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Coalbed Methane Development in the Intermountain West (April 4-5)

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### CBM Development, Ranching, and Agriculture

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## CBM DEVELOPMENT, RANCHING, AND AGRICULTURE

NANCY SORENSON AND JILL MORRISON, *Powder River Basin Resource Council*

### NANCY SORENSON

I have lived for the last 29 years on a ranch in the Powder River Basin in northern Wyoming. I was really surprised that Campbell County was totally flat and didn't have any trees at all, because my ranch is bound on the north and west by the Powder River Basin, which is characterized by very steep topography and it's heavily wooded with Ponderosa pine and juniper. The bottoms are a trimmed with box elders, choke cherry, and many other shrubs and things like that. I think I still live in Campbell County, but maybe not. Farming and ranching in the Basin has never been easy. This semi-arid environment only allows so much livestock and so much disturbance before the land stresses to a point that a living cannot be made. While countless others tested the boundaries imposed by nature and packed up and left, my husband's family listened to the land and have persevered for four generations. Where it was once possible to plant a few crops and raise some livestock, anyone who ranches successfully in the Powder River Basin today accepts many limitations imposed by nature, the economy, the environmental and recreational community, and the extractive industries that are predominant in our area.

My family and I have worked hard to improve our ranch each year, not only to make it more productive, but to make it more hospitable to the many native species in our area. We strive for a form of sustainability that takes the long view that whatever we do on our land will not damage the resources to a point that the land cannot recover.

Since 1997, when we were first approached about leasing our minerals for coalbed methane development, our ability to maintain the delicate balance required for our philosophy of sustainability has been sorely tested. And for the first time in our ranching career, which spans 29 years, we have witnessed degradation that I fear is irreversible. We have negotiated and signed 13 separate agreements for various aspects of the coalbed methane play, including oil and gas leases, pipeline right of ways, road rents, and surface damage agreements. In not one of those negotiations did we have an option of not signing. In not one of those agreements were we able to maintain

the control we need to assure the long-term sustainability of our ranching operation. Here is why.

In 1997, when we were approached about leasing our 50 percent share of 2,500 acres of oil and gas rights that we own, we said, "No, thank you. We're not ready to do that." The landman simply went on to the nonresident owner of the other 50 percent of those same minerals in Dallas, Texas, and promptly leased them. The land man then called us back and explained that since he now owned the rights to the other 50 percent of our minerals, we could lease our rights or not, but he had the right to develop his minerals. In order to control, to a certain extent, what would happen to our land, we ultimately signed. The cost of this attorney for this first foray into the coalbed methane business was \$5,000. The rest of the minerals under our land belonged to the BLM, the State of Wyoming, or other nonresident entities.

As a surface owner, you are not contacted when these minerals are leased. We only hear about it when the industry developer desires to access his minerals. In Wyoming, the surface owner does not have the right to deny access to a mineral developer who owns oil and gas leases under his or her property. In fact, a surface user agreement is not actually required, as these can be settled in the courts, usually to the disadvantage of the landowner. Some pipelines fall under the eminent domain laws. Others fall under the laws that allow development of anything reasonable and necessary to develop the minerals.

In one instance, a company wanted to erect an 80-foot radio tower. Again, we said, "No, thank you." A few months later, a huge concrete footing was poured for that tower, even though we had not signed any agreement for it to be placed on our land. When we notified the company that they were, in effect, trespassing, they hurried to complete the tower without ever calling us back. Then they came to us with an agreement. The company's response as to why they didn't try to obtain permission for installation prior to building it was, "We needed that tower." One representative of the oil industry said to me that he failed to see what was so offensive about coalbed methane development.

To that person and all the others who encroach on our lands, here is a partial list. First of all, lack of respect for the land, for me, for the environment, for history, and for the future. Dishonesty by the landman and the operators and also by the state and BLM who pretend to care about the environment but instead work to expedite development to the detriment of the rights of those on the land.

Denial of property rights. I never understood people who constantly spouted about private property rights. Their opinions and rhetoric seemed extreme to me. I understand a little more now. Simple justice cries out for a law requiring a surface use agreement before any activity takes place on one's land. What we have, in effect, now is a two-tiered system in which the rights of large international corporations whose purpose is profit have more rights than a person who has lived on the land for perhaps his whole life.

