	of the map	supposedly a protected area, although all this area on the
		map you see here is slated for gas drilling. The green
		and white areas you see on the map that's the New York
		City watershed in the Delaware river basin. Altogether
	Slate: "15,600,00 People"	the combined watershed that supplies water to 15.6
	(sic)	million people, 6.8 million in New York City, 5.4
	Close up of map with	million in Pennsylvania, 700,000 in Delaware, and 2.9
	population numbers called	in New Jersey. It's the largest unfiltered water supply in
	out	the world. The reservoirs were created 100 years ago.
		Industry has leased hundreds of thousands of acres
	Shows wider region on map	within the New York City watershed and the Delaware
	with brown indicating areas	river basin. That could mean 50,000 gas wells in the
	underlain by the Marcellus	combined watershed area. As of Spring 2010, there is no
	shale formation.	drilling in the New York city watershed or the Delaware
		river basin, but that could change any day now.
237.	1:29:07	Scott Stringer: when we look at other planets in the solar
	Scott Stringer (Manhattan	system, what are we looking to find? Water. Now it's
	Borough President) being	not going to be as good as New York City tap water, but
	interviewed outside in New	you're looking on Mars for water and everyone has these
	York City by Fox.	great discussions because it's all about water.
238.	1:29:18	(Fast paced music)

	New York city highways	
	signs bridges skyline.	
239.	1:29:26	James Gennaro: I was with this committee for the last
	James Gennaro (New York	18 years. I was environmental policy advisor for the
	City Council) at panel	City Council for many, many years. I'm a trained
	hearing speaking to	geologist. I didn't come all this way and grow all this
	microphone	much older and get this much fatter, just to see
	Slate: "James Gennaro, New	everything go away.
	York City Council,	
	Environmental Board Chair"	
240.	1:29:36	James: The whole notion that adults could sit around the
	James speaking to camera in	table and try to figure out how we could do this kind of
	interview	activity inside tan unfiltered water supply and make it
		all work is just just
241.	1:29:46	Scott: how many times you go into a restaurant and they
	Scott Stringer being	say you want bottled water or tap water I don't think I've
	interviewed outside in New	had dinner with somebody in the last 20 years who said,
	York City by Fox.	oh, I like the bottled water. People go to a restaurant
	Slate: "Scott Stringer,	because they get to have the tap water.
	Manhattan Borough	
	President"	
		L

242.	1:29:53	James: it's beyond ludicrous.
	James speaking to camera in	
	interview	
243.	1:29:54	Stringer: people look forward to it as part of their dining
273.		
	Scott Stringer being	experience.
	interviewed outside in New	
	York City by Fox.	
244.	1:29:56	James: I'm trying to keep myself composed but speaking
	James speaking to camera in	as a geologist, as an environmental scientist, as a
	interview	policymaker, this is insanity.
215	1 20 01	
245.	1:30:01	Stringer: and that makes this the number one
	Scott Stringer being	environmental crisis that we face in the city.
	interviewed outside in New	
	York City by Fox.	
246.	1:30:07	Fox: although thousands showed up at public comment
	Shots of a large hearing	sessions the state's Department of Environmental
		Conservation was unresponsive. There were hours and
		hours of hearings at City Hall.
247	1:30:17	Mon. Nov. Vod. City myst asky on the Nov. Vod. Ctate
247.	1.50.17	Man: New York City must rely on the New York State
	Shots of city hall man	D EC, but there's a real question of whether the agency
	testifying	is up to the job

248.	1:30:22	Woman: DEC has not proposed a single new regulation.
	Woman testifying at hearing.	
	Scott listening	
249.	1:30:27	2 nd Man: I look at our watershed system as our Holy
	Another man testifying	Grail.
250.	1:30:32	Fox: but no one from the state's Department of
	Hearing room, with large	Environmental Conservation came to the city's hearings.
	audience	
251.	1:30:36	James: I want to direct staff to put in a call to DEC
	James at hearing	region two, and to say that all these people are still in
		the room and we want someone from DEC in the room.
252.	1:30:44	Fox: there were even press conferences with no press.
	Gennaro with small group of	
	people standing in front of	
	city hall.	
253.	1:30:48	James: it would not be nice to have reporters today. We
	Gennaro with small group of	don't have them. Maybe this story is not sexy enough,
	people standing in front of	maybe it's not important enough, maybe the drinking
	city hall and speaking.	water supply for 9 million people doesn't quite get
		people's attention.
254.	1:30:59	Fox: where's the press, they're in there?

	Fox interviewing Gennaro	James: they're in the press room.
	and his people outside the	Fox: hard to do a press conference with no press.
	city hall building. Cut to	
	Washington DC bus with	
	"This Bus is Running on	
	Clean Natural Gas" on its	
	side.	
255.	1:31:12	Fox: I'd heard that the United States Congress was
	Fox carrying camera and	convening a special session on unconventional Shale
	tripod in Washington, DC	plays, especially how they related to water
	shots of Capitol Building and	contamination and Diana DeGette and Maurice
	Washington Monument	Hinchey's Frack Act. A piece of legislation that is one
		paragraph long that simply takes out the exemption for
		hydraulic fracturing to the Safe Drinking Water Act.
256.	1:31:28	Hinchey: all we have to do is think back. Because there
	Maurice Hinchey in his	was a realization back then of how the kind of drilling
	office	that had been going on for more than 20 years, was
	Slate: "Maurice Hinchey,	having a negative impact. It was poisoning wells. It was
	Congressman, New York"	making people's lives very, very difficult and dangerous.
	·	As the situation with energy changed, the drilling for
		natural gas was pressing to be able to do it in the least
		expensive way, so that they could have the highest

		profits rather than being honest and open about the
		kinds of things that they were doing. You have to have
		more information, more details, more understanding.
		You have to have the people who are doing it being
		honest about what they're doing.
257.	1:32:01	Fox: somehow from my back porch, across the nation, I
	Slate: "Congress"	was going to wind up in the halls of Congress and
	Fox walking in the halls of	finally have a chance for industry and lobbyists to
	the Capitol Building.	express themselves in this film
258.	1:32:14	Costa: the Subcommittee on Energy and Minerals will
236.		
	Congressional hearing room.	now come to order.
	industry representatives	
	and others at a table,	
	Congresspeople facing them	
	from their desks. Placard	
	reads "Mr. Costa,	
	Chairman."	
259.	1:32:19	1 st industry panelist: in recent months the states have
	Close up of man speaking	become aware of press reports and websites alleging
	into microphone at hearing	that six states have documented over 1000 incidences of
		groundwater contamination resulting from the practice
		of hydraulic fracturing. Such reports are not accurate.

260.	1:32:32	2nd industry panelist: studies and surveys by GWPC,
	Close up of man speaking	EPA, and IOGCC over the last 11 years have found no
	into microphone at hearing	real credible threat to underground drinking water from
		hydraulic fracturing.
261.	1:32:41	Albert Appleton: now why is hydro-fracking raising
	Placard: "Mr. Albert F.	such concerns? The materials used for hydro-fracking
	Appleton, Infrastructure and	don't biodegrade. Once they're in the environment,
	Environmental Consultant"	they're in the environment to stay. If just 2% of these
	Close up of him speaking	hundreds of thousands of wells go south in some way or
	into microphone at the	another, that's thousands upon thousands of incidents
	hearing	and they invite questions about that.
262.	1:33:03	Boren: what Mr. Appleton is doing, is searching for a
	Representative Boren	problem that does not exist, because looking at all these
	speaking at the hearing	other examples in all the states, there has not been a
		problem with hydraulic fracturing. I'm proud that I'm
		supported by the oil and gas industry because they
		employ a lot of people in my state and I'm going to stick
		up for them and I'm tired of people trying to shut down
		an industry when they're not educated on the facts. If
		you aren't able to do this hydraulic fracturing, how
		much more would we be dependent on foreign oil and
		terrorism.

263.	1:33:34	1 st industry panelist: I'm not aware of any documented
	Close up of panelist	cases where hydraulic fracturing has fouled
	speaking	
264.	1:33:39	Costa: your time is expired, so Congresswoman
	Costa at the microphone	DeGette.
265.	1:33:43	DeGette: thank you very much Mr. Chairman. Out west,
	Representative DeGette	we've had a lot of experiences with different kinds of
	speaking to the hearing	mining techniques that have caused human health risks
		and severe environmental damage. Now Mr. John, you
		say that hydraulic fracturing absolutely does not pose a
		threat to drinking water. So if that's true, why would you
		object to the disclosure of the chemicals used in the
		fracking process under the Safe Drinking Water Act?
266.	1:34:06	1 st panelist: as I mentioned earlier the information
	Close up of 1 st panelist (Mr.	packets that we provide
	John) speaking at the	
	hearing	
267.	1:34:11	DeGette: why would you object? If it's perfectly safe,
	Representative DeGette	why would you object to the disclosure of the chemicals
	speaking to the hearing	that are used?
268.	1:34:19	1 st panelist: what I was saying is that we have disclosed
	Close up of 1 st panelist	

	speaking at the hearing	today and prior to the hearing
269.	1:34:22	DeGette: which chemicals are used?
	Representative DeGette	
	speaking to the hearing	
270.	1:34:24	1 st panelist: Yes, Ma'am,
	Close up of 1st panelist	
	speaking at the hearing	
271.	1:34:25	DeGette: In each process?
	Representative DeGette	
	speaking to the hearing	
272.	1:34:26	1 st panelist: they're listed in a frack fact sheet that's been
	Close up of 1 st panelist	provided
	speaking at the hearing	
273.	1:34:29	DeGette: in that case you would have no objection to
	Representative DeGette	my bill.
	speaking to the hearing	
274.	1:34:32	1 st panelist: we have supplied that information
	Close up of 1 st panelist	
	speaking at the hearing	
275.	1:34:34	DeGette: so would you have an objection to my bill,
	Representative DeGette	then since you've already supplied that information?

	speaking to the hearing	
276.	1:34:38	1 st panelist: I am not personally familiar with your bill
	Close up of 1st panelist	ma'am.
	speaking at the hearing	
277.	1:34:40	DeGette: it makes chemicals used in hydraulic
	Representative DeGette	fracturing subject to the reporting requirements of the
	speaking to the hearing	Safe Drinking Water Act.
278.	1:34:46	1 st panelist: as stated earlier we believe that the current
	Close up of 1st panelist	regulatory framework
	speaking at the hearing	
279.	1:34:49	DeGette: yes or no? So yes, you would object to my bill
	Representative DeGette	because you don't think we would need to report it
	speaking to the hearing	under the Safe Drinking Water Act even, though you
		say the chemicals are safe, correct?
280.	1:35:00	1 st panelist: Correct.
	Close up of 1 st panelist	
	speaking	
281.	1:35:01	DeGette: okay how about you Mr. Cowell are you
	Representative DeGette	saying that hydraulic fracturing fluids cannot possibly
	speaking to the hearing	be to blame for water contamination seen in cases across
		the country?

282.	1:35:11	3 rd panelist: allegations that were presented through
	Close up of 3 rd panelist (Mr.	certain media outlets relative to six specific states. We
	Cowell?) testifying	did not survey all states that have oil and gas activity
		and therefore would not make a statement that no one
		has ever
283.	1:35:22	DeGette: okay, thank you very much Mr. Chairman.
	Representative DeGette	
	speaking to the hearing	
284.	1:35:25	Costa: Mr. Hinchey.
	The chairman	
285.	1:35:26	Hinchey: Mr. John, I. just want to follow up on some of
	Representative Hinchey	the things that were just being talked about. I know that
	speaking to the hearing	your company is engaged in a lot of hydraulic
		fracturing. What chemicals are used in the process?
286.	1:35:37	1 st panelist: if you would indulge me to pull it from the
	Close up of 1 st panelist	sheet to be sure that I read it correctly. I wouldn't want
	speaking	to offer something from memory that was incorrect.
		We've listed did you want me to go through all of
		them Sir? I'll start with hydrochloric or muriatic acid as
		a chemical that would help dissolve some of the muds in
		the well bore; we would use an antibacterial agent such
		as Glutaraldehyde; we would a need for a breaker that

		would take away some of the viscosity from our fluid,
		that we would use an ammonium sulfate; we would
		need a corrosion inhibitor to allow the casing strings and
		the pipes we used to be preserved, it's Dimethyl
		formaldehyde. The cross linker we would use would be
		a borate salt; then use also a friction reducer, a
		petroleum distillate an iron control agent in some
		applications; a citric acid, potassium chloride; we would
		also use a oxygen scavenger.
287.	1:35:47	Hinchey: I wanted to ask Mr. Appleton if you are aware
	Representative Hinchey	of any of the independent empirical research that has
	speaking to the hearing	been conducted that in any way suggests that fracking
		does not pose a risk to water supply.
288.	1:37:01	Appleton: anytime you put chemicals like are used in
	Close up of Appleton	fracking into the environment it's a risk to water supply
	speaking	if they're not properly regulated.
289.	1:37:08	Costa: well, this subcommittee is now adjourned.
	The chairman	
290.	1:37:15	Fox: so here's where we're going to end. The frack act
	Green trees it's raining	is making its way through Congress and industry is
	. peaceful beautiful shots	lobbying hard against it. Neither New York State nor
	of green forest light	Pennsylvania have moved to protect the water sheds. I
290.	1:37:15 Green trees it's raining peaceful beautiful shots	lobbying hard against it. Neither New York State nor

	filtering through stream.	don't know what's going to happen around here. I don't
		know if all this is going to be destroyed. I don't know
		what's going to happen around the rest of the United
		States, or if all of the friends I've made on this trip are
		going to get some relief. I guess in large part that's up to
		you.
291.	1:37:49	Fox: One thing I found, deep inside, is a love for this
	Green forest rushing	whole country. There are pieces of my backyard at
	stream Fox standing in	Divide Creek in Colorado; in Pavilion, Wyoming; in the
	stream more forest	streets of Fort Worth; in the cemeteries and schoolyards
	sunlight coming through	of New Mexico. My backyard wasn't my backyard
	ending on close up of stream.	anymore; it belonged to everybody else too. And with
		major shale plays being discovered in Europe and in
		North Africa and with hydraulic fracturing being hailed
		there as a possible solution to Europe's energy problems,
		I don't think this story's going to go away any time
		soon. It's possible that Gasland might stretch a little bit
		further than my backyard. Into yours.
292.	1:39:00	(Banjo and fiddle music)
	Behind credits rolls tape of	
	Fox playing banjo with the	
	fiddle player at the same	

stage set where he lectured
before intercut with
distant and mid shots of wind
turbine farms.

Appendix B Natural Gas Industry Responses

American Natural Gas Alliance (ANGA) Response to Gasland

Downloaded from ANGA (America's Natural Gas Alliance) on July 15, 2011 http://anga.us/truthaboutgasland?gclid=CIrHiMeThKoCFQvKKgodOitKxw

The Truth About Gasland

Natural gas is a clean, abundant and domestic energy source that holds vast potential to promote cleaner air, grow local economies and enhance energy security in the United States and, increasingly, around the world. The natural gas community is committed to the safe and responsible development of this energy source, and we welcome questions about the film Gasland because it gives us the opportunity to set the record straight in a fact-based way.

In the film's signature moment Mike Markham, a landowner, ignites his tap water. The film leaves the viewer with the false impression that the flaming tap water is a result of natural gas drilling. However, according to the Colorado Oil and Gas Conservation Commission, which tested Markham's water in 2008, there were "no indications of oil & gas related impacts to water well." Instead the investigation found that the methane was "biogenic" in nature, meaning it was naturally occurring and that his water well was drilled into a natural gas pocket.

This is one of several examples where the film veers from the facts. A second depiction of a flaming faucet in the home of Renee McClure also misleads viewers about the connection between natural gas development and methane in water wells. McClure's well was sampled by the state of Colorado and it, too, showed <u>only naturally occurring</u> methane.

The film's claims are so egregious that the Colorado Oil and Gas Conservation Commission was

compelled to set the record straight. The <u>COGCC information sheet</u> corrects the film's misleading depictions and addresses false allegations of methane migration in Weld County.

Later in the film, natural gas is again falsely accused when the film flashes the words "35 mile fish kill Dunkard Creek Washington County PA." The U.S. Environmental Protection Agency investigated this incident and tied the fish kills to coal mine run-off. Here is the official report.

In an article in the Philadelphia Inquirer, John Hanger, the secretary of the Pennsylvania

Department of Environmental Protection said the film is "fundamentally dishonest" and "a

deliberately false presentation for dramatic effect."

Contrary to the film's misleading claims, natural gas production is subject to federal, state and local regulations that cover everything from initial permits to well construction to water disposal.

In rare cases where incidents occur, companies work with the appropriate regulatory authority to promptly identify and correct the issue, and implement measures to ensure it does not recur.

The natural gas community is committed to the safe and responsible development of this abundant resource, and we firmly believe that no community should have to choose between its economic and environmental interests. The process of hydraulic fracturing has been routinely and safely used in communities throughout the nation for decades-bringing economic prosperity to local communities and significant environmental benefits. From the U.S. Environmental Protection Agency to the Ground Water Protection Council to the Interstate Oil and Gas Compact Commission the process has been examined and found to be safe. We appreciate the opportunity to share this information with interested stakeholders, and we are committed to answering the public's questions in a factual and science-based way.

367

Barnett Shale Energy Education Council (BSEEC) Response to Gasland

Downloaded from Barnett Shale Energy Education Council August 10, 2011

http://bseec.org/content/debunking-gasland?gclid=CI2yy9ruiKoCFdBrKgodEhUXyg

Debunking Gasland

Posted on: Friday, June 18, 2010 - 09:47

Is everything featured in the recent movie "Gasland" accurate?

No. In fact, the movie "Gasland" promotes ideas about natural gas drilling that have been found

to be false, inaccurate and misleading.

"Gasland" Claim: Natural gas extraction is exempt from federal regulations.

Fact: The process is subject to a host of federal, state and local regulations that cover everything

from initial permits to well construction to water disposal.

"Gasland" Claim: Natural gas drilling caused flaming tap water.

Fact: Colorado regulatory authorities investigated the claim long before Gasland was made and

issued a statement that they fully investigated the claim. Their investigation found that the

methane in the water well had nothing to do with natural gas drilling and was naturally

occurring.

"Gasland" Claim: A 35 mile fish kill in Dunkard Creek in Washington County, PA was caused

by natural gas drilling.

Fact: The Environmental Protection Agency investigated this incident and tied the fish kills to

coal mine runoff.

"Gasland" Claim: The makeup of fracturing fluids is unknown.

368

Fact: The chemical additives have always been included on the material safety data sheets at drilling locations. Drilling companies also voluntarily post the additives at fracfocus.org. A recently passed bill in Texas, HB3328, requires the posting on a well-by-well basis on the same site.

Additional Articles of Interest:

America's Natural Gas Alliance seeks to set the record straight.

<u>Energy in Depth</u> presents the untold story of the movie.

Energy In Depth (EID) Response to Gasland

Downloaded from Energy in Depth July 17, 2011 http://www.energyindepth.org/2010/06/debunking-gasland/

May 2, 2011

Debunking GasLand

Tags: documentary, GasLand, natural gas, Sundance

09. June. 2010 admin 101 Comments

Josh Fox makes his mainstream debut with documentary targeting natural gas – but how much of it is actually true?

For an avant-garde <u>filmmaker and stage director</u> whose previous work has been recognized by the "<u>Fringe Festival</u>" of New York City, HBO's decision to air the GasLand documentary nationwide later this month represents Josh Fox's first real foray into the mainstream – and, with the potential to reach even a portion of the network's 30 million U.S. subscribers, a potentially significant one at that.

But with larger audiences and greater fanfare come the expectation of a few basic things:

accuracy, attention to detail, and original reporting among them. Unfortunately, in the case of this film, accuracy is too often pushed aside for simplicity, evidence too often sacrificed for exaggeration, and the same old cast of characters and anecdotes – previously debunked – simply lifted from prior incarnations of the film and given a new home in this one.

"I'm sorry," Josh Fox <u>once told</u> a New York City magazine, "but art is more important than politics. . . . Politics is people lying to you and simplifying everything; art is about contradictions." And so it is with GasLand: politics at its worst, art at its most contrived, and contradictions of fact found around every bend of the river. Against that backdrop, we attempt below to identify and correct some of the most egregious inaccuracies upon which the film is based (all quotes are from Josh Fox, unless otherwise noted):

Misstating the Law

(6:05) "What I didn't know was that the 2005 energy bill pushed through Congress by Dick Cheney exempts the oil and natural gas industries from Clean Water Act, the Clean Air Act, the Safe Drinking Water Act, the Superfund law, and about a dozen other environmental and Democratic regulations."

