"Enough is enough. Thus far and no farther. Think of your children. Of their children. Of the hawks, buzzards, lizards, bear. Save a little room and time for the free play of the human spirit and the wild play of the animal kingdom." — *Edward Abbey*

Although Ed Abbey was not an official member of the Great Old Broads for Wilderness, we know he would have worn our T-shirt with pride — and good spirits!

Great Old Broads for Wilderness
PO Box 2924
863 ½ Main Ave.
Durango CO 81302
970-385-9577
www.greatoldbroads.org

Did someone say the "elderly" can't access wilderness without roads?!

Don't tell that to these Great Old Broads for Wilderness!

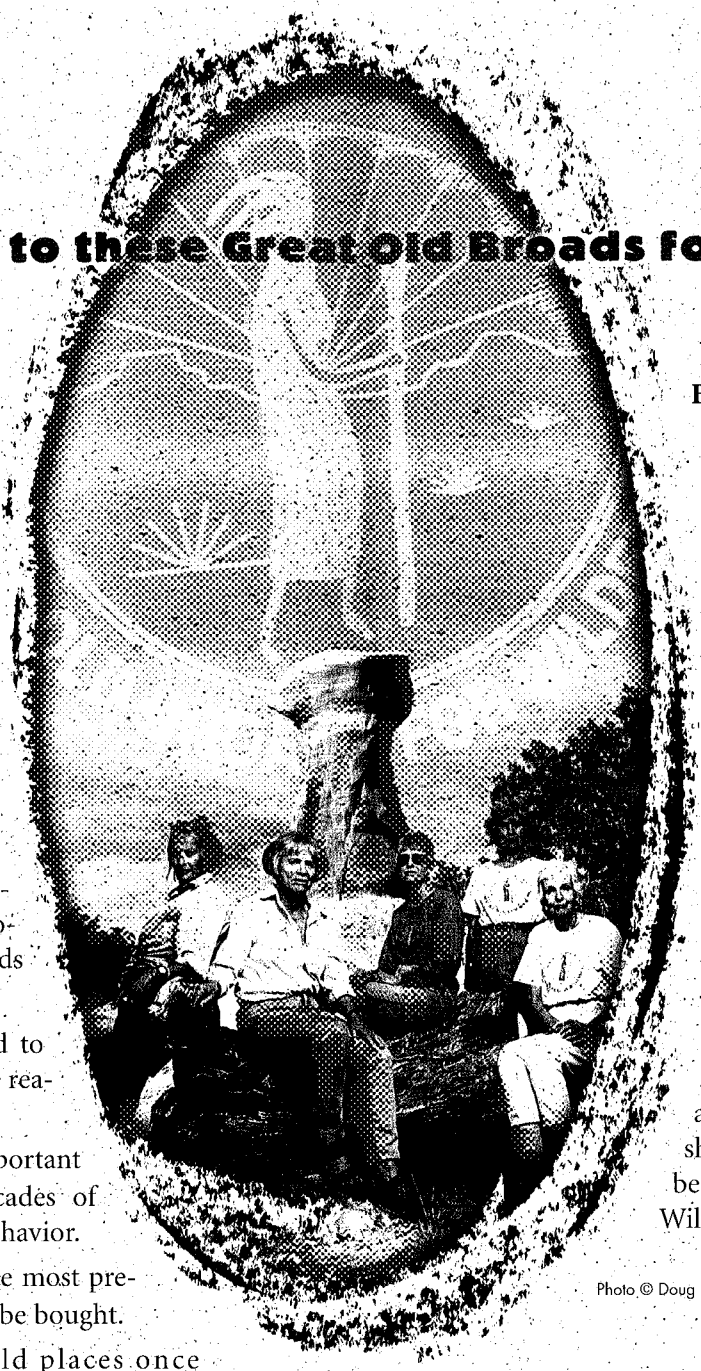

Photo © Doug Merriam

The Great Old Broads for Wilderness is a national, grassroots nonprofit organization created in 1989 to celebrate the 25th Anniversary of the Wilderness Act. Today there are Broads of all ages and both genders in every state in the union making their voices heard to protect America's last wild places.

Wilderness Advocacy

Great Old Broads are dedicated to the preservation and protection of roadless public lands in America.

Great Old Broads work hard to protect wilderness for basic reasons:

- Broads know what is important in life. They've seen decades of senseless waste and silly behavior.
- Broads understand that the most precious things in life cannot be bought.
- Broads realize that wild places once destroyed are gone forever.

Broadwalks

Every year the Great Old Broads for Wilderness focus attention on a wild area in need of protection by "Broadwalking" across it. Broads from across the country hike over threatened lands to claim them as our "own." Public wild lands in the states of Colorado, Idaho, Utah and Nevada have all felt the firm feet of Great Old Broads, Broadwalking.

Wilderness Conference

A Great Old Broads for Wilderness gathering each year gives Broads an opportunity to join together to hear from wilderness advocates around the country. Together we share what it means to be a member of the Great Old Broads for Wilderness.

Broads hold in common:

- a sense of humor
- a sense of timing
- courage in the face of destructive forces
- grace in muddy hiking books, on bad hair days, and with broken fingernails

Sweeping Up for Wilderness

The Broads are wise enough to know that our special wild places are not necessarily going to be designated wilderness tomorrow —they may not even be protected in our life times. Years of destruction can take place before lands receive the protection they deserve. The Broads diligently watch over and ardently protect those public lands until Congress protects them permanently.

It is not a good idea to make a Broad with a broom mad . . .

- If people drive all-terrain vehicles wantonly onto wild lands—the Broads will be there to SWEEP UP after the mess. But we better not see another track!
- If anti-wilderness crusaders take shovels, pickaxes or backhoes onto these land—the Broads will arrive to SWEEP UP after the destruction.
- If ranchers let cattle abuse the land, watch out—the Broads will appear afterwards to SWEEP UP the abuse! But not too many times, what we want to do is stop the abuse before it happens.

Grab your broom and apron and join us!

Photo © Michael J. Blakeslee

Wilderness for all grandchildren, for all time

The Broads want wilderness protected for all generations. Many Great Old Broads for Wilderness have children and grandchildren. Some have great-grandchildren. Everybody is somebody's grandchild.

Broads do not need to go into every wilderness area:

Many of the Great Old Broads for Wilderness are unable to hike into the lands they are dedicated to saving. Many Broads will never see the lands they struggle to preserve. They want them preserved nonetheless.

Broads do not need motors to get into wilderness:

The Great Old Broads for Wilderness are adamantly opposed to motorized vehicles driven off-road on public lands. Motors are noisy and smelly; vehicles uproot plants, crush wildlife and wildlife habitat, disturb and erode soils, and decimate riparian areas.

If a bunch of old women can walk into roadless areas, there is no good reason for anyone to need a machine to get there!

Broads do not need roads to get into wilderness:

The Great Old Broads for Wilderness believe public lands already contain enough access roads. Roadless wild lands should remain that way.

Broads want to experience serene and natural wild places, when—and if—they get there.

Grazing in wilderness is one of our main areas of concern. Cows and cowpoop are not part of the wilderness experience. Grazing by livestock has already devastated many of our public lands. That destruction has got to stop.

This brochure was designed and paid for by The Robidoux Foundation. Printed on paper made from 100% non-deinked post-costsumer wastes.

Are you a Great Old Broad for Wilderness?

We invite you to join us in protecting America's wild lands, for all grandchildren, for all time. Please return the form below with your membership fee. We ask for a $30 donation, but please send what you can. Most important to us is that you join the Broads.