Lack of viability. It is becoming more apparent by the day and month that CBM extraction may not be economically or environmentally viable. I have been told by a representative of a company that developed land that adjoins our property that that facility does not seem to have any economically recoverable gas under it. Did they have to destroy beyond recognition 640 acres of land and discharge untold thousands of gallons of water to figure that out? Furthermore, the amount of estimated recoverable gas in the entire Powder River Basin is measly compared to the amount of water that must be discharged and wasted to recover that gas. It's enough water to serve the needs of Wyoming's people for 30 years.

Irresponsibility. Methane companies repeatedly fail to live up to the promises they have made in contracts to landowners and private mineral owners. The surface user has become a policeman to keep the operators from even obvious violations. Verbal agreements with landmen or operators mean nothing, of course. But legally signed agreements do not mean anything to these guys either. Bouncing along over open country roads where access has been denied is common. Illegally discharging water and venting wells are other offenses. Private individuals are commonly cheated out of part of their royalties. A methane company my family is involved with subtracts transportation expenses and the amount of gas they use to fuel their compressors before paying royalties used to support my invalid mother-in-law, even though the con-

tract on the mineral lease and the laws of the State of Wyoming clearly state that they may not do that.

Things are even worse for folks who live near methane development but do not benefit from it. Domestic water wells have dropped or become altered as a result of nearby development. The burden of proof lies with the owners of those wells, not the CBM operator. People near compressor sites must live with the noise and emissions. Individuals near county roads and new roads built for the industry must live with choking dust through most of the summer. High SAR water discharged by the industry damages or destroys trees and hay meadows miles downstream from the site of the discharges.

A lack of adequate planning is, in a way, the key to all the other problems I'm outlining here. Planning needs to take place at all levels. First of all, environmental issues need to, finally, be seriously planned for. One of my greatest concerns is that methane development will cause the addition of species onto the threatened or endangered species lists. They will leave the surface user to alter his or her operation to accommodate such listings.

On a regional level, it is ludicrous that we are drilling all these wells when there is a possibility that there is inadequate pipeline capacity to market the gas. On a local level, it is a constant surprise to me that power lines and other infrastructure are added willy-nilly, as needed, creating an unnecessary clutter of power lines and roads, or that no one has planned for the deterioration of air quality near county roads.

On a private level, I am astonished that an operator cannot tell me before I sign an agreement where or how the water will be discharged, where the power lines will go, or where the compressors will be placed. Often, such decisions are made by people out of Denver or some other central location who has never seen the land. When the land man is pinned down to answer such questions, the answers he gives you have little to do with the reality of what ultimately happens.

A lack of adequate bonding. The Powder River Basin is dotted with orphan oil wells, fields that were developed in the 1960s, '70s, and '80s, and whose owners have decided that it is cheaper to abandon the wells and forfeit the bond than to clean up after themselves. This leaves the taxpayers to foot the bill for this clean-up, if it ever happens. Compared with deep wells, the clutter in a methane project is much greater. Who's

going to clean that up? Another landman from a CBM company once asked me, “What can we do to appease you, Ms. Sorenson?”

To him and all the others who may need to know, including our elected representatives, here’s the answer: Develop an energy policy that benefits alternative, renewable sources of energy and conservation measures, such as requirements for automobile manufacturers to develop vehicles with higher gas mileage; and show me that development on my land is a necessary part of making progress toward a cleaner, better, and more prosperous society. Then I might be willing to do my part sacrificing my way of life, knowing that our nation is working diligently to solve our energy problems for the long haul.

Like most people in my neighborhood, I do not wish to prevent development of necessary natural resources, but I believe it can be done in a careful and thoughtful manner that will allow for the sustainability that we value so much. These comments reflect the experiences that my family and I have had. They’re by no means the worst that has happened to people in our area, nor are they the best. And in many ways, they are very typical. I’d like to conclude my remarks with a comment as to how much I respect Mickey Steward for the work she’s doing with the Coalbed Coalition.

I think she’s crazy for taking on this impossible job. I do think the coalition itself would have been better served if it had included landowners and members of the environmental committee. Thank you.

#### JILL MORRISON

I live in the Powder River Basin and work there. And I’m going to show you some actual shots of the area and of the development and talk about it. My presentation is not a power point, but it is about power, because that’s what this issue is about. It’s about producing power, but fundamentally it’s about who has the power. And the people who have the power are not the people being affected by the development. The people who have the power are the industry, and that’s who’s calling the shots here. And I believe it’s about an abuse of that power. And I hope that we can begin to work for a truly sustainable development. Because right now, there is nothing sustainable about this development, with the exception of one thing: lawsuits and lawyer’s fees. And that is very sustainable.