- This assertion, every part of it, is false. The oil and natural gas industry is regulated under every single one of these laws under provisions of each that are relevant to its operations. See this fact sheet for a fuller explanation of that.
- The process of hydraulic fracturing, to which Fox appears to be making reference here, has never in its 60-year history been regulated under the Safe Drinking Water Act (SDWA). It has, however, been regulated ably and aggressively by the states, which have

- compiled an impressive record of enforcement and oversight in the many decades in which they have been engaged in the practice.
- Far from being "pushed through Congress by Dick Cheney," the Energy Policy Act of 2005 earned the support of nearly three-quarters of the U.S. Senate (74 "yea" votes), including the top Democrat on the Energy Committee; current Interior secretary Ken Salazar, then a senator from Colorado; and a former junior senator from Illinois named Barack Obama. In the U.S. House, 75 Democrats joined 200 Republicans in supporting the final bill, including the top Democratic members on both the Energy & Commerce and Resources Committees.
- (6:24) "But when the 2005 energy bill cleared away all the restrictions, companies . . . began to lease Halliburton technology and to begin the largest and most extensive domestic gas drilling campaign in history now occupying 34 states."
 - Once again, hydraulic fracturing has never been regulated under SDWA not in the 60-year history of the technology, the 36-year history of the law, or the 40-year history of EPA. Given that, it's not entirely clear which "restrictions" in the law Mr. Fox believes were "cleared away" by the 2005 energy bill. All the bill sought to do was clarify the existing and established intent of Congress as it related to the scope of SDWA.
 - Interest in developing clean-burning natural gas resources from America's shale formations began to manifest itself well before 2005. The first test well in the Marcellus Shale in Pennsylvania, for example, was drilled in 2004. In Texas, the first wells in the prolific Barnett Shale formation were spudded in the late 1990s. But even before natural gas from shale was considered a viable business model, energy producers had been

- relying on hydraulic fracturing for decades to stimulate millions of wells across the country. The technology was first deployed in 1948.
- The contention that current energy development activity represents the "largest . . . drilling campaign in history" is also incorrect. According to EIA, more natural gas wells were developed in 1982 than today. And more than two times the number of petroleum wells were drilled back then as well, relative to the numbers we have today. Also, while it may (or may not) be technically true that fracturing activities take place in 34 states, it's also true that 99.9 percent of all oil and gas activity is found in only 27 U.S. states (page 9, Ground Water Protection Council report)

(32:34) "The energy task force, and \$100 million lobbying effort on behalf of the industry, were significant in the passage of the 'Halliburton Loophole' to the Safe Drinking Water Act, which authorizes oil and gas drillers exclusively to inject known hazardous materials, unchecked, directly into or adjacent to underground drinking water supplies. It passed as part of the Bush administration's Energy Policy Act of 2005."

- Not content with simply mischaracterizing the nature of existing law, here Fox attempts to assert that the law actually allows energy producers to inject hazardous chemicals "directly into" underground drinking water. **This is a blatant falsehood.** Of course, if such an outrageous thing were actually true, one assumes it wouldn't have taken five years and a purveyor of the avant-garde to bring it to light.
- The subsurface formations that undergo fracture stimulation reside thousands and
 thousands of feet <u>below formations that carry potable water</u>. These strata are separated by
 millions of tons of impermeable rock, and in some cases, more than two miles of it.

• Once again, to characterize the bipartisan 2005 energy bill as having a "loophole" for hydraulic fracturing requires one to believe that, prior to 2005, hydraulic fracturing was regulated by EPA under federal law. But that belief is mistaken. And so is the notion that the 2005 act contains a loophole for oil and natural gas. As stated, hydraulic fracturing has been regulated ably and aggressively by the states.

(1:32:34) "Diana DeGette and Maurice Hinchey's FRAC Act [is] a piece of legislation that's one paragraph long that simply takes out the exemption for hydraulic fracturing to the Safe Drinking Water Act."

- Here Fox is referring to the <u>2008 iteration</u> of the FRAC Act, not the slightly longer
 (though equally harmful) <u>2009 version</u> of the bill. The legislation does not, as its authors
 suggest, "restore" the Safe Drinking Water Act to the way it was in 2004. It calls for a
 wholesale re-writing of it.
- Here's the critical passage from the FRAC Act: "Section 1421(d)(1) of the Safe Drinking
 Water Act is amended by striking subparagraph (B) <u>and inserting</u>: (B) includes the
 underground injection of fluids or propping agents pursuant to hydraulic fracturing
 operations related to oil and gas production activities."
- Why would you need to "insert" new language into a 36-year-old statute if all you were looking to do is merely "restore" it?

Misrepresenting the Rules

(1:00:56) "Because of the exemptions, fracking chemicals are considered proprietary . . . The only reason we know anything about the fracking chemicals is because of the work of Theo

Colborn . . . by chasing down trucks, combing through material safety data sheets, and collecting samples."

- With due respect to eminent environmental activist and former World Wildlife Fund staffer Theo Colborn, no one has ever had to "chas[e] down a truck" to access information on the materials used in the fracturing process.
- That's because there's actually a much easier way to obtain that information: simply navigate to <u>this website</u> hosted by regulators in Pennsylvania, <u>this one</u> from regulators in New York (page 130; it will take a few moments to download), <u>this one</u> for West Virginia, <u>this one</u> maintained by the Ground Water Protection Council and the U.S.
 Department of Energy (page 63), and <u>this one</u> on the website of Energy In Depth.

(1:03:33) Dr. Colborn: "Once the public hears the story, and they'll say, 'Why aren't we out there monitoring'? We can't monitor until we know what they're using. There's no way to monitor. You can't."

- According to environmental regulators from Josh Fox's home state of Pennsylvania,
 "Drilling companies must disclose the names of all chemicals to be stored and used at a drilling site . . . These plans contain copies of material safety data sheets for all chemicals . . . This information is on file with DEP and is available to landowners, local governments and emergency responders."
- Environmental regulators from Fox's adopted state of New York also testify to having ready access to this information. From the NY Dept. of Environmental Conservation
 (DEC) information page: "The [state] is assessing the chemical makeup of these additives and will ensure that all necessary safeguards and best practices are followed."

According to the <u>Ground Water Protection Council</u> (GWPC), "[M]ost additives contained
in fracture fluids including sodium chloride, potassium chloride, and diluted acids,
present low to very low risks to human health and the environment." GWPC members
include state environmental officials who set and enforce regulations on ground water
protection and underground fluid injection.

Mischaracterizing the Process

(6:50) "[Hydraulic fracturing] blasts a mix of water and chemicals 8,000 feet into the ground.

The fracking itself is like a mini-earthquake. . . . In order to frack, you need some fracking fluid

– a mix of over 596 chemicals."

- As it relates to the composition of fluids commonly used in the fracturing process, greater than 99.5 percent of the mixture is comprised of water and sand. The remaining materials, used to help deliver the water down the wellbore and position the sand in the tiny fractures created in the formation, are typically components found and used around the house. The most prominent of these, a substance known as guar gum, is an emulsifier more commonly found in ice cream.
- From the U.S. Dept. of Energy / GWPC report: "Although the hydraulic fracturing industry may have a number of compounds that can be used in a hydraulic fracturing fluid, any single fracturing job would only use a few of the available additives [not 596!]. For example, in [this exhibit], there are 12 additives used, covering the range of possible functions that could be built into a fracturing fluid." (page 62)
- In the documentary, Fox graphically depicts the fracturing process as one that results in the absolute obliteration of the shale formation. In reality, the fractures created by the

procedure and kept open by the introduction of proppants such as sand are typically less than a millimeter thick.

(**50:05**) "Each well completion, that is, the initial drilling phase plus the first frack job, requires 1,150 truck trips."

- Suggesting that every well completion in America requires the exact same number of truck trips is absurd. As could be guessed, the number of trips required to supply the well site with the needed equipment and personnel will vary (widely) depending on any number of factors.
- As it relates to a source for Fox's identification of "1,150 truck trips," none is given although it appears he may have derived those numbers from a back-of-the-envelope calculation inspired by a chart on page 6-142 of this document from NY DEC. As depicted on that page, the transportation of new and used water supplies, to and from the wellsite, account for 85 percent of the trips extrapolated by Fox.
- Unrepresented in this chart is the enormous growth in the amount of produced water that
 is currently being recycled in the Marcellus with industry in Pennsylvania reusing and
 recycling on average more than 60 percent of its water, according to the Marcellus
 Shale Coalition.
- According to GWPC: "Drilling with compressed air is becoming an increasingly
 popular alternative to drilling with fluids due to the increased cost savings from both
 reduction in mud costs and the shortened drilling times as a result of air based drilling."
 (page 55)

(51:12) "Before the water can be hauled away and disposed of somewhere, it has to be emptied

into a pit – an earthen pit, or a clay pit, sometimes a lined pit, but a pit – where a lot of it can seep right back down into the ground."

- The vast majority of energy-producing states 27 in total, including all the ones to which
 Fox travels for GasLand have explicit laws on the books governing the type of
 containment structures that must be used for temporarily storing flowback water. A
 number of producers today choose to store this water in steel tanks, eliminating all risk of
 that water re-entering the surrounding environment.
- GWPC (May 2009) "In 23 states, pits of a certain type or in a particular location must have a natural or artificial liner designed to prevent the downward movement of pit fluids into the subsurface. . . . Twelve states also explicitly either prohibit or restrict the use of pits that intersect the water table." (page 28-29)
- GWPC (April 2009): "Water storage pits used to hold water for hydraulic fracturing purposes are typically lined to minimize the loss of water from infiltration. . . . In an urban setting, due to space limitations, steel storage tanks may be used." (page 55)

Flat-Out Making Stuff Up

(53:36) "The Pinedale Anticline and the Jonah gas fields [of Wyoming] are directly in the path of the thousand year old migration corridor of pronghorn antelope, mule deer and sage grouse. And yeah, each of these species is endangered, and has suffered a significant decline of their populations since 2005."

• **0 for 1:** Three species of the pronghorn antelope are considered "endangered," none of which are found anywhere near the Pinedale Anticline. Those are: the Sonoran (Arizona),

the Peninsular (Mexico), and the Mexican Pronghorn (also of Mexico). According to the Great Plains Nature Center: "The great slaughter of the late 1800s affected the pronghorns . . . Only about 12,000 remained by 1915. **Presently, they number around one million** and the greatest numbers of them are in Wyoming and Montana."

- **0 for 2:** Only one species of mule deer is considered "endangered": the Cedros Island mule deer of Mexico (nowhere near Wyoming). The mule deer populations are so significant in Wyoming today that the state has a mule deer hunting season.
- **0 for 3:** The sage grouse does not currently have a place on the endangered species list, according to the <u>U.S. Fish & Wildlife Service</u> (FWS) and "robust populations of the bird currently exist across the state" of Wyoming, according to the agency. Interestingly, FWS recently <u>issued a press release</u> identifying wind development as a critical threat the sage grouse's habitat.
- That said, producers in the area have taken the lead on efforts to lessen their impact and reduce the number of truck trips required to service their well sites. As part of that project, operators have commissioned a <u>series of independent studies</u> examining additional steps that can be taken to safeguard the Anticline's wildlife.

(31:32) "In 2004, the EPA was investigating a water contamination incident due to hydraulic fracturing in Alabama. But a panel rejected the inquiry, stating that although hazard materials were being injected underground, EPA did not need to investigate."

• No record of the investigation described by Fox exists, so EID reached out to Dr. Dave Bolin, deputy director of Alabama's <u>State Oil & Gas Board</u> and the man who heads up oversight of hydraulic fracturing in that state. In an email, he said he had "no

recollection" of such an investigation taking place.

- That said, it's possible that Fox is referring to EPA's study of the McMillian well in
 Alabama, which spanned several years in the early- to mid-1990s. In 1989, Alabama
 regulators conducted four separate water quality tests on the McMillian well. The results
 indicated no water quality problems existed. In 1990, EPA conducted its own water
 quality tests, and found nothing.
- In a letter sent in 1995, then-EPA administrator Carol Browner (currently, President Obama's top energy and environmental policy advisor) characterized EPA's involvement with the McMillian case in the following way: "Repeated testing, conducted between May of 1989 and March of 1993, of the drinking water well which was the subject of this petition [McMillian] failed to show any chemicals that would indicate the presence of fracturing fluids. The well was also sampled for drinking water quality, and no constituents exceeding drinking water standards were detected."
- For information on what actually did happen in Alabama during this time, and how it's relevant to the current conversation about the Safe Drinking Water Act, please <u>download</u> the fact sheet produced last year by the Coalbed Methane Association of Alabama.

(1:28:06) "Just a few short months after this interview, the Pennsylvania Department of Environmental Protection suffered the worst budget cuts in history, amounting to over 700 staff either being fired or having reduced hours and 25 percent of its total budget cut."

• <u>DEP press release</u>, issued January 28, 2010: "Governor Edward G. Rendell announced today that the commonwealth is strengthening its enforcement capabilities. At the Governor's direction, the Department of Environmental Protection will begin hiring 68

new personnel who will make sure that drilling companies obey state laws and act responsibly to protect water supplies. DEP also will strengthen oil and gas regulations to improve well construction standards."

Recycling Discredited Points from the Past

Weston Wilson (EPA "whistleblower"): "One can characterize this entire [natural gas] industry as having a hundred year history of purchasing those they contaminate." (33:36)

- Mr. Wilson, currently on staff at EPA's Denver office, was not part of the team of scientists and engineers that spent nearly five years studying hydraulic fracturing for EPA. That effort, released in the form of a landmark 2004 study by the agency, found "no evidence" to suggest any relationship between hydraulic fracturing and the contamination of drinking water.
- Wilson has a <u>well-documented history</u> of aggressive opposition to responsible resource
 and mineral development. Over his 35-year career, Mr. Wilson has invoked
 "whistleblower" status to fight dam construction in Colorado, oil and gas development in
 Montana, and the mining of gold in Wyoming.
- Wilson in <u>his own words</u>: "The American public would be shocked if they knew we
 make six figures and we basically sit around and do nothing."

Dunkard Creek: Fox includes images of dead fish along a 35-mile stretch of Dunkard Creek in Washington Co., Pa.; attributes that event to natural gas development. (01:23:15)

 Fox's attempt to blame the Dunkard Creek incident on natural gas exploration is contradicted by an EPA report – issued well before GasLand was released – which

- blamed the fish kill on an algal bloom, which itself was fed by discharges from coal mines.
- EPA report: "Given what has been seen in other states and the etiology of this kill, we believe the toxin from this algae bloom led to the kill of fish, mussels, and salamanders on Dunkard Creek. . . . The situation in Dunkard Creek should be considered a chronic exposure since chloride levels were elevated above the criteria for long periods of time." (issued 11/23/09)
- Local PA newspaper calls out Fox: "One glaring error in the film is the suggestion that gas drilling led to the September fish kill at Dunkard Creek in Greene County. That was determined to have been caused by a golden algae bloom from mine drainage from a [mine] discharge." (Washington (Pa.) Observer-Reporter, 6/5/10)

Mike Markham: Fox blames flammable faucet in Fort Lupton, Colo. on natural gas development

- But that's not true <u>according to the Colorado Oil & Gas Conservation Commission</u>

 (COGCC). "Dissolved methane in well water **appears to be biogenic [naturally occurring] in origin**. . . . There are no indications of oil & gas related impacts to water well." (complaint resolved 9/30/08, signed by John Axelson of COGCC)
- Context from our friends at ProPublica: "Drinking water with methane, the largest component of natural gas, isn't necessarily harmful. The gas itself isn't toxic the Environmental Protection Agency doesn't even regulate it and it escapes from water quickly, like bubbles in a soda." (Abrahm Lustgarten, ProPublica, 4/22/09)

Lisa Bracken: Fox blames methane occurrence in West Divide Creek, Colo. on natural gas

development.

- That assertion has also been debunked by COGCC, which visited the site six separate times over 13 months to confirm its findings: "Stable isotopes from 2007 consistent with 2004 samples indicting gas bubbling in surface water features is of biogenic origin." (July 2009, COGCC presentation by Margaret Ash, environmental protection supervisor)
- Email from COGCC supervisor to Bracken: "Lisa: As you know since 2004, the COGCC staff has responded to your concerns about potential gas seepage along West Divide Creek on your property and to date we have not found any indication that the seepage you have observed is related to oil and gas activity." (email from COGCC's Debbie Baldwin to Bracken, 06/30/08)
- More from that email: "These samples have been analyzed for a variety of parameters including natural gas compounds (methane, ethane, propane, butane, pentane, hexanes), heavier hydrocarbon compounds including benzene, toluene, ethylbenzene, xylenes (BTEX), stable isotopes of methane, bacteria (iron related, sulfate reducing, and slime), major anions and cations, and other field and laboratory tests. To date, BTEX compounds have not been detected in any of the samples."

Calvin Tillman: Fox interviews mayor of DISH, Texas; blames natural gas development, transport for toxins in the air, benzene in blood.

Tillman in the press: "Six months ago, nobody knew that facilities like this would be spewing benzene. Someone could come in here and look at us and say, 'You know what? They've sacrificed you. You've been sacrificed for the good of the shale." (Scientific American, 3/30/10)

- A little more than a month later, Texas Dept. of State Health Services debunks that claim:
 "Biological test results from a Texas Department of State Health Services investigation in Dish, Texas, indicate that residents' exposure to certain contaminants was not greater
 than that of the general U.S. population." (DSHS report, May 12, 2010)
- More from the agency: "DSHS paid particular attention to benzene because of its association with natural gas wells. The only residents who had higher levels of benzene in their blood were smokers. Because cigarette smoke contains benzene, finding it in smokers' blood is not unusual."

Anything we miss? Guess we'll be seeing you at the movies. Maybe not this one, though.

Natural Gas Now! Response to *Gasland*Downloaded from Natual Gas Now!, September 9, 2011
http://www.naturalgasnow.org

Appendix C

Viewer Responses

Customer Reviews on Amazon.com Website

One hundred and three User Reviews from Amazon.com

Listed Chronologically

Initially Downloaded from Amazon.com August 14, 2011; updated December 3, 2011

http://www.amazon.com/Gasland-Josh-Fox/product-

reviews/B0042EJD8A/ref=cm cr dp all summary?ie=UTF8&showViewpoints=1&sortBy=byS ubmissionDateDescending

5.0 out of 5 stars **Good documentary**, November 28, 2011

By

This review is from: **Gasland (DVD)**

Immediately after you finish watching this depressing documentary go and read all the negative reviews so you can have a good laugh. I'm usually too lazy to write a review about anything but after reading some of the negatives, I had to write something. If you don't want to read them it's the usual:

"Crazy Al Gore pseudo science"--"just libruls blaming Bush and Cheney!"--the "he's another wannabe Michael Moore hippy" ad hominen and the always reliable kneeslapper "toxins are caused by methane that cows naturally breathe out!" reactions. I liked it because it was the right mix of info and entertainment. He's just an average guy with a video camera, who gets offered \$100,000 to just sign a piece of paper and he wants to know why. It reminded me a lot of the Erin Brockovich story--just without all the cleavage, and I also think I learned something.

5.0 out of 5 stars **Must See Without a Doubt**, November 27, 2011

384

By

STEVEN M HAYEK - See all my reviews

This review is from: **Gasland (DVD)**

There are way too many reviews here to think that anyone might be affected by mine in

particular, but after watching, I was compelled to let anyone and everyone know that

this is a very important film for everyone to see. What is happening in this country is a

shame. So many aspects of industry are destroying our future and quality of life, and

it's important to be educated. We make no difference if we close our eyes. This move is

an absolute must-see if you want to know what so-called "natural gas" drilling is doing

to our country and citizens. Make it a priority. It's an important movie right now.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

5.0 out of 5 stars Excellent Eye Opener, November 20, 2011

By

MojosMuze - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: **Gasland (DVD)**

This movie was an excellent look into the real world of "Fracking". Living up here in

385

North Dakota, it hits all too close to home for myself.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

5.0 out of 5 stars Gasland DVD, November 20, 2011

By

Bert Bowe (Pittsboro, NC, US) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: **Gasland (DVD)**

Josh Fox does an excellent job in this award-winning documentary clearly exposing the serious water and air pollution risks, and quality of life effects from drilling (fracking) for natural gas. I'd consider it a must-see if your state has gas deposits energy companies are looking for. Not to say having another alternative energy source is bad, just that the new technology that explosively inserts millions of gallons of fracking water with tens of thousands of pounds of toxic and other unknown chemicals deep into the ground needs to be changed!

Also recommend Affirming Gasland: [...]

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

5.0 out of 5 stars **The truth will set you free...**, November 17, 2011

By

<u>Veena</u> - <u>See all my reviews</u>

This review is from: **Gasland (DVD)**

This is an amazing documentary covering real life and real people. It is not propoganda. It is the truth. Power to the people!!

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

4.0 out of 5 stars **A true eye opener**, November 16, 2011

By

Brother Bey - See all my reviews

(REAL NAME)

This review is from: **Gasland (DVD)**

I saw part of this movie originally on Link-TV. It really drew my interest because it investigates the impact of drilling for gas & oil on American land. It is rather sad how

families way of living and health are totally changed after the oil companies began drilling in their neighborhoods. It also is sad how congressmen are turning a blind eye to the negative impact of the drilling. I appreciate the information in this movie and will be more active with encouraging people to ask tough questions and hold each politician accountable for any compromise to standard of living in the community as a result of oil drilling. I learned a new word - fracking and this chemical process is nothing I want in my community.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

5.0 out of 5 stars **MUST SEE!!!!!**, November 7, 2011

By

S. Allman "avid reader" (Florence, Colorado) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: **Gasland (DVD)**

AMAZING DOCUMENTARY OF A MAN WHO JUST WANTED A QUIET LIFE
AND TO BE LEFT ALONE, BUT WAS COURTED BY THE OIL & GAS
INDUSTRY WITH A CHECK FOR \$100,000 TO DRILL ON HIS PROPERTY. HE
DOES THE SMART THING AND INVESTIGATES HOW THIS SORT OF THING

388

IS DONE, AND WHAT DOES IT DO TO THE LAND & THE PEOPLE WHO

DRINK THE WATER AND BREATHE THE AIR AROUND IT.