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____

e-mail _____

- ❒ $30 Basic, Rock of ages broad
- ❒ $100 Outrageous broad
- ❒ $1000 Over-the-top broad
- ❒ Other donation $____

For contributions of $100 or more we will send you a Great Old Broads T-shirt — Blue on white, short-sleeve. Circle desired size.

small med large x-large

Send this form with check of money order to:

GREAT OLD BROADS FOR WILDERNESS

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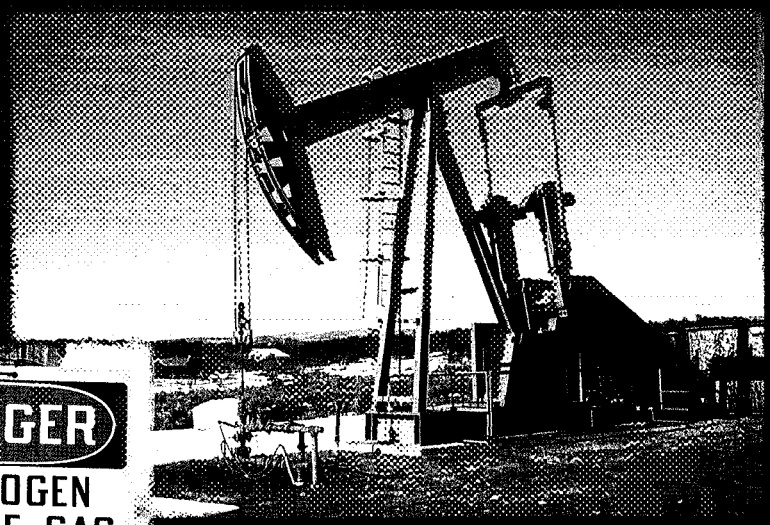


A HIGH PRICE TO PAY

Consequences of oil and gas production

Linn and Tweeti Blancett

Aztec ranchers and motel owners

We are sixth generation ranchers in northern New Mexico's San Juan Basin and we hope our grandkids will be the eighth generation. We've been ranching this land near Aztec for over 100 years. We battle droughts, winter weather, and fluctuating cattle prices. However, unlike many western cattle ranchers, we also contend with the everyday, detrimental impacts of the Basin's oil and gas industry.

Our ranch is a mixture of public and private land. We are overrun by more than 500 active gas wells. Each well pad and access road gobbles up about 3 acres of grazing land.

Gas gathering and distribution pipelines transect our property everywhere. Pipelines are not reseeded, roads are built too wide without adequate drainage, and surface spills are not cleaned up. Cheat grass and thistle sprouts all over the pipeline scars, making the ground unusable for grazing.

Access roads are usually poorly constructed, with steep grades and improper drainage. Sporadic maintenance results in roads with cavernous ruts that make them almost impassable even to 4-wheel drive vehicles. When the access roads are muddy, industry service rigs and trucks often drive on the adjacent pasture land which is drier and offers better traction. At the well pads, the waste pits and compressors are unfenced or so poorly fenced that cattle and wildlife can drink from the pits and drip pans. Uncovered drip pans hold ethylene glycol (antifreeze) and water, a sweet tasting beverage that kills livestock and wildlife that drink from it.

We lose several cows a year due to these hazards. Since well operators are reluctant to pay for livestock losses and require proof that the animal was killed as a result of their operations, we must have each animal autopsied and examined for hydrocarbon residues and cause of death. That doesn't even count all the fees for lawyers and other experts we pay to collect damages from the oil companies.

Israel Palm

Guidance Counselor
Carlsbad High School

I've lived in the Carlsbad area all my life. A few years ago, my wife and I decided to build our own house right outside of town. We had a lot just north of the city limits, across the river, and we built a nice new place there out of adobe.

The problem was that nearby was another lot that they didn't use to build a house, but to drill a well. I've learned that the only restriction they have is to be 500 feet away from an existing structure. We're lucky, I guess. In Colorado it's only 250 feet away from the nearest house.

The initial drilling was the worst because we could actually feel it. Maybe it was because the house was adobe and the vibration traveled through rock and up to the house. We could distinctly feel the rotation of the motor and we would lay in bed at night and feel the vibrations rattle through our new home.

Now we have to live with the constant drone of the pump-jack, and the eyesore of seeing that thing so close to our house. I can't imagine what it has done to our property value.

I sometimes don't know what we can do. This area depends too much on extractive industries, first the mines and now oil and gas. We don't look at alternatives.

Can we make a difference? I don't know. It seems like they always win. It's hard to fight the big money boys.

Chris Velasquez

Blanco rancher
Married with two daughters

My family has been ranching in northwest New Mexico since 1922. We run cows on our ranch and on surrounding public lands managed by the BLM's Farmington Field Office. We have problems all the time with oil company workers leaving gates open, driving across our pastures, and generally causing erosion and other problems.

Last July, these gas well guys went into a pasture and left the gate open. I'd had enough, it had happened so many times, so I parked my pickup and my horse trailer across the road and wouldn't let them out. They called the state cops. Afterwards, BLM told the oil company to keep all the gates closed on our grazing allotments. I complained repeatedly to BLM about a shallow pit filled with "black gunk" near a gas well operated by Williams. The pit was on my grazing lease and I found cattle tracks to the pit and feared animals might be drinking the oily water. I've found dead cows near oil pits before, and seen lots of dead birds and other wildlife floating in the oil pits so I was worried this cow would drink out of the pit and die too. I lose eight to ten cows each year because of the oil field activity.

Each oil company always claims the problems are caused by some other company. There are so many companies running around doing different stuff out there that they all point their fingers at each other. I just want them to take responsibility for their actions, clean up after themselves, and be good stewards that respect people like my family who has been making a living off this land for 80 years.

Greta Balderrama

Math teacher
Lifelong resident, Carlsbad area

Years of witnessing the environmental degradation caused by oil and gas development around Carlsbad, and in west Texas, has motivated me to work towards preventing the same type of destruction in the Otero Mesa area. As the crow flies the Otero Mesa area is about 80 miles west of Carlsbad, but when you're there, the web of roads, drill pads, pipelines, power lines, toxic chemicals, and the smell and noise of the oil and gas fields common near Carlsbad seem a world away.

The Otero Mesa area is the best example of Chihuahuan Desert Grassland left in New Mexico. I often see pronghorn antelope, mule deer, prairie dogs, and raptors when I visit. The scale of the landscape is magnificent.

Growing up I spent many exciting happy days exploring the desert on my horse. When I visit the Otero Mesa area, whether for hiking, biking, horseback riding or camping, I get that same feeling of awe again. I am thankful that there are still places left where nature reigns, and your heart and imagination are free.

Now, the oil and gas industry is pressuring the BLM to open up the Otero Mesa area to unrestricted development. If this happens it will be at the expense of the local wildlife. The area will end up in the same condition as the oil and gas fields around Carlsbad. The wildlife will be pushed out and the native vegetation will be scraped away. The beauty, magic, and tranquility of the area will be lost forever, and the people of Carlsbad and Las Cruces will lose a valuable piece of their natural heritage.

There are millions of acres of land in New Mexico already under development for oil and gas. We've got almost half of the total wells nationwide - over 25,000! Why do we need to drill out this last refuge for wildlife, for what the agency says is a marginal gas find anyway.

Roy & Louise Dearing

Retired oil & gas field worker and homemaker
Married with four grown children

We bought the place about twenty years ago. We were in the desert with mountains nearby and the Black River across the road. We thought it was a great place to raise a family, where our four boys could hunt, explore, and just be boys.

There was always a small compressor there, about 500 feet from the house, but when Duke Energy bought the land a few years ago, they replaced that little 100 horsepower compressor with one that has 1200 horsepower. If it doesn't breakdown it runs twenty-four hours a day, everyday. Until just a short time ago, they had four floodlights on all night. It's like living next door to an airport.

The thing is so big it shakes the house. You can feel it under your feet. We used to like to sit out on the front porch, but we can't do that now. We used to have friends come out and camp on the weekends, but they don't come around anymore.

It makes me so mad. Neither of us can sleep well anymore, and I've been so rattled, I have to go to the doctor because I now have high blood pressure.Duke Energy won't do anything about it. They have land they could move it to, land more isolated, but they won't do it.

Who knows how much pollution we are breathing. That compressor ups the pressure from 50 pounds per square inch to 535. When it gets higher than that it just releases it into the air.

We had to hire lawyer. It's so expensive it's taking up our retirement, but we're going to fight it. We'll probably die broke, with nothing left for our kids, but we're not going to stop fighting. We just can't.

