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Robert J. Duffy

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Political Mobilization, Venue Change, and the Coal Bed Methane Conflict in Montana and Wyoming

ABSTRACT

The emerging conflict over coal bed methane (CBM) exploration and development in the mountain west offers a classic example of what Baumgartner and Jones call a "wave of criticism." The cozy subgovernments that have dominated energy exploration and development in the mountain states are now under attack and are struggling to maintain their autonomy. Energy exploration, which was once perceived to have only positive consequences, is now the focus of an intense debate that has managed to unite previously warring factions. This article utilizes a comparative assessment of CBM politics in Montana and Wyoming to explain the connection between changing popular and elite perceptions of the issue, institutional change, and policy change.

For many years, energy politics within the western states have resembled a classic subgovernment, marked by a small, stable set of actors who share an interest in facilitating energy exploration and development. State laws, many of which date back one hundred years or so, encourage energy exploration, while legislative committees and agencies, which have typically operated in relative obscurity, have promoted the industry through a combination of subsidies, weak regulation, and lax enforcement. Typically, their procedures have also granted privileged access to industry interests while opportunities for public participation have been limited.

In recent years, though, a controversy has erupted over coal bed methane (CBM) development in the intermountain West. As the CBM conflict has emerged, the energy policy monopolies have come under attack by an unusual alliance of ranchers, property rights advocates, water users, outfitters, sportsmen, environmentalists, renewable energy activists, and others. In part, this alliance is the result of fundamental changes in regions of the interior West, many of which have recently experienced tremendous population growth. The influx has led to a

^{*} Robert J. Duffy, Associate Professor of Political Science at Colorado State University, is author of The Green Agenda in American Politics: New Strategies for the Twenty-First Century, and Nuclear Politics in America: A History and Theory of Government Regulation.

boom in the real estate market as record numbers seek "trophy homes" in remote areas. As a result, real estate development is now a major part of the economy in some areas. Additionally, more people now live in oil and gas country, and many of the newcomers have interests in recreation and quality of life issues that increasingly conflict with the needs of the oil and gas industry. At the same time, long-time residents, especially ranchers, are losing patience with shabby treatment by well operators who ignore concerns about their land, and these residents have reluctantly entered the political fray.

How can we explain the changing politics of CBM on private and state lands in the western states? I argue that the punctuated equilibrium approach provides a useful means of describing a political controversy in a state of flux whose coalitions compete for comparative advantage in framing political issues.2 This unlikely alliance has followed a classic strategy of expanding the scope of the conflict. CBM critics have used a variety of tactics in their efforts to call attention to and redefine perceptions of coal bed methane. This strategy is designed to attract the attention of the public and other policy makers, in the hope that they will demand inclusion in the debate. Among other things, they have proposed changes in state laws governing energy exploration and development; they have sought to reform the state agencies responsible for CBM permitting, as well as their decisionmaking procedures; they have tried to enlist the support of local and county governments to regulate aspects of CBM activity; and they have litigated. In short, critics have tried to change policymaking venues as a means of changing CBM policy. My objective in this research is to analyze the politics of CBM in two western states, Montana and Wyoming, following a brief description of the punctuated equilibrium approach and of CBM as a policy problem.

THE PUNCTUATED EQUILIBRIUM APPROACH

There are, claim Baumgartner and Jones,³ two distinct types of political mobilization. Drawing on the work of Anthony Downs and E.E.

^{1.} Blaine Harden & Douglas Jehl, Ranchers Bristle as Gas Wells Loom on the Range, N.Y. TIMES, Dec. 29, 2002, at A1.

^{2.} See generally Frank R. Baumgartner & Bryan D. Jones, Agendas and Instability in American Politics (1993).

^{3.} Political scientists Frank Baumgartner and Bryan Jones' influential *Agendas and Instability in American Politics* has fundamentally altered the discipline's approach to policy change. *See generally id.*

Schattschneider,⁴ they demonstrate that new actors may be mobilized during either a wave of enthusiasm or a wave of criticism. Each type of mobilization leads to different policy outcomes, because each leaves a distinct institutional legacy. More specifically, waves of enthusiasm lead to the buildup of policy monopolies, while waves of criticism lead to their demise.⁵ Which type exists at any given time explains whether a policy community is stable or not.

Mobilizations that occur amid waves of enthusiasm are marked by overwhelmingly positive understandings of policy issues and by the creation of institutions designed to enhance and support subsystem hegemony. Positive images or perceptions are important in most such mobilizations because they encourage the delegation of power to experts and subsystem insiders. Typically, only program supporters are organized, and there is little or no organized opposition.⁶ Subsystem proponents try to insulate themselves from the rest of the political system by designing new laws, new institutions, and new procedures that structure participation and ensure privileged access to program supporters.⁷ Even after the initial enthusiasm fades, policy outcomes may remain stable for long periods because the institutions remain, protecting policies from outside challenges. But as Baumgartner and Iones note, this stability is quite fragile because it depends on two things: the existing structure of political institutions and the definition of the issues processed by those institutions. A change in either one can destabilize the other and lead to dramatic policy change.8

Waves of criticism, on the other hand, are marked by increasingly negative policy understandings and by the efforts of opponents of the status quo to expand the conflict. Critics attempt to redefine the issue by highlighting bad news about the program. During waves of criticism, more groups mobilize for political action, and other institutions become involved, destroying the policy consensus that had sustained the subsystem. Intense criticism, note Baumgartner and Jones, gives new policy makers an incentive to claim jurisdiction over the issue. Furthermore, criticism is directed not just at the substance of policies, but at the institutions and procedures that make them possible. In fact,

^{4.} Perhaps the two classic studies of political mobilization are Anthony Downs, *Up and Down with Ecology: "The Issue Attention Cycle,"* PUB. INT., Summer 1972, at 38, and E.E. SCHATTSCHNEIDER, THE SEMISOVEREIGN PEOPLE: A REALIST'S VIEW OF DEMOCRACY IN AMERICA (1960).

^{5.} BAUMGARTNER & JONES, supra note 2, at 84.

^{6.} See id. at 192.

^{7.} See id. at 178.

^{8.} See id. ch. 5.

^{9.} See id. at 89.

institutional turbulence is characteristic of this type of mobilization and can lead to subsystem destruction and dramatic policy change. Description are stated as a subsystem destruction and dramatic policy change. According to Baumgartner and Jones, periodic institutional changes "can explain why policies may be relatively stable during long periods while the institutions are stable, but then change dramatically during those periods when institutional revisions occur." 11

Describing similar phenomena, Schattschneider suggested that "the outcome of all conflict is determined by the scope of its contagion. The number of people involved in any conflict determines what happens; every change in the number of participants...affects the result." In addition, the scope of conflict over an issue influences the type of political activity characteristic of that policy area; as a result, the politics of controversial issues will differ from those with a narrow scope. Furthermore, changes in the scope of a conflict are presumed to lead to different policy outcomes, because every change in scope has a bias. According to Schattschneider, three factors influence the scope of issue conflict: the degree of competition over the issue, the visibility of the issue to the public, and the role of government. A conflict with a broader scope is characterized by active competition among an increased number of interested parties, greater issue visibility, and greater participation by governmental actors.

THE WHAT, WHERE, WHEN, AND WHY OF COAL BED METHANE

Coal bed methane is natural gas trapped by ground water within cracks in underground coal formations. To tap the gas, wells are sunk to pump out the ground water, which decreases the pressure and allows the gas to escape up the well. Typically, each CBM well yields very large quantities of water, which can either be reinjected into the ground or simply discharged onto the surface. Natural gas supplies about one-fourth of the nation's current energy needs, and that total is expected to climb steadily for the next few decades. Coal bed methane, more than half of which is produced in the Rocky Mountain states, now provides between five and seven percent of the nation's natural gas consumption, and it has been estimated that this figure could double as new fields are discovered. In fact, the Energy Information Administration reports that

^{10.} See id. at 202.

^{11.} Id. at 89.

^{12.} SCHATTSCHNEIDER, supra note 4, at 2.

^{13.} Id. at 16.

^{14.} Thomas F. Darin & Amy W. Beatie, Debunking the Natural Gas "Clean Energy" Myth: Coalbed Methane in Wyoming's Powder River Basin, 31 ENVIL. L. REP. 10,569 (2001); see also Judy Pasternak, Coal-Bed Methane Puts Basic Needs of Water, Energy at Odds, L.A. TIMES, Mar.

coal bed methane accounts for 16 percent of all technically recoverable gas resources in the Rockies. 15

In addition to its relative abundance, coal bed methane is attractive from an economic perspective. Coal bed seams are often much closer to the surface than conventional natural gas fields, so methane wells are much cheaper to drill and operate. In fact, the typical CBM well is approximately six times cheaper to drill. Overall, according to industry analysts the cost of finding and developing coal bed methane averages about one-third the cost of traditional deep-well natural gas. Although energy prices are notoriously volatile, "[c]oalbed methane companies, one analyst declares, are 'just beautiful economically.'"17

For the aforementioned reasons, CBM development has increased dramatically in recent years, from several dozen wells in the early 1980s to more than 14,000 by the turn of the century. During the 1990s alone, CBM production increased from 91 billion cubic feet (Bcf) to nearly 1.3 trillion cubic feet (Tcf). ¹⁸ In 1996 there were only 193 producing CBM wells in the Powder River Basin in Montana and Wyoming; current projections call for as many as 70,000 wells within the next decade. ¹⁹ As might be expected, this swift and massive ramp-up of CBM development has sparked intense conflicts in mountain states in general and especially in the affected communities.