DON'T MISS IT. YOU WILL SOON UNDERSTAND THAT THE TERM

"NATURAL GAS" IS A HOAX. THERE'S NOTHING NATURAL ABOUT IT!

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

5.0 out of 5 stars **Real, scary, and in your face**, November 3, 2011

By

Seymore Haire "banjo" (NC Coast) - See all my reviews

This review is from: **Gasland (DVD)**

It is what it is. A corporate controlled industry set to make and rape, while greasing the political pockets and spreading 'truthisms' in the meantime. Thank you Mr. Fox. From someone who grew up in the NE PA mountains, thank you. Keep it up.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

4 of 4 people found the following review helpful:

5.0 out of 5 stars **Do You Like 'Horror' Films?**, October 25, 2011

By

Giordano Bruno (Wherever I am, I am.) - See all my reviews

(TOP 100 REVIEWER)

This review is from: **Gasland (DVD)**

"Gasland" took a good run at being the most terrifying film of 2010. The reality that our modern technology, especially our energy technology, might be both unsustainable and deadly dangerous is indeed terrifying. The specific horror in "Gasland" is the possibility that hydraulic fracturing (fracking) as method of extracting natural gas from deep shale deposits may be responsible for perilous contamination of our water supplies, both of ground water and of streams. If so, that would truly be terrifying. The secondary horror depicted in "Gasland" is the ineffectiveness and/or collusion of our environmental regulatory agencies. Honestly, I can't verify or contradict the thesis that fracking is contaminated ground water; there are vociferous arguments on both sides of that question, leaving me, as a single voice, only the fall-back position of "Better safe than sorry!" However, the second thesis, that the fracking industry and the whole petrochemical mega-industry is disastrously under-regulated and irresponsible is gospel truth, beyond any reasonable doubt. We don't need to watch tap water being ignited to know that! We voters had some "hope" after the 2008 elections that the plutocratic tyranny of Halliburton and of Big Oil might be challenged by "change"; so far we've had to cherish the "hope" despite the lack of "change".

"Gasland" is a well-done home movie, a documentary made by a thirty-two year old guy with a hand-held camera and little education in film-making, or hydrology, or chemistry . . . just a modest ordinary guy who has gotten worried about the environment, first of his own home turf in the Delaware Valley, then about the 'big back yard' America he travels across. Most of the footage is of interviews with ordinary Americans who are convinced that living near fracked gas wells has spoiled their health or their welfare. Filmmaker Josh Fox has learned his style, I think, from Michael Moore, though he doesn't yet have the financial resources for a production like Moore's most recent releases. Fox is the main persona of his own film, as Moore has usually been. To my mind, Fox is a more likable guy than Moore, and his likability makes him more convincing. But that might not be an asset; I don't want to be convinced by Fox's personality but rather by the information he conveys. The critics of this documentary rage that Fox is deliberately disingenuous, a charge also leveled at Moore. It seems to me that a more serious question is the inherent value of a documentary of this sort: Yes, it alerts large numbers of people to a potential calamity who might otherwise never get wind of the problem until too late. But No, it can't and doesn't present the whole story, with enough fact-based insight to guide people toward intelligent political decisions. This is a 'sensational' documentary film of 106 minutes. How many people who see it will invest even another 106 minutes in learning more about the issue? What I'm saying is that films are just too convincing! In fact, all the electronic media are just too convincing. Too dramatic! Democracy demands dispassionate discourse. As my favorite bumper-sticker reads" "Don't believe everything you think!"

391

Meanwhile, however, the energy industry really doesn't want you or me to think. That's obvious in the shenanigans that surrounded the environmental impact studies in preparation for the construction of the Keystone XL Pipeline, intended to carry crude 'oil' from the oil sands of Upper Canada all across our 'purple mountain majesty and fruited plains' to the refineries of the Texas Gulf Coast. This is NOT a project to be rushed! Vast corporate profits should NOT be the prime consideration here, and not even perhaps a consideration at all. The prime consideration should be the environmental/ecological impact, not locally but globally, not in our lifetimes but in the lifetimes of our children's children. Only the federal governments of the USA and Canada can properly instigate and oversee the rational, impartial discourse that should precede such an awesome project. Government regulation is our only protection against corporate indifference to our long term welfare and to our community values. I strongly urge President Barack Obama (for whom I voted enthusiastically) to keep some of his promises . . . to stop the construction of the Keystone XL Pipeline until the "informed" electorates of both the USA and Canada have had time and info to evaluate the consequences.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comments (5)

0 of 14 people found the following review helpful:

1.0 out of 5 stars **Bunk**, October 22, 2011

By

David J. Reed (Emporium, PA) - See all my reviews

(REAL NAME)

This review is from: **Gasland (DVD)**

Most folks that I know that tried to watch this movie fell asleep before the end. Save your money, or get a real documentary like Dear Zachary.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

1.0 out of 5 stars GasLand is full of Hot Air, October 21, 2011

By

Cicero Brian (Brewster, NY United States) - See all my reviews

This review is from: **Gasland** (**DVD**)

Sadly, hypocrites like Al Gore and discredited groups like Riverkeeper and other environmental extremists and groups interested in consolidating power and control in DC have combined to produce hysteria like this (apparently independently produced) propaganda hatchet piece.

I'm all for keeping a wary eye on hydrofracing while the EPA conducts the study it has just begun to see how many, if any of the wildly exaggerated claims about tainted groundwater are true, but despite the hysteria on the left, it seems clear that hydrofracing has been used safely and effectively for decades with no convincing evidence emerging thus far that it has caused any significant harm.

As the Syracuse News reported last year, one of the first lawsuits in the nation to try to link the process to tainted groundwater is only now working its way through the courts, and that case claims the well's cement casing was defective and caused the problem, NOT the fracing itself. Potable aquifers are seldom deeper than 400 feet, while Shale formations are generally 5,000 feet or more below the earth, leaving almost a mile of solid rock between the two. Fracing fluid is more than 99.5 percent water and sand.

This NY Times article "Oil and Gas Group Urges Oscar Judges to Steer Clear of 'Gasland'" notes the strong controversy GasLan's questionable claims ignited and cites a pro-"Gasland" rebuttal on the movie's website that claims "evidence from regulators that the incidents COULD have been caused by drilling." When the producer back peddles like that to defend the movie it raises my eyebrow. Until the EPA report or other solid evidence is gathered, the jury is still out on hydrofracing but leaning towards the view presented in the New American article "Natural Gas -- the Coming Shale Gale."

1 of 2 people found the following review helpful:

394

5.0 out of 5 stars take action, October 12, 2011

By

bob ashjian (wallingford, pa, US) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This is an urgent call to the fans of GASLAND and to the anti-fracking movement

across the nation:

On October 21st, the Delaware River Basin Comission will vote on a plan to allow

over 20,000 gas wells in the Delaware River Basin. We need calls to come from all

over the nation and we need people from all over the region to come out in protest on

October 21st.

Here are ways that you can participate:

1) Call the the Governors from the member states and President Obama TODAY and

tell them, "Hello, I am calling you to express my serious concerns about hydrofracking.

Please Don't Drill the Delaware!"

Governor Christie's office - 609-292-6000

Governor Cuomo's office - 518-474-8390

Gov Corbett's office - 717-787-2500

Gov Markell's Wilmington Office - 302-577-3210

And the white house comment line is 202-456-1111

2) Come to the DRBC meeting in person!

When: October 21, 8 am

Where: Patriots Theater at the War Memorial, 1 Memorial Drive Trenton, N.J. Map HERE.

There are over 20 buses traveling in from all over the region. Click HERE for bus sign up.

If you work with an organization fighting to keep our water safe from hydraulic fracturing, please send this alert to those in your membership, and post it on facebook.

For more information go to [...] or visit [...]

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

1 of 2 people found the following review helpful:

5.0 out of 5 stars Gasland, October 9, 2011

By

Laurel Livesay (COLORADO SPRINGS, CO, US) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: **Gasland (DVD)**

This is a must see! After viewing, do your civic duty and call your representatives before Oil and Gas destroy our water supply.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

3 of 4 people found the following review helpful:

4.0 out of 5 stars Eye opener, October 8, 2011

By

Lakeman - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: **Gasland (DVD)**

Gasland documentary reveals what gas companies don't want you to know. Most regulatory officials have been "bought" by gas companies. Gas wells surround the regional water supply Greers Ferry Lake. Town of Clinton water dept overwhelmed by

sediment, runoff from cleared well sites, open access roads, and overflow ponds. You can't drink gas.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

1 of 2 people found the following review helpful:

5.0 out of 5 stars **Shocking and Convincing**, October 8, 2011

By

Steve (NJ, USA) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: **Gasland (DVD)**

It is hard to believe that our government is allowing this to happen.

Gasland is shocking, convincing and a must see for all Americans.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

1 of 2 people found the following review helpful:

4.0 out of 5 stars Excellent movie, October 7, 2011

By

Eco - See all my reviews

This review is from: Gasland (DVD)

The movie was very creatively made, and although it is a little slow with all the personal testimonies, it's worth seeing as an introduction to the dangers of fracking.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

1 of 2 people found the following review helpful:

5.0 out of 5 stars whay are people afraid of the truth?, September 21, 2011

By

reluctant techie (olympia, wa) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: **Gasland** (**DVD**)

so good it scared the pee outta me and couldn't finish it.

real people, real scenarios, real destruction in the name of the almightly dollar (and

lies)

399

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

1 of 2 people found the following review helpful:

5.0 out of 5 stars Extremely Important Documentary That Americans Need to

Watch, September 17, 2011

By

Ian A Elliott (BUFFALO, NY, US) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (Amazon Instant Video)

It's a tragedy. Halliburton did not even have the decency to warn people that their

house water was contaminated by natural gas drilling. Halliburton knew it was toxic

and DID NOT EVEN WARN people with effected water supplies. They in fact said

that Water contaminated with carcinogens used in gas drilling was SAFE to drink.

People suffered from headaches, stomach sickness, cancer, and spinal problems.

George Bush gave energy companies exception if they violate the clean air and clean

water act which they have done extensively. The amount of toxic pollution caused by

these natural gas companies is disgusting. They kill animals, contaminate water, and

air. They are probably responsible for many many cancer cases that they will never be

held responsible for. As an American you should see the extensive damage done to our

400

environment by industry. This is a National Crisis. Natural gas drilling is done all over the country. . . quite literally ALL OVER the country. The companies that due this dump their pollutants into the air and water as if their was no clean air or water act. Thus our environmental policies are no different than 3rd world countries. This causes cancer, cell mutations, acid rain, ozone pollution, and numerous other sicknesses associated with the toxic nature of the chemical compounds used in "fracking" aka natural gas drilling.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

0 of 1 people found the following review helpful:

5.0 out of 5 stars Can you believe this?, September 7, 2011

By

R. Burns (San Jose, CA) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: **Gasland (DVD)**

I like the immature quality of the presentation. The person to person quality makes finding a solution to the destruction of the environment seem dramatically imperative. I almost hope the stories are not real but the illustrations/videos give a very

401

truthful, hopeless feeling about the future of our country and its people.

Perhaps the rest of the world is already suffering from this environmental destruction

by the liberation of all that "clean, natural gas".

Ruby

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

0 of 1 people found the following review helpful:

4.0 out of 5 stars Set your sinks on fire, August 20, 2011

By

Tim Brough "author and music buff" (Springfield, PA United States) - See all my

reviews

(TOP 500 REVIEWER) (VINE VOICE)

This review is from: **Gasland (DVD)**

You've probably seen all the America's Natural Gas Alliance (ANGA) commercials of

late, cheerfully consoling us that safe, clean, natural gas can be easily extracted from

the ground while happy people live above, leading clean and healthier lives. The Oscar

nominated GASLAND exposes the corporate lie of Natural Gas mining. From the start,

where filmmaker Josh Fox receives a letter offering him something near \$100,000 for

the rights to drill gas from his mountain and creekside home in upstate Pennsylvania, to

the end, where you watch New York City and State lawmakers fight to keep the watershed that provides millions of people from polluted drinking water, Fox explores how the Power Companies have managed to manipulate the system with the help of corrept and gullible politicians the outright greed of the Bush/Cheney administration.

The central point of GASLAND is that, in 2005, the EPA made changes in environmental policy that are called "The Halliburton Loophole." That rule, snuck through by Cheney and his secretive energy board buddies (including then CEO of Enron, Ken Lay), exempted the Halliburton developed technology of hydraulic fracturing (now widely known as 'fracking') from regulations of the old Clean Water Act. The end result? Drilling for natural gas and the unbelievable amount of water and chemicals pumped into the ground required to create a well are all but completely exempt from regulations regarding the toxins that are needed to extract the gas.

Of course, all the companies involved say that they have nothing to do with hundreds of drinking wells across the country suddenly turning unsafe withing weeks of fracking. Or animals getting sick and losing their hair. Or the methane explosions of people's homes. Or the mass die-offs of animals and fish when chemicals leak into a stream. But Fox, who tried to contact companies and individuals in mining throughout the course of his investigation gets the same treatment as the folks in states across the country; either "no comment" or massive run-arounds. When a State Environmental Agency head in Pennsylvania tells Fox that he'd help Fox and other PA citizens of Dimok (the first town Fox visits), only to note when the meeting ends that the state

slashed the office's budget and basically dismantled it.

But more revealing than anything else in the movie is the notorious flaming sink footage. When fracking shatters the aquifer of a peace of land, the gases seep into the water table. The chemicals used to pump the gas out also get into the water, and before you know it, you have flammable tapwater. It's not just that water that is getting mixed up, the air outside the well is loading up with toxins to the point where a rural area of Colorado where the population is approximately one person per square mile is as dangerous or more so than a bad day in Los Angeles. GASLAND serves as a warning and reminder; the same smiling advertisers trying to convince you that clean, accessible natural gas is not threat to you at all are the same folks that told you offshore drilling was both safe and existing regulations guaranteed that even if the miniscule chance accident were to ever take place, they could stop it from becoming disastrous.

When you watch GASLAND, there will probably be a detractor ready to tell you that the film is just lefty propaganda. Just remember the last sentence of the previous paragraph, and make sure to remind your companion of two little words. Deepwater Horizon.

5.0 out of 5 stars A sobering one-man documentary, August 3, 2011

By <u>Serena Gaefke</u> (USA) - <u>See all my reviews</u>

(REAL NAME)

404

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This movie is made on a very small budget and yet it is edited wonderfully. Josh has a sense of

humor too, which is helpful in this dark subject. Okay, some slides are a bit fuzzy but that is

unimportant when you consider the benefit of such shots verses no shots because they aren't

perfect. Very well done. Very shocking. Very sad. I live in an area when they are wanting to drill

and many of my neighbors have allegedly signed. I almost signed until one of my neighbors said

she had a bad gut feeling and mentioned bad stories about fracking. I looked online and found

lots, to my horror, and gratitude that I hadn't signed. A day later I found this and I'm so glad I

didn't sign - but concerned because I may be very likely in the close vicinity. Me and my

husband and our baby. I never knew about possibilities like open storage ponds or evaporation

misters for fraking water or vented (contaminated) stem from the moist gas - all bad things for

air pollution. Now you can see why the gas industry got an exception from not only the "clean

water act" but the "clean air act". Very sad. Thank you Josh for speaking up!

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

0 of 1 people found the following review helpful:

4.0 out of 5 stars Eye Opening, July 25, 2011

By Chuck08854 - See all my reviews

Amazon Verified Purchase(What's this?)

405

This review is from: Gasland (DVD)

A great documentary and expose of how the oil and gas industry is plundering our natural

resources and leaving a path of destruction in its wake.

Former President Bush and V.P. Cheney are exposed for the "Carpet Baggers" and Liars they

are.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

1 of 2 people found the following review helpful:

5.0 out of 5 stars Nightmare in my neighborhood, July 21, 2011

By **NE PA Resident** - See all my reviews

This review is from: Gasland (DVD)

from destroying the creek. If they frack there it will be a crime.

I too live on Calkins Creek, like Josh. The Crum Well is earshot from my property. There are no words to describe this monstrosity, which is a few hundred feet from the creek. I fear the fracking blight every day. My children wade in the creek. That ridiculous well is one heavy rain

For everyone that cares about the environment or their drinking water, this movie is essential.

Watching it will give you a sense of what it is like to live in constant fear of fracking and cancer

causing chemicals in your air and water and destruction of your property. There is a sense of

helplessness that comes from dealing with gas companies, as if the destruction is inevitable. The

movie conveys this feeling.

406

Cheney committed a crime against us when he exempted fracking from EPA laws and

regulations. Watch the movie. Take action. Don't trust big companies and big government.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

2 of 15 people found the following review helpful:

1.0 out of 5 stars Simply Not Possible, July 18, 2011

By Think Fast (Tampa, FL USA) - See all my reviews

This review is from: Gasland (DVD)

Full disclosure: I work for an energy consulting firm. I'll make this short. Your water is no where near the depth of a proven reserve. Unless the casing in a well breaks (EXTREMELY RARE,

AND this has NOT happened in ANY of the cases in this film), there is NO WAY natural gas or

chemicals are going to get into your sink. Use common sense and stop giving this clown your

money.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comments (2)

2 of 3 people found the following review helpful:

5.0 out of 5 stars Like the Blair Witch Project..., July 14, 2011

407

By Calvin W. Fergins 'Maverick Historic Theologian' (Seminary (Outside Bethlehem, PA))

- See all my reviews

This review is from: Gasland (DVD)

Low budget, straight forward and scary as hell!

How far are corporation going to make a buck? Are they willing to sacrifice the healthy of countless people in out of the way places? The Bible says that the love of money is the root of all

evil and this documentary shows that fact.

Personal documentary from a guy that cares about his area os Pennsylvania, which I am currently

not that far from!

This is a must see. Could your water have tons of deadly chemicals? What are the long term effects? And why did the Bush administration ok procedures that endanger our drinking water?

Questions this movie raises

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

2 of 3 people found the following review helpful:

5.0 out of 5 stars **Absolutely a must watch**, June 30, 2011

By Robert K. Mertz (Linden, VA USA) - See all my reviews

408

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This documentary is something that I think Americans need to watch. It seems like this was an accidental documentary that the producer just stumbled in to. You can tell that as he found more and more information he spent time looking into the facts. The video recording of this may be rough at times but with more effort being put into the facts and following where those facts lead.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

9 of 33 people found the following review helpful:

1.0 out of 5 stars What a crock, June 14, 2011

By **David J** - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

Asinine, poorly researched, riddled with inaccuracies - and biased.

In a time when we need accurate, factual documentaries - this is little more than scaremongering.

And it has been pounced upon by irresponsible elements of the green lobby worldwide.

Thankfully... anyone with access to the web can quickly learn the truth for themselves.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comments (3)

1 of 5 people found the following review helpful:

5.0 out of 5 stars I forgot that I ordered Gasland and never received it..., June 12, 2011

By **Diana C. Ring** (Indiana, USA) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

I am surprised to be asked to review Gasland. I got a copy from the library when I had a 'Stop Fracking' party at my place. I completely forgot that I had ordered it. I just looked through my collection of DVD's and don't have Gasland. Can I please get a copy?

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

5 of 6 people found the following review helpful:

5.0 out of 5 stars I am living it, June 4, 2011

By Michael J. Klementovich "Michael Klementovich" (Bethlehem PA) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

I map out the Northern Tier of PA and have logged 5100 miles as of today just in the northern

410

tier of PA and I link dirt road together on my stret legal dirt motorcycle and the destruction that i have watched occur as i go into my 3rd year of doing this is beyond description. Now please do not get me wrong, I am not a green freak and i am in no way a Sierra Clubber and in fact those people are the most hypocritical of all. When they flip their switch on in their massive homes or turn the key of their Range Rover's they think the energy that is required grows on the tree out back. BUT BUT this hydraulic fracking is a real bad system they are using. It makes no sense because the chemicals used have to go somewhere and when the rock layers are shattered its bound to end up in water supplies. I know we need energy but this is a sloppy system and not well researched. The gas is there and it will be there so lets sit back and find a better way. Use it sure but do not destroy pound for pound the most beautiful state in the entire 50 states. I have been in 40 of them and PA is the overall most wild and beautiful of them all. The Northern Tier is so accessable but so untouched its beyond description and 99% of PA residents have no idea how unbelievable and wild this state is. I am determined to become the ONE person in this state that sees and experiences and actually travels on more acres than any other person living here

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

and I want to see it kept pristine.