Jake Hottle

Aztec business owner

I was born and raised on a farm located on the Animas River. I remember as a child, having clean water in our well. In the '50s, oil and gas began drilling up and down the Animas River corridor.

After graduating in 1965, I spent three years in the military in electronics and went on to pursue an electronic career away from here. I will always remember while here on visits, my mother standing at the sink trying to drink the stinking water coming from our well in the late 1960s. She passed away in 1974 at 64 years old. I believe poorly cemented gas wells played a role in her early death.

Upon returning home in 1979, my wife and I began to notice there was a tremendous amount of cancer in the families who lived in my neighborhood. Upon investigation, we found poorly cemented wells, open pit dumping, and methane gas in 40% of the water wells tested.

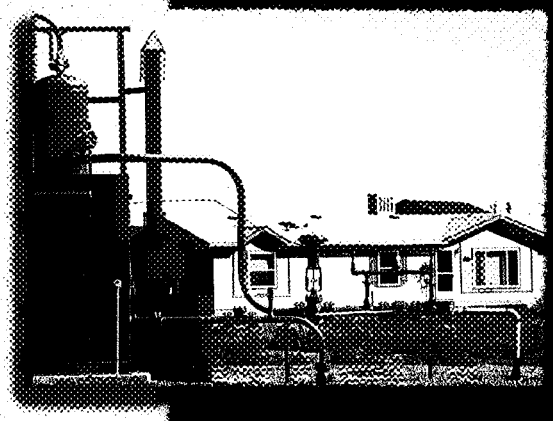
We found the industry to be inconsiderate, reckless and unsympathetic to the families in the area. It seemed that the government was letting the industry pretty well call the shots. That's when we started the Clean Water Coalition to deal with impacts of oil and gas development.

All of this happened before the coal-seam gas development. That is before the compressor nightmare. Now compressors run night and day. Their constant roar interrupts sleeping and dinner. The companies could muffle the sound if they want, but they never agree to spend the little extra money it would take to make people's lives easier.

Through no fault of their own, many Americans find themselves living next to oil and gas wells. Pipelines crisscross their land, hazardous fluids spill across the landscape, and gas compressors roar through the night.

These American families bear a special burden in meeting America's energy demands.

Read the stories of six New Mexico families to understand the consequences of oil and gas production, and the changes needed to strike a balance between energy development and protecting American families and their property.



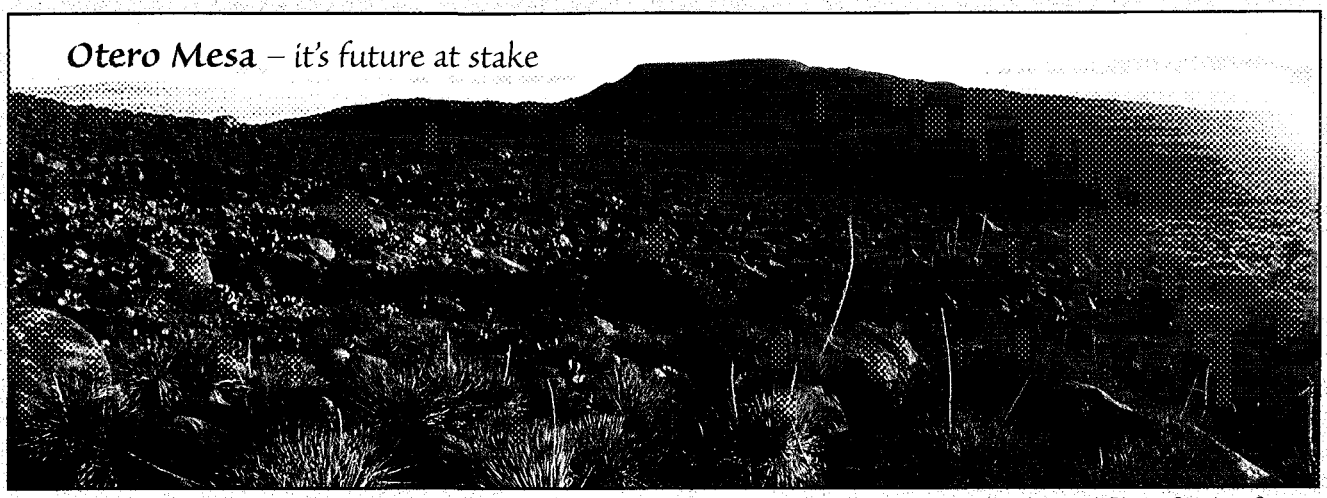


Photo: Stephen Capra

America's energy policy must protect families, property, and the environment. Our national energy policy must include these key components:

- Real protection for private property owners faced with oil and gas development on their private lands, including provisions for surface owner consent to industry access across private property.
- Clear direction to the BLM and other federal agencies to fully disclose the environmental costs of energy development on federal lands prior to committing public lands to the energy companies.
- Sincere commitment to enforcing the laws already on the books for protecting health and the environment when oil and gas drilling does occur.
- Consideration of the outstanding values of our Nation's remaining roadless lands in the West before energy development takes place on these lands.

For more information about the people and stories in this report, contact:

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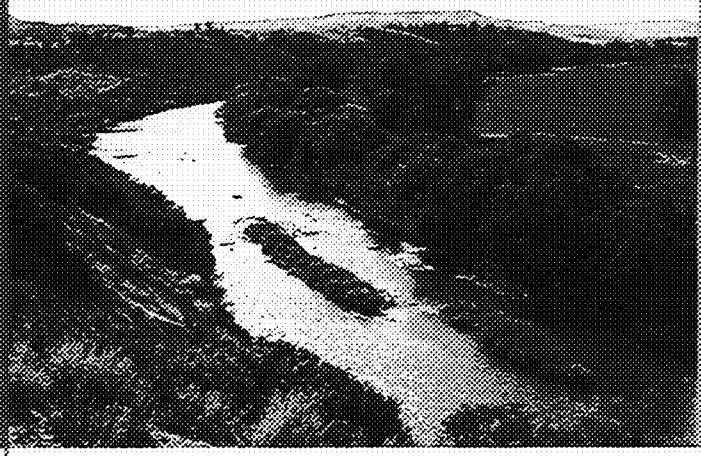
Doing It Right

a **blueprint** for responsible coal bed methane development in Montana

Southeastern and southcentral Montana is a region marked by rolling hills, prairie rivers, and clear blue skies. The area's deep coulees, ephemeral streambeds, and sagebrush flats support thousands of family farms and ranches. Small towns dot the landscape, fed by the trade of wheat, cattle, alfalfa, and sheep.

This region has stood the test of time. The challenges posed by the hot summers, harsh winters, and periodic drought are met with proud resilience, scrappy ingenuity, and a contentment that comes from living a deliberate life.



Introduction

Thick veins of coal lay beneath nearly every farm, ranch, and town in this region. On the surface of the coal are molecules of methane gas, held in place by water pressure from the region's many coal seam aquifers. Remove the water, and the methane detaches from the coal, pools together, and rises to the surface.

With rising natural gas prices and advances in technology, coal bed methane has become a valuable resource. As its value increases, so do conflicts between those who are committed to caring for the surface of the land, and those whose primary concern is to retrieve the valuable methane as quickly and cheaply as possible.