^{27, 2001,} at A1; MONT. DEP'T OF ENVIL. QUALITY, COAL BED METHANE PRODUCTION IN MONTANA (2001), available at http://www.deq.state.mt.us/CoalBedMethane/doc/Issue paper1-01.htm (last visited May 16, 2005).

^{15.} ENERGY INFO. ADMIN., Executive Summary, in U.S. NATURAL GAS MARKETS: MIDTERM PROSPECTS OF NATURAL GAS SUPPLY (2001), available at http://www.eia.doe.gov/oiaf/servicerpt/natgas/ (last visited June 11, 2005). "Technically recoverable" is not the same as "economically recoverable"; indeed, many critics argue that much of the coal bed methane identified by the environmental impact assessment would be too expensive to bring to market. Pete Morton, Chris Weller & Janice Thomson, Wilderness Society, Energy and Western Wildlands: A GIS Analysis of Economically Recoverable Oil and Gas 1 (2002), available at http://www.wilderness.org/Library/Documents/upload/Western-Wildlands-GIS-Analysis-Introduction.pdf (last visited Sept. 7, 2005).

^{16.} Harden & Jehl, supra note 1; Dan Piller, Coal Bed Methane Emerges as Natural Gas Source, FORT WORTH STAR-TELEGRAM, June 30, 2003, at 1, available at http://www.gasandoil.com/goc/company/cnn33266.htm (last visited May 16, 2005).

^{17.} Hal Clifford, Wyoming's Powder Keg: Coalbed Methane Splinters the Powder River Basin, HIGH COUNTRY NEWS, Nov. 5, 2001, available at http://www.hcn.org/servlets/hcn. Article?article id=10823.

^{18.} GARY C. BRYNER, UNIV. OF COLO. SCH. OF LAW, COALBED METHANE DEVELOPMENT IN THE INTERMOUNTAIN WEST: A PRIMER 6 (2002) (citing Vito Nuccio, Geological Overview of Coalbed Methane, in U.S. DEP'T OF THE INTERIOR, U.S. GEOLOGICAL SURVEY OPEN FILE REPORT 01-235, COALBED METHANE FIELD CONFERENCE (2001)), available at http://www.colorado.edu/Law/centers/nrlc/publications/CBM_Primer.pdf (last visited June 13, 2005).

^{19.} BRYNER, supra note 18, at 9.

Much of the current political controversy also stems from the "split estate," a situation in which the ownership of surface and mineral rights to a tract of land is often held by different parties. In the West, it is not uncommon for landowners to have surface rights while the mineral rights are owned by the federal or state governments or are leased or sold to private industry. To the frustration of a growing number of landowners, under the law, mineral rights generally take precedence over surface rights. As a result, oil and gas companies can conduct exploration activities, drill wells, build roads and pipelines, and conduct many other activities with few protections to the landowner.²⁰

Although a considerable amount of CBM gas lies under the federal public lands, some estimate that 80 percent of the resource underlies state and private lands.²¹ In Montana, for example, 90 percent of the federally owned CBM reserves are located under private lands.²² Coal bed methane development thus has implications for both public and private land. On the federal lands, the lead agency is the Bureau of Land Management, which leases the mineral rights to energy firms. On private or state lands, on the other hand, it is the state government that regulates oil and gas exploration. If the minerals under private property are state or privately owned, then only state laws apply. If the minerals are federally owned, however, then both state and federal laws apply. Counties and towns do have authority over land use decisions, but in many western states, laws adopted at the turn of the century mandate that no oil or gas should be "wasted." These laws are, in effect, a statutory command to drill.²³

Not surprisingly, over the years, state governments throughout the West have acted to encourage energy exploration and development. Agencies responsible for granting drilling permits have done so with

^{20.} POWDER RIVER BASIN RESOURCE COUNCIL, *Protecting Your Property, in COALBED METHANE MONITOR, available at http://www.powderriverbasin.org/cbm_monitor_page1.shtml#protecting (last visited June 13, 2005).*

^{21.} U.S. Dep't of the Interior, MMS Updates Estimates for Oil and Gas Resources on the OCS, in MINERALS MANAGEMENT SERVICE NEWS RELEASES, Jan. 17, 2001, available at http://www.gomr.mms.gov/homepg/whatsnew/newsreal/010117.html; see also John Dragonetti, Coalbed Methane Is Becoming a Hot Topic, PROF. GEOLOGIST, Nov. 2001, at 16, available at http://64.207.34.58/StaticContent/3/TPGs/2001_TPGNov.pdf (last visited June 13, 2005). See generally Emil D. Attansi, U.S. GEOLOGICAL SURVEY OPEN FILE REPORT 95-75-M, ECONOMICS AND THE 1995 NATIONAL ASSESSMENT OF U.S. OIL AND GAS RESOURCES (1998), available at http://pubs.usgs.gov/of/1995/of95-075m/econ_oil&gas.htm#METHO DOLOGY (last visited June 13, 2005).

^{22.} N. Plains Resource Council, Your Land, Your Rights 1 (2003).

^{23.} Ray Ring, Backlash: Local Governments Tackle an In-Your-Face Rush to Coalbed Methane, HIGH COUNTRY NEWS, Sept. 2, 2002, at 8, available at http://www.hcn.org/servlets/hcn.Article?article_id=11371.

minimal regulations and have often taken steps to limit public knowledge of and involvement in the permitting process. In a further sign of the cozy relationships that mark energy issues in the region, many of those working in the state agencies have had close ties to the energy industry and have shared their interest in facilitating drilling activities. State governments have also relied on the energy industry for revenue and jobs. In New Mexico, for example, the oil and gas industry is the state's largest civilian employer with approximately 9300 workers and pays \$1.25 billion in royalties to the state.²⁴ All told, revenues from oil and gas production provided approximately 21 percent of New Mexico's general fund in fiscal year 2002.²⁵

THE STRUGGLE TO DEFINE COAL BED METHANE

Supporters of CBM exploration and development rely on several arguments in their efforts to create and sustain positive public and elite perceptions of the program. The most effective argument to date has been that CBM is an important source of revenue and jobs and will only become more important in the future as the nation's energy mix comes to rely more heavily on natural gas. Industry supporters also argue that CBM is a secure, affordable domestic energy source, one that will go a long way toward avoiding what would otherwise be painful energy shortages. It is this argument that is often used to justify "unlocking" the energy reserves that underlie much of the public domain. CBM advocates also contend that, like other forms of natural gas, CBM is a "clean energy" alternative because it burns much cleaner than other fossil fuels. Coal bed methane, it is argued, is part of the solution to climate change.

In response, critics rely on a variety of arguments to paint a more negative picture of coal bed methane. The goal, again, is to shift attention to CBM's costs in order to rouse apathetic citizens and policy makers. The two most significant arguments revolve around the threat that CBM development poses to the environment, most notably its effects on water quantity and quality, and to private property rights. Although less central to the debate, industry opponents argue that CBM threatens local economies in the New West, where wildlife recreation and outdoor activities contribute hundreds of thousands of jobs and generate billions in annual economic activity. Finally, critics also allege that state agencies

^{24.} Gail Binkly, *The BLM Stabs at Tired Land*, HIGH COUNTRY NEWS, Sept. 16, 2002, at 3; ENERGY, MINERALS, & NATURAL RESOURCES DEP'T, NEW MEXICO'S NATURAL RESOURCES 2003, at 4, 7 (2003).

^{25.} Id. at 7.

are running roughshod over local interests and undermining local control of land use decisions.

Despite industry claims that coal bed methane is a clean energy source, the reality is that CBM production has considerable environmental impacts, including groundwater depletion, fragmentation of wildlife habitat and ranchland, soil erosion, drinking water contamination, and air and water pollution. Concerns about air quality, for example, stem from the frequent use of gas compressors that release carbon monoxide, nitrogen oxide, volatile organic compounds, and particulates into the air. Groundwater depletion, though, is probably the most controversial aspect of CBM production in the West, which has been plagued in recent years by severe drought. As already noted,26 large amounts of water must be pumped from the ground to release the methane gas from the coal seams. In Wyoming, for example, the average CBM well produces up to 15,000 gallons of water per day. In Wyoming's Powder River Basin, where the BLM has announced plans for up to 51,000 wells by 2010, that would result in pumping more than one billion gallons of water per day.²⁷ And because Wyoming does not require discharge water to be reinjected into the ground, this water would be dumped on the surface, which, in addition to forgoing other uses for the water, leads to soil erosion, stream sedimentation, and the degradation of rangeland. In addition to lowering water tables and drying up household and livestock wells, such massive pumping would hinder the ability of aquifers to recharge, a critical issue in any circumstance, but certainly in the middle of a record setting drought.

Coal bed methane development raises questions about water pollution because the discharge water, which in Wyoming is simply pumped to the surface and dumped, contains high levels of salinity and toxic chemicals, which contaminate drinking wells, rivers, and streams; harm fish and wildlife species; degrade rangeland; and poison livestock. To illustrate, each CBM well produces an average of 20 tons of salt per year, which raises the salinity level of the soil to very high levels, rendering it unsuitable for crops or grazing. Ranchers complain that well pits are contaminated with chemicals that can kill livestock and wild animals. There are also concerns about thermal pollution, as the water that is dumped into rivers and streams is typically warmer than other forms of runoff.