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Comment Comment

3 of 3 people found the following review helpful:

5.0 out of 5 stars **The tyranny of corporations**, June 4, 2011

By <u>Guy Denutte "A concerned citizen"</u> (Cali, Colombia) - <u>See all my reviews</u>

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

We left peak oil behind some years ago. In a democratic state, where rationality and taking care for the next generations would prevail, we would radically chose for renewable energies. But in the tyranny of corporations in which we live on a global scale, this is not even considered an option. The power elite is very keen on the power they have and this power is related to their interests in fossil fuels. So we'll continue exploring oil in the oceans, even if the ocean bottom in the Gulf of Mexico is cracked after the Deep Horizon explosion. Although we were told the hole was stopped, from the cracks in the ocean bottom oil continues to spill into the water. And now that a huge amount of gas has been found in the soil of the US, well, this will be exploited too, even if you don't want to. In 2005, the former CEO of Halliburton and then vice-president Cheney wrote the Energy Act. The environmental laws were suspended in case of fractional gas drilling, a method which pushes 592 toxic products into the bottom, slowly releasing them into the ground water. You think you still live in a "free" land? Forget it. If Halliburton wants to drill in your backyard, they will do it. "It's the law!". As a "reward", your "drinking" water will not only be intoxicated, it sometimes can be light on fire. On top of that, you will fall ill, and the natural environment you knew will disappear. A great number of deplorable situations are shown in the brilliant documentary.

This gas exploration in the US looks like a cancer. It is even invading cities like Forth Worth, which resembles nowadays more like an industrial estate than a city. If they need to have a gas pipe through your front garden, well they'll do it. Don't expect much in return. They'll give you 10 bucks. "It's the law!"

We are living under a tyranny of big corporations who aren't willing to give up their power, and in the meantime will destroy everything in their decline. When will we finally stand up, as a society?

4.0 out of 5 stars **ExxonMobil and Halliburton will hate this and try to ignore it**, May 29, 2011

By **Dennis Littrell** (SoCal) - See all my reviews

(TOP 50 REVIEWER) (VINE VOICE) (COMMUNITY FORUM 04) (REAL NAME)

This review is from: Gasland (DVD)

This is a Michael Moore kind of documentary, that is, before he became rich and famous. There's all the down home kind of people being featured and they're fighting, in this case, Big Gas, which means ExxonMobil, Halliburton and various and sundry others. I really don't know enough about the situation to pass judgment on the central accusation of the film, namely that hydraulic fracturing causes long-lasting environmental damage and the poisoning of water supplies. The fact that film maker Josh Fox shows several homes with water that can be set afire at the kitchen sink tap is however a bit disconcerting to say the least.

The problem seems to be that the methods used for fracturing employ a number of chemicals that are carcinogenic and, most significantly, there is no way to control the spread of those chemicals to areas around the wells including into the atmosphere. It's clear to me that there is not one executive at ExxonMobil or Halliburton that would want any hydraulic fracturing done anywhere near his home. Not in my backyard or across the street or even several football fields away is how just about everybody feels about this technique for getting oil and gas economically out

rock/shale formations.

But there is a lot of money to be made and there is the argument that using such techniques can alleviate our dependence on foreign oil. The amount of natural gas and oil that can be fractured out of the rocks in the United States is enormous with some estimates claiming the supply is over a hundred years at current energy consumption levels. But Josh Fox's point is, at what cost? What personal and environmental cost?

What this film pinpoints is another example of how the economic interests of a few large corporations trump the lives of countless number of people and how the real environmental and human costs of production are dumped onto the public, especially the public that is our children and our grandchildren to come. The sad fact is that energy is relatively cheap today because the real cost of that energy is being charged to coming generations in a kind of Ponzi scheme. Since ExxonMobil, Halliburton, et al., have a shareholder horizon of the next quarter's earnings numbers, it is impossible for them and their execs to give a flying you-know-what about tomorrow's children or the world they will face. The future can take care of itself is the position that they are embracing. Meanwhile they personally are not polluted directly or inconvenienced or made cancerous since they live far, far away from the effects of hydraulic fracturing, and presumably with all the money they are making they can provide for their children and grandchildren to continue to live where they are (relatively) safe from the pollutants that are being expelled.

But I have to say that this is not a great documentary. Its budget is obviously quite a bit short of

414

what some other film makers can afford, yet Josh Fox makes his point very well and does a great

public service in calling to our attention the dangers associated with hydraulic fracturing. I notice

that there is a lot of advertising on television paid for by e.g., ExxonMobil that is trying to make

this kind of natural gas and oil production as sweet as Tupelo honey with smiley faces and fields

of flowers and greenery in the background. It's nice to see a counter to that, even if the film's

budget is probably a fraction of the cost of one ExxonMobil commercial.

It is gratifying to note that the positive reviews for this movie greatly outnumber the negative

ones. It's clear that the industry's attack team has taken a pass on this one, hoping, I guess that it

will go away from lack of interest. Take a look and see why this issue is not likely to go away; in

fact I predict another more powerful film to come, which WILL be viciously attacked. Stay

tuned.

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Was this review helpful to you? Yes No

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Comment Comment (1)

2 of 2 people found the following review helpful:

5.0 out of 5 stars Gasland DVD, May 29, 2011

By Barry J. Beetham "b j beetham" (australia) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This is a most essential DVD; many thousands of acres and many wells, springs, creeks and

rivers and wild and domestic birds and animals in the U S now totally poisoned, ruined, destroyed!!! Black water from taps and wells; Water and gas coming from taps in homes and flames from taps after being ignited with cigarette lighters hence total ban on bbqs and lighters in / near homes / gas wells lest there be enormous explosion /s. The destruction of the way of life of many; huge areas vacated / emptied of plant and animal and human life. In Australia, coal seam gas in Qld., N S W, etc likewise will destroy - the Darling Downs, the Great Artesian Basin and wipe out wheat, wool, beef industries by poisoning all underground water and creeks and rivers. I most highly, very highly, most strongly recommend this DVD; I bought 10 to pass to politicians and farmers. Gasland

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Was this review helpful to you? Yes No

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Comment Comment

0 of 1 people found the following review helpful:

5.0 out of 5 stars A must see true story, May 19, 2011

By C. Dudley "John 14:6" (Sacramento, CA) - See all my reviews

(REAL NAME)

This review is from: Gasland (DVD)

If you live in America, have any concern about the environment, care any at all about others, and/or desire to have good health, then this is a must see show. Very educational, entertaining, enlightening, and benefical. A first class production. Hopefully, this documentary will help bring about positve change in protecting us.

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416

Was this review helpful to you? Yes No

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Comment Comment

0 of 1 people found the following review helpful:

5.0 out of 5 stars Everyone should see this film!, May 14, 2011

By Cathy Van Maren "too busy to read" (Wisconsin) - See all my reviews

(REAL NAME)

This review is from: Gasland (DVD)

This film puts the lie to "clean natural gas." "They're taking a beautiful piece of country and

turning it into a big trash dump." Who's "they"? It's not the people who have to live near the

wells, breathe the toxic fumes, drink contaminated water, or try to raise crops and animals on

contaminated land. Gasland shows how the wealthy few are stealing the lives and livelihoods of

the unpowerful many backed by the bought or at least unfeeling politicians. What is wrong with

us? I highly recommend this film.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

1 of 1 people found the following review helpful:

5.0 out of 5 stars Very scientific and informative. Not overly melodramatic like some other

socio-enviro-political documentaries., May 11, 2011

By **David M. Mound "David M."** (Northern CO) - See all my reviews

417

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

A very well done documentary. All information is presented in a practical, empirical, and

scientific manner. I dislike a lot of other social, environmental, and political documentaries

because they over-dramatize the presentation of events and facts so that it detracts from the

important messages and information. This film follows through on every point in a logical

manner, starting with the various causes of the problems and drawing all the lines to the various

ramifications. The narrator allows you to see his own process of learning and discovery. If you

didn't care about how gas is harvested before, you will after seeing this. Sure gas burns clean but

the manner in which its being extracted now is just as damaging to people and environment as

any other fossil fuel.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

1 of 1 people found the following review helpful:

5.0 out of 5 stars What's in Tap for Your Tap?, May 11, 2011

By Geoffrey Stearns - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

An exceptional movie my an exceptional young man. Josh Fox has created a masterpiece of

418

investigative journalism, founded on a journey of the heart to the Heartland, out of an innate curiosity, and a deep respect for the land and watershed passed down to him by his family. This is a must-see for anyone who cares about this country and its most sacred resource - Water. Please buy this DVD and share it with neighbors and friends (I have two copies). It's a critical time to do so.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

3 of 5 people found the following review helpful:

5.0 out of 5 stars **Gasland**, May 9, 2011

By **KENDUCK** - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This is a documentary, explaining how caustic, dangerous chemicals are pumped into the ground with water to break up the shale that conceals the sought-after natural gas. After the shale is separated and the gas is available, all the chemicals used to free the gas are pumped or drained into the nearby rivers and streams. Pennsylvania, so far, along with some Western states are the unfortunate recipients of this pollution. The video shows in accurate and graphic terms how this is taking place unabated.

Currently, the CEO of Exxon has an unending commercial trying to say that the exploration and harvesting of this natural gas is safe. They have the resources to convince the general public that this fragging is safe, when, in reality, the video shows many examples of the harm it has done.

419

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Was this review helpful to you? Yes No

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Comment Comment

4 of 6 people found the following review helpful:

5.0 out of 5 stars I Give Josh Fox My Full Admiration!, May 6, 2011

By Jasne - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This is a wonderful documentary. It starts on a very personal level, when Josh Fox starts researching whether to lease his land to a natural gas company near his house in the country. It is a true road trip movie, in that as Josh travels to communities that have had major gas driling, aka hydo-fracking, and meets with the people whose lives were devastated by the effects, he learns the truth and becomes the point person who gets the water samples tested as proof. The famous visual is when home owners set the water running from their faucets on fire, because of the gas and pollutants that are now coursing through the local water and wells.

Everyone should see this documentary, whether on a DVD or sometimes free screenings.

Utilizing our natural gas deposits might have looked like a solution and alternative to importing oil, but after seeing how the chemicals mixed with the water for drilling destroys the environment, anyone can realize the absurdity and devastating outcome of this option. We really need to focus on solar, wind, and geothermal energies.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

420

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Comment Comment

5 of 7 people found the following review helpful:

5.0 out of 5 stars Marcellus Shale Destruction, May 3, 2011

By Linda A. Burfield "linfield" (Erie, PA) - See all my reviews

(REAL NAME)

This review is from: Gasland (DVD)

This evening Josh Fox was live and in person in a very small venue in Erie, PA. The well

documented irrefutable impact that is occuring in our local environment is more than a red flag.

Our land and our water is in irreversable danger. Here, in Pennylvania, we are at a breaking

point. We do not have the support of our impoverished citizens. They, as well as their local

municipalites are starving and numb to the factual dangers clearly illustrated in the "Gasland"

documentary. What are we to do? There are going to be approximately 220,000 wells drilled in

our State if we don't act. Josh Fox stated that the difference between this and the other denied

fact of Global Warming is that we may able to stop this. Pennsylvania is a glorious wildlife state

with rivers and streams and mountains. Please educate yourselves as to what is at stake and give

this documentary an earnest chance.

5 of 6 people found the following review helpful:

5.0 out of 5 stars Thank goodness someone took the time to make this film...., April 27,

2011

By **pK** - See all my reviews

This review is from: Gasland (DVD)

Wow... where do you start with a film like this. Very overwhelming to think that fracking is even legal. The power of money moves many, but the POWER OF THE PEOPLE CAN DO MORE.... I watched this film 2 months ago and lost 2 nights sleep over it... truly that disturbing!!! Then one day I was reading our local paper to find out that 11 wells will be fracked in my little home town in Pa. I was so shocked to find this issue on my door step. I live in a great community of strong good people and they are taking on the fight to stop the fracking here.

This film was such an eye opener I feel every adult and older children should see the results of greed. We all need to do a better job of taking care of our dear earth. . . . GASLAND has touched me so I know I will never think of drilling in the same way. Be aware and get educated. . . . Keep fracking out of our nation!

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

4 of 5 people found the following review helpful:

5.0 out of 5 stars **Gasland . . . scariest movie ever - a MUST SEE for all humans.**, April 25, 2011

By Clive Parker (NSW, Australia) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

super fast delivery from amazon (as always) and I have the software to decrypt US movies so we

422

were watching this "down-under" within 2 weeks of ordering it. This is a MUST SEE for everyone living on planet earth and if it doesn't scare the be-jesus out of you and make you very VERY angry at the "powers that be" then I don't know what will.

CSG extraction and "fracking" licences are being granted across Australia . . . this movie is at the forefront of any thinking persons fight against the big business/politicians who are so willing to sell out our health and livelihoods of tomorrow for a quick buck today.

Buy it, watch it and then start lobbying your politicians!

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

5 of 6 people found the following review helpful:

5.0 out of 5 stars A "must see" for everyone..., April 24, 2011

By <u>JungleCatJane</u> - <u>See all my reviews</u>

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

John Fox has excelled. Watch this film to become educated on the perils of hydraulic fracturing. This is a process where TOXIC, CARCINOGENIC CHEMICALS ARE INJECTED INTO THE GROUND to release natural gas. It is dangerous business - so much that New York State has placed a moratorium on "fracking" until a study is completed. In Pa., where fracking is rampant in the "Marcellus Shale", household water wells have become contaminated due to the fracking

423

process. What do you do with a house without water?

Unfortunately in Pa., we have a governor (Corbett) who has taken over \$1 million in campaign

contributions from the natural gas companies. Guess where his loyalties lie? Recently, Pa. had a

"blowout" of a gas well, releasing toxic frack fluid over farms, land and a stream that flows into

the Susquehanna River. It wasn't the first fracking disaster and it certainly won't be the last. If

you find yourself in a situation where gas companies want you to lease your land for fracking,

think long and hard. Fracking causes water pollution, air pollution and health problems too

numerous to mention.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

4 of 5 people found the following review helpful:

5.0 out of 5 stars Think again about clean -safe-natural gas, April 24, 2011

By C. J. Cox "watches/reads and reviews" (US) - See all my reviews

(REAL NAME)

This review is from: Gasland (DVD)

Well made documentary about natural gas and its environmental risks. While the natural gas companies and their PR firms like to preach, "clean -safe- natural gas", this film shows that in the USA- where any type of regulatory function by the EPA or state environmental agencies is considered the foe of market capitalism- regulatory oversight is often not there. Think the BP oil

spill in the gulf- there was little-if any- prior safety inspections by the inspectors- so when the

424

back up protection failed... oh well.

Fracking- the way natural gas it extracted-is achieved by pumping huge amounts of toxic

chemicals mixed with huge amounts of water-into drill holes. This waste water can and often has

leaked-(contains both chemicals and gas)- into the water table and polluted resident's water. The

toxic chemicals used are often undisclosed by the gas companies -so residents are in the dark as

what's being leaked into the water supply. Natural gas has also leaked into the resident's home

water supply enabling residents to literally "ignite" their tap water using matches or lighters. The

film shows example after example of this and is just plain creepy.

The film shows the insidious practices -driven by profit--being employed by the gas companies-

sometimes resulting in polluting resident's home water. When this has happened, the gas

companies are forced to install large water tanks to replace the home tap water that had become

toxic. Nice. Residents often must sign gag orders not to speak about these situations as part of

settlement issues. With a continued lack of regulatory oversight, frakking is environmentally

precarious for all Americans.

A definite watch- to educate Americans about the potential and high hazards of "clean - safe-

natural gas."

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Was this review helpful to you? Yes No

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Comment Comment

425

1 of 2 people found the following review helpful:

4.0 out of 5 stars **Great for class discussion**, April 24, 2011

By Michele (PA) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

Other teachers at my high school use this video in their chemistry classes. This was my first year teaching environmental science and the video fit in perfectly with our sections on energy. The video was certainly meant to be one-sided, so it presents an excellent opportunity to discuss the environmentalist's side of the issue of natural gas drilling and hydro fracking. We were also able to apply this to our region since we are in the middle of a lot of start-up wells. Excellent opportunities to connect to a number of subject areas.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

2 of 4 people found the following review helpful:

5.0 out of 5 stars Very Informative, April 23, 2011

By A.Buuren - See all my reviews

This review is from: Gasland (DVD)

I didn't know what hydraulic fracturing was all about until I watched this documentary. It informed me of . . . once again, corporations are caring for profits while neglecting the health of the environment and everything living near their crude drilling methods. I wouldn't trust those

negative reviews unless they live near a fracking site and drink from a personal well everyday.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

2 of 4 people found the following review helpful:

5.0 out of 5 stars the way the world ends, April 22, 2011

By Racic - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

once you've seen water catch fire coming out of the faucet you'll never think about natural gas the same way again.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

2 of 3 people found the following review helpful:

5.0 out of 5 stars Eve opening "Gasland", April 20, 2011

By **Suzzaa** - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This film should be seen by everyone. It's really eye opening to understand the long lasting

427

damage fracking can inflict upon the environment.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

2 of 4 people found the following review helpful:

4.0 out of 5 stars Informative and more than a little scary, April 20, 2011

By Adam S. Harrington - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This movie is well-done; very low key but also a little scary at times. There has been a lot of news about hydrofracking lately, and much of it confirms the things said in this movie.

Recommend for anyone who cares about where their grandchildren are going to get their drinking water.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

1 of 3 people found the following review helpful:

5.0 out of 5 stars **The high price of natural gas**, April 18, 2011

By **DKF** - See all my reviews

428

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

I was surprised to see how natural gas wells and the process of fracturing are causing damage to our subsurface water supply and clean air. I, for one, will never lease my land for natural gas drilling. I feel sorry for those folks who have to live near active wells and have found their well water and air so polluted that their homes have become unsaleable.

1.0 out of 5 stars **Gas Lies**, April 14, 2011

By **Billdad** (PA-USA) - See all my reviews

This review is from: Gasland (DVD)

The scene with the flame coming out of the kitchen faucet can be attributed to shallow gas (stray gas) that has been a regular occurrence in the gas producing areas of Pennsylvania and surrounding states for many decades.

Stray gas can be encountered in shallow (< 300 feet deep) homeowner water supply wells that are not anywhere near deep hydraulic fracturing activities. The occurrence of shallow stray gas can be easily verified by asking local water well drilling contractors that have to deal with this problem in a number of areas, particularly where shallow coal seams are present. Or you could ask me. I was working on a new shallow (220 feet deep) water supply well in Pennsylvania earlier this year with flammable natural gas bubbling out of the water in the well. One of the water well drillers I was working with said he has had to deal with this problem for many years (before the Marcellus Shale was developed).

The filmmaker obviously needed to do more research prior to releasing this movie. The presence

429

of shallow, naturally occurring gas and oil is a known fact in Pennsylvania. Now many people who are not familiar with the stray gas problem (which has NOTHING to do with hydraulic fracturing) are being mislead and opposing this technology for bogus reasons.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comments (22)

2 of 4 people found the following review helpful:

5.0 out of 5 stars GasLand is worth watching!!, April 11, 2011

By **Doug Coppock "duggles"** (Arkansas) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This baby should have won the Academy Award for documentaries! Not only is the information vital and urgent for Americans, it is presented in a logical and entertaining manner.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

2 of 3 people found the following review helpful:

4.0 out of 5 stars A bit long winded, April 10, 2011

By **goldcoastchicky** - See all my reviews

430

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

The documentary is very informative and I used it for teaching both Undergraduate and

Postgraduate students about issues with coal seam gas - similar to what is currently being

experienced in Australia. Parts of it were a bit long winded but overall interesting and timely.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

1 of 3 people found the following review helpful:

5.0 out of 5 stars **Gasland**, April 8, 2011

By **Dunlo** - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This video is so compelling. Every adult in the united states should find the time to watch this. It affects every human being in these United States and that our environment and the drinking water is being compromised by the greed of oil and gas companies. It is so important to our township as there are wells being drilled everywhere, that our Township trustees had a meeting for the people and showed this movie along with a witness living in two housing developments where the drinking water was not usable and you could light the water coming out of the faucet with a match and it would flame and burn. Please watch this!

Help other customers find the most helpful reviews

431

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

1 of 3 people found the following review helpful:

5.0 out of 5 stars **Good Movie...... Mongo-Problem**, April 6, 2011

By **In-Sense in California** - See all my reviews

This review is from: Gasland (DVD)

I am not a scientist, nor a libertarian, not even a review writer. but I can tell you that this film will make you think and more importantly to act. Halliburton is entitled to make money

432

..... however, we are entitled to make sure the "Emperor Has A New Set Of Clothes"!

(in other words: if flames can shoot out my kitchen sink, then there must be a problem with the

"fracturing" process). Stop it, just plain stop it.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

10 of 47 people found the following review helpful:

1.0 out of 5 stars **terrible lies**, April 3, 2011

By **Propaganda** - See all my reviews

This review is from: Gasland (DVD)

Lie lie lie. this is what you get from someone with no actual knowledge. flaming water from the tap? that is from their unregulated water wells. wells that traverse numereous coal seams, hence the methane.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comments (3)

3 of 5 people found the following review helpful:

5.0 out of 5 stars Critically important film that all should watch, April 3, 2011

By **ddolan1** - See all my reviews

Amazon Verified Purchase(What's this?)