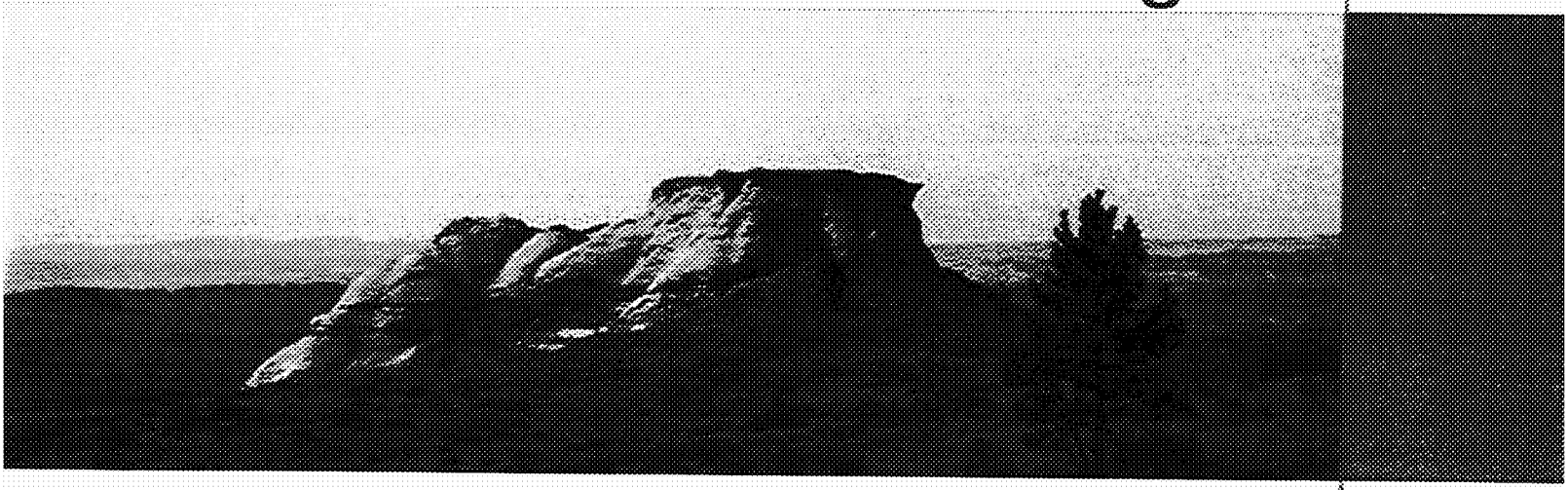
The Bureau of Land Management estimates that between 14,000 and 39,000 coal bed methane wells will be developed in Montana in the next ten years, with development stretching as far west as Gallatin and Park Counties. The boom is expected to last 20 to 30 years.

A typical well dewaters an average of 16,000 gallons of high saline groundwater from coal seam aquifers **per day.** Currently, most of this water is discharged into rivers, streams, and unlined impoundments. Methane production also brings access roads, pipelines, transmission lines, containment ponds, drill pads, compressor stations, and generators – all of which chop up agricultural land and fragment wildlife habitat.

This guide represents the insights and expertise of farmers, ranchers, townspeople, irrigation managers, water and soil experts, wildlife biologists, hydrologists, geologists, ecologists, outfitters, hunting guides, and other Montana citizens.

The six provisions listed below summarize their recommendations. Together they provide a reasonable framework for responsible development. We hope that you will help build support for responsible methane development and endorse Doing It Right by signing and mailing the postcards on the back.

Let's do it right!



RESPONSIBLE Coal Bed Methane Development Means...

1. Effective monitoring of coal bed methane development and active enforcement of existing laws to protect private property rights, Montana citizens, and Montana's natural resources.

2. Surface owner consent, surface use agreements and reimbursement of attorney fees to help landowners better protect their property rights.

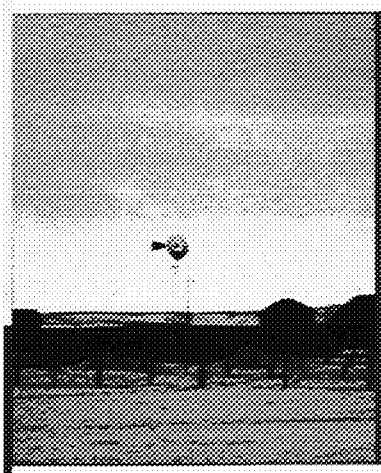
3. Use of aquifer recharge, clustered development, mufflers for compressor stations, and other low-impact, best-available technologies to minimize impacts on underground water reserves, rivers and streams, and surface resources.

4. Collection of thorough fish, wildlife, and plant inventories before development proceeds to protect habitat, followed by phased-in development to diffuse impacts over time.

5. Meaningful public involvement in the decision-making process.

6. Complete reclamation of all disturbed areas and bonding that protects Montana taxpayers from all cleanup liability costs.

Southeastern and southcentral Montana is marked by an arid to semi-arid climate. Much of the region's domestic water supply is pumped from aquifers or supplied by natural springs, and most farmers and ranchers depend on well water for stock watering.



Every drop of water withdrawn for coal bed methane production simultaneously depletes the region's precious aquifers.

Aquifers

AQUIFER DEPLETION

Coal bed methane production involves withdrawing massive volumes of groundwater from coal seam aquifers. The United States Geological Survey estimates that an average well in Montana withdraws 11.6 gallons of water per minute (gpm), or over 16,000 gallons a day. At 10 gpm, a mid-range estimate of 24,000 producing wells would pump out **345 million gallons of water per day from underground water reserves.** Most of this groundwater is discharged into rivers, streams, and dry creek beds, or held in unlined impoundments, where it can seep into rivers and streams.

DRIED UP WELLS

Every drop of water withdrawn for coal bed methane production simultaneously depletes the region's precious aquifers. The Bureau of Land Management estimates that a single well can lower aquifer levels by 34 feet within ten feet of the well. The cumulative lowering of water levels from as many as 39,000 wells is unknown, but coal mining studies suggest that it could take over 1000 years for aquifers to recharge. As underground water levels drop, landowners and rural communities can expect to see their wells, seeps, sub-irrigated fields, and natural springs go dry.

MASSIVE VOLUMES

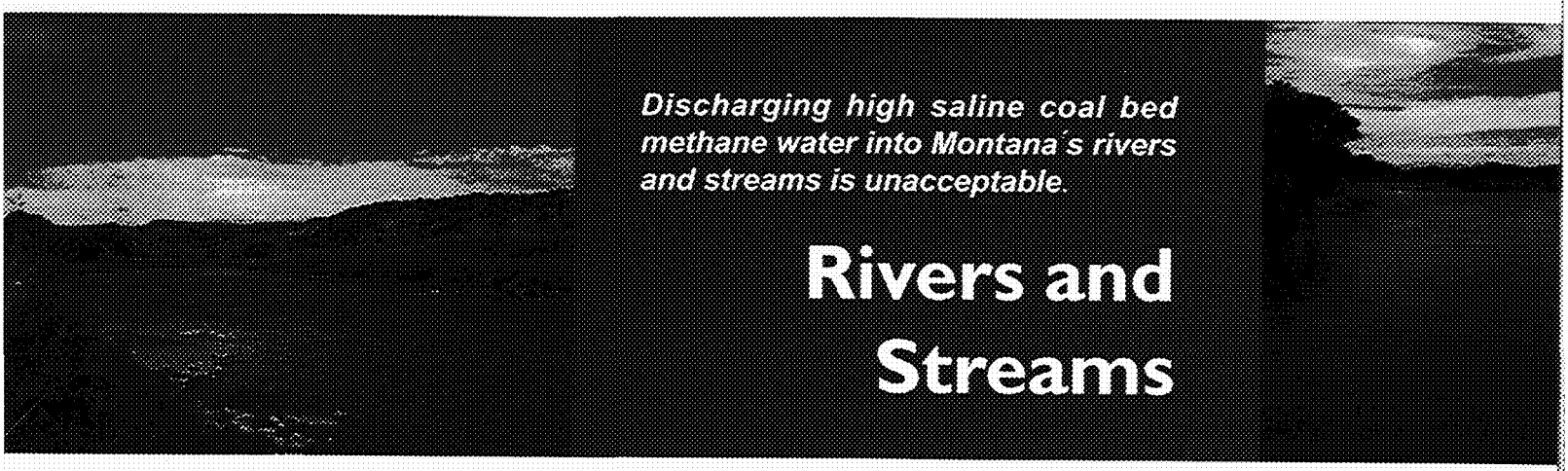
Methane water is unsuitable for irrigation because of high concentrations of dissolved salts. Industry proponents claim that methane discharge water could provide stock water for farmers and ranchers. While this may seem like an ideal solution, there's one complication: all of Montana's cattle, sheep, and pigs combined would be unable to drink the amount of the water that will be produced.