Each CBM development entails miles of pipelines, power lines, and roads, which fragment the land and contribute to soil erosion and

^{26.} See discussion supra in section titled "The What, Where, When, and Why of Coalbed Methane," notes 14-25 and accompanying text.

^{27.} See Darin & Beatie, supra note 14, at 10,567.

the spread of noxious weeds. Each well pad, for example, uses up to three acres of land for pipelines and roads. To put this in perspective, there are plans to drill 26,000 new wells in Montana over the next 20 years. If these plans come to fruition, more than one million acres of land would be affected, and energy companies would build 83,000 miles of pipeline and utility corridors, and an additional 27,000 miles of access roads. The effects on wildlife habitat, wilderness, and recreation would clearly be significant.

In addition to these environmental concerns, ranchers and other surface owners have complained about a host of other problems such as constant truck traffic, gas leaks, and the excessive noise from compressors, which has been compared to the sound of a 747 jet taking off. Complaints about the loss of livestock and the use of both household and livestock wells are also common. What is particularly galling to a growing number of surface owners, many of whom are lifelong Republicans, is that they typically have no choice but to let the CBM developers have access to their land. Although some states require holders of mineral rights to enter into agreements with surface owners, in most cases the surface owners have very little leverage in their negotiations. So when industry workers run over livestock, or locate access roads in unwelcome locations on their land, ranchers have little or no recourse. According to rancher Jill Morrison, "I don't have a problem with oil and gas extraction....But this is a renegade industry that can't be trusted, and the government is complicit because they're letting companies get away with just about everything."29 Added Nancy Sorenson, a fellow Wyoming rancher and a member of the Powder River Basin Resource Council, "Ranchers have no way to protect their property from the impacts of irresponsible energy development. We need strong laws that protect our property rights and our way of making a living."30 To that end, Sorenson and others are now asking Congress to require surface owner consent and surface use agreements before allowing energy development on their land.31

In recent years, though, critics of coal bed methane have been focusing their efforts on local and county governments that, in some states, have been receptive to their pleas. Traditionally, many of these

^{28.} Harden & Jehl, supra note 1.

^{29.} Electa Draper & Theo Stein, Fed-up Ranchers Lock Out Drillers, DENVER POST, Nov. 26, 2002, at A1.

^{30.} Biodiversity Conservation Alliance, Coalition of Western Citizens Release Energy Agenda, IN THE NEWS, Mar. 11, 2003, available at http://biodiversityassociates.org/blm/news/n11mar03.html (last visited June 14, 2005).

^{31.} Id.

governments have been hostile to an environmental agenda, especially to the extent that it led to an increased federal role in managing the public lands. That environmentalists are now urging these same governments to assert greater control over gas drilling is ironic, to say the least. But with most of the CBM reserves located on private and state lands, local governments have been the key lines of defense.

Under the law in most western states, it is the state government that is primarily responsible for regulating drilling, most often through oil and gas boards that have historically been eager to promote energy production. The problem for critics is that state laws do not offer much opportunity for local governments to launch a frontal assault on energy exploration, because the state oil and gas commissions are granted near total control. Instead, they have to work at the margins, by adopting noise ordinances, or by raising concerns over water quality or possible threats to public health and safety. In Montana, for example, local regulation is allowed only if it ensures effective utilization of resources, while counties in Wyoming may regulate land use but are not allowed to prevent use necessary to the extraction or production of mineral resources.³² In New Mexico, the courts are likely to uphold local regulation only if it deals with issues traditionally within the jurisdiction of county government.³³

COAL BED METHANE IN MONTANA

Compared to other states in the region, CBM reserves in Montana are small and likely to be depleted within a decade or so of full development. The most accessible CBM deposits are located in the Powder River and Tongue River basins in the southeastern part of the state.³⁴ The federal government owns approximately 60 percent of the CBM in Montana, 90 percent of which sits under private property.³⁵

The laws governing energy exploration and development in Montana, many of which date back 50 to 100 years, are similar to those in many western states in that they seek to encourage and promote energy exploration and development. Montana law, for example, recognizes separate ownership of the surface estate and the mineral estate, and the distinct private property rights associated with each. Generally speaking,

^{32.} BRYNER, supra note 18, at 30.

^{33.} Id.

^{34.} JACK A. STANFORD & F. RICHARD HUNTER, UNIV. OF MONT., COALBED METHANE IN MONTANA: PROBLEMS AND SOLUTIONS 3 (2003), available at http://www2.umt.edu/biology/flbs/Research/CBMFinal2-5-03.pdf (last visited June 20, 2005).

^{35.} N. PLAINS RESOURCE COUNCIL, supra note 22, at 1.

mineral rights take priority over surface rights. In the case of oil and gas resources, the presumption in Montana is that oil and gas companies that have purchased or leased mineral rights are entitled to exercise their property rights and develop the resource. Accordingly, state law provides for access to the mineral estate by allowing subsurface owners reasonable use of the surface estate.

Under Montana law, methane operators must give surface owners written notice of intent to drill and a plan of work no more than 90 days and no fewer than 10 days before site activity begins. After giving written notice, the developer has a legal right to enter the property, drill wells, and build roads and pipelines, all without obtaining permission from the surface owner. The state, in other words, does not require that holders of mineral rights enter into any surface use agreements with the surface owner. Such agreements typically specify compensation for damages and allow the owner to have some control over development.36 Under the law, however, surface owners are entitled to compensation "to the amount of surface damages sustained" for any loss of agricultural production or income, loss of land value, and lost value of improvements. Unlike the coal and hard rock mining industries, which must post a bond to cover the cost of potential damages before mining, the CBM industry is only required to post bonds that cover the cost of plugging and abandoning a well. In practice, the minimal bond is insufficient to cover reclamation costs. Until recently, Montana law also facilitated energy development in general and CBM development in particular by allowing operators to discharge unaltered ground water without a permit. Finally, although Montana does have a National Environmental Policy Act (NEPA) law that requires agencies to perform environmental impact statements, agencies are not required to perform "cumulative impact" analyses for projects on state or private lands. As a result, state agencies review CBM projects on a well-by-well basis, which minimizes their projected impact on the environment and public health.37

Coal bed methane wells on private and state lands in Montana are regulated by three state agencies, which have also proven to be receptive to most forms of energy development. The Department of Environmental Quality regulates the discharge of pollutants into the state's surface and ground waters and administers the state's drinking water regulations. It is responsible for issuing National Pollutant Discharge Elimination System (NPDES) permits under the Clean Water

^{36.} Id. at 3.

^{37.} MONT. CODE ANN. § 75-1-201 (2003).

Act. The Department of Natural Resource Conservation regulates water quantity issues, notably water rights. Lastly, the Montana Board of Oil and Gas Conservation (MBOGC) regulates CBM wells for spacing, density, construction, and safety issues and is the agency responsible for permitting CBM wells.³⁸

The Montana Board of Oil and Gas Conservation was established in 1953 with the passage of the Montana Oil and Gas Conservation Act. As of 2001, the MBOGC had issued permits for 264 CBM wells and had authorized an additional 200 exploratory wells in Carbon, Stillwater, Park, and Gallatin counties, as well as the Powder River Basin.³⁹ The Board has never rejected a well proposal for environmental reasons.⁴⁰

The MBOGC has seven members, who are appointed to four-year terms by the governor.⁴¹ Under the law, the Board has three mandates: "(1) to prevent waste of oil & gas resources, (2) to conserve oil & gas by encouraging maximum efficient recovery of the resource, and (3) to protect the...right of each owner to recover its fair share of the oil & gas underlying its lands."⁴² Secondary concerns include seeking "to prevent oil and gas operations from harming nearby land or underground resources."⁴³ The Board can act to minimize damage to land and resources by administering bonds, regulating the disposal of CBM water, and adopting other rules to minimize the impacts of drilling.⁴⁴

Coal bed methane development began in earnest in Montana in 1997.⁴⁵ In the next few years, the MBOGC issued hundreds of drilling permits, and many were predicting a massive ramp-up in drilling activity in the coming decades.⁴⁶ The problem was that none of the relevant government agencies had conducted environmental studies

^{38.} See, e.g., MONT. BD. OF OIL & GAS CONSERVATION, ABOUT MBOGC, at http://bogc.dnrc.state.mt.us/BoardSummaries.htm (last visited Aug. 3, 2005); MONT. DEP'T OF ENVTL. QUALITY, COALBED METHANE, at http://www.deq.state.mt.us/CoalBedMethane/index.asp (last visited Aug. 3, 2005); MONT. DEP'T OF NAT. RESOURCES & CONSERVATION, WATER RESOURCES DIVISION GOALS AND OBJECTIVES, at http://www.dnrc.state.mt.us/strategic_plan.htm#Water%20goals (last visited Aug. 3, 2005).

^{39.} MONT. DEP'T OF ENVTL. QUALITY. supra note 14.

^{40.} Ring, supra note 23, at 10.

^{41.} MONT. CODE ANN. § 82-11-101 (2003); MONT. BD. OF OIL & GAS CONSERVATION, *supra* note 38.

^{42.} Id.

^{43.} Id.

^{44.} Id.; BRYNER, supra note 18, at 27.

^{45.} MONT. ENVTL. INFO. CTR., METHANE MEETS MONTANA, at http://www.meic.org/coalbedmethane.html (last updated Aug. 2005).