433

This review is from: Gasland (DVD)

I am a property owner in north east Pennsylvania.

This film shows the danger that may lurk from the production

of shale gas deposits. We property owners must ensure that our

governments, both state and national, regulate this industry to

ensure that our natural water needs are guaranteed to be safe

both now and in the future.

The development of shale oil and gas deposits are a good thing

only if the process ensures clean pure water for our future.

Citizen involvement will help preserve our natural resources.

This can only happen if the "fracking" process used to develop

the shale gas fields is determined to be safe.

RJD

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

2 of 4 people found the following review helpful:

5.0 out of 5 stars A Must Watch!, March 28, 2011

By Catherine Rotering (Portland, OR, US) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

434

This nominated documentary is a must watch - for everyone. We must take care not to let fear

and politics guide us into making short-sides, devastating, decisions regarding our energy policy

and our environment. Our current natural gas exploration laws in the reason impact a

fundamental resource everyone needs to survive. . . WATER!

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

2 of 4 people found the following review helpful:

5.0 out of 5 stars Gasland review, March 23, 2011

By **Janice** - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This movie was outstanding. Gasland is a must-see for everyone. Thank you to Josh Fox for exposing this horror committed by the natural gas industry. It is now time for us to rise up and

stand as one, to put the brakes on the natural gas industry before they contaminate our entire

water supply; not only here in America, but in the international community as well. You need to

watch this movie and then Act, (write your congressman, demonstrate at rallys, or contribute

however you can) because time is not on our side.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

10 of 73 people found the following review helpful:

1.0 out of 5 stars It's all about Agenda, March 20, 2011

By Lil' Eddie "Ed W." (Norton, Ma USA) - See all my reviews

This review is from: Gasland (DVD)

Not as bad as Al Gore's Globel Warming lies. But still lacking in factual info. We must save mother earth. we are killing ourselves and our mother. Man is evil. Earth is good. You people fall for anything. That's why we have Obama and the mess we're in now.

This hippie is a big Greenie Weenie. Frighten the masses with Doom and Gloom. Hooks em' everytime. Look where Hope and Change has gotten you. And please, That old mantra "Bush and Cheney's Fault is wearing thin.

Think for yourselves and get your info somewhere other than a left leaning movie. Oscar winner? Forest Gump was an Oscar winner. It doesn't mean he was a real person or a true story. Sorry I ruined it for some of you. So was Algore's movie and the facts in that were all fudged. These movies should be classified "Fantasy"

5.0 out of 5 stars The Information is Out There, Time to Spread the Word, Put the API on the Defensive, March 18, 2011

By Cold In Seattle "Penny Pinching" (Kent, WA) - See all my reviews

This review is from: Gasland (DVD)

A reprint from my Review for <u>Hydrofracked? One Man's Mystery Leads to a Backlash Against</u>
Natural Gas Drilling (Kindle Single):

While watching CNN and the devastation of Japan, two commercials came up sporting the tag of

"The People of America's Oil and Natural Gas Industry." Further research (because I wanted to look up the website), led to Wiki indicating these ads were actually from the American Petroleum Institute.

They spotted, that day - how new technology allows the Natural Gas Drilling to come from the same well as oil drilling (Encana is very much a part of API), however - how many of these drills do we actually see? The ad says it lessons the impact on the environment, so we have less polluted water? The next ad shows how they (API) boosts the economy through 9.2 million jobs. Both these ads occur to me to be on the defensive. They have changed from 2 years ago - when they presented themselves as the solution to all our problems (while they had folks repeating that slogan "drill baby drill")

I have HBO, so I watched this in HD a few times. Even though I live in a city area, the callousness and greed with which these companies operate will anger you. You just can't help but relate and be saddened by the current state of affairs.

Yes, this movie is bound to set off some political back lash and controversy. But I believe that the release via DVD AND the free Kindle Short by ProPublica is getting the news out there. Congratulations on getting the Nomination by the Academy, and the Academy not backing down due to pressure from a multi-billion dollar industry lobby.

I hope the expansion with Hydrofracking doesn't continue. Or at the very least - those workers,

437

execs that refused to drink the tainted water, actually have a pitcher full. Only by getting the word out there, can pressure remain on Congress to shore up the Safe Clean Drinking Water act again, and re institute the EPA into testing and monitoring.

Unfortunately, with Congress in the state its in - funding is just not being provided, and that money from the Oil industry is needed. But the country risks a 25% loss of usable land and water, for the sake of greed and money. Please, someone, tell us that you are listening.

While they do seem to be focused on not leaving debt to our children's children, how about leaving them with land they can live on, and water they can drink? We may have to switch from importing Oil to importing Water, and that will cost a HECK of a lot more than importing oil (think about it).

Buy the DVD, or get the book. Either will be an eye opener that can't help but touch your heart and soul.

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Was this review helpful to you? Yes No

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Comment Comment

4 of 6 people found the following review helpful:

5.0 out of 5 stars **Assimilate or DIE**, March 17, 2011

By Adi E. Reich (Los Angeles, CA) - See all my reviews

438

(REAL NAME)

This review is from: Gasland (DVD)

A disturbing look at how American corporations and elected officials expect people to just

"accept" what they say as the truth and not take a stand against Big Brother. Oil and gas

companies are drilling for trillions (That's right, trillions) of gallons of natural gas every day. Yes

people, let's all ignore the human beings that are getting sick, dying animals, polluted streams

and the 596 chemicals used at each drilling site, 100's of 1,000's of drilling sites every day. Let's

ignore all of this and go to sleep each night and "act" like nothing is wrong. The American

Indians were killed off and ignored and now the same thing is happening to us by these

corporations. What can we do? We can be informed. We can open our minds and accept that

these people are at a total loss of normal life. We can try to get others to watch this documentary

and we can only hope that Josh Fox has changed our souls for the better. Just be aware, not just

an ostrich bird with your head in the sand. Stand up for something you believe in.

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Was this review helpful to you? Yes No

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Comment Comment (1)

5 of 8 people found the following review helpful:

5.0 out of 5 stars It is too late for us..... don't let it happen to you..., March 10, 2011

By **bunnyrabbit4** (New Orleans, LA USA) - See all my reviews

(VINE VOICE) (TOP 1000 REVIEWER)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

We need more people like Josh Fox because we can no longer trust our state and federal officials to protect us from the corporations that often elect them into office. As a resident of the state of Louisiana I am well acquainted with the machinations of big oil. People no longer even bother to question what is safe here. It is understood that too many people in this state either work for the oil companies or depend on the seafood industry. We were "bought out" long ago and no longer complain, even though everything his film says about our state is true.

It isn't safe for the local media to spend too much time talking about the open oil field waste pits or gas injection wells. They have learned that "bad press," isn't in the best interest of their advertisers. Oil feeds too many families here and even if that family is being poisoned by the waste seeping into water tables and over-flowing from pits during our frequent floods, who wants to learn that they may be causing cancer with an income they can't do without? Most people here in the oil and fishing industries are under educated and know little else. It is certainly easier to pretend that no one knows why cancer strikes so many people here. We even call one part of the state along the river "cancer alley". Food is an important part of Josh's story and he shows us that you can't simply turn your back on what goes on in Colorado or Wyoming were the beef cattle (soon to grace your dinner table) are ingesting tainted water with the governments blessing.

As Josh illustrates in his film these companies pick on those who cannot easily move or band together to fight back. Poor to middle income people in rural areas are easy prey. Here we have a name for that, "environmental racism". We call it that because many of the rural folks now living in the shadow of wells and chemical plants are poor, black, elderly or all three. They can't afford

440

to run and their lives and properties are cheap. Incidently, a frequent target of big oil/chemical in

Louisiana is the Tulane Environmental/Poverty Law Clinic. If your case isn't worth much it is

very hard to find a lawyer willing to take it and endure the endless appeals that a billion dollar

industry can mount against you. The industry went to our state legislature and authored a bill

asking that the law clinic be banned from representing clients asking for monetary damages.

They said it was "unfair" because a succession of law students could keep them in court forever!

Apparently it is not unfair for them to use their billions to keep a landholder in court until they

die from chemical poisoning.

You may not be aware that an oil related PR group tried to talk the Academy into removing their

nomination from this film for best documentary. They refused. Support this film and others like

it with your dollars. After seeing the kind of PR spin manufactured by BP I can say that truth is

easily scrambled in the press and you should be VERY afraid of what you don't know. As I write

this Erin Brockovich, famous for her earlier fight against chemical laced water is back in Hinkley

California again. . . . yes. . . it is happening all over again. She was nice enough to visit us during

the oil spill. I wish her and others like her all the best.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

21 of 73 people found the following review helpful:

1.0 out of 5 stars Just Stupid, March 7, 2011

By **Rodessa Explorer** (East Texas USA) - See all my reviews

441

This review is from: Gasland (DVD)

This is a poorly informed propaganda film. There are many areas of the country where oil and

gas has naturally seeped into the fresh water table or even to surface. Let's remember that oil was

first discovered in American in Pennsylvania in 1859 at "Oil Creek" -- called that because oil

naturally seeped into the creek's water. Indians would actually skim oil from the surface of the

water. Most early oil exploration around the world was based on finding surface seeps of oil and

gas. Surface seepages of oil and gas have been well-documented in the northeast United States

and other parts of the country for literally hundreds of years. The idea that all of sudden these

seeps are caused by fracturing natural gas wells is completely absurd. The most amazing thing

about this movie is that anyone could give it a shred of credibility. It's just stupid.

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Was this review helpful to you? Yes No

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Comments (16)

1 of 4 people found the following review helpful:

5.0 out of 5 stars **Outstanding**, March 7, 2011

By **Diane Brandstetter** - See all my reviews

This review is from: Gasland (DVD)

Outstanding terrifying and brilliant! A must see if you love this country, it's wildlife and what we

are doing to harm what we should be protecting.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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442

Comment Comment

5 of 22 people found the following review helpful:

3.0 out of 5 stars Not real factual, March 4, 2011

By **Bronco** - See all my reviews

This review is from: Gasland (DVD)

This film would have been much more realistic if they would have stuck to the facts, instead of trying to lay the blame on Bush and Cheney. Too much of a liberal biased slant, like it was made and directed by Michael Moore. Otherwise would have been a good storyline.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

0 of 5 people found the following review helpful:

5.0 out of 5 stars wrong country code, March 4, 2011

By Norbert Drews "Frachtmann" (Oelde) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

ordered the dvd from germany, it took quite a long time to recieve the item and you could 'nt play it on a regular dvd player only on a computer, altough the dvd is great

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

443

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Comment Comment

5 of 8 people found the following review helpful:

5.0 out of 5 stars **Riveting**, March 3, 2011

By **jemscat** - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

A thorough documentary exposing the underside of fracking. A must-see if you live in a region identified as being over shale rock. Watch it BEFORE the sneaky landmen start signing leases in your neighborhood or it will be too late.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

11 of 15 people found the following review helpful:

5.0 out of 5 stars **Must See**, February 27, 2011

By **D. S. Cooper** (Lexington KY) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

In 2009, Josh Fox was approached by a natural gas-drilling company to purchase the rights to drill under his eastern Pennsylvania property for natural gas. Fox was offered \$100,000 for his

gas rights, but he was concerned about rumors of problems with natural gas drilling in other communities. Armed with his suspicions, a wry sense of humor and a video camera, he set out to investigate.

Pockets of natural gas have been safely drilled in America for decades. But rising demand for natural gas has drillers looking to less easily-recoverable sources. A new process called "hydraulic fracturing" is being used by companies like Cabot Oil and Gas and Chesapeake Energy to extract natural gas that is bound up in the rock of a geologic formation called the Marcellus Shale, which stretches from New York and Pennsylvania through West Virginia, Ohio and into eastern Kentucky and Tennessee.

Hydraulic fracturing - also known as "fracking" - injects enormous quantities of water and a witches brew of toxic chemicals including benzene and glycol ethers, under extremely high pressure to break up the underground shale formation, releasing the natural gas from the rock. The gas is then pumped to the surface where it is processed, compressed, and then piped away. Some of the water and toxic chemicals used to fracture the shale are pumped back to the surface, and stored in open pits. Thanks to the "Halliburton Loophole" passed in 2005 during the Bush-Cheney administration, natural gas drilling is exempt from the Safe Drinking Water Act.

In "Gasland," filmmaker Fox travels to Pennsylvania, Colorado, Wyoming, Arkansas, Louisiana and Texas to visit communities that have been greatly impacted by natural gas exploration, and he documents the problems there. A scarcity of clean water is one of the greatest problems in arid western states, so pumping millions of gallons of water underground is a huge concern.

Water contamination is another.

Fox visits several people who have problems with contamination of their well water, allegedly due to the fracking. Hair loss in pets, headaches, brain lesions are reported. In Dimock, Pennsylvania one resident said "Our water was perfectly fine, and then right after they started drilling, propane and stuff like that . . . "

In one of the most startling moments I have ever seen in a documentary film, Fox visits the home of a Weld County, Colorado resident named Mike Markham who claims that he can light the water coming from his kitchen faucet on fire, because the fracking near his home has allowed the underground natural gas to infiltrate his well water supply.

Markham holds a butane lighter up to the faucet, then slowly turns on the water. The flame flickers, but nothing happens. "Just give it a second here," he says. Seconds roll by slowly, and still . . . nothing. It looks like a big anti-climax, then suddenly WHOOM!! The kitchen sink explodes into a ball of fire. Markham staggers back, laughing and brushing his forearms. "I smell hair!" he says.

In one of the film's most touching moments, Fox visits Wyoming cattle rancher John Fenton. Fenton, the son of "old-time cowboys" is eloquent and evokes all the ideals of the American West. His property is surrounded by 24 gas wells. Vapors from the condensate tanks are sometimes so bad that they surround his house in a brown cloud. His wife Kathy suffers from headaches and dizziness, and a loss of smell. Fenton shakes his head as he looks at his herd of

446

cattle. He calls his water "the damnedest-smelling stuff, comes out different colors all the time . .

. I don't know how they (the cattle) even drink it.

"We want to raise the best, most natural clean product we can raise . . . but if you're breathing in

dirty air and drinking water that could be tainted, what's coming out in these cows? You gotta be

sure that what you're putting in 'em is as pure as it can be. Cute as they are, in a year or two

they're going to be on someone's dinner plate.

"We need to speak in a unified voice, and stand up to these a*****."

I highly recommend this film. Fox uses his sense of humor - and his banjo-playing - to make

what could be a highly depressing film enjoyable and even funny.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

3 of 8 people found the following review helpful:

5.0 out of 5 stars The thruth is as clear as... a burning well!!!!, February 25, 2011

By Dr. Cardinal "Cardinal Bound!!!!" (Free of the Mountains!!!!!) - See all my reviews

(VINE VOICE)

This review is from: Gasland (DVD)

447

I am not sure why I picked this one in the first place. But, I am glad that I did because this movie

opened my eyes to some of the practices currently going on in the northeast. I heard something

about what was going on, but never seen what was really going on. This documentary does a

good job of showing how things have broken down in the northeast, and how that has impacted

people's lives. It also does a great job of showing how this is not new. It turns out that we have

seen this movie before out west. This flick covers that as well. All in all, this is a very

informative and well-done movie. Get it and enjoy!

5.0 out of 5 stars **This is how little life means to the gas companies**, February 23, 2011

By **jeremiha** - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This movie shows with concern and great photography what the fracking process of the gas

extraction companies is doing all over north america. To say that it is being done in secret is

obvious because the mainstream media is owned by the same people and knowledge of what

they are doing would make americans rather upset. Even the most die hard tea party supporters

would complain if their water was flammable, and they are the ultimate in radical hypocrasy.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

4 of 8 people found the following review helpful:

5.0 out of 5 stars A mustsee documentary, February 18, 2011

448

By Eliza Jane - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

The dangers of hydrofracking are clearly laid out and should be required viewing for all residents of potential drilling sites.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

3 of 6 people found the following review helpful:

5.0 out of 5 stars **Gasland**, February 18, 2011

By **jboid** - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

Absolutely amazing work, Josh and his crew are very talented and deliver a wealth of information that the public needs to know about the Natural Gas and Oil industry and our Government. All TV channels need to present this to the viewing public.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

2 of 6 people found the following review helpful:

449

5.0 out of 5 stars MUST SEE!! Our Water Supply is our LIFE Support!, February 17, 2011

By M. Brooks "eudoraguy" (USA) - See all my reviews

(REAL NAME)

This review is from: Gasland (DVD)

Everyone needs to see this film and become aware of the fact that the oil companies are only in it

for the money. Bush and Cheney support the oil companies and they have no regard for life on

this planet. Only to make money wherever they can and at the expense of the American people.

If we destroy our water supplies we will destroy life as we know it. Our food supplies are tainted

with pollutants. The farmers are not going to survive if they don't have good well water. The film

is not a big budget film, but clearly anyone with a brain can see that our oil companies are

ruining our water supplies. Our kids are depending on us to stand up and do something.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

3 of 7 people found the following review helpful:

5.0 out of 5 stars must see for land owners with leases, February 15, 2011

By Sam Whitman (New Jersey, USA) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

I have a lease on our property and as of now they have not drilled. The lease conveyed with the

purchase of our property. We have no say about what happens to this land and the prior owners

450

got all the lease monies. We were wrong in that we did not understand what the drillers do to the land. We were told it would be minimal and a big yea to the energy company making things better. Now each day I think of our trees, soil, water, animals, nature itself being destroyed. I am glad to see a film that gives us the real truth.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

3 of 6 people found the following review helpful:

5.0 out of 5 stars Worth watching, February 4, 2011

By Wb Johnston (Albany, NY) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

A good documentary, for me, is one I watch more than once in order to absorb the content. Lots of content here. Not the entire story of fracking, but enough to get any high-school or college class well started on doing the research. Missing is the crucial fact that there probably isn't nearly as great a supply of natural gas through this technology as the industry is claiming.

If videos like this one help to convince Americans that the escalating environmental (and financial) costs of meeting our current energy demands are not worth it, then this was a success on all fronts.

Help other customers find the most helpful reviews

451

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

4 of 9 people found the following review helpful:

5.0 out of 5 stars **Provocative**, January 30, 2011

By **Daniel G. Lebryk** (Chicago) - See all my reviews

(TOP 100 REVIEWER) (REAL NAME)

This review is from: Gasland (DVD)

Grassland is a provocative film about drilling for natural gas.

Josh Fox's film is a diary of his travels around the country exploring what happens when unbridled drilling for natural gas is allowed. The film starts off innocently, he talks about his hippie parents that built the house where he grew up in Pennsylvania, and the beautiful stream that he played in as a child. The turning point of the film is when he discusses a land lease offer he received for drilling rights on his property. The \$100,000 is tempting, but he wants to understand more about what he could sign away.

The film is built very nicely around Josh's discovery of how the American public gave away our stewardship of public land to allow drilling rights. Strong supporters of the Bush administration will be offended by this film, and will likely find fault with Josh's logic. Josh does understand dramatic effect very well; he opens the film with actual congressional testimony that is not easily comprehended. He closes the film with essentially the same footage, and the testimony now makes sense, the glossing over of facts is apparent. In short, I learned a lot watching this film,

and Josh reminded me of how much I learned.

Technically this is probably some of the worst camera work ever recorded on video. The video switches from clear high definition to enlarged horrible standard definition. The live sound recording is badly done, sometimes dialog is clear but sometimes it is incomprehensible. Where Josh Fox excels is editing and his voice over narration. He has built a compelling film that overcomes all the horrendous technical problems. He very gradually, logically builds his case.

The most memorable footage is the countless views of different drilling sites flying past his open car window as he drives. I was not aware that those were gas drilling sites, and recall driving through these states seeing so many of them, they end up looking like trees along the highway.

Before watching this film I honestly thought that natural gas was simple to collect, drill a hole in the ground, pierce the natural gas tank in the ground, purify the gas, compress it, and deliver it through pipelines. After watching this film, it is clear natural gas is a very complex thing to mine. In the end it is also a very toxic resource to extract from the ground. A very similar problem is happening with carbon dioxide being pumped underground in Canada. The toxic side effects are greater than what anyone imagined.

Josh delivers an excellent message with this film, it is important to become educated about our environment. Sometimes things are much more complex than they seem on the surface. He reminds us that seemingly innocent decisions can have big impact in our own backyard.

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Was this review helpful to you? Yes No

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Comment Comment

5 of 9 people found the following review helpful:

4.0 out of 5 stars **Shocking!!!**, January 29, 2011

By **Robert Byrd** (Minneapolis, MN United States) - See all my reviews

(VINE VOICE) (REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

GASLAND was totally shocking to me. I had no idea the problems explored in the film even existed. I decided to watch GASLAND with a good friend because it was nominated for an Oscar this year, and I had seen all but one of the other nominated films. Through much of the film my mouth hung open in total disbelief. How could anyone, particularly local, state and the Federal government allow such things to happen? And is the potentially toxic ramifications of natural gas drilling yet another argument for stronger government oversight or regulation?