Doing It Right

Aquifer Recharge: While mineral owners have a right to retrieve their minerals, they do not have a right to deprive southeastern Montana of its underground water reserves. Luckily, **it is possible and affordable to put coal bed methane produced water back in the ground where it is most needed.** Aquifer recharge is the most sustainable, reasonable, and appropriate method for dealing with water produced by coal bed methane wells.

Water Rights: Most uses of water in Montana require a water right. Currently, methane well operators are not required to secure a water right before using massive volumes of water. This double standard reinforces confusion over ownership and responsibility for underground water reserves. The state of Montana must clarify a rational system for the use of underground water reserves that respects existing water rights and preserves aquifer levels for the future.

The Yellowstone River and its tributaries help sustain agriculture, Montana's number one industry, and the towns, rural communities, and families that depend on farming and ranching.



Discharging high saline coal bed methane water into Montana's rivers and streams is unacceptable.

Rivers and Streams

SALINE WATER

While coal bed methane produced water is suitable for domestic and stock use, it is toxic to Montana plants and crops. As water percolates through the ground, it leaches out salts. Methane produced water can come from as deep as 700 feet below the surface, and generally contains high concentrations of dissolved salts, making it unsuitable for irrigation.

DAMAGE TO SOIL

The ratio of dissolved salts (referred to as the sodium absorption ratio, or SAR) of methane water is 10 to 12 times the level at which soil and plant productivity declines and **3 to 4 times the level Montana native plants and most crops can tolerate**. Soil irrigated with this water will accumulate these salts, which destroy soil structure and inhibit water absorption by plants.

DAMAGE TO FISHERIES

Discharging high saline coal bed methane water into Montana's rivers and streams is unacceptable. Even treated, the influx of high volumes of groundwater into Montana's rivers and streams could change stream temperature and hydrology, adversely affecting fisheries. Likewise, the increased erosion and sedimentation from discharges can plug irrigation canals and destroy spawning grounds for fish. **Fishing brings over a million dollars into the region each year as Montanans and visitors to the state come to catch trout, walleye, smallmouth bass, paddlefish, and catfish.**

Doing It Right

Aquifer Recharge: The solution that best addresses these concerns is **aquifer recharge**, through reinjection or similar means.

Enforcement: Careful monitoring and rigorous enforcement of existing laws, such as the Clean Water Act and Montana Water Use Act, are essential to protecting existing beneficial uses of water. **The methane industry cannot be allowed to monitor itself.**

Minimize Roads: Minimizing roads and **requiring wells to be set back from rivers** would help reduce sedimentation.

Phased-in development: Phasing in development over several years would disperse impacts over time while providing public agencies with the time necessary to ensure Montana's rivers and streams are protected.

Agriculture is Montana's largest industry, generating more than $2 billion annually. In southeastern Montana, income from the trade of stock and crops provides a steady flow of cash into rural communities, and small towns provide support for the outlying farmers and ranchers.

The best way to ensure responsible coal bed methane development is to empower landowners to have a real say in the course of mineral development on their land.

Agriculture

PRIVATE PROPERTY RIGHTS
The region's agricultural economy is based on strong protections for private property rights and water rights. Individual landowners steward their own land and water with a view toward long term productivity, which benefits the whole region.

MINERAL RIGHTS
Coal bed methane production, like many forms of mineral development, threatens this careful balance. Because mineral owners have a legal right to retrieve their minerals, landowners who don't own their minerals are largely powerless to stop irresponsible development on their land. Meanwhile, mineral owners have little incentive to develop responsibly because, unlike landowners, they will not have to live with the long-term implications of destroyed soils, degraded water, and dried up aquifers.

ATTORNEY FEES
While landowners are entitled to compensation for any damages caused by mineral development, they must prove damages in a court of law, which can cost $30,000 to $50,000 in attorney's fees and expenses.

Doing It Right

Surface Owner Consent: The best way to ensure responsible coal bed methane development is to empower landowners to have a real say in the course of mineral development on their land. **Requiring methane operators to secure permission to drill from surface owners would greatly increase the ability of landowners to ensure responsible development.**

Surface Use Agreements: Methane operators should be **required** to negotiate a **surface use agreement** with landowners, detailing the placement of roads, wells, drill sites, pipelines, and compressor stations. The state and federal government should provide a model surface use agreement that provides strong protections for landowners.

Attorney Fees: Landowners who successfully prove damages to their property in a court of law **should be awarded compensation for their attorney fees** in order to prevent the cost of litigating from deterring landowners from seeking fair compensation.

The relatively undisturbed semi-arid breaks and sagebrush grasslands of eastern Montana are home to a diversity of wildlife, including elk, mule and white-tailed deer, pronghorn, wild turkey, sharp-tailed and sage grouse, golden and bald eagles, falcons, and prairie dogs.

Along with the intangible benefits of watching pronghorn browse sagebrush or golden eagles soar overhead, southeastern Montana's wildlife brings real benefits to the region's economy.

Wildlife

WILDLIFE BENEFITS

Along with the intangible benefits of watching pronghorn browse sagebrush or golden eagles soar overhead, southeastern Montana's wildlife bring real benefits to the region's economy. Montanans and out-of-state visitors spend millions of dollars each year enjoying the region's superb hunting and fishing opportunities. In 1999 alone, hunting for deer, pronghorn, and upland birds generated over $34 million in economic benefits for southeastern Montana.

THREATS TO WILDLIFE

The access roads, drill pads, pipelines, power lines, transmission stations, compressors, and increased traffic that accompany coal bed methane development can chop up wildlife habitat and disrupt home range, winter range, and migration routes. State and federal agencies estimate that each coal bed methane well disturbs **three to four acres of land**, and results in the construction of **a quarter to a third of a mile of new roads**. With up to 39,000 methane wells predicted in the next ten years, methane production could disturb tens of thousands of acres of critical wildlife habitat.

Doing It Right

Fish, Wildlife, and Plant Inventories: In order to ensure the long-term viability of Montana's invaluable wildlife, state and federal agencies must conduct **thorough biological inventories** of each proposed coal bed methane field **before production begins,** and **establish buffer zones** around critical habitat.

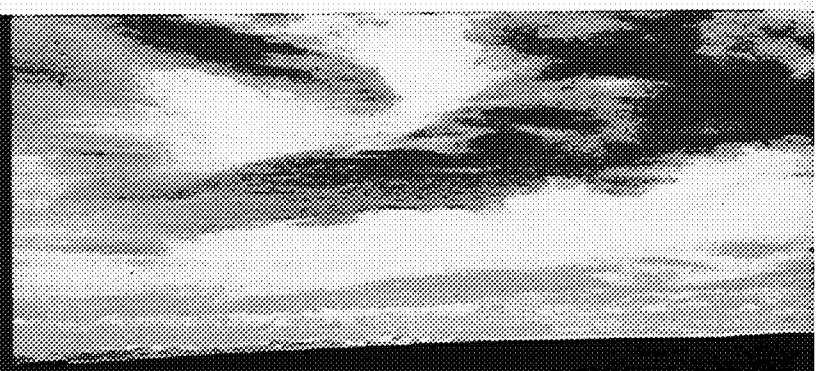
Clustered Development: The state and federal government should require that methane operators cluster pipelines and access roads together and bury power lines within existing rights-of-way to the extent possible. Clustered development could dramatically decrease the amount of land disturbed, and be accomplished at a minimal cost to the industry. Likewise, because gas from methane wells is normally measured at the well site, flow lines to compressor stations should be shared by different operators, which will reduce surface land disturbance as well as development costs.

Phased-in Development: State and federal agencies should establish a permitting schedule that **phases in development over time**. This would allow the economic benefits to last longer while reducing the concentration of impacts.

Full Reclamation: All areas disturbed during coal bed methane production should be **fully reclaimed** with native vegetation and soil types immediately following cessation of methane production.