This is a shot of Powder River Basin [35mm slides shown at the conference are not available here]. On the west side—this is actually Sheridan. The Bighorn Mountains are up here. You can see there is a lot of topographic relief in this part of the basin. The area where it is flat is really south of Gillette. That’s where there have been the least problems—the least water quality issue problems—and the least development problems. Another map of Wyoming. And this is from the year 2000. This is about half of the permitted wells that they have now. The pink line is the outline of the project area. Campbell County is the green line. So you’ve seen that plenty of times today. I do want to point out that, while this development is project over an eight million acre area, the majority of the impacts are really going to be located in about three to maybe four million acres, and we’re talking about 50,000 wells over the next 10 years. And this is what it looks like in many areas where new roads are constructed. This was taken in August of last year. This is a state lease up here in the upper part of the screen and if you go on up, it continues as Federal surface. The majority of surface in the Powder River Basin, as you have heard, is private. And this is what private landowners are trying to prevent. And this is what ranchers and people who own the surface are dealing with, the potential destruction of their land. The Powder River is right down here, and those discharges are going into the Powder River. These are wells, roads, and pipelines. This is what it looks like before they were issued a notice of violation for some of these discharges. And this photograph was taken back in, I think, ‘99. These are the sodic deposits built up on the side. This is the iron staining. That development was initiated by a company called Michiwest and the development is now operated, I believe, by Anadarko.

This slide is northeast of Sheridan. This is a slide of one of these large containment reservoirs. Again, these are not stock watering facilities. This is not for the benefit of livestock. This is for ways to get rid of the CBM discharge water. And in some cases they are actually drilling holes in the bottom of these reservoirs to help speed the infiltration in certain areas. This is a JM Huber field northeast of Sheridan. This is Prairie Dog Creek, which runs into the Tongue River. This is a compressor station in that area, and this is a compressor. This was taken last August. There’s another two or three compres-

sors added here. They're probably going to add several more. I've seen up to 20 in one area. And if you once were used to complete solitude, these run 24 hours a day, 7 days a week. They've been described as sounding like a jet engine that never leaves, a freight train that never goes by. And one gentleman described it as, "It drives you to the breaking point."

This reminds me of a story that goes along with an old Warren Zevon song, "Send Lawyers, Guns and Money." This is what is going to be happening in the Powder River Basin. Guns come into the picture in the case of a compressor station because it drove one gentleman to the breaking point. He became so upset at the sound, and frustrated that no one would do anything, he called the sheriff, the county commissioner's, the governor's office, nobody would do anything about the noise. So he allegedly fired 17 shots at a compressor station. That got their attention, and they finally made a few minor modifications to that compressor station, but the noise level is not reduced to what it should be. And it's very miserable to live with that.

This is another ranch south of Sheridan. The operator came in here. They did not save the topsoil, bladed right over the drainages. They came in, made a mess, and left. And it's still sitting there like that. This is the road they bladed in to get this. The landowner has filed a lawsuit against this operator. Garbage, tons and tons of garbage that is thrown on people's land. Ranchers not only become policemen, they become garbage men. I have a list of all the garbage that has been picked up by landowners, and it's a long one. In a place that you care for and that you've done everything to maintain, you don't even throw a single cigarette butt down, and then to have to come and pick up big and little garbage.

This is a drilling mud pit. Drilling fluids are dumped into that pit and then just covered up. Another stock reservoir. The BLM has estimated that the development over the next ten years will require pumping out over four million acre feet. And their primary method of disposal now is putting anywhere from 1,500 up to 2,000 of these containment reservoirs across the Powder River Basin. Many landowners who are involved in ranching do not want this because you can see how much acreage it will take out of production on your ranch. And then, what I didn't hear anybody mention, is what will settle at the bottom of these reservoirs and be left to clean up

when they're done. It will be salts and metals, and who is going to clean those up? Is industry going to clean those up? How are they going to be reclaim it? There are no reclamation plans for any of these projects.