^{46.} Id.

assessing the impacts of CBM.⁴⁷ Instead, the MBOGC had relied on a late-1980s programmatic Environmental Impact Statement (EIS) focusing on oil and gas development generally, rather than on CBM in particular.⁴⁸ Accordingly, in March 2000, the Northern Plains Resource Council (NPRC), a grassroots conservation and "family agriculture" group, filed suit against the MBOGC for failing to perform any environmental studies on the effects of CBM prior to issuing the permits.⁴⁹ Fully aware of their shaky legal standing, the MBOGC reached a settlement agreement with the NPRC and agreed to place a moratorium on the permitting of new wells until an environmental impact statement (EIS) specifically addressing CBM development was completed.⁵⁰ The moratorium on drilling permits for state and private coal bed methane lasted for nearly two years.⁵¹

The MBOGC, along with the Bureau of Land Management, the Department of Natural Resources and Conservation, and the Department of Environmental Quality (DEQ), prepared the EIS, with the DEQ serving as the lead state agency. The EIS predicts between 10,000 and 26,000 new CBM wells in the next 20 years, along with 9000 miles of new roads, 28,000 miles of pipelines and power lines, wildlife impacts on between 884,000 and 4.7 million acres of land, a lowering of aquifers by 240 to 600 feet across the Powder River Basin, and the loss of springs and wells for farmers and ranchers.⁵² Ninety percent of the development is predicted to take place in Rosebud, Big Horn, and Powder River counties, located in the southeastern part of the state.⁵³ The Record of Decision, a document designed to guide implementation of the final EIS, was issued by the MBOGC on March 26, 2003.⁵⁴

In October 2003, the Tongue and Yellowstone Irrigation District, joined by the NPRC and the Montana Environmental Information

^{47.} Id.

^{48.} Associated Press, U.S. Board Kills Methane Lease Approvals, BILLINGS GAZETTE, Apr. 30, 2002, available at http://www.billingsgazette.com/index.php?display=rednews/2002/04/30/build/wyoming/cbmruling.inc.

^{49.} See MONT. ENVTL. INFO. CTR., supra note 45.

^{50.} Id

^{51.} Press Release, N. Plains Resource Council, Coal Bed Methane Moratorium Enters Final Two Weeks, Irrigators Renew Calls for Irrigation Water Protections (Mar. 27, 2003), available at http://www.northernplains.org/newsroom/default.asp.

^{52.} Press Release, N. Plains Resource Council, Conservation Group Challenges Federal Methane Council (May 1, 2003), available at http://www.northernplains.org/newsroom/default.asp.

^{53.} Id.

^{54.} Press Release, supra note 51.

Center, filed suit challenging the EIS and the Record of Decision.⁵⁵ In their suit, the plaintiffs allege that the documents violate the state constitution in three ways. First, because they do not give adequate consideration to the consequences of groundwater depletion and surface discharges, the documents infringe "on the state's trustee obligation to protect and preserve groundwater for current and future generations."⁵⁶ This claim is based on article IX, section 3 of the Montana Constitution, which states, "All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law."⁵⁷ The plaintiffs argue that the depletion of aquifers will damage existing water rights for wells and springs, and that the discharge of billions of gallons into rivers and streams constitutes a waste of the state's water and shows that the state is not managing the water for the use of its citizens.⁵⁸

Second, the plaintiffs argue that the EIS violates citizens' rights to a clean and healthful environment by failing to require mitigation measures to reduce air and water pollution.⁵⁹ This claim is based on article II, section 3 of the constitution, which says that "[a]ll persons are born free and have certain inalienable rights. They include the right to a clean and healthful environment and the rights of pursuing life's basic necessities...."⁶⁰ The claim is also based on article IX, section 1, which says, "The state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations."⁶¹ The plaintiffs claim that the state has violated these two provisions because it is not trying to minimize air pollution from CBM development, and because the state is not requiring mitigation measures to limit the environmental damage caused by CBM wastewater discharge.⁶²

^{55.} Clair Johnson, Coalbed Methane: The Lawsuits, Billings GAZETTE, Jan. 6, 2004, available at http://www.billingsgazette.com/index.php?id=1&display=rednews/2004/01/06/build/state/25-cbmlawsuits.inc.

^{56.} Id.

^{57.} Id.; see also MONT. CONST. art. IX, § 3.

^{58.} Johnson, *supra* note 55; MONT. ENVTL. INFO. CTR., COAL BED METHANE UPDATE, *at* http://www.meic.org/coalbed1.html (last visited June 14, 2005).

^{59.} Johnson, supra note 55.

^{60.} See MONT. CONST. art. II, § 3.

^{61.} See id. art. IX, § 1.

^{62.} Johnson, supra note 55. Tongue & Yellowstone Irrigation Dist. v. Mont. Dep't of Envtl. Quality, Mont. Bd. of Oil & Gas Conservation & Mont. Dep't of Nat. Resources & Conservation, COAL BED METHANE LITIGATION 4 (Mar. 2, 2004), available at http://leg.state.mt.us/content/lepo/2003_2004/environmental_quality_council/staffmemos/cbmlitigation.pdf.

Lastly, the groups argue that, because the EIS does not require reclamation plans for ponds or disposal sites, it violates the constitution's requirement for reclaiming lands disturbed by natural resource development.⁶³ The final claim is based on article IX, section 2, which says that "[a]ll lands disturbed by the taking of natural resources shall be reclaimed."⁶⁴ The plaintiffs allege that the state's plan does not require comprehensive reclamation for affected areas.⁶⁵

As noted above,⁶⁶ the extraction of coal bed methane raises important questions about the use—or misuse—of ground water. All of the mountain states have adopted the prior appropriation approach to water rights.⁶⁷ In practice, this means that ownership of the land does not automatically result in ownership of water. Instead, water rights are created when water is diverted and used or appropriated for "beneficial use."⁶⁸ Most water uses in Montana require a water right. In Montana, however, CBM operators are not required to secure a water right before using water because water produced from CBM wells is defined as byproduct water, and is thus not subject to prior appropriations.⁶⁹ Critics of CBM development have urged the state to "clarify a rational system for the use of underground water reserves that respects existing water rights and preserves aquifer levels for the future."⁷⁰

In at least one instance, Montana is unusual because it is the only western state that addresses CBM wells directly in its laws. Generally speaking, Montana law prohibits the "wasting" of ground water. When it comes to the management, discharge, or reinjection of CBM water, however, the withdrawal and use of ground water is not considered to be waste. CBM operators in Montana have at least three options for the ground water produced from the wells: it can be used for irrigation, stock water or other beneficial uses; it can be reinjected into an acceptable subsurface strata or aquifer; or it can be discharged into surface waters or the surface subject to permit requirements. Montana's

^{63.} See id.

^{64.} See MONT. CONST. art. IX, § 2.

^{65.} See MONT. ENVTL. INFO. CTR., supra note 58.

^{66.} See discussion supra in section titled "The Struggle to Define Coal Bed Methane."

^{67.} BRYNER, supra note 18, at 30.

^{68.} Id

^{69.} N. PLAINS RESOURCE COUNCIL, DOING IT RIGHT: A BLUEPRINT FOR RESPONSIBLE COAL BED METHANE DEVELOPMENT IN MONTANA 3 (2001), available at http://www.northernplains.org/newsroom/documents/Doing_It_Right.pdf (last visited June 14, 2005).

^{70.} Id

^{71.} MONT. CODE ANN. § 85-2-505 (2003).

^{72.} Id. § 85-2-505(e).

^{73.} Id. § 82-11-175.

prohibition on "wasting" water will not preclude any of these alternatives.

Montana law does allow for the designation of "controlled groundwater areas."74 These are areas where groundwater withdrawals exceed the recharge rate of the aquifers within the designated area or where the withdrawals are projected to exceed the recharge rate in the future. In order to withdraw water from these areas, CBM operators must obtain a permit showing that the withdrawal will take water that is available, that existing water uses will be protected, and that the water will be put to a beneficial use.75 The Powder River Basin was designated a controlled groundwater area in 1999, which means that CBM operators in the region are required to obtain permits to withdraw water from the basin. The Department of Natural Resources and Conservation developed a Controlled Groundwater Area Plan, which was then adopted by the Board of Oil and Gas Conservation. The plan requires CBM operators to notify other appropriators whose rights may be harmed by the withdrawal of water from aquifers due to CBM development.76 The plan also requires operators to offer mitigation agreements to those appropriators whose wells are within one mile of a well or within one half-mile of any well adversely affected by a CBM well 77

As noted above,⁷⁸ CBM development in the Montana portion of the Powder River Basin began in 1997, and although it sparked concern among local ranchers and environmentalists, it did not immediately become a major conflict. The most likely explanation is that the region is sparsely populated, and so the issue did not affect many people. The first signs of county and local government opposition to CBM development in the state emerged in 1999, when the J.M. Huber Corporation announced exploration plans for Gallatin County, which borders Yellowstone National Park. The company's development plans called for leasing 18,000 acres, drilling more than 100 wells, and constructing miles of pipeline and access roads near Bozeman. Compared to the Powder River Basin, Gallatin County is more populous, affluent, and educated, as well as more economically diverse. Its proximity to Yellowstone makes it an attractive destination for outdoor enthusiasts, as well as

^{74.} Id. § 85-2-508.