Clean air and quiet days are some of the amenities of living away from metropolitan areas. Montana's rural residents enjoy healthy air, wide-open spaces, and the peace and quiet of country life.

Most landowners have a vested interest in disturbing as little land as possible, and, given the chance, will steward their land as they have for generations.



Rural Life

AIR POLLUTION
Most people don't equate methane — a so-called clean-burning fuel — with air pollution, but production of the gas can seriously degrade air quality. Generators are necessary to supply electricity to pump methane and power the compressor stations that compress the gas so that it can be shipped to market. Compressors and generators emit dangerous toxins such as sulfur dioxide, nitrous oxide, carbon monoxide, carbon dioxide, and formaldehyde, a known carcinogen. Methane itself is a pollutant. Lowering water pressure not only releases methane into methane wells, but can vent it through fractures in the coal seam and natural faults and allow it to build up in homes, barns, and other structures.

DUST
Dust from increased traffic on country roads can cause respiratory problems and obscure the wide open views that so many take for granted. **Dust is rarely regulated, and the burden is on local people** to complain long enough and loud enough until the owner of the road takes action.

NOISE
Compressors produce noise levels that can be a serious nuisance to area residents.

Doing It Right

Enforcement: Active enforcement of existing laws is critical to protecting Montana's clean air.

Best Technology: Methane companies should be required to use generators and compressor stations with the lowest possible emissions, and to take every precaution possible to avoid methane venting. Generators should be fueled by natural gas, which results in lower emissions than diesel fuel, and guidelines should be established maximizing the number of wells allowed for each compressor station. Compressors should be fitted with high-quality mufflers to reduce noise.

Dust Maintenance: To reduce dust on country roads, methane operators should be required to regularly treat gravel roads with treated methane water or other dust suppressants. **Limiting the number of vehicles and roads by clustering development** will help reduce overall airborne dust.

Surface Use Agreements: Methane operators should be required to secure a surface use agreement with surface owners so that those who care about the land can have a say in the course of construction. Most landowners have a vested interest in disturbing as little land as possible, and, given the chance, will steward their land as they have for generations.

One of the cornerstones of American democracy is the involvement of citizens in decisions that affect their lives. Many state and federal laws are designed to incorporate citizen input into decision-making processes.

The state of Montana and the federal government must make every effort possible to include the public in a meaningful way in decisions about the future of coal bed methane development.

Citizen Involvement

GOOD DECISIONS
Involving the public invariably creates a longer decision-making process, but the benefits far outweigh delays. By including the public, state and federal agencies can educate citizens, while gathering invaluable on-the-ground information. The more involved citizens become in the process, the better the final outcome.

PUBLIC INPUT
The unprecedented scale of proposed coal bed methane development, along with the fact that water — Montana's most precious resource — is at the heart of the controversysuggest that now, more than ever, state and federal agencies need to make every effort to include the public in the decision-making process.

RUSHED DEVELOPMENT
Ensuring public participation in decisions concerning the course of coal bed methane involvement is the responsibility of government agencies and individual citizens. Thus far, state and federal agencies have focused on producing an environmental impact statement as quickly as possible at the expense of meaningful public involvement.

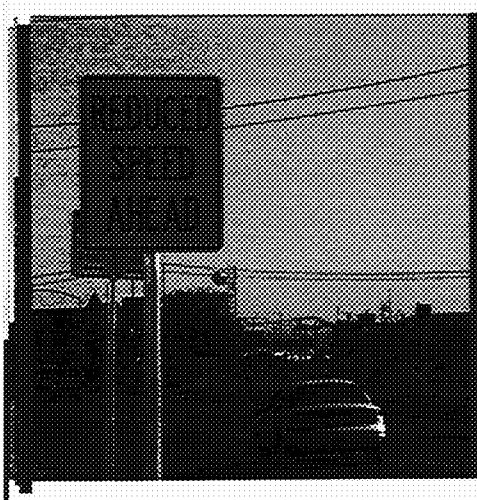
Doing It Right

Adequate Public Notice: The state of Montana and the federal government must make every effort possible to include the public in a meaningful way in decisions about the future of coal bed methane development. Notice for public meetings for the ongoing environmental impact statement, as well as future environmental reviews, should be posted at least one month previous to the meetings, and should be sent to all Montana newspapers and radio stations. Written comments should be accepted for at least one month following public comment meetings.

Public Comments: Comments gathered during public meetings should be seriously considered and incorporated into government documents. Testimony at public hearings should be thoroughly recorded and incorporated into the public record.

Public Involvement: Montanans have a civic responsibility to get involved in the decision-making process. Citizens can express their concerns by commenting on the upcoming draft environmental impact statement, testifying at public meetings, writing letters to the editor of local newspapers, or calling their elected state and federal representatives.

Montana has numerous laws designed to protect our precious natural resources. Their usefulness is related to the extent to which they are enforced. Self-regulation and voluntary compliance, as a rule, are inadequate to hold individuals and corporations accountable.



State and federal agencies should hold methane operators fully responsible for violations of state and federal laws.

Accountability

ENFORCEMENT

If the citizens of Montana wish to hold the methane industry accountable, then our common sense laws must be enforced. Right now, data concerning the quality and quantity of coal bed methane discharges and the quality of the rivers and streams into which they flow come directly from the industry. This is akin to letting a fox guard the hen house: it just doesn t work.

ACCOUNTABILITY

A single citizen inspection of a coal bed methane field revealed two blatantly illegal discharges of methane wastewater with toxic levels of sodium and dissolved salts into a tributary of the Tongue River. Twelve months earlier, the Montana Department of Environmental Quality had notified the company that these discharges were illegal. The methane company admitted that one of the discharge pipes had been illegally discharging for over six months! Without the citizen inspection, the illegal discharges could have continued indefinitely.

Doing It Right

Agency and Citizen Inspections: Regular inspections of coal bed methane fields and collection of soil and water samples are essential to ensuring compliance with Montana's common sense laws. Regular inspections should occur no less than four times annually for each field, with one surprise inspection each year. Citizens and interest groups should have the right to petition for further inspections.

Public Access: Real-time surface and groundwater flow monitors should be installed at methane water discharge points and in aquifers, and data should be made readily available to the public on the Montana Department of Environmental Quality's website.

Fines: State and federal agencies should hold methane operators fully responsible for violations of state and federal laws, implementing fines as well as increased monitoring to detect future violations.

Bad Actor Provision: Drilling for methane in Montana is a privilege. Any methane operator who repeatedly violates state or federal laws should be barred from receiving further permits to drill for methane in Montana.

Southeastern and southcentral Montana is a region rich in cultural and historic resources. Nearly two hundred years ago, the Lewis and Clark Expedition traveled across the region. The Northern Cheyenne and Crow Indian Tribes live in the area, and sacred sites abound.

These sites tell the story of two cultures coming together, of homesteaders seeking a new life, and of the struggles to defend a homeland.

Heritage

CULTURAL AND HISTORIC SITES
Nearly 600 cultural and historic resource sites have been identified in the Tongue River drainage as eligible for listing under the National Register of Historic Places. These sites and others could be negatively impacted by irresponsible development.

HISTORY
These sites tell the story of two cultures coming together, of homesteaders seeking a new life, and of the struggle to defend a homeland. For the Northern Cheyenne and Crow Tribes, these sites are an integral part of their spiritual and cultural identity. Many sites are also a source of tourism revenue. Hundreds of people travel to the area each year in remembrance of the Battle of the Little Big Horn and Custer's Last Stand. History buffs from around the nation travel great distances to trace the path of the Lewis and Clark Expedition.