This is another reservoir, a natural reservoir that was never full. It's down by the southern part of the basin. It filled in about eight days from 15 coalbed methane wells. They had to berm it up on this side in order to keep the water from flooding out onto the grass. This is how they try to prevent erosion, put all this rock in, but you can see all the dead vegetation here. And this also takes what you use to create an income, your grass, out of production. All this grass is dead and dying, and it's not going to come back because these are clay soils and this is high SAR water, and the two do not mix. This is Spotted Horse Creek. This is on Marge and Bill West's property. This is an ephemeral channel that normally only flows in spring and/or during summer flood events. In this slide all this water is from CBM discharges upstream. It has flowed out over a large area, and the company was issued a notice of violation to stop the discharge, but they were issued the notice of violation on a downstream landowner where the water had not reached. The discharge continued. They appealed the discharge, and they were allowed to continue the discharge. This discharge continued for many, many months. What was left the next year, this is the following fall, in September, all of those cottonwood trees are dead. You can see from the slide that most of them are dead. One area where the CBM water flowed out and froze and sat for many months left a large salt flat. The only thing that would come up in there after Bill tried to move those salts out of there and put some other topsoil down was a weed, fireweed. All along that other property where the road was bladed is now full of weeds that were never there before. Even if you tried to control those weeds, it's hard to get rid of them once they take hold; it's very, very difficult. So you've lost your good grass and had soil disturbed and replaced with weeds.

This slide is a domestic water well. This is an example I've seen around the basin a few times. Not always quite this dramatic. The lid from this water well was blown off by the pressure of gas. There are a couple of fields close to this area, I think Fidelity has one and J.M. Huber has one a little further away. This is a very serious safety issue in the basin, and it is mentioned in the EIS.

Methane will occur in water wells at potentially explosive levels. This is a quote from the BLM DEIS, “In areas within two miles of operational CBM well fields, well houses and basements should be well ventilated and periodically checked for methane gas.” I don’t know any landowners out there or ranchers who carry methane detectors around, but I know plenty of them who smoke. And I want to know what the industry and the regulators are going to do to prevent these problems.

This is not a great slide, but it’s that earlier Huber site when they were constructing those reservoirs. That’s from June, 2000. And this is just a further distance from the development scene, the reservoirs. And another shot. There’s an overriding issue here: The value of land and property values is not being addressed. It’s the issues of wildlife habitat, scenery, solitude, open spaces, these intrinsic values that are not being addressed in the development.

#### BLM ENVIRONMENTAL ANALYSIS AND CBM DEVELOPMENT ON FEDERAL LANDS

RICHARD ZANDER, *Assistant Field Manager, BLM, Buffalo Field Office*

I would like to thank the conference sponsors for inviting me here. We’ve heard from a variety of speakers about the aspects that govern coalbed methane development—lawyers, hydrologists, etc. I’m going to try to show you what actually happens on the ground in the permitting process. But please be aware that this process only applies to the federal minerals.

As Diana mentioned, I’ve been in Buffalo for about 17 and a half years, so I’ve been involved in this play from the very beginning. We had some false starts in the early 80s. D.L. Cook was a developer. We laughed at him. That was about 1985. By 1992, coalbed methane was a reality in the basin. So I have seen the whole play. I would like to thank Don for talking about the EIS today, because actually I’m not going to talk about the EIS. Thank you for filling people in on that. I’m going to talk a little bit about NEPA. How it applies to coalbed methane development on the federal lands and actually what happens with NEPA when we put it down on the ground.

But first off, I need to give you a little bit of history about NEPA. We’ve heard a lot about this over the last couple of days. In 1862, the Homestead Law was enacted with 160-acre patents, no mineral reservation. In 1909,

We need industry to work closely with landowners. Landowners need to have the right to say where the facilities are going to be placed. Landowners need to be shielded from liability for accidental damage to drilling equipment and infrastructure. We need to establish a right to negotiate a surface damage agreement for the landowners. We need a collaborative process where we can sit down and the landowners can work with industry and not be bullied and intimidated and forced into what is a nonsustainable development. I think we can do better. I hope we will do better. Because I hope we just don’t have the biggest natural gas development, but that we turn it into what could be maybe the best.

Thank you.

the Homestead Law was enlarged, allowing 320-acre patents with coal reserved. In 1914, the United States began reserving oil and gas and other minerals. And, of course, the biggest was the Stockraising Homestead Act of 1916, when a lot of the West, especially in the Powder River Basin, was settled. This reserved all minerals. And then in 1920, the Mineral Leasing Act provided for exploration and development of coal, oil, and gas and other minerals by lease issuance.

What does that mean, then, when you put it on the ground? We’ve seen maps of the basin. This is actually the EIS study area we’re looking at here. BLM manages about 10 percent of the surface of the 8 million acres we are looking at in the basin. So, yes, the private surface estate issue is a very big situation for us. What does that mean when we get to minerals? Development will occur while we’re complying with NEPA. About 60 percent of the basin in the EIS area is federal mineral ownership. That’s the ground you see here on the map. How does NEPA affect oil and gas development? Leasing and development of the mineral is a federal action. Therefore, NEPA would have to analyze federal actions. (maps on next page).