^{75.} Id. § 85-2-311.

^{76.} Id. § 82-11-175(3)(a).

^{77.} MONT. DEP'T OF ENVIL. QUALITY, supra note 14; see also Mont. Bd. of Oil & Gas Conservation, Final Coal Bed Methane Order for Powder River Basin Controlled Groundwater Area, Order No. 99-99 (1999), available at http://bogc.dnrc.state.mt.us/Cbm Order.htm (last visited May 17, 2005).

^{78.} See discussion supra note 45 and accompanying text.

many retirees and owners of expensive vacation homes. In addition to being the county seat, Bozeman is also home to Montana State University and a number of growing commercial start-ups.⁷⁹

The MBOGC approved the wells in 2001, but that was only the first step because the county had previously established a special zoning district to hinder development. Hundreds of county residents, most of them opposed to the drilling, attended public hearings to consider the company's request for a permit to drill a test well in the zoning district. The zoning commission, made up of four Republicans and one Democrat, considered approving the well with up to 37 conditions, including asking the company to monitor water quality and to post a \$25 million bond against potential damages. When the company resisted, the zoning commission voted to deny the permit.⁸⁰

What ensued was an almost comical game of tit for tat. Huber filed two lawsuits against the county, one in state court challenging the county's authority to regulate CBM development, and one in federal court claiming that the county's denial of a permit was an unconstitutional taking of property under the Fifth Amendment.81 When the company announced plans to drill outside the zoning district, the county reacted by creating an emergency zoning district that took in everything that was not already zoned, and imposed a one year moratorium on drilling. Huber's response was to ask the MBOGC for a permit to drill for conventional natural gas instead of methane. The county then extended the drilling moratorium to include conventional gas wells. In January 2004, Huber filed its third suit against Gallatin County, arguing that the many conditions the county had attached to its drilling permits were arbitrary and capricious and amounted to a "taking" of its mineral rights. The company also sought damages. In explaining the county's opposition, county commissioner John Vincent said, "I consider it an all-out war. We've got to do everything we can to win, within the law. Full-scale mineral exploration and extraction is contrary to the long-term economy here."82

There are some signs, though, that the tide may be slowly turning. In September 2003, the Environmental Protection Agency approved water quality standards adopted by the Montana Board of

^{79.} Ring, supra note 23, at 9.

^{80.} Id. at 10.

^{81.} The federal suit is on hold pending the resolution of the state case. See Associated Press, Lawsuit Rejects CBM Conditions, BILLINGS GAZETTE, Jan. 30, 2004, available at http://www.billingsgazette.com/index.php?id=1&display=rednews/2004/01/30/build/state/80-cmblawsuit.inc.

^{82.} Ring, supra note 23, at 10–11.

Environmental Review (BER). This action made the pollution limits binding on methane operations in both Montana and Wyoming that discharged wastewater into the Tongue and Powder Rivers. Environmentalists, fishermen, and irrigators in the southeastern part of the state had sought the standards because of concerns that the discharge water, which contained higher amounts of salt, could damage crops and fish populations. The new water quality standards involved sodium adsorption ratios (or SAR, the relative amount of sodium) and electrical conductivity (EC, a measure of salinity). Previously, the state's standards did not specify how much sodium could be added to surface waters before causing damage to soils and crops. The Northern Plains Resource Council and the manager of the Tongue and Yellowstone Irrigation District originally proposed the standards. The Board approved the standards in March 2003 after conducting public hearings in 2002 and receiving testimony from hundreds of concerned parties. The numeric standards were supported by 60 percent of state residents and opposed by the industry.83

At the same time, however, the BER also approved two controversial implementation measures that will effectively increase the amount of CBM wastewater discharged into Montana's rivers. First, the BER exempted the standards from Montana's nondegradation policy,84 allowing operators to pollute rivers to the maximum limit. The Board, bowing to the DEQ, also approved a controversial dual standard for EC, a measure that would curtail discharges during the irrigation season from March 2 through October 31 and allow for greater discharges during the rest of the year.85 The Board's rationale for the dual standard was that more salty water could be discharged to the rivers during the off-season because irrigators were not using the water during that time. According to Brad Schmitz, regional fisheries manager for Montana Fish, Wildlife and Parks (FWP), although the effects of the dual standard are unclear, "[a]ll we know is that if you pour too much salt in there, that definitely can't be good for fish."86 To emphasize the point, the Director of the agency wrote to the Board that, "[f]or the purposes of protecting

^{83.} Press Release, N. Plains Resource Council, EPA Approves Montana's Methane Wastewater Standards (Sept. 4, 2003), available at http://www.northernplains.org/media/2003/PR-CBM-EPAapproval-9-4-03-Web.pdf (last visited July 10, 2005); Press Release, supra note 51.

^{84.} The nondegradation policy prohibited operators from undertaking actions that impaired water quality in the state's rivers. BRYNER, *supra* note 18, at 25.

^{85.} Press Release, supra note 83.

^{86.} Mark Henckel, *Trouble on the Tongue*, BILLINGS GAZETTE, Nov. 28, 2002, *available at* http://www.billingsgazette.com/index.php?id=1&display=rednews/2002/11/28/build/outdoors/02-henckel.inc.

aquatic life, FWP feels that it would be better to extend the irrigation season EC standards to cover the entire year," noting that studies showed that fish suffered as salinity increased.⁸⁷

Critics of CBM development have been most successful in the courts. The Northern Plains Resource Council, for example, has been quite active, filing six lawsuits in recent years. Five are still pending, and the group prevailed in the sixth.88 In that case, Northern Plains Resource Council v. Fidelity Exploration & Production Co.,89 the issue was whether CBM discharge water was a pollutant under the Clean Water Act (CWA). In June 2000, the NPRC filed suit against Fidelity, alleging that the firm was discharging CBM wastewater into Montana's Tongue River without a permit. Under section 402 of the CWA, operators must receive a National Pollutant Discharge Elimination System (NPDES) permit from the state Department of Environmental Quality if they are discharging into the state's surface waters. The NPRC contended that the discharge water, which contained high levels of salts, was a pollutant that impaired water quality in the river. A federal district court judge dismissed the case in August 2002, ruling that methane wastewater was unaltered ground water and thus was not a pollutant under the CWA. Moreover, even if it had been found to be a pollutant, Montana law specifically exempted unaltered ground water from permitting requirements.90

The NPRC promptly appealed the decision to the Ninth Circuit Court of Appeals, which reversed the lower court in April 2003.⁹¹ The appeals court ruled that salty methane discharges were a pollutant under the CWA, and that states could not exempt them from the permitting requirements of the law.⁹² This decision thus invalidated the Montana statute that had allowed for the discharge of unaltered ground water

^{87.} Id. A study commissioned by the state legislature also found that discharging CBM water into the state's rivers could have harmful environmental consequences. The report found that the projected discharges of 2.5 to 10 gallons per minute of CBM water "will change the chemistry of the rivers to the extent that use by native biota and by farms could be impaired." STANFORD & HUNTER, *supra* note 34, at 7.

^{88.} Johnson, supra note 55.

^{89.} N. Plains Res. Council v. Redstone Gas, No. 00-CV-105, 2002 WL 31054969 (D. Mont. Aug. 23, 2002), rev'd, N. Plains Res. Council v. Fidelity Exploration & Dev. Co., 325 F.3d 1155 (9th Cir. 2003), cert. denied, Fidelity Exploration & Prod. Co. v. N. Plains Res. Council, Inc., 540 U.S. 967 (2003).

^{90.} Press Release, N. Plains Resource Council, U.S. Supreme Court Affirms Methane Wastewater Is Pollution (Oct. 20, 2003), available at http://www.northernplains.org/newsroom/documents/PR-CBM-CWAfinalvictory-10-20-03-lthd.pdf.

^{91.} N. Plains Res. Council v. Fidelity Exploration & Dev. Co., 325 F.3d 1155 (9th Cir. 2003).

^{92.} Id. at 1160, 1164-65.

without a permit.⁹³ The case was then remanded back to the District Court to determine the penalties to be levied on Fidelity.⁹⁴ Fidelity appealed the decision to the U.S. Supreme Court, which in October 2003 refused to hear the appeal. In essence, the Supreme Court affirmed the decision by the appeals court that CBM discharge water was a pollutant under the CWA.⁹⁵

In their efforts to change CBM policy in the West, citizen groups have begun fighting on several fronts. A coalition of more than 20 organizations issued a "Western Energy Agenda" that called for legislation that would "protect basic property rights" for surface owners while "not precluding the authority of state and local governments to adopt stronger protections." Among the proposals were recommendations that would require owners of mineral rights to obtain the consent of surface owners prior to leasing and public agencies to seek more meaningful public involvement in CBM decision making by providing more adequate notification for surface owners regarding lease sales and drilling applications. In addition to these measures, critics have been pushing the states to mandate standardized surface use agreements that would give ranchers and other landowners more input into the location of wells, pipelines, roads, and other aspects of CBM activity on their land.

In Montana, the Northern Plains Resource Council has supported legislation requiring CBM drillers to treat discharge water and reinject it into the ground, arguing that reinjection is "the most sustainable, reasonable, and appropriate method for dealing with water produced by coal bed methane wells." In addition, the NPRC and others have suggested directional drilling, clustered development, noise mufflers for compressor stations, and other technologies to minimize the impacts of CBM development. Reformers have also pushed legislation that would increase the bonding requirements for well operators in order to cover the often-substantial reclamation costs for surface owners. What these measures have in common, of course, is that they are efforts to

^{93.} See id. at 1165.