GASLAND is generally excellent filmmaking. I have only one area of concern: I wish Mr. Fox had spent a little time offering an alternative to the harmful natural gas drilling discussed in his film. I say this because all the stories of people harmed by the drilling were overwhelmingly depressing, so it would have been nice to hear some alternatives. Also, let's face it, we all use natural gas to heat our homes, cook our food, heat our water, etc. Are we willing to give it up? If so, what would we be giving it up for? This would have been a perfect film if time had been devoted to answering those questions.

454

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Was this review helpful to you? Yes No

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Comment Comment

3 of 7 people found the following review helpful:

5.0 out of 5 stars **Gas drilling controversy**, January 29, 2011

By **Coach** - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

Purchased this video for my mom, who is actually featured in there! She loved it and I can't wait to see it for myself. Where she lives (Central Texas) there is getting to be more and more debate on the safety of gas drilling, with all the earthquakes, etc. Very pertinent subject and very entertaining. Fast and easy purchase and highly recommended. Coach

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Was this review helpful to you? Yes No

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Comment Comment

10 of 28 people found the following review helpful:

2.0 out of 5 stars The gas mining and government kill us while Josh Fox fiddles with his

banjo!, January 27, 2011

By Leader of Light "Widow's Son" - See all my reviews

This review is from: Gasland (DVD)

Wow! Getting accused of working for an oil company is what my old review got me! However, a scientist does reconsider his old position. Hence my rewrite:

GASLAND (2010) is a documentary by one Josh Fox of Pennsylvania, a nearly 40 year old teen wannabe. I do not immediately trust the alarmist-sounding data I hear from an old hippie who talks (mumbles stupidly, rather) and acts like he's seventeen.

His documentation, as far as it goes, is quite good. Fox helps us understand government corruption, greed, stupidity and the ever-worsening mass poisoning campaign they are waging. However, Fox does nothing surprising in this film. He shows us miles and miles of natural gas facilities; he talks about the horrible process of hydraulic fracturing, which is natural gas mining accomplished by blowing up the depths of the earth.

Fox shows us residents living nearby these horrid places, and we watch as one homeowner after another sets contaminated tap water afire. That is only a taste of the horrific poisoning of our world. Fox gives us stories of people suddenly developing asthma, neurological diseases, cancer and the awful deaths that follow too soon - all from these filthy mining operations.

Let me see if I can re-state my problem with this film: firstly, Fox seems to be doped up on some sort of toxin himself the entire time. His monotonous, robotic and silly narration is really offputting.

I wanted more information, and in a properly organized fashion, but I was left listening to Fox

droning on mechanically about his home town - or listening to him play his banjo. At the very end, he does the usual left wing trick of turning the tables on the viewer, saying "the future is up to you."

There's my real problem: the future has NEVER been up to us! Fox documented the proof that our government regularly breaks its own laws. Fox shows the companies in bed with the government trampling on the Constitution. Fox proves that Dick Cheney, George W. Bush and Halliburton are responsible for these horrific gas mines - and we see hoards of people who cannot even get a civil reply from the gas mining bosses.

And it's up to us? How, exactly, does one watch a disaster in the making and decide we can fix it? Was Hurricane Katrina and the aftermath/rebuild completely up to the victims? Only speaking for myself and my family, we did not vote for George Bush, we are 'conservationists' and we are also rationalists. No one likes being blamed for falling asleep at the wheel. At least blame the right person, is all I'm saying.

Fox documented the gas mining disaster, lived it along with the victims, then turns to the viewer and says in effect, "This is your fault, or it will be in the future." Insulting and false. We have always lived in America the way we have had to live - or were forced to live. It's a democracy but doesn't anyone know that comes with terrible strings attached?

As a former "blue dog" democrat, I do not blame anyone for a crime except the criminal. It is a bad left wing habit to blame all of society for everything. The burden for crimes belong on no

457

one except the criminals, and authorities who participate in those crimes. No one can blame the

voters, most of whom have a level of faith in their candidates that is later betrayed.

Yet there is Fox, a documenter of the newest environmental Armageddon waiting to occur,

telling me "it's up to you."

Watch this and decide for yourselves, viewers. It certainly is a must-see for its information, no

matter how poorly imparted: don't say I didn't warn you. ADDICTED TO PLASTIC is a much

more powerful and educational documentary than this, though no more important. It is the reason

I feel Fox has stumbled with his subject and basically shamed himself here, being more worried

about image/self-promotion than education.

1.0 out of 5 stars **APPALLING AMATEUR FOOTAGE**, January 27, 2011

By sue - See all my reviews

This review is from: Gasland (DVD)

The film is so badly done it completely takes away from the importance of the story. This is such

a critical issue which has been turned into amateur hour.

Please ask Michael Moore to make a doco that people can sit through without feeling sick

because of the constantly moving camera. How it ever won a review or got watched is nothing

short of a miracle.

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Was this review helpful to you? Yes No

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Comment Comments (4)

458

4 of 9 people found the following review helpful:

4.0 out of 5 stars Gasland Review, January 18, 2011

By Engineer George - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This movie/expose is a must see for all people where hydraulic fracturing ("fracking") is being done or proposed. Fracking, like some of the other methods of energy production and mining, is an environmentally unsound and dangerous practice that will likely cause long-term environmental damage as well as the immediate consequences shown in the movie. The movie shows a number of instances where groundwater, surface water, soil and air have been contaminated following fracking and where people and animals have been sickened and died as a result. It doesn't take a genius to figure out it's not a good idea to pump millions of gallons of water containing numerous toxic and harmful chemicals into the ground, yet this is occurring at tens of thousands of gas wells around the United States and in other countries. This movie has received lots of criticism from the gas industry and some regulatory agencies, so it appears to have struck a raw nerve with them. That's usually a good indication that there is even more "dirt" the industry would like to keep secret. It's interesting to note that the gas industry and most of the regulatory agencies chose not to participate in the movie by granting interviews.

If you are not directly affected by fracking, this is still a must see movie. The energy we are using must be produced, and that production is harming others, even if you don't think you are being harmed directly. It is just more evidence that we need to reduce our dependence on nonrenewable energy sources such as gas, coal, oil, and nuclear, by conservation and more wise use

459

of energy. We need to develop renewable and sustainable energy such as solar, wind, and

hydroelectric.

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Comment (1)

3 of 9 people found the following review helpful:

5.0 out of 5 stars Wake up North America, January 15, 2011

By AQ - See all my reviews

This review is from: Gasland (DVD)

This is a great film, which aims to not destroy an industry, but expose the secrecy and flawed policies which have been pushed through by industry. Yes millions of people are employed by

industry related to fossil fuels, and our entire society is dependant on the process, but that doesnt

make it exempt from proper regulation. . . . and I am able to think far enough ahead in my future

to realize money won't help me if I'm dying from chemical contamination.

I hope (in an unfortunate way) that Josh is impacted by another industry, so that he is motivated

to create another educational film for the masses.

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Was this review helpful to you? Yes No

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Comment Comment

6 of 12 people found the following review helpful:

460

5.0 out of 5 stars A MUST SEE for land owners in the great state of Michigan., January 14,

2011

By W. Roe (Mi. USA) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

We were sent a lease option on our family farm in the rural part of upper Michigan. Gasland is a

real eye opener. It should be a requirement to see this film BEFORE anyone signs a oil or gas

lease. We received a lot of information about the good things that oil leases can do for the land

owners and the money it brings to the community. The film Gasland gives you the other side.

Just think about the "what ifs". Like "what if" something happened to the water so we could not

water our 500,000 Christmas trees. What if the beautiful Clam River had toxic chemicals from

drilling in it so we would not dare swim in it. What if there was not the quality of wild life on our

plantation. Does the "what if" of everyone in the family becomming a millionaire balance out the

possible distruction?

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Was this review helpful to you? Yes No

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Comment (1)

24 of 86 people found the following review helpful:

1.0 out of 5 stars A Film for the Heart, not the Head, January 12, 2011

By R. E Westgard "Viking" (Bay Lake & St Paul, MN USA) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

This is a movie with flaming faucets and little science.

Gasland features wells from three Weld County landowners, Mike

Markham, Renee McClure, and Aimee Ellsworth. A thorough investigation by the

Colorado Department of Natural Resources showed that the Markham and McClure

wells had biogenic gas which had nothing to do with oil and gas drilling. There

is biogenic gas everywhere in the air and in the earth. Cows belch it; swamps

emit it; and it forms all over in the earth's crust. If your water well hits some, and

there is very much, you have to start over.

There is also thermogenic gas which comes from all forms of oil and gas drilling. Ms Ellsworth's well had some of both kinds, and she reached a financial settlement with the driller. The film also deals with a wetland owned by a Lisa Bracken. Nine different tests from 2004 to 2010 determined that all of the Bracken property gas is biogenic unrelated to drilling. There were other instances in the film of seepage from oil and gas activity resulting in penalties assessed against the operators, but affected homeowners may not have been properly compensated.

There was more in the film which the Colorado Oil and Gas Conservation Commission (COGCC) found to be baseless.

COGCC Director, Dave Neslin, offered to speak with Gasland's producer, Josh Fox, on camera during the filming of the movie with COGCC technical information. The

462

offer was declined by Mr. Fox.

In 2010, the Interstate Oil and Gas Compact Commission appointed a 3 person technical team to review Pennsylvania's regulation of gas drilling.

The team included WILMA SUBRA who appears in this film. They found that Pennsylvania's Department of Environmental Protection was doing an effective job.

This is a film with good intentions, but it is one for the heart, not the head.

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Was this review helpful to you? Yes No

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Comment Comments (27)

6 of 14 people found the following review helpful:

5.0 out of 5 stars **Highly recommended viewing**, January 10, 2011

By Anonymous "booksandcookies" (Charleston, IL USA) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

My family and I recently bought this and viewed it. We used to live in Michigan which, if you have seen the oil & gas map in this documentary you know is one of the (maybe the ONLY)all red states. During the time we lived there, there was a tremendous upsurge in already existing natural gas drilling and the companies came around to sub-divisions, farmers, every property owner, offering to buy mineral rights. Everybody in our sub-division except us sold their mineral rights for \$100. Pretty cheap for a soul, wouldn't you say? Since everybody else did it, it wouldn't have mattered that we didn't because the drills would have been all over our backyards, too; but we never did and would never, ever do that. We would also never buy property that did

not come with the mineral rights. Soon after, new drilling began in the area - not in our immediate neighborhood yet but in the area - and people could then see what Hell they had bought for their \$100. Michigan now shows as "all red" on the map, meaning there are natural gas wells and pipeline and storage tanks everywhere there. There were reports of "sour gas" (if I recall the terminology correctly) water and gas wells in western Michigan, water wells contaminated, tap water set on fire, etc. When BP and Halliburton recently displaced the Gulf of Mexico waters with oil (i.e. "spill"), it was also disclosed that BP has plans to drill for natural gas under Lake Michigan. LAKE MICHIGAN, people, one of the most beautiful features on the planet and one of Nature's most magnificent marvels, the Great Lakes, and the planet's largest repository of fresh water!

Is there nothing these villains won't destroy? And when all the fresh water is either contaminated (BP, Massey Coal, natural gas companies) or privatized and sold in plastic bottles (Nestle), will people drink oil? America and the world better wake up fast because it's all being destroyed for the outrageous (and short-sighted) profit of the few and/or the stupid. Michigan has also permitted the "mining" of its once pristine, marvelous waters by Nestle and sold in plastic bottles as "Ice Mountain". Some brave citizens tried to fight it but ungodly amounts of water are still being removed and sold off. We humans are so blessed to live on this wonderful planet and so unimaginably stupid as we foul it and ruin it. Watch "Gasland", folks! I wish Michael Moore and Josh Fox would team up to do a "gasland" specifically about Michigan. Also watch "Flow" about what is being done to our water. Also fight against mountaintop removal mining in Appalachia where the Appalachian mountains are being destroyed as well as the magnificent mountain waters and ecology of the region. "Clean coal" and "clean natural gas" - what B.S. And people, be careful about mineral rights; you may find a natural gas well in your own front or back yard.

464

Do you know that there are people in Michigan who sold their rights in exchange for "free"

natural gas for life? Free to them, but expensive as Hell for the planet!

Buy the "Gasland" DVD. Buy copies for your friends and family. Buy a copy for your local

library. Do the same for "Flow" and for the books and DVDs about mountaintop removal! Join

the annual march on Washington about mountaintop removal (see ilovemountains.org) in April!

We must stand up to these rapacious plundering predators and those they can buy off and save

our nation!

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

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Comment Comment

4 of 12 people found the following review helpful:

5.0 out of 5 stars A Must See!!, January 10, 2011

By Cynthia T. Feinberg (Little Rock, Arkansas United States) - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

If you care anything about the health of the earth and everything that lives on it, you should see

this film. It exposes the dirty side of natural gas drilling. Hydraulic fracturing may be the dirtiest

energy we have.

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Was this review helpful to you? Yes No

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Comment Comment

5 of 13 people found the following review helpful:

5.0 out of 5 stars **Environmental Plundering**, January 8, 2011

By Cal Abel - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

Life changing, describes the lengths at which we are willing to sell ourselves in the pursuit of money. Not since the 60's and 70's (Love Cannal, and the Cuyahoga River catching on fire) have we so wantonly plundered our resources without regard of the consequences. It is raw, intense and illuminating.

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Was this review helpful to you? Yes No

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Comment Comment

5 of 12 people found the following review helpful:

5.0 out of 5 stars Watch It, December 24, 2010

By Steady Struggling - See all my reviews

This review is from: Gasland (DVD)

If you haven't already, take the time to give this film a watch. The film highlights another example of our resources being exploited, environment destroyed and health impacted by the reckless pursuit of wealth by greedy corporations. I also suggest that you take the time to urge your senators and congressmen to sponsor The Fracturing Responsibility and Awareness of

466

Chemicals Act (H.R. 2766), (S. 1215).

 $[\ldots]$

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Was this review helpful to you? Yes No

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Comment Comment

5 of 12 people found the following review helpful:

5.0 out of 5 stars **phenomenal must see film**, December 22, 2010

By sandy - See all my reviews

This review is from: Gasland (DVD)

Josh Fox captivates and explains this issue threatening our nation's water supplies in an entertaining way that is sure to make your whole family captivated and wanting to get involved to ensure gas drillers do not pollute more water supplies. This is one of the biggest issues facing our water supplies. As a scientist involved with this issue, this has been an incredible tool to educate the public.

5 of 12 people found the following review helpful:

5.0 out of 5 stars **Frightening**, December 20, 2010

By Carolyn Glenn "carolynyg" (Fort Worth, TX) - See all my reviews

(REAL NAME)

This review is from: Gasland (DVD)

Gasland is much less heavy-handed as an expose than documentaries by Micheal Moore, but the effect of this movie was still frightening. . . the scariest parts were where it becomes obvious that

467

regulation is so hodge-podge, that politicians are so wary of challenging gas industry interests, and most frightening of all, how incredibly (perilously?) connected the waterways of the continent actually are. Not one person can say "oh well, it's not happening in my back yard." A truly excellent film.

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Was this review helpful to you? Yes No

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Comment Comment

5 of 12 people found the following review helpful:

5.0 out of 5 stars A Terrifying Must See, December 20, 2010

By Gemcast Inc. (Kitchener, Ontario Canada) - See all my reviews

This review is from: Gasland (DVD)

This film was very watchable. It was well produced, informative without being preachy. It does not condemn drilling for gas. Or tell us to kick the energy habit. It shows us the dangers of removing legislation that was once in place, which would have forced corporations to drill gas safely. It stresses that without regulation corporations will always seek the cheapest/fastest route.

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Was this review helpful to you? Yes No

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Comment Comment

13 of 20 people found the following review helpful:

5.0 out of 5 stars **Gasland reveals the shocking truth of the natural gas industry**, December 15, 2010

468

By **David Orr** (Fayetteville, Arkansas, USA) - See all my reviews

This review is from: Gasland (DVD)

Gasland

"Gasland" is director Josh Fox's tour de force on the natural gas drilling industry's environmental

quiet crisis. A winner of the Special Jury Award for Documentaries at Sundance, Gasland is fast

becoming the grassroots cinema phenomenon of the decade!

It is considered by many eco-activists around the U.S. to be one of the best eco-documentaries

ever made; a must-see both for the startling content and for the innovative, personal style of

Fox's film-making.

The natural gas drilling industry today uses a new technology called hydraulic fracturing, or

fracking, that causes groundwater pollution and other environmental damage. From unregulated

air pollution to poisoned wells to ear-splitting round-the-clock noise to muddied streams to

wildlife and fish kills, large swaths of the United States are getting fracked and it isn't pretty.

Get the low-down on flaming tap-water and other disturbing effects of fracking: buy a copy of

"Gasland" right here today!

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Was this review helpful to you? Yes No

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Comment Comment

469

16 of 24 people found the following review helpful:

5.0 out of 5 stars **AMAZING**, **AMAZING**, **AMAZING**, December 15, 2010

By **meganc** - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

GASLAND will forever change they way you think about Natural Gas Drilling. The Natural Gas Industry wants you to believe that Natural Gas is the "Clean Burning Fuel" but what you don't know is that the horrible chemicals they use in fracking are contaminating people's water all over the country. No one should ever be able to light their water on fire, but they can. No one should have to breath chemicals in the air right outside their own homes, but they do. This excellent documentary takes you across the US to show just a hand full of people whom are being affected by the gas industry. You won't believe your eyes or your ears to what Josh Fox uncovers, jaw

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dropping facts and the cover up taking place every single day.

Was this review helpful to you? Yes No

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Comment Comment

12 of 19 people found the following review helpful:

5.0 out of 5 stars **Gasland...a masterpiece!!!!**, December 15, 2010

By Donna L Adolph - See all my reviews

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

470

Gasland is an artistic masterpiece! This tour de force dismantles the argument that natural gas is

the new bridge fuel and in fact cleaner than coal. Josh Fox's chilling revelations of the impact of

natural gas drilling and fracking includes a decidedly frightening look at ordinary citizens who

have water that can be literally set on fire. Gasland features a well written narration as well as a

beautifully sequenced pace which creates a work of art as well as a meaningful revelation of a

very complex subject. Gasland could be as significant as "Silent Spring."

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Was this review helpful to you? Yes No

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Comment Comments (2)

7 of 14 people found the following review helpful:

5.0 out of 5 stars Flaming Fire Faucet's Right Here, Cool!?, December 15, 2010

By OpenYOUeyes - See all my reviews

This review is from: Gasland (DVD)

You've probably seen the videos of people turning on their water and lighting fire to it already on

youtube. Now please get the whole story and watch this movie Josh fell into making after he

learned he could be next.

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Was this review helpful to you? Yes No

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Comment Comment

14 of 22 people found the following review helpful:

5.0 out of 5 stars **Life on the Shale**, December 14, 2010

By Ralph Kisberg (WILLIAMSPORT, PA, US) - See all my reviews

This review is from: Gasland (DVD)

If you live in a zone increasingly referred to by its residents as being, " on the shale", you are certainly aware of the documentary " Gasland", Pennsylvania native, renown off Broadway theatre director and now Sundance Film Festival special jury prize award winner, Josh Fox's attention grabbing foray into activism through film. So powerful is the result, the oil and gas industry, via a PR group, " Energy-In-Depth", drafted a paper circulating around the internet called "De-Bunking Gasland." Fox responded with a 39 page retort," Debunking the De-Bunkers". Commentators, bloggers and posters have been weighing in around the country whether they have seen the film or not. Viewers report reactions ranging from nightmares to insomnia to joining the fight.

Those of us living above the geologic layer known as the Marcellus shale have no need to ask why all the fuss. The 15 million or so who reside in or draw their drinking water from the watershed of the Delaware River, as well as residents of 34 other states living above gas bearing shale formations, perhaps ought to find out.

Synopsis: Youthful, sincere, witty, brilliant, urban hick Fox and his family receive an offer to lease the old family hippie homestead located on a tributary of the Delaware in northeastern Pennsylvania for natural gas "exploration". Close to \$100,000 for the right to drill a mile under their 19 acres in moist, luscious, secluded, fern and forest country. Fox has heard of the water well contamination from gas drilling in nearby Dimock, PA and embarks on a quest to discover the possible pitfalls to accepting the windfall. With remarkable ability to gain access into

people's homes and lives, Fox makes friends everywhere he goes, documents people's horror stories, gets rebuffed by corporate gate keepers, dismissed by bureaucrats in charge of protecting the health and safety of we, the citizenry, and finds a couple of genuine scientific heroes along the way. He also discovers - surprise! - our evil former Vice President cleverly cleared the path for the expansion of a technique pioneered in environmentally deprived Texas, known as high pressure slick water hydraulic fracturing, which opened up previously unexploitable gas bearing shale formations to massive development in areas all over the country. One of which, the United States northeast's Marcellus shale, has been called the "Saudia Arabia of shales". Potentially the second largest resource of "natural" gas yet found in the the world.

In only his second effort at film directing, highly political theatre director Fox, along with a very skilled film editor, crafted a remarkably moving piece of work. Why do we allow corporations to roll over people's lives, trashing our various pursuits of happiness and right of quiet enjoyment of our real property? Why are representatives and bureaucrats so unresponsive and unemotional when presented with evidence of ill treatment of their constituents? Why do some brave souls risk their livelihood or at least their neighborhood standing in fighting for health and justice? These are among the questions that may haunt a viewer of "Gasland".