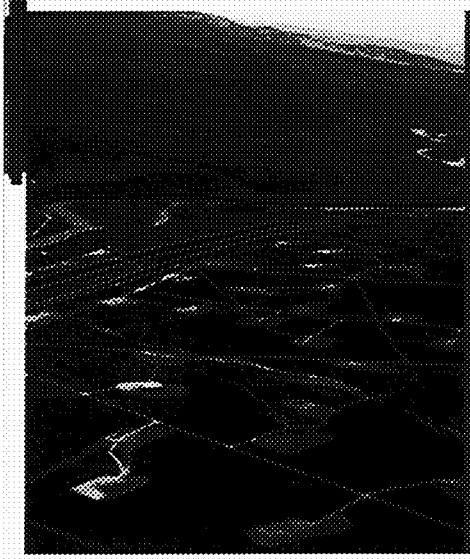
RISKS
Cultural and historic sites are protected under the National Historic Preservation Act. Under this Act, government agencies must consult with Indian Tribes, the Advisory Council on Historic Preservation, and the Montana State Historic Preservation Office before taking any action that may disturb a historic, cultural, or ancient burial site. Thus far, state and federal agencies have all but ignored this requirement, putting southeastern and southcentral Montana's important cultural and historic sites at risk.

Doing It Right

Enforcement: State and federal agencies must fully comply with the National Historic Preservation Act by consulting with all affected Tribes, the Advisory Council on Historic Preservation, and the Montana State Historic Preservation Office before putting any of Montana's important historic sites at risk. The integrity of these sites must be maintained.

The true legacy of coal bed methane development will emerge in two or three decades when the last of the methane has been sent to market. While it is impossible to foretell the nature of that legacy, we do know that coal bed methane will be developed and the methane industry will see billions of dollars in profits.

We also know that the methane industry can afford to do it right. It takes approximately $65,000 to establish a producing well in Montana; depending on gas prices, an average well brings in $600,000 to $1.2 million over its productive life. That leaves several hundred thousand dollars — a percentage of which will be paid for taxes and general operations — per well. **Clearly, the methane industry can afford to do it right. Montana citizens, however, cannot afford otherwise.**



Any damages not covered by the methane industry will be borne by the farmers and ranchers who live in areas of proposed methane development, by the surrounding communities, and, finally, by all Montana taxpayers.

Legacy

BONDING

In Montana, coal companies must post a bond — a monetary deposit to cover potential damages — before mining for coal. The same holds true for the hard rock mining industry. **Coal bed methane companies, however, need only post bonds for the cost of plugging and abandoning a well**. That means methane operators can pump out millions of gallons of groundwater from Montana's aquifers, discharge poor quality methane water into Montana's rivers and streams, disturb hundreds of thousands of acres of prime agricultural land, disrupt agricultural operations, and displace wildlife, all without any financial protection for Montana citizens.

TAXPAYER RISK

Any damages not paid for by the methane industry will be borne by the farmers and ranchers who live in areas of proposed methane development, by the surrounding rural communities, and, finally, by all Montana taxpayers.

Doing It Right

Bonding: In order to protect Montana taxpayers and encourage responsible development, state and federal agencies must require bonds that cover the **full** cost of methane development.

Full Reclamation: To ensure complete reclamation of land disturbed by methane production, state and federal agencies must establish clear and enforceable reclamation standards. Full reclamation of all disturbed lands should be a standing provision in a model surface use agreement, and landowners should make it a bottom-line request when leasing their minerals.

Montana is at a crossroads: one path leads to a balanced future in which methane development and other industries exist side-by-side. Down the other path is the specter of dried-up wells, polluted rivers, destroyed soils, and an agricultural economy in shambles.

Montana has a rare opportunity to make sure the methane industry does it right from the beginning, thanks to a temporary moratorium on methane drilling permits. However, a choice for responsible development will require that Montana citizens stand up and demand foresight and true leadership on the part of state and federal elected officials and agency personnel.

Montana has a rare opportunity to make sure the methane industry does it right from the beginning, thanks to a temporary moratorium on methane drilling permits.

Conclusion

CITIZEN INVOLVEMENT

The provisions outlined in this guide point the way toward coal bed methane development that all Montana citizens can live with. Some necessitate legislative action in the halls of the Montana State Capitol or in the U.S. Congress. Many fall under existing laws. Others rely on a strong environmental impact statement. **All require that Montana citizens be informed and get involved.**

BALANCE

Together, these provisions seek to balance the livelihoods of farmers, ranchers, and townspeople, and protection of Montana's land, air and water, with the rights of methane operators to retrieve their minerals.

CHOICE

One thing is clear: Montana citizens do not have to make a choice between their good water, clean air, and productive agricultural fields on the one hand, and coal bed methane development on the other. They only need to choose to develop methane responsibly.

RESPONSIBLE DEVELOPMENT

The methane industry can afford to do it right. Montana cannot afford not to. ***Let's make them do it right!***

The Northern Plains Resource Council is committed to providing the information and tools necessary to give citizens an effective voice in decisions that affect their lives. Recognizing the need to balance the quest for economic gain with social and environmental concerns, members of Northern Plains work to protect Montana's land, air, and water, and to preserve sustainable family agriculture in Montana.

Northern Plains Resource Council
2401 Montana Avenue, Suite 200
Billings, Montana 59101
tel (406) 248-1154
fax (406) 248-2110
info@nprcmt.org
www.northernplains.org

Doing It Right: a blueprint for responsible coal bed methane development was produced by the Northern Plains Resource Council in October, 2001.

For additional copies, please call (406) 248-1154, or email us at **info@nprcmt.org**. You can also download it from our website at **www.northernplains.org**. For a complete documentation of sources, go to **www.northernplains.org**.

Photo credits

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Page 1:	Tongue River near Birney, Montana. Photo by Megan Dishong.
Page 2:	Rocker Six Cattle Company. Photo by Megan Dishong.
Page 3:	Windmill powered water well in southeastern Montana. Photo by Tana Patterson.
Page 4:	Tongue River near Decker, Montana. Photo by Megan Dishong.
Page 4:	Yellowstone River. Photo by Tana Patterson.
Page 5:	Hay field at Swartz ranch, Wildcat Creek, Wyoming. Photo by Megan Dishong.
Page 6:	White-tailed deer. Photo courtesy of Montana Wildlife Federation.
Page 7:	Wheat field in southeastern Montana. Photo by Tana Patterson.
Page 8:	Montana Legislative committee hearing. Photo by Frank James.
Page 9:	Street sign in Billings, Montana. Photo by Amy Frykman.
Page 10:	View of the Little Bighorn River at Little Bighorn Battlefield. National Park Service photo.
Page 11:	Aerial view of methane drilling in Colorado. Photo by Rebecca Clarren, courtesy of *High Country News*.
Page 12:	Neighbors chatting in Birney, Montana at the annual Birney BBQ. Photo by Alan Rolston.
Back:	Farmland near Decker, Montana. Photo by Amy Frykman.

Thoughts on responsible coal bed methane development...

"We must hold the methane industry to the highest standards to ensure that coal bed methane development contributes in a positive way, rather than continuing a legacy where the economic benefits go primarily to developers, while environmental risks, costs, and impacts are forced on Montana . We must demand that our state and federal agencies establish solid and responsible rules of the game necessary to protect our heritage and our ecosystem before further coal bed methane development begins in Montana."

Thomas Schneider, Petroleum Engineer and former
Chair of the Montana Public Service Commission.

"It certainly appears that coal bed methane extraction can be an important part of the solution to our energy stress; however, I believe it must and certainly can be done in a prudent and orderly manner."

William Edwards, former Wyoming State Legislator, Ph.D.

"Those of us who depend on good water for irrigation and productive land for our livelihoods know that if we don't stand up and demand that state and federal agencies enforce the laws that are designed to protect our interests, then we are out of luck. We don't want to be out of luck."

Roger Muggli, Manager of the Tongue
and Yellowstone Irrigation District

Place 21 cent stamp here

Northern Plains Resource Council
2401 Montana Avenue, Suite 200
Billings, Montana 59101

Place 21 cent stamp here

The Honorable Governor Judy Martz
State Capitol
Helena, Montana 59620-0801

what you can do

1. **Endorse Doing It Right** and help build support for responsible coal bed methane development in Montana! Sign the right-hand postcard below and drop it in the mail. It's that easy!

2. **Send a postcard to Montana Governor Judy Martz** indicating your support for the common sense provisions outlined in **Doing It Right**. Sign the left-hand postcard and drop it in the mail.