^{94.} Id.

^{95.} Becky Rohrer, CBM Water Case Stands, Lawyer Says, BILLINGS GAZETTE, Oct. 21, 2003, available at http://www.billingsgazette.com/index.php?id=1&display=rednews/2003/10/21/build/local/38-cbm.inc.; see also Press Release, supra note 90.

^{96.} BIODIVERSITY CONSERVATION ALLIANCE ET AL., WESTERN ENERGY AGENDA 1, available at www.northernplains.org/media/2003/West_Energy_Agenda.pdf (last visited June 20, 2005).

^{97.} Keith Kloor, *Powder Keg*, AUDUBON MAG., Dec. 2002, *available at* http://magazine. Audubon.org/features0212/dispatch.html (last visited June 20, 2005).

^{98.} MONT. ENVTL. INFO. CENT., supra note 45.

change the "rules of the game" for CBM policy in the state. In seeking to change decisionmaking processes, critics hope to alter the dynamics of policy making and to force CBM companies to internalize more of the environmental and social costs of their activities.

Citizen groups have also pushed for more effective inspection and enforcement, and have proposed legislation that would seek additional staff and financial resources for chronically stretched state and federal agencies. Some groups have even called for a halt on new licensing until sufficient money and personnel are made available to police existing leases. Other bills seek to impose tougher reclamation standards on operators and require more money for cleaning up abandoned wells. Operators would be forced to pick up the tab for these additional requirements by paying higher application fees, royalty payments, or both.

Thus far, however, the Montana state legislature has defeated virtually all legislation aimed at regulating CBM development. A brief review of the 2003 legislative session is illustrative. A motion to move one bill, HB 380, out of committee and to the floor fell five votes short. The bill sought to require methane operators to obtain a permit to discharge CBM wastewater into state waters; the bill also prohibited the discharge of wastewater until the state's Board of Environmental Review adopted numeric water quality standards. 100 Similarly, the Senate failed to act on SB 240, a bill that sought to balance mineral rights and private property rights by requiring CBM operators to negotiate surface use agreements with landowners. 101 A bill proposing that CBM operators post a \$10,000 bond for each methane well and authorizing the Montana Board of Oil and Gas Conservation to increase the bond amounts as necessary was defeated 10-1 in the Senate Natural Resources Committee. As noted above, Montana currently requires bonds that cover only the costs of plugging and abandoning wells-damages to land, water, and wells are not covered. 102

The state legislature did, however, enact two pieces of legislation affecting CBM development. Both bills were part of an industry-backed package to make it more difficult for citizens to challenge state actions.

^{99.} See BRYNER, supra note 18, at 41-42.

^{100.} N. PLAINS RESOURCE COUNCIL, VOTING RECORD: 2003 MONTANA LEGISLATURE 3 [hereinafter N. PLAINS VOTING RECORD], available at http://www.northernplains.org/pdf/2003_Voting_Record.pdf (last visited June 21, 2005); see also Press Release, Northern Plains Resource Council, Legislative Study Shows Coal Bed Methane Problems (Mar. 18, 2003), available at http://www.northernplains.org/media/2003/PR-LEG-StanfordStudy-3-18-03lthd.pdf.

^{101.} See N. PLAINS VOTING RECORD, supra note 100, at 4.

^{102.} See id. at 5.

Under one bill, citizens could be required to pay fees if they did not prevail when challenging industry actions or the decisions of state agencies. The new law also requires that court challenges to permit decisions be heard in those district courts where the activity is taking place, and that these cases must take precedence over every other case on the docket if the activity is valued at more than \$1 million. The second law allows state agencies to require citizens to pay fees for requesting a hearing before the Board of Environmental Review. According to CBM critics, the law is intended to deter all appeals of the Board's decisions. The law also encourages the DEQ to issue general permits for methane impoundment ponds—these permits do not require a site-specific analysis of environmental conditions and also do not allow for either adequate citizen notification or participation. The

COAL BED METHANE IN WYOMING

Like Montana, Wyoming did not share in the 1990s technology and population boom and has thus remained dependent on extractive industries for revenue and jobs. Indeed, the state earns about 40 percent of its revenues from energy production. Coal bed methane alone contributed about \$26 million in state revenue in 2001, and the number is projected to keep growing. 105 Although CBM has been produced in Wyoming since 1986, the recent growth has been explosive. For the first decade, companies drilled fewer than 50 wells per year, but that number increased to more than 4000 by the end of the decade. During that same period, CBM production increased from 9 Bcf to 251 Bcf. 106 One estimate suggests that Wyoming could reap up to \$7.5 billion in royalties from CBM production over the next 35 years.¹⁰⁷ In fact, the state's dependence on energy revenue has helped it escape the economic downturn experienced by most other states in recent years. While its neighbors labor to escape unprecedented budget deficits, Wyoming actually has a large budget surplus and \$2 billion in a state trust fund financed by taxes on extractive industries. 108 With no other revenue streams on the horizon, it is not surprising that criticism of the oil and gas industry has been muted.

^{103.} See id. at 11.

^{104.} See id.

^{105.} Clifford, supra note 17.

^{106.} BRYNER, *supra* note 18, at 10 (citing Don Likwarz, Remarks at the Natural Resources Law Center, University of Colorado School of Law, CBM Conference, Apr. 4–5, 2002).

^{107.} Geringer Gets Petition Backing Methane Development, CASPER STAR TRIB., Aug. 27, 2000, at B7.

^{108.} Paul Krza, Wyoming at a Crossroads, HIGH COUNTRY NEWS, Feb. 17, 2003, at 16.

Another important similarity between the two states involves population size and growth rates. With fewer than 600,000 people, Wyoming is sparsely populated and thus has not had to deal with the assorted problems related to sprawl and urban growth. There are few people in the state, and even fewer people living in proximity to CBM wells, which has helped minimize the number of people who perceive a stake in the issue. Faced with relatively less demand for second homes, the real estate sector has not been as much of a factor in posing a threat to CBM development as it has in western Montana.

A third similarity is that the environmental community in both states is relatively small and lacks political clout, compared to a state like Colorado. There are only a few organized groups, and with both states being solidly conservative, the groups have little access to or influence in state government. That said, the Wyoming Outdoor Council, the state's largest environmental organization, and the Powder River Basin Resource Council, a diverse group representing ranchers, environmentalists, and others, have been actively monitoring the pace and nature of CBM development in the state. Both groups have also been working to spread awareness of the issue and to bring about legislative and regulatory change.

Moreover, both states have decidedly permissive regulatory climates. Former Wyoming Governor Jim Geringer, a Republican who served two terms beginning in 1994, liked to say that the state was "open for business."109 In particular, the state's laws, institutions, and regulatory procedures grant privileged access to oil and gas interests and facilitate CBM exploration and development. The absence of a state-level version of NEPA, for example, means that the state agencies responsible for permitting CBM wells do not have to conduct environmental assessments before issuing the permits. Currently, no state agencies test CBM discharge water for impacts on fisheries and wildlife, 110 and the state's Environmental Quality Council recently tried to weaken restrictions on how much arsenic and barium are allowed in water discharged from CBM wells.111 Unlike Colorado and New Mexico, Wyoming does not require CBM operators to reinject or treat discharge water, and it does not regulate noise from well compressors. In another bow to industry interests, the state requires only a \$75,000 bond for operations on fee lands, and \$100,000 for drilling on state lands. Given the actual costs of reclaiming and restoring CBM sites, both figures are

^{109.} Katherine Collins, Open for Business: Wyoming Throws Away Its Water to Get Oil and Gas, HIGH COUNTRY NEWS, Sept. 25, 2000, at 12.

^{110.} See Darin & Beatie, supra note 14, at 10,567.

^{111.} See Krza, supra note 108, at 14.

inadequate to address more than a handful of wells. Indeed, well abandonment is commonplace, as operators opt to forfeit their bond and leave it to the surface owners to deal with the problem.¹¹²

Governor Geringer, who was highly supportive of the oil and gas industry in general and of CBM development in particular, took a number of steps to boost the industry. As a case in point, a November 1999 letter from the Assistant Director of Wyoming's Office of State Lands and Investment to the Wyoming Coal Bed Methane Operators encouraged CBM development on state rather than federal lands. The letter, which cited lower state permitting costs and less restrictive environmental rules, said that CBM operators would get a better return on investment if they drilled on less regulated state lands. The letter also asked CBM operators to take another look at state lands to "get the biggest bang for your drilling buck." 113

According to Jill Morrison of the Powder River Basin Resource Council, "Geringer just did not want to have a dialogue about it. Anyone who was having trouble (with methane) was locked out of his administration. He had his marching orders (for state agencies) to facilitate (drilling), and that's what they did." The Governor ensured fidelity from state agencies by imposing a "one-voice" policy, which required all official comments to be channeled through his office. Any state agencies that had concerns about CBM could not express them publicly. 114 Geringer's successor, Democrat Dave Freudenthal, has been somewhat less sympathetic to CBM development, but given the state's dependence on CBM and other energy money, and a continuing Republican stranglehold on the state legislature, there are obvious limits to the policy change he has sought. Despite some policy shifts, Wyoming continues to aggressively push CBM development.