Is it possible not to be moved by 3rd generation cattle rancher, John Fenton, as he expounds, "This may not seem like much to most people, but its my way of life. My father and grandfather were the old time cowboys. This is my family's heritage, my wife's family's farm. We're proud of this. But by God, if your way of life is being besieged. . . .I don't know what else you could do. I don't know where the hell I could go. This is happening everywhere. That's what I want people to

know." ? Is it possible not to understand the injustice, when seeing the Fenton family cabin perched on a dry Wyoming range country hillside, overlooking gas well pad, after pad, after pad; storage tank, after tank, after tank, or when seeing their home enveloped in a sick looking toxic fog, or watching tranquil mooers you may one day find on your dinner plate slurping from watering tanks amidst an industrial wasteland? Is it possible to see and hear all that, and, comprehending that the Fenton's do not own the gas rights to their ranch property - that all the mess was all imposed on them without their say and without benefit to them - and not be emotionally moved?

Maybe not if you make you living in or around the extraction of natural gas. Then you may be moved by "Gasland" in a different way; moved to near panic. What if people catch on that the current extraction process is a vast experiment, what if the public figures out that the risk, the potential trashing of our finite fresh water supply from a combination of toxins added in the fracturing process and naturally occurring elements and compounds released by the high pressure forcing of these fluids deep underground, is just too much of a gamble? What if people begin to think: we've got to get off hydrocarbons asap? Not worth the risk, not worth the environmental degradation and its potential effects on our loved ones health. Or on our ability to enjoy and renew ourselves in the natural world we ultimately depend upon for our existence.

These too are among the questions "Gasland" slips into a viewers mind. On screen, unintentionally, Fox proves himself one of the heros he brings into focus. His friendly, empathetic manner not only gains him amazing access, but wins viewers over. He is open minded, curious, funny, non judgmental when it comes to people (not necessarily corporations),

a bit disheveled, and very determined.

All of these characteristics are on display when you see him enter the modest home of Mike Markham and Marsha Medenhall in Weld County, Colorado. As Mike lights water directly from his tap on fire, Fox's first reaction is a completely unselfconscious: "Woah! Jesus Christ!". He joins Mike in a hard laugh at the absurd circumstance of a huge billow of flame erupting from the family kitchen faucet, then asks, as any adventurous kid might, "Can I do it?" When he does and is taken aback by the flames and the potential danger, he reels away from the tap physically moved. You see on his face a change from astonishment at his personal circumstance to true empathy, as he appears overcome by the emotion of the havoc that has entered the lives of his hosts. To the viewer it becomes clear, by the circumstance of having the camera turned on him, the heroic nature of the Director. It is hard not to think: those hippie parents sure did a good job with this one. Raised a real human being who feels sincerely for others, looks at societal issues critically and is able to act effectively to move things in a different direction, all with his sense of fun and passion for life intact.

If we are to move forward as a society in learning to treasure our home in the universe, we need real heroes like Josh Fox and John Fenton. And like Weston Wilson, long time EPA environmental engineer who boldly faces the camera and holds forth regarding citizen's experiencing well water contamination via migrating methane gas and plausibly, from "proprietary" chemical formulations used in hydraulic fracturing, "This is America. We shouldn't be assuming corporations can keep a secret. Especially when they are practicing in our backyard. The onus should be on the industry to prove that their practices are benign. Even if it weren't

true, they are citizens of the United States and they certainly don't deserve to be exposed to secret chemicals. It's un-American."

There is a myth going around the parts of Pennsylvania once know as the "Endless Mountains" and the "Pennsylvania Wilds". As residents find the rhythm and pace of the place where they chose to make their lives changing almost overnight, as semi-truck and pick up traffic become more like the overwhelming hassle they see in urban areas, as roads disintegrate before their eyes, as stories of incidents of pushy land men, water well contamination, illegal dumping and overweight trucks become common place, as Texas license plates proliferate like rodents, the myth gains circulation: The shale area of Texas once looked like the present day northern tier of Pennsylvania. Then gas development began to take hold. As it grew, eventually the streams and rivers dried up from water withdrawls and associated micro and macro climatic changes in annual precipitation, leaving only bone dry stream beds most of the year. As more and more trees were removed from the forests to make room for well pads, storage tanks and ponds, pipelines, pipeyards, roads, metering and compressor stations, and all the other infrastructure of gas field development, remaining drought stressed trees began to die in droves. When the big trees were mostly all gone, succeeded mainly by invasive weed plant species, people moved off the land into endlessly growing urban and suburban centers which soon sprawled together in a huge toxic blob. Rural land was left abandoned, unfit for human and animal habitation, deemed an unnecessary obstacle to drilling and pipeline efficiency. The mountains were flattened, hollows filled in and result: Texas.

Will the myth prove prophetic for places you care about that are "on the shale"? Not if enough

476

people join the fight. If you need motivation, check out Gasland.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment (1)

45 of 54 people found the following review helpful:

5.0 out of 5 stars If this is our bridge fuel we won't go far!, December 14, 2010

By S. Wilson "TXsharon" (Decatur, TX USA) - See all my reviews

(REAL NAME)

Amazon Verified Purchase(What's this?)

This review is from: Gasland (DVD)

Josh Fox's GASLAND is an entertaining, high energy piece of art that will make you laugh and leave you terrified. Fox traveled across the country and through the gas patches in his old Camry with nothing but his curiosity, ample passion and a camera. Watching GASLAND is an interactive experience; you will laugh, cry, shake your head in disbelief, curse and marvel at the triumph of the human spirit. If this film doesn't make you think about the future and motivate you to action, check your pulse.

I live on top of the Barnett Shale and for six years now I have blogged about the devastating effects of natural gas extraction. Everything in GASLAND, I have witnessed firsthand and captured in video and photographs on my blog.

Natural gas is not a clean energy, and if this is our bridge fuel, we aren't going far. It's another

477

dirty fossil fuel that creates massive amounts of toxic and radioactive waste for which industry

has no plan. They are spreading this waste on our farmland, dumping it in streams and ditches

and burying it in fields. The water use is simply not sustainable and our surface and groundwater

is being contaminated. The emissions make natural gas worse for the climate than coal--now

that's BAD!

We can decide now to go forward and build a sustainable world where our children will have a

future or continue to beat the hydrocarbon energy dead horse to the ruination of our vital natural

resources.

TXsharon - Bluedaze: DRILLING REFORM FOR TEXAS

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

13 of 23 people found the following review helpful:

5.0 out of 5 stars A challenge for action, December 2, 2010

By **Kevin** - See all my reviews

This review is from: Gasland (DVD)

This film is a must-see for all US citizens. We must become educated voters in order to prevent

an issue this huge from slipping through the cracks and loopholes of Washington. Without

action, we will leave our land, water, and air unfit for ourselves and future generations.

478

I would like to issue a challenge to you:

- 1. Buy this movie on Amazon or anywhere.
- 2. Watch it with your loved ones.
- 3. Email your senators and representative. (There is a form at [...].)
- 3. Give your copy to a friend with the request that he or she buys another, follows action, and distributes both.

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Report abuse | Permalink

Comment Comment

21 of 31 people found the following review helpful:

5.0 out of 5 stars **Fox news**, November 16, 2010

By J. L LaRegina "Jim LaRegina" (New Jersey) - See all my reviews

(REAL NAME)

This review is from: Gasland (DVD)

In 2001 Dick Cheney and the most powerful figures in the gas and oil industries hid behind closed doors to devise an energy policy that made hazards to health and the environment legal. Today filmmaker Josh Fox, out in the open with just a video recorder, responds with the documentary GASLAND, a trek across 24 United States where natural gas drilling makes tap water flammable - and makes an inordinately high percentage of locals sick.

I had never thought twice about natural gas - it's been an energy source since before I was born.

As GASLAND explains, what's upped the ante is the secret Cheney meeting's approval of the

479

secretive process of hydraulic fracturing - nicknamed fracking - a mix of dangerous chemicals and large amounts of public drinking water to extract gas from the ground that devastates the environment.

Will GASLAND prove the stone with which David-like Josh Fox fells the Goliath that is Big Energy? As I write this in November 2010, Pennsylvania has just elected natural gas industry-friendly Tom "Pennsylvania is open for business" Corbett. The Keystone State has one of world's largest gas deposits and, with none other than Josh Fox one of its leaders, a grassroots resistance mobilizes.

*** What Have We Done?, November 12, 2010

By jeaniebeanie "reviewer"

This review is from: Gasland (DVD)

When you watch Josh Fox's brilliant GASLAND, it's as if you're watching a nightmare scenario of what would happen if our lands were taken over by evil aliens, intent on sucking the earth dry, regardless of the consequences to the planet--and to us. This is no sci-fi thriller that could never happen in real life, however. Shockingly, it IS really happening and it's worse than you can imagine.

Very fortunately, for all of us, Josh Fox, brave soul that he is, ventured out into the heart of America and into the small towns of this country to actually speak to regular, law abiding, tax paying citizens who are now paying the ultimate price for "clean" gas drilling with permanent health effects, including brain damage, chronic respiratory conditions and many other serious

480

conditions, too numerous to mention. Their land is worthless, their water undrinkable. The now famous scene where the tap water actually bursts into flame is just the tip of the iceburg. The epidemic of hydrofracking now taking place in America is worse than any disease we've ever encountered. It destroys our water, our air, our animals, our vegetation (including farm crops), our livestock, our health and our lives. This is Three Mile Island, Love Canal and Chernobyltimes fifty.

GASLAND should be shown in every elementary, high school and college classroom. At least that way, when our children grow into adults, they will know why there is no such thing anymore as fresh water in America. And they will know who was responsible.

61 of 77 people found the following review helpful:

5.0 out of 5 stars **Important!**, November 5, 2010

By <u>OzarkTroutBum</u> - <u>See all my reviews</u>

This review is from: Gasland (DVD)

This is one of the most important films of the decade. It reveals the incredibly dirty and destructive side of "clean burning natural gas." From Josh Fox's living room in Pennsylvania begins a journey to Arkansas, Texas, Wyoming and beyond. No matter where the story carries him, the view is always the same with a repeated pattern of toxic chemicals, contaminated water, mysterious foul smells and above all, worry and frustration of the citizens forced to live in GasLand everyday.

The people featured in the film become your friends, you cannot help but like them. They share their stories and you will find yourself searching the internet to learn more of the injustice being delivered on them at the hands of corporations who consider them to be part of a sacrifice zone

481

and their elected leaders busy looking the other way as they accept millions of dollars in

campaign contributions.

Though a dark and gloomy subject you do get a taste of Josh Fox's wry sense of humor and

marvel at the ability of the people in the film to still manage a smile despite what is happening to

them and thousands more like them.

See this film. It will leave you with the sense that this is just plain wrong and you will have to

ask yourself, what can I do about it?

Help other customers find the most helpful reviews

Was this review helpful to you? Yes No

Comment Comment

Report abuse | Permalink

37 of 50 people found the following review helpful:

5.0 out of 5 stars Incredible documentary, truly eye-opening!, September 22, 2010

By S Potts - See all my reviews

(REAL NAME)

This review is from: Gasland (DVD)

This is an incredible documentary, recently watched it on HBO, a very thorough, well thought-

out concise documentary depicted the purposeful use of poisons in the gas industry which leads

to chemicals and gas in ground water and therefore tap water.

482

User Reviews on Internet Movie DataBase (IMDB.com) Website

Twenty-Two User Reviews From Internet Movie Database (IMDB)

Listed Chronologically

Downloaded from IMDB August 10, 2011 and updated December 2, 2011

http://www.imdb.com/title/tt1558250/

2 out of 6 people found the following review useful:

A somewhat forgettable rant film, 22 August 2011

Author: oscar-35 from Movieland

*** This review may contain spoilers ***

*Spoiler/plot- 2010, Rather mad upstate New Yorker that is an ecology fan goes out to make a

documentary against the large natural gas companies in the USA.

*Special Stars- Josh Fox, Director- Josh Fox

*Theme- Never trust big business ever when they are benefiting the citizens or country.

*Based on- Michael Moore style of filmmaking and green ecology with global warming myths.

*Trivia/location/goofs- Shot entirely on various state locations where the story action takes

place. Expose' documentary style.

*Emotion- A somewhat forgettable rant film of a well meaning but misguided documentary

filmmaker. His overuse of hysterics and commentary in this film showing his obvious bias

against commerce, fairness, and contracts makes this film easy to dismiss as 'crack-pot'. But

studying the subject of natural gas production in the USA, it's importance, and over regulation;

the audience can readily see that the filmmaker is woefully misinformed on his subject matter.

483

The producer also takes some overdone political attacks on the Bush administration to make this film a cliché'. Don't waste your time on this film it's a 'hachet job' by an unknown and uneducated person. It could have been better by miles.

scary and really shocking GASLAND., 8 July 2011

Author: khan2705 from Pakistan

As American energy firms look for new sources of petroleum, natural gas has become an increasingly important part of their portfolios, especially after the 2005 Energy Policy Act (created with the participation of Dick Cheney, a former executive with energy giants Halliburton) removed environmental protection restrictions against hydraulic fracturing drilling (known in the trade as "fracking"). Since then, gas drilling has been sharply on the rise, and when Josh Fox, a theatrical director and filmmaker, was offered \$100,000 for the gas rights to family property on the Delaware River Basis in Pennsylvania, he was curious about the possible effects of drilling. Fox set out to talk to other property owners about what he could expect, and their answers startled him -- fracking taints water sources near drilling sites, and many households have discovered their water is not only undrinkable after gas drilling, it's even flammable. It turns out this is just the tip of the iceberg of the environmental damage done by reckless gas drilling, and in his documentary Gasland, Fox travels to 34 states and talks to dozens of property owners and environmental experts on the under-reported menace of fracking and the truth about the dangers of natural gas. Gasland was an official selection at the 2010 Sundance Film Festival.

484

among the very few documentaries i have seen this is one of them, and it is a great one, a must

see. a very shocking movie that made me sad, disturbed with what is going on and really angry, i

got really scared with what they have shown, horrible conditions made my those gas companies

for the people living there, there water is contaminated by all those gases, obviously a hazardous

health scare, they show some scenes that were really scary like tape water or the natural pond

water catching fire. it won and got nominated for awards including an Oscar nomination. with

such a serious and stressful topic this documentary was interesting one to watch, well directed

and written and well shown all the issues.

Was the above review useful to you?

Exposed by the wrong man?, 7 July 2011

Author: valleyjohn from United Kingdom

Gasland is another shocking documentary that exposes corporate greed in America at the

expense of the health, lifestyle and well-being of the common hard working citizen.

These families are at severe risk because of energy firms who are drilling for gas on their land,

yet, as you would expect from these evil companies, they deny the harm they are doing. The

scenes are amazing. Because of the gas Fracking (a term for underground gas exploration) these

people have water coming out of their taps so contaminated they can set fire to it! The water is

all different colours, it smells of fuel and worst of all it makes people very sick.

485

While this film is shocking, it lacks the balls required to expose these people. The documentary

maker does not take on the bosses as hard as he should and he's voice is extremely dull.

I felt this movie wasn't finished and i would have liked to have seen a "Michael Moore" style

expose instead of the weak way Josh Fox went about things.

Gasland is informative and it makes you angry but as a film, it's a bit monotone.

3 out of 4 people found the following review useful:

The truth is often stranger than fiction, 30 March 2011

Author: Simonster from Berlin, Germany

Viewed at the Festival du Film, Cannes 2010

There are times when a documentary can be more dramatic and gripping than many a feature

film and Josh Fox's Gasland is one such documentary. Offered \$100,000 to let a natural gas

company do some exploratory drilling on his land, Fox sets out to investigate just what's

involved and opens an ecologically nightmarish Pandora's box.

Basically, the gas companies use a process called hydraulic fracturing ("fracking") to crack open

the underlying rock strata and release the natural gas. This involves pumping in a chemical

cocktail of great toxicity and where nature has a way. . .

Fox and his sometimes wobbly camera then travels around the country, meeting people whose lives and health have been irreparably damaged. He might play the effect one or two times more than is needed since we've got the point by then, but being able to set light to your drinking water is not a benefit! And the mud brown chemical concoction coming out of the tap is not something you would wish to drink anyway.

Unlike Michael Moore, whose preaching has become a turn off, Fox is laid back, non-dramatic, letting people tell their stories. The calm, matter of fact narrations add even greater drama to the story. These are ordinary people whose lives have been destroyed.

With the natural gas industry in full hue and cry after greater profits, the lawyers riding their coattails sorting out the settlements, compensation and gagging clauses, Fox is a lonely voice but his quiet resolution makes him even more worth listening to.

To those reviewers who really do seem to be paid flacks for the gas industry, I am not a socialist, do not hug trees, do not dislike capitalism, I am a guy who loves watching films and being moved by them. If you can watch Gasland and can come out still thinking life is wonderful and nobody has anything to be worried about here, then you need to look to your conscience, because we all should be very concerned indeed.

4 out of 4 people found the following review useful:

Keep voting Republican if you want to see more of these films, 11 March 2011

487

Author: A.N. from CA

Throughout this documentary I kept thinking about the endless whining Republicans engage in when they're asked to protect the environment, as if money is vastly more important than anything that's ever existed on the Earth.

These pollution scenarios can be laid at the feet of the Bushes, Cheneys, Limbaughs, Becks, Hannitys, Palins, Blankenships and other greediots who treat nature like a dumping ground, often citing "God's plan" as an excuse. How do people get so sick in the head that they think money is more important than life itself? These are the same parasites who keep claiming that global warming is a hoax, or the ozone hole was never a problem. Will we ever get that garbage out of the human gene pool?

The message in this film is a powerful one, and goes well beyond the specific issue of "fracking" to cover any enterprise that disturbs nature on a large scale. The sheer footprint of drilling operations on the physical landscape is another depressing angle, almost as bad as the water and air pollution. You can easily see these rigs and access roads in satellite photos. The rapidity of their deployment is changing the map daily. Thanks, Bush & Cheney for your "wise use" loopholes that may never be fully closed.

The human flood seems destined to grow until it consumes every possible acre that can satiate gluttony (temporarily). Wind turbines are no exception, even though they wear a "green" mantle. Future plans for endless construction will turn non-industrialized acreage into an old curiosity.

488

can see national parks being ringed by the sights and odors of drilling rigs, leaving no real place

That's "progress" by the standard growthist definition. Leave no "productive" land untouched. I

to escape to. It's already encroaching on the Tetons.

The only weakness of this documentary was the shaky, often poorly focused camera work,

though it worked to exaggerate the grim mood and some of it seemed intentional. Pro

cameraman or not, Mr. Fox had guts in making this piece and is to be highly commended.

Still, I was left with the sick feeling that legislation will never fully decontaminate these

activities because so many people are basically evil.

Was the above review useful to you?

2 out of 3 people found the following review useful:

Rebuttals and rebuttals to the rebuttals, It kind of just comes down to who seems like a

more trustworthy source of information., 17 February 2011

Author: **Hellmant** from United States

'GASLAND': Three and a Half Stars (Out of Five)

One of the five films nominated for best documentary at the upcoming Academy Awards, this

film focuses on homes effected by natural gas drilling around the United States. After director

Josh Fox received a letter from a major energy company offering a large amount of money

(\$100,000) to lease his land, in order to drill for gas on it, Fox decided to investigate the matter and began filming a documentary about it. He serves as director, writer, narrator and cinematographer on the film. It's only his second movie (following another documentary from 2008 titled 'MEMORIAL DAY') and it's garnered outstanding critical appraise and awards kudos.

The film focuses on a hydraulic drilling method recently developed to dig up gas from the ground called "fracking". The film primarily focuses on how this process effects the water around it and people, land and animals exposed to it. Fox travels around the country to places like Pennsylvania, New York, Ohio, West Virginia, Colorado, Wyoming, Utah and Texas. He meets people at their homes and interviews them on how their lives have been effected by the drilling. Many have health problems, their animals are sick and in one of the most notorious scenes from the movie a man is able to light his water on fire directly from the faucet using a cigarette lighter.

The film is shocking and disturbing but it also contains some beautiful cinematography of nature at it's best in contrast. I've read several rebuttals to claims the film makes but I've also read rebuttals to those rebuttals and it kind of just comes down to who seems like a more trustworthy source of information: big business looking only out for their own best interests or common home owners and other citizens looking out for the environment and people's safety. The film is for the most part very informative and interesting. It gets a little slow paced at times and the way the information is delivered isn't usually in the most entertaining or engaging way possible but it is educational none the less. Fox is an admirable filmmaker and has some charisma but he's got a

490

lot to learn about making an entertaining and engrossing film. Even so the movie gets it's

message across and it's an important one.

Watch our review show 'MOVIE TALK' at: http://www.youtube.com/watch?v=-m3RUjISnYI

Was the above review useful to you?

9 out of 11 people found the following review useful:

You'll need a strong constitution..., 30 January 2011

Author: Gaston Bacquet from Chile

This documentary shows how corporate greed, without any concern for anything other than

making a profit, is destroying one of the most beautiful landscapes in the world: the United

States.