In January 2004, for example, intense industry opposition forced Freudenthal to drop a proposal to create a \$50 million environmental clean-up fund to deal with the unexpected consequences of CBM development. The action came after the administration had already agreed to industry's demand that existing state resources be used to pay for the fund, rather than new fees on industry. In announcing his decision, the Governor said, "discretion was the better part of valor," but promised to revisit the issue at a later date. In explaining his group's

^{112.} See Clifford, supra note 17.

^{113.} See Darin & Beatie, supra note 14, at 10,599.

^{114.} Krza, supra note 108, at 14.

^{115.} Freudenthal Drops CBM Cleanup, BILLINGS GAZETTE, Nov. 22, 2003, available at http://www.billingsgazette.com/index.php?id-1&display=rednews/2003/11/22/build/wyoming/40-nocbmfund.inc.

opposition, Bruce Hinchey, the president of the Petroleum Association of Wyoming, said that the draft bill was vague and unfairly singled out the CBM industry. "If we are going to do something like this," he said, "shouldn't we do it for all the industries in the state that require a discharge permit for air or water?" 116

The Powder River Basin, located predominately in Wyoming, is home to the largest CBM reserves in the nation. Three-quarters of the surface rights of the eight million acres in the Basin are privately owned, while two-thirds of the mineral rights are federally owned and leased to energy companies. ¹¹⁷ Of the 3500 active CBM wells in the state, about 80 percent are located on private and state lands. ¹¹⁸ For this reason, it is important to examine the state agencies responsible for regulating CBM development on private and state lands.

CBM wells on private and state lands require permits from three state agencies: the Wyoming Department of Environmental Quality (WDEQ), which administers section 402 of the Clean Water Act; the Wyoming Oil and Gas Conservation Commission (WOGCC), which regulates CBM wells for spacing, density, construction, and safety; and the Wyoming State Engineer (WSE), which issues groundwater permits. A brief review of all three agencies suggests that they have acted to facilitate CBM development.

The Wyoming Department of Environmental Quality administers NPDES permits pursuant to section 402 of the CWA. Coal bed methane operators must apply for NPDES permits for CBM wells. From 1975 to 1997, the DEQ issued about 200 discharge permits per year but, reflecting the growing interest in CBM, the number then jumped to 600 and is projected to reach 1000 in the next year. 119 By almost any account, the agency is woefully underfunded and understaffed. As a case in point, the NPDES Task Force reported that the DEQ had the equivalent of one full-time field inspector to cover the 3924 CBM discharge points in the Powder River Basin. That meant that the inspector could perform only one compliance check on each site during the span of its five-year permit. 120 According to John Warner,

^{116.} Gas Industry Rips Attempt at CBM Clean-Up Fund, BILLINGS GAZETTE, Nov. 21, 2003, available at http://www.billingsgazette.com/index.php?display=rednews/2003/11/21/build/wyoming/50-cbmcleanup.inc.

^{117.} Envtl. Working Group, Who Owns the West? Oil and Gas Leases, at http://www.ewg.org/oil_and_gas/part9.php (last visited Sept. 7, 2005).

^{118.} See Darin & Beatie, supra note 14, at 10,599.

^{119.} Mike Stark, Following Busy Year, Wyoming Tries to Cope with Coalbed Growing Pains, BILLINGS GAZETTE, Jan. 7, 2004, available at http://www.billingsgazette.com/index.php?id=1&display=rednews/2004/01/07/build/state/30-cbmgrowingpains.inc.

^{120.} See id.

administrator of the agency's Water Quality Division, "that of course is a problem. There's a lot of activity up there, so that person is stretched pretty thin." As part of a larger package of reforms, the task force has called on the state legislature to provide funding for additional personnel to conduct on-the-ground monitoring, inspection, and enforcement. If approved by the legislature and the governor, the changes would add about \$2.8 million to DEQ's biennium budget. Governor Freudenthal has endorsed the task force's recommendations.¹²¹

Perhaps in part due to these deficiencies, the DEQ routinely approved permit requests, even going so far as to issue a "general permit" for CBM developers in 1999. The effect of this decision was to reduce the time to obtain a drilling permit from 90 days to 30. The stated goal was to reduce the backlog of applications, but critics charged that it merely proved that the agency was a "rubber stamp" for permit applications.

In response to the "general permitting" initiative, the Powder River Basin Resource Council and the Wyoming Outdoor Council challenged draft CBM permits prepared by the Wyoming DEQ. The basis for the challenge was the contention that the Wyoming DEQ had failed to consider the salinity of discharge water and its effect on agriculture. In response, the agency halted all new permits until the industry could show that CBM discharge water would not impair existing agricultural uses. The moratorium lasted until summer, when the Wyoming DEQ began reissuing permits after the industry submitted a study showing that discharges would not damage grazing land and crops. Shortly thereafter, Montana's DEQ, concerned that salinity and sodium levels would rise in several rivers flowing into the state from Wyoming, questioned the study's validity and filed official objections to the discharge permits under the CWA.¹²²

The Powder River Basin Resource Council (PRBRC) and the Wyoming Outdoor Council (WOC) also filed official objections to the Wyoming DEQ's permitting of about 50 CBM wells. Their objections cited the "failure" of the Wyoming DEQ's Water Quality Division to fully review and consider scientific data and criteria and to comply with key provisions of the CWA, which requires that companies receive permits before discharging pollutants into state waters. More specifically, the groups alleged that the Wyoming DEQ failed to take into account studies showing that saline water harms agriculture, fisheries,

^{121.} Report: Wyoming Needs to Enforce CBM Regulations, BILLINGS GAZETTE, Oct. 14, 2003, available at http://www.billingsgazette.com/index.php?id=1&display=rednews/2003/10/14/build/wyoming/50-cbm.inc.

^{122.} See Darin & Beattie, supra note 14, at 10,595.

and wildlife and information showing that barium discharges frequently exceeded CWA standards. The groups also argued that the agency had failed to consider the effects of discharge water on downstream landowners and had tried to limit public participation by discouraging public hearings and by limiting public access to CBM program files. According to PRBRC chair Pennie Vance, "Unfortunately, the state's emphasis is still on accommodating the industry at the expense of landowners and the public by rushing through approvals of the CBM discharge permits." This viewpoint was apparently shared by the U.S. Environmental Protection Agency, which also objected to the draft permits, on both substantive and procedural grounds, and ordered 23 of the discharge permits to be reviewed. 124

Like its Montana counterpart, the Wyoming Oil and Gas Conservation Commission (WOGCC) has long been supportive of the oil and gas industry. The WOGCC is responsible for permitting aspects of well construction, well spacing and density, and bonding. The agency also has the authority to regulate the disposal of discharge water and is responsible for preventing the waste or contamination of ground water. The WOGCC is comprised of the governor, the director of the Office of State Lands and Investment, the state geologist, and two members from the public, who are selected by the governor. Given the state's dependence on energy revenue, the Commission has consistently issued rulings favorable to the CBM industry. The Industry 126

Perhaps most notably, although the Wyoming Oil and Gas Conservation Commission has permitted almost 14,000 CBM wells, it has never denied a permit. 127 Furthermore, although the WOGCC has a mandate to require well operators to furnish a "reasonable" bond, the agency has consistently resisted efforts to increase the amount to protect surface owners from operators who abandon their wells. Under public pressure, the agency has taken some steps in recent years to suggest that it is willing to more strictly regulate CBM activities. In July of 2000, for example, the WOGCC changed its rules for well spacing in the Powder River Basin to one well for every 80 acres. The previous rule has been

^{123.} Press Release, Powder River Basin Resource Council, Conservation Groups Object to the Issuance of New CBM Discharge Permits Citing State's Failure to Enforce the Federal Clean Water Act (Oct. 31, 2000), available at http://www.powderriverbasin.org/press_releases/discharge_protest.htm.

^{124.} See Darin & Beattie, supra note 14, at 10,595.

^{125.} See id. at 10,599.

^{126.} See id. at 10,569.

^{127.} Jeff Tollefson, Coalbed Methane: Producers Bemoan Regulations, Maintain Wyoming's Not Taking Advantage of Boom, CASPER STAR TRIB., Oct. 5, 1999, at A1; see also Darin & Beatie, supra note 14, at 10,569; Envtl. Working Group, supra note 117.

one well per 40 acres. The new rule was amended, however, to exclude 400,000 acres near Gillette, the site of most CBM development in the state. 128 The rules' short-term impact on CBM activity is thus expected to be minimal.

The Wyoming State Engineer (WSE) is responsible for permitting all water uses in the state; anyone seeking a right to ground water must submit an application to the WSE. The state engineer is appointed by the governor and serves as president of the State Board of Control, which is responsible for supervising the state's waters and their appropriation, distribution, and diversion. Under state water law, applications for groundwater appropriations "shall be granted as a matter of purpose" if the state engineer finds that the proposed use is beneficial and if the "proposed means of diversion and construction are adequate." 129 Wyoming law allows the engineer to deny an application if he finds that it would not serve the public's interest. The obvious question with respect to CBM development is whether the discharge water is being put to beneficial use. Critics of CBM argue that it is not, and that the WSE has failed to see that it is. As evidence, they note that the agency, like the WOGCC, has never denied a CBM permit. As the controversy over coal bed methane has heated up, the WSE has also been criticized for failing to conduct the required public interest and beneficial use reviews prior to issuing permits. 130

In their efforts to change CBM policy in Wyoming, reformers have begun fighting on several fronts. The PRBRC and WOC have been urging the state legislature to follow in the steps of Colorado and New Mexico and adopt legislation requiring CBM drillers to treat discharge water and reinject it into the ground. Critics have also urged the WOGCC to increase the bonding requirements for well operators in order to cover the often-substantial reclamation costs for surface owners. In addition to these measures, critics have been pushing the state to mandate surface owner agreements that would give ranchers and other landowners more input into the location of pipelines, roads, and other aspects of CBM activity on their land. Governor Freudenthal and others have supported legislation that would require CBM developers to provide surface owners with additional notice of intent to drill; the legislation also established a list of items that would require compensation, including loss of lifestyle and loss of future use. Although

^{128.} Jeff Tollefson, Coalbed Methane: Rule Halves Well Density, CASPER STAR TRIB., July 12, 2000, at A1.