As another reviewer said, it's not about gas as in gasoline, but about how oil and gas companies

are polluting the environment through a process called hydraulic fracturing, used in the

extraction of natural gas.

The film is filled with unmistakable and undeniable evidence that this process is in fact forever

altering not only the landscape in several states, but also their wild life as well as the health of

regular individuals permanently. The images and testimonies shown will blow you away and

you'll come out with a very different awareness level on what it means to be "environmentally

491

conscious".

I found it really gut-wrenching and I guarantee you you won't be able to get through to the end of

it without wanting to go and do something about it.

We've seen in a number of different films how powerful industries will do anything to protect

their interests and keep people quiet about their lies and methods for keeping the general public

deceived about what they really do. What's really striking here is that is happening for real, in

congress, and not in a movie.

The other aspect I found really positive is that the filmmaker tried hard to remain as objective as

possible, which is more than I can say about any Michael Moore documentary. Everyone is given

a chance to tell their part of the story and the audience is left to decide what to make of

everything being said and shown.

I highly recommend it. You'll need a strong constitution to get through it; it's not for the faint of

heart. But it'll be a very rewarding experience and hopefully one that will make you cringe every

time you see a gas drill across your front yard.

Was the above review useful to you?

4 out of 6 people found the following review useful:

H2 Oh My, 29 January 2011

Author: David Ferguson (fergusontx@gmail.com) from Dallas, Texas

Greetings again from the darkness. This is Josh Fox's Oscar nominated documentary on the effects of natural gas drilling known as fracking. The film deserves your attention because it is a frightening look at how huge companies and the government can work in conjunction on projects that clearly put citizens at risk. I realize that last sentence sounds like Chicken Little yelling "conspiracy", but the details of the film will give you pause.

Can you light your tap water on fire? If so, chances are good that you are within range of natural gas drilling. Our government somehow agreed to allow this practice to remain exempt from the clean air and clean water laws. If brown water comes out of your faucet, then you already know what I am talking about.

Mr. Fox is from Pennsylvannia and that's where the story begins. He is concerned about his neighbors, the environment and our drinking supply. Clearly an enormous amount of chemicals are used in this drilling process. Clearly these chemicals seep into the wetlands and water supply of neighboring areas. Clearly too many people are looking the other way. The only thing not clear? The water near these drilling sites.

No mystery why this is allowed. The almighty dollar. It is cheaper for these companies to "pay off" the backwoods citizens than it is to not drill. Not sure how you decide the payoff when your kids are being poisoned and the damage to the water sources continues.

The film itself is a bit amateurish and sometimes the camera work is downright awful. But the

493

point here is not to make a beautiful film. It is to educate . . . to awaken people on just what is at

stake with these dangerous procedures and lack of regulation and safety requirements.

The most painful piece was when the EPA executive was interviewed and he said that his agency

must be directed by the government to check into allegations made by citizens. They have no

authority to move on their own. If this is true, it's just one more instance of a bass-ackwards

policy that needs to be reviewed. I encourage everyone to see this. If they aren't drilling in your

area currently, it won't be long now.

Was the above review useful to you?

2 out of 2 people found the following review useful:

Dense, and a tad bit repetitious, but a good directorial debut into documentaries never the

less., 28 January 2011

Author: MYeah_Gorlomi

Recently I saw GasLand, a documentary directed by Pennsylvanian born Josh Fox, who also

stars in and narrates the film, as it follows his cross country trek through neighborhoods and

small towns of America, which, after greedy gas and oil companies have drilled near their land,

have had their water tanks and wells mixed in with natural gas that poisons them (Some can even

light their kitchen sinks on fire), and those who have been prolonged to the contaminated water

for extended periods of time have suffered devastating bodily harm.

I liked this movie, but it still has faults. One of the slight issues I had with the film is that it got

494

pretty repetitious at points, and the film is also very dense in exploration. Not exactly a huge

problem, but anyone who isn't giving the film their strict concentration from the word "Go" may

find it hard to keep up. On an aesthetic level, it also looks amateurish. Still, it's an admirable

piece of education, and a great first step into documentaries for Fox.

What he lacks in professional documentation, he makes up for with his footage, and his

priorities. He gets his facts straight and neatened, and occasionally provides a tickling joke or

two. And the film's final ten minutes is an inventively shot and edited sequence, and one of the

sole standouts as well. The film's audio is also fine tuned, specifically coming equipped with a

toe tapping banjo and fiddle score.

And while amateurish, I have to commend Fox for sticking to his guts. Not everyone can make a

great first documentary, but he provides something thought provoking, and a film that's

completely sure of itself, both in tone and in presentation.

It's no Exit Through the Gift Shop, but I'm gonna give GasLand *** out of ****

Was the above review useful to you?

2 out of 2 people found the following review useful:

Open your minds, 5 January 2011

Author: bboulad from France

495

I don't live in the USA. But if I was, I would always feel frustrated and humiliated by this pro-

business mentality that kills all civic awareness and fight against a so unfair system. And,

especially, when I see the box office the film made in the US, it really depresses me. I'm in full

admiration with the filmmaker of Gasland because I think you really need to be motivated to

keep on going with that kind of project in a country where the information is completely locked.

And, needless to say, his cinematographic approach is really interesting: the editing is sharp, the

camera inventive and the voice over is smart, poetic, at the right level of irony and satire. Thank

you Mr Fox for your courage and tenacity. And you, Americans, please open your minds and be

in harmony with your principles and beliefs. I hope this film gets to be better known everywhere

around the globe.

Was the above review useful to you?

10 out of 11 people found the following review useful:

Brilliant Documentary a must see, 29 December 2010

Author: mranderson-851-280981 from South Africa

All reviews on this movie comes in at 8-10 except for the previous 2 which must be from a

congressman & a gas company exec. Visit http://www.energyindepth.org/2010/06/debunking-

gasland if you would like to waste your time on supposed studies to debunk common sense or

otherwise do what the documentary suggests in the first place, "Research" make up your own

mind. Thousands of gas wells all around the country, Each created by fracturing the ground(in

every sense of the word)thereby releasing the gas into absolutely everything? sounds good to me

were can i sign up. People with education & common sense(which seems to have been killed off

496

by greedy politicians or bankers whatever you choose to call them)need to stand together & act.

A thousand voices won't help even 10 000 is not enough, but it is a start & when people start

coming together in their hundreds & thousands thats when change will come but only then.

8 out of 10 people found the following review useful:

GasLand: 8/10, 27 December 2010

Author: jnguyen46117 from USA

Provided with much details on the fracking of the oil industry and much opinions on the subject,

GasLand succeeded of trying to inform the audience yet entertain them at the same time.

Although laws have been passed to get rid of this issue, hydraulic drilling is still a concern for

people in the certain states. This documentary sets in Pennsylvania, a state in which a lot of

people are drinking dirty water because of this crisis. Josh Fox directs and narrates the film with

a devastating voice and real emotions. The audience were shocked by the reality and entertained

by the burning water. GasLand is the better documentaries of the year.

OscarBuzz: Best Documentary (good chance of making it to the top 5)

Was the above review useful to you?

16 out of 22 people found the following review useful:

Startling, shocking and terrifying., 21 November 2010

497

Author: ihrtfilms from Australia

This is perhaps one of the most shocking and disturbing films I've seen and the fact that it's all

real is even more terrifying. The film follows Josh Fox who has been offered a vast amount of

money by those who wish to drill on his land for natural gas. Concerned about the after effect he

goes in search of some details.

What he finds is so utterly disturbing and sad and that being huge amounts of people whose

health and welfare have been effected by natural gas drilling in their back yard. The industry is

enormous and the amount of gas sites are in the hundreds of thousands some are even on 'public

land'. People across much of the central USA have them in their back yards, tanks, drills,

containers and various other pieces of industry, small to some comparison but still a blot on the

landscape. But aesthetics are far from the worse of concerns.

The drilling for gas creates water contamination with a huge cocktail of chemicals seeping into

drinking wells, streams and lakes. What was for years safe, whole areas are so full of chemical

concoctions that in some instances if you hold a lit flame to a water source it erupts into flames.

People have become sick due to the high quantities of dangerous and hazardous chemicals, pets

and farm animals lose their hair and yet the companies involved do tests and say the water is safe

to drink.

Watching these people is distressing, living on the land, with generations of history they are now

powerless to do anything as the companies refuse to acknowledge the issue. They would also

unlikely to sell up as no-one would buy a property with a great big well in the back yard, let alone if they knew the issues that come with it. That the US government, thanks to Dick Cheney, signed a law that made the companies exempt from the Clean Water Bill among others is shocking, had it been otherwise, this may not be happening.

There is some powerful stuff in this: the list of trucks it takes to actually make a natural gas well or the list of long complex chemical compounds used and found. There is the third generations farmer who is at a loss of what to do seeing the land around him change in the worse way possible. It is relentless, with person after person speaking about the effects, illness's, chemical clouds, explosions in the middles of the night and more that they now suffer. Independent tests show that water samples are so full of chemicals or that air samples are so dangerously over the recommended levels it's hard to imagine the ongoing consequences.

The film does at last show a glimmer of hope that being a small selection of activists and politicians making a stand and trying to stop what has happened in many parts of the US happening in those untouched. Near the end we see a congressional hearing in which some of the big companies spokespeople are brought down in a few simple questions, their denial that there is a risk, blatant lies which are not received well.

There is mention that despite the US setting there is relevance to Australia, indeed world wide. You can only hope that more people will see this film. My only gripe is the camera work, which at times is so bad, it's like a 5yr old was operating the camera. Otherwise this is powerful, shocking and moving stuff.

499

More of my review at my site iheartfilms.weebly.com

Was the above review useful to you?

8 out of 14 people found the following review useful:

shattering.. and that's not just The Earth, 28 October 2010

Author: ptb-8 from Australia

This intellectually, emotionally engaging - and draining documentary is as valid an valuable as A CRUDE AWAKENING, which in itself is as (all the above) solid as AN INCONVENIENT TRUTH. . . and perhaps literally Earth shattering. . . . Dense with startling truths from ordinary folk and their sad discoveries of the bad hot water in which they now seem to reside, the finger of guilt is again firmly pointed at the Darth Vader of the Bush Administration: DICK CHEYNEY and his Halliburton Evil Empire. GASLAND is an environmental document of disgust and horror and it needs a strong constitution to get thru it. . . as probably as strong as those living it. Well worth seeing and discussing in the light of the tar pit America and her politics and business pillage find itself all in, GASLAND is a keen film for High School and University students to challenge the business of reality. It is also a well edited reaction to the mindset that asks why America cannot be self sufficient and finds the country plundering every square inch of wilderness in a fossil fuel finding frenzy. . . one that might allow it to kiss the Middle East oil habit goodbye. . . but an answer that sees the country burn it's future to cheaply buy the gas to get the SUV to MacDonalds. GASLAND is a good documentary. Startling and

500

full of ordinary facts that allow credibility to simply present itself and make you so glad you do

not live there. I live in Australia. Thank God.

Was the above review useful to you?

7 out of 66 people found the following review useful:

If you've seen one socialist propaganda film, then you've seen them all., 18 October 2010

*Addalalalalalala

Author: nolijnyk from United States

*** This review may contain spoilers ***

This is just another irrational socialist distortion about how evil is produced in a free nation. It's a

shame that these people have hijacked the noble cause of environmental protection as a means to

spread repression. There are indeed appropriate questions about corporate responsibility raised in

this film but those questions and any descent attempt to approach them are forgone by the

apparent anti-capitalistic propaganda.Dr. Michael Economides, an oil and gas industry analyst,

commented on the Gasland scene of "a man lighting his faucet water on fire and making the

ridiculous claim that natural gas drilling is responsible for the incident. The clip, though

attention-getting, is wildly inaccurate and irresponsible."

Was the above review useful to you?

24 out of 27 people found the following review useful:

Gasland, 17 July 2010

501

Author: 1mas-794-259197 from United States

This movie was very informative. I live above the Marcellus Shale in NYS and drilling hasn't

started yet but there's a lot of support for it, primarily because our rural areas are financially

strapped and lots of cash is being promised by the drilling companies. I think this movie should

be required viewing before anyone signs a gas lease. If our groundwater and the environment

becomes contaminated, it has the potential to not only harm those living in the region but the

entire watershed, which involves millions of people in NYC, Philadelphia, NJ and DC. New

York and Pennsylvania better get it right or there will be massive amounts of people facing

potentially life threatening illnesses.

I liked the way Mr. Fox laid out the film. He used interviews, visits to drilling sites and he didn't

grandstand to get the viewer's attention. I get the impression that this is his first film and he's to

be commended for such a comprehensive and informative documentary. He's performed a great

service to the region; I just hope it's viewed by many. Those who see it need to become proactive

and write their elected representatives to assure that safeguards are required and that they are

enforced - or the drilling should not be done.

Thank you Mr. Fox.

Was the above review useful to you?

45 out of 49 people found the following review useful:

502

See This Documentary!! See Some Truth!!, 10 July 2010

Author: <u>njmollo</u> from London

This documentary details the insidious Natural Gas Corporation's treatment of the Planet and

everyday people in America.

Gasland is a very shocking and important film. I suppose that is why it already has its detractors

trying to smear the documentary. Debunking sites, debunking threads and 1 star reviews on

IMDb have begun before a wider audience can get a chance to see this film.

The plain and simple truth is that Natural Gas Corporations are helping to destroy the Planet.

Those in control of these Global Corporations are so morally corrupted by greed that some

Governmental regulation is needed to control these rabid pillagers of the Planet.

Unfortunately our Governments have simply fallen into bed with the Global Corporations.

How it is possible to change the current mindset of greed, privatisation and consumerism into

one more caring towards humans, wild animals and the Planet is a challenge but it must happen

soon.

See this Documentary!

Was the above review useful to you?

503

9 out of 31 people found the following review useful:

Good material, distracting editing, 26 June 2010

Author: jmknapp-1 from United States

Important documentary and grassroots research. It is certainly an issue I've never heard about

before, and this expose is very timely, given pending legislation. I'll never look at the natural gas

facilities in my own area the same way--or buy the claims of many people who echo dubious gas

industry claims that natural gas has a smaller ecological footprint than alternatives.

However, the shaky cam and frenetic editing were annoying and distracting. After a while you

almost feel like there a gas leak in your living room.

It's worth seeing--but take some dramamine.

Was the above review useful to you?

22 out of 29 people found the following review useful:

I'm not an expert, but this was a good film, 21 June 2010

Author: artemis-23 from United States

I learned a lot watching this movie. I guess I thought gas just came out of the ground without

504

much effort -- kind of like farts! But no. Lots of chemicals involved, lots of semi trucks and a

true raping of the land with horrific byproducts for the nearby residents to breathe, drink and live

(and die) with. Makes me want to get off natural gas altogether. Or at least drastically limit my

use.

This was a informative, well done documentary. Not nearly as much overt sarcasm as Michael

Moore, lots of information (on the screen, in print people!) and a bit of irony and humor to

sweeten the swallowing of such disturbing information. This was an important piece of film.

Everyone in America who uses natural gas to heat their home, hot water heater, range or grill

should see this.

Was the above review useful to you?

54 out of 67 people found the following review useful:

Blind Greed and Fear are against this Enlightening Film!, 21 June 2010

Author: Reasonable Man

This film is a much needed warning about the unsafe conditions around hydraulic fracturing.

Anyone who doesn't see that clearly is obviously making money on hydraulic fracturing! Can we

learn nothing from the current poisoning of the ocean due to unsafe practices in oil drilling?

These companies only concern is profit- at all cost. As this film demonstrates and the current

events show-poisoning the world around them is an acceptable risk for maximum profit. If not,

why would they continue to campaign for the hydraulic fracturing (or Fracking) of the Marcellus

Shale? (and the rest of the United States. . .)

Fracking is especially dangerous for New York City because the city gets its water from the Adirondacks. Currently, fracking is not allowed in the NYC watershed part of the Marcellus Shale which stretches from upstate NY to Tennessee. In addition to the problems with toxic chemicals injected into the ground with fracking, the Marcellus Shale is radioactive so that waste from fracking contains low levels of radioactivity.

I would love to see those reviewers trying to debunk this film drink the water coming from the faucets of so many homes shown in the film. Water that is flammable straight from the sink! Authorities defending fracking as harmless refuse to drink the water offered them in the film and so would those narrow minded negative reviewers. (Or should I say profiteering propagandists. . . . what's your day rate for writing these reviews?)

Wind and sunlight is free and can be harnessed to produce the energy we need to keep the world moving without poisoning our water and air. Let's suck it up and make a change! It will take money and time and mean less profit for some but there is a bigger picture to consider.

Call Albany and ask them to not poison New York's drinking water by supporting the Englebright/Adabo bill. The number is 518-455-2800.

Give the operator your zip code and she'll transfer you to your senator's office

506

Tell them you'd like him or her to advocate for the Englebright/Adabo bill. The deadline is June

25th or close to it!

Politicians constantly use the word terrorism as a license to do whatever they want. I believe

those politicians who support this behavior are actually accomplices to some of the most

outrageous terrorist activity against the American people! If the Taliban were poisoning our

water would we not do something about it? But when a corporation poisons the water

government heads look the other way? for the almighty dollar? WAKE UP! STAND UP! DO

SOMETHING!

Was the above review useful to you?

16 out of 115 people found the following review useful:

A Documentary without the Facts, 21 June 2010

★Antalatalatalatala

Author: nbulling from United States

*** This review may contain spoilers ***

GasLand is probably exactly what you expect, another "expose" on the oil and gas industry from

another avant-garde filmmaker. The problem with this documentary didn't arise until it found a

wider audience on HBO: its full of half-truths and inaccuracies that do the honest, worthwhile oil

and gas debates an injustice.

From misstating that an oil and gas industry exemption is in the Safe Drinking Water Act, to

507

arguing that a frac uses 596 chemicals, and that chemical make-up is hidden from the public,

when every states oil and gas regulatory board has the exact chemical makeup, Josh Fox makes

false assertions throughout this "documentary".

He also falsely argues that the gas fields in the Pinedale region have somehow had an adverse

affect on the pronghorn antelope of the region. He references Weston Wilson, an EPA

whistleblower, who openly admits that he sits around and does nothing at his job. For more

information on the inaccuracies in Gasland, please visit

http://www.energyindepth.org/2010/06/debunking-gasland/. If documentaries are going to be

made, they should at least be truthful.

58 out of 65 people found the following review useful:

"GasLand", 17 April 2010

Author: Colin George from United States

Allow me to alleviate your initial trepidation. "GasLand" is not another documentary about the

oil industry. You're on the right track, but first-time feature director Josh Fox has his sights set

not on the gas you pump into your car, but the so called "natural gas" extracted from beneath

your feet through the process of hydraulic fracturing known colloquially as "fracking."

Issue films, like "Food, Inc." or "An Inconvenient Truth" are notoriously dry, and Fox takes a

welcome page from the Michael Moore book of documentary film-making, without the hard

leftist political grandstanding. Rather, he adopts the format of painting himself a protagonist of

sorts, though more justifiably than Moore. "GasLand" begins with an intimate history of the Fox

family and their home, which lies just off of an artery to the Delaware River.

Positioned above the Marcellus Shale, a subterranean formation that stretches from New York through Pennsylvania to Virginia, and as far west as Ohio, the Fox home receives a lease offer for their land, a constituent slice of what energy companies have dubbed the "Saudi Arabia of natural gas," and so Fox embarks for some first hand reconnaissance on the communities already tapped by hydraulic fracturing, and his findings are nothing short of alarming.

The chemicals used in the fracking process seep into the soil and water supply, leaving many families with bizarre aberrations like flammable tap water. Uh oh. And as Fox makes his way across the country, into dozens of areas crippled by decade-past drilling efforts, he collects bottles of yellow-brown water like postcards in some macabre travel diary.

If there is a problem with "GasLand," it's that as a story, it becomes a little redundant as we watch family after family set fire to their sinks, but perhaps all the more resonant for it. From a film-making standpoint, the effect is marginalized, but in making something so shocking feel almost normal, Fox underscores the breadth of the issue. This is happening everywhere, and with such clear evidence of the immediate health hazards, the question is, why?

Fox's intimate approach and genuine stake in the issue is "GasLand's" greatest asset. He never has to rely on talking heads or PowerPoint presentations, and even at nearly two hours, the film is positively gripping. His story comes full circle as he returns home, faced with the "speculative" fracking of the Delaware watershed, which provides water to rural towns, suburbs,

and cities. The implication is truly disquieting, and Fox can only ask that the public make themselves aware of the issue and take a stand before it's too late.

His film is an excellent place to start, and manages to entertain while outlining the severity of the problem, and to do so without an over-reliance on the pitfalls of so many of its contemporaries.

"GasLand" is just about everything you could hope for from a documentary of its type, and its

Sundance special jury prize is testament to its impact.

The film has yet to see general release, but a distribution deal is reportedly immanent. Interested parties can join the mailing list and watch a potent 15 clip at www.gaslandthemovie.com.

Ignore that initial trepidation. "GasLand" isn't another documentary about the oil industry, but it's just as important, if not more so.