^{129.} WYO. STAT. ANN. § 41-3-931 (Michie 2003).

^{130.} See Darin & Beattie, supra note 14, at 10,599.

^{131.} Kloor, supra note 97.

the industry preferred no legislation at all, they concluded that some action was nevertheless likely and submitted their own proposal, which left most compensation decisions in the hands of the negotiating parties. ¹³² In December 2003, the House-Senate Joint Judiciary Committee approved the Surface Owner Accommodation Act, which would require that oil and gas operators give landowner's 60-days notice of intent to drill and provide compensation for damages to the land. According to Rosie Berger, a state legislator, "We're trying to make a level playing field for both the landowner and the developer." Berger added, "I don't see this as something for industry to fear. We are an extraction state, this is how we balance our budget. We know how important it is to work with the mineral industry." ¹³³ That argument, however, failed to carry the day as the measure was voted down in both chambers of the state legislature. Governor Freudenthal vowed to try again in the coming years.

On another front, the governor gave the Environmental Quality Council the authority to explore changes in state law involving splitestate issues. The Council had sought his input before examining proposed legislation that would transfer oil and gas permitting regulations from the WOGC to the Council. Current law allows mining operators, but not oil or natural gas producers, to request a hearing before the Council when agreement cannot be reached with surface owners on mining and reclamation plans. The Council can then issue a permit if it finds the plan reasonable. The Council is seeking to put oil and gas on the same footing as mining, and to give surface owners a venue "in which they can present their side of the issue." 134

What these measures have in common, of course, is that they are efforts to change the "rules of the game" for CBM policy in the state. In seeking to change decisionmaking processes, critics hope to alter the dynamics of policy making and to force industry to internalize more of the environmental and social costs of their activities.

Reformers have also challenged the CBM policy monopoly by venue shopping. As in Montana, the hope is to attract the attention of new, more sympathetic decision makers who will, in turn, seek to

^{132.} Lawmakers Ponder "Split-Estate" Plans, BILLINGS GAZETTE, Nov. 5, 2003, available at http://www.billingsgazette.com/index.php?id=1&display=rednews/2003/11/05/build/wyoming/48-estate.inc.

^{133.} Mike Stark, Split Estate, Divided Views: Coalbed Methane Creates a Stir Above Ground and Below, BILLINGS GAZETTE, Jan. 8, 2004, available at http://www.billingsgazette.com/index.php?id=18&display=rednews/2004/01/08/build/state/30-cbm.inc.

^{134.} Environmental Council to Examine Split Estates, BILLINGS GAZETTE, Dec. 3, 2003, available at http://www.billingsgazette.com/index.php?id=1&display=rednews/2003/12/03/build/wyoming/30-environmentalcouncil.inc.

become involved in the political struggle. To date, though, local and county governments in Wyoming have not been as active in taking on the various state agencies responsible for CBM policy. The City of Gillette, for example, briefly considered an ordinance banning CBM development inside the city limits, but backed off under threat of litigation from the industry.¹³⁵

The CBM industry did, however, suffer a potentially significant setback in a recent lawsuit against Paxton Resources, Inc., a Michiganbased firm. The jury in the case found that the company had breached their surface damage agreement with ranchers Buck and Mary Brannaman, and had failed to carry out their CBM operations "in good faith." More importantly, the jury ordered Paxton Resources to pay more than \$800,000 in damages to the ranchers. In commenting on the verdict, Buck Brannaman said, "This boils down to more than a monetary issue. It boils down to a moral issue in terms of CBM operators taking care of the land." The vice president of Wyoming's Petroleum Association, John Robitaille, admitted, "The trial sends us the message that industry needs to be a good neighbor." Paxton appealed the decision to the Wyoming Supreme Court, which has not yet ruled. Nevertheless, the size of the iury award has captured the attention of CBM operators in the state. Critics of CBM development hope that the case serves as a "wakeup" call to the industry. 136

The politics of coal bed methane in Wyoming are fairly similar to neighboring Montana. Most notably, environmental laws and regulations in both states or, more precisely, the lack of the same have put critics of energy exploration and development in an unfavorable position. The policymaking venues provide few opportunities for citizen input and few chances to litigate successfully in state court. Moreover, the political environment in both states has been very supportive of energy exploration and production, leaving very few political allies to help challenge the pace of CBM development. Lastly, with the exception of Gallatin County in Montana, local and county governments have been much less active in seeking to regulate CBM activities, especially on environmental grounds.

Gary Bryner has correctly noted that the problems and conflicts posed by CBM development differ considerably from place to place. 137

^{135.} Dustin Bleizeffer, Gillette Tables Vote on Ban, CASPER STAR TRIB., Nov. 21, 2000, at B1.

^{136.} Press Release, Gillian Malone, Powder River Basin Resource Council, Brannaman Trial Verdict a Victory for All Surface Owner, at http://www.powderriverbasin.org/cbm/pressreleases.shtml (last visited May 18, 2005).

^{137.} See BRYNER, supra note 18.

Nonetheless, comparative analysis does reveal some commonalties. For example, conflict has been less pronounced in those areas that are sparsely populated and that have a longer experience with energy development. Conflict also appears to be less intense in states where the energy industry in general and the CBM industry in particular are an important source of jobs and government revenue. On the other hand, conflict has been greater in places like Gallatin County, Montana, where CBM development runs headlong into the desire of local residents for recreation, wilderness protection, and strong residential property values. 138

The nature of the issue itself and the capacity of government bodies are also important similarities. Bryner notes that the rapid emergence of the CBM issue is a unique development because it has forced political actors to deal with a host of issues, such as the effects of CBM on water quality and quantity and conflicts between contending property rights, in a very compact time frame. This has forced state and local governments to deal with the effects of growth, but these governments often lack the resources and authority to deal with them effectively. As a result, the agencies have been unable to process applications in a timely manner, unable to perform adequate environmental analyses, and unable to develop effective monitoring and enforcement regimes. 139 These failures have contributed to the political controversy now surrounding the issue, and may ultimately undermine its long-term success. In this sense, coal bed methane is reminiscent of commercial nuclear power regulation, when the nuclear industry and its governmental supporters rushed to build reactors, cutting corners along the way. In the end, as flaws were exposed, the program was undermined.

CONCLUSION

The controversy over coal bed methane offers a classic example of a "wave of criticism." The cozy subgovernments that have dominated energy exploration and development in the mountain states are under attack and are struggling to maintain their autonomy. Energy exploration, which was once perceived to have only positive consequences, is now the focus of an intense debate that has managed to unite two warring factions.

The battle to define coal bed methane in the eyes of the public and outside policy makers has also had some institutional consequences.

^{138.} See id. at 17.

^{139.} See id. at 35.

According to Baumgartner and Jones, image change frequently leads to venue change, as new understandings of issues lead other governmental actors to claim jurisdiction. Most of the political actors understand this effect, which is why they have struggled so intensely to shape elite and public perceptions of coal bed methane. Supporters have fought to maintain their policy monopoly by stressing the need for energy and the fuel's minimal contributions to global warming, while opponents purposefully highlight environmental problems and questions about property rights in order to attract the attention of actors in new institutional venues. CBM activists have followed the classic pattern of expanding the political conflict by trying to alter the institutional venue.

Not only does image change often lead to venue change, but they also build on each other in a cumulative and reinforcing manner. According to Baumgartner and Jones,

With each change in venue comes an increased attention to a new image, leading to further changes in venue, as more and more groups within the political system become aware of the question. Thus a slight change in either can build on itself, amplifying over time and leading eventually to important changes in policy outcomes.¹⁴¹

In this case, as the venues of CBM policy making expand, images became more negative. The institutional changes, in turn, reinforce the negative image of the industry and give greater access to opponents in the policymaking process. Combined, these changes in venue and image may ultimately lead to significant changes in both the policy community and policy outcomes.

As understandings and perceptions of CBM development have become increasingly negative, new actors have been drawn to it. The new participants have included the EPA, federal and state courts, officials from county and local governments, and a number of regional and local citizen groups. Many of the new participants have been, at the very least, neutral toward CBM exploration, while others have been openly critical. The influx of new participants, who brought their own opinions to the deliberations, has shattered the consensus that had existed within the small oil and gas subgovernments in the West. As one might expect, the mobilization of previously uninvolved interests disrupted traditional patterns of policy making within the policy community. In short, when perceptions of the costs and benefits attending the issue changed, so did the politics of coal bed methane.

^{140.} See BAUMGARTNER & JONES, supra note 2, at 64.

^{141.} See id. at 37.