3. **Volunteer to solicit other endorsements**. Spread the word! Call (406)-248-1154 or email info@nprcmt.org for more information.

4. **Comment on the upcoming draft environmental impact statement** to be released in mid-December. Let your voice be heard! Log onto www.northernplains.org or call (406)-248-1154 for more information.

Dear Governor Martz,

Please support the following common sense provisions outlined in **Doing It Right: a blueprint for responsible coal bed methane development in Montana**:

1. Effective monitoring of coal bed methane development and active enforcement of existing laws.
2. Surface owner consent, surface use agreements, and reimbursement of attorney fees to landowners.
3. Use of aquifer recharge, clustered development, mufflers for compressor stations, and other low-impact, best available technologies.
4. Collection of thorough fish, wildlife, and plant inventories before development proceeds, and phased-in development over time.
5. Meaningful public involvement in the decision-making process.
6. Complete reclamation of all disturbed areas and adequate bonding.

Sincerely, ...

Yes! I support the following common sense provisions outlined in **Doing It Right: a blueprint for responsible coal bed methane development in Montana:**

1. Effective monitoring of coal bed methane development and active enforcement of existing laws.
2. Surface owner consent, surface use agreements, and reimbursement of attorney fees to landowners.
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4. Collection of thorough fish, wildlife, and plant inventories before development proceeds, and phased-in development over time.
5. Meaningful public involvement in the decision-making process.
6. Complete reclamation of all disturbed areas and adequate bonding.

Sincerely, ...

Please include your name, address, and email!

Biodiversity Associates ♦ Californians for Western Wilderness
Colorado Environmental Coalition ♦ CoPIRG Citizen Lobby
Dakota Resource Council ♦ Defenders of Wildlife
Land and Water Fund of the Rockies ♦ Greater Yellowstone Coalition
Mineral Policy Center ♦ Montana PIRG ♦ Natural Resources Defense Council
New Mexico Wilderness Alliance ♦ Oil and Gas Accountability Project
Oregon State PIRG ♦ San Juan Citizens Alliance ♦ Sierra Club
Southern Utah Wilderness Alliance ♦ The Wilderness Society ♦ U.S. PIRG
Western Organization of Resource Councils ♦ Wyoming Outdoor Council

HR 4 Rolls Back Protections for America's Public Lands

In passing HR 4 in August, the U.S. House of Representatives approved sweeping new measures that would strip our national public lands of protection from the impacts of oil and gas drilling. The Senate should reject this divisive, damaging proposal in favor of a more balanced and environmentally sustainable energy policy.

Today, as much as 95 percent of the lands managed by the Bureau of Land Management (BLM) in the six state region known as the Overthrust Belt (Montana, Wyoming, Colorado, New Mexico, and Utah) and most of our National Forests and Grasslands are open to oil and gas drilling. Around 25 million acres of BLM-administered lands are leased to industry, and the U.S. Forest Service has another 6 million acres under lease. Of these leased lands, over 12 million acres are in production. Despite these wide-open opportunities to develop energy resources on public lands, HR 4 contains a suite of new provisions to open up the last remaining public lands and take away current environmental safeguards.

• *HR 4 Threatens Special Areas by Forcing Agencies to Revisit Protection Decisions*

Under Section 6223 (c) and (d), the oil and gas industry could force the Interior Secretary to revisit administrative decisions made to protect America's public lands from oil and gas impacts and determine whether the basis for those decisions is "still persuasive." This is a license to reopen millions of areas of now-protected lands to industrial development, and would saddle agencies with costly and time intensive bureaucratic red tape. A majority of westerners and Americans favor continued protection of lands that were administratively set aside. Because many recent political appointees at the Interior Department are former industry executives, lawyers and lobbyists, these provisions are an invitation to roll back protections on most of the public's lands, except National Parks and Wilderness. Oil and gas potential was considered when the decisions were made to administratively protect these lands, and it would be counter-productive and contrary to the will of the American people to revisit these decisions.

This provision would put at risk many of the lands that have been protected as part of America's historic and natural heritage, such as:

- **Lands withdrawn from oil and gas drilling to protect sensitive drinking water supplies, wildlife, recreation sites, cultural values, or other resources, as well as areas that have been leased with stipulations to safeguard private property owners, elk and deer herds, and other resources.**
- **Areas of Critical Environmental Concern designated on BLM lands to protect unique and outstanding resource values, such as the unique Alkali Lakes area of New Mexico's Chihuahuan Desert, which is home to rare plant species, scenic sand dunes, rugged alkali flats, pronghorn antelope herds, and endangered raptors.**
- **Spectacular wild lands like the Rocky Mountain Front region in Montana, and citizen-proposed wilderness areas like the Vermillion Basin in Colorado and Lockhart Basin in Utah.**

• *HR 4 Would Eliminate the Forest Service's Ability to Protect America's Forest Lands*

Section 6225 replaces the current public process and decisionmaking by National Forest supervisors with centralized decisions made by D.C. political appointees without opportunities for public notice or involvement.

This will preempt Forest Service decisions made with public input and careful study to protect drinking water supplies, popular hunting areas, key habitat, cultural sites, and scenic wild lands on our National Forests and grasslands from the harmful impacts of oil and gas drilling.

- **This provision would have prevented the 1997 Forest Service decision to protect the spectacular Rocky Mountain Front of the Lewis and Clark National Forest in Montana by barring future oil and gas leasing.**
- **It may change a similar pending Forest Service decision on the equally magnificent Bridger-Teton National Forest in Wyoming.**
- **Similarly, it would have barred a Helena National Forest Supervisor's 1998 decision, supported by local citizens and the Lewis and Clark County Commission, to protect the ancient travois trail followed by explorers Lewis and Clark by only allowing off-site drilling in the area.**

• *HR 4 Undermines Existing Protections for Wildlife, Water and Land*

Section 6223(a) encourages the Secretary of the Interior to eliminate critical protections for wildlife, water supplies, fragile landscapes and other environmental values under the guise of getting rid of "unwarranted" denials and stays of oil and gas leases and restrictions of lease operations. This undefined and discretionary term could give the Interior Secretary a blank check to overturn critical environmental analysis and safeguards, and likely provides a new hook for industry lawsuits to pressure federal agencies into not protecting the public's natural heritage.

- **In southwest Colorado, although much of the beautiful 35,000 acre HD Mountains Roadless Area is already leased, most leases carry stipulations such as seasonal restrictions to protect wintering big game herds, no roadbuilding on steep slopes, or "no surface occupancy." HR 4 would give Secretary Norton the authority to overturn current protections for deer and elk herds, and approve new roads built on steep slopes that could cause massive landslides and erosion.**
- **In New Mexico, the BLM routinely attaches "no surface occupancy" stipulations to protect riparian and wetland habitats, endangered plant species, bald eagle roosting areas, and cultural sites. New Mexico Oil and Gas Conservation Division rules, however, generally only prohibit "surface waste" with no specific protection for areas of critical environmental concern, wildlife or any area of special environmental significance.**

• *HR 4 Pressures Agencies to Follow Inadequate State Standards on National Lands*

Under Section 6223(b), upon industry demand, federal agencies would be forced to explain why the "restrictions" they require on oil and gas leases to protect the environment differ from a state's standards – even though states may have no policies to protect public land uses such as wildlife habitat, recreation, and water supplies. This bureaucratic provision would also require costly and time-consuming paperwork, thereby creating further pressure to eliminate or water down needed environmental protections.

- **In Colorado, one of the standard BLM stipulations on oil and gas leases is to protect threatened and endangered plant and wildlife populations. In contrast, the Colorado Oil and Gas Conservation Commission, whose composition is legislatively mandated to have a majority of oil and gas industry representatives, has no such policy.**
- **In Wyoming, the state commission has no authority to impose ANY environmental protections on oil and gas leases. As a result, HR 4 could result in devastating impacts to water, air and wildlife in Wyoming, as well as throughout the West.**

HR 4's dramatic reversals of existing environmental policy could destroy many of America's unique and fragile public land resources – our water, wildlife, and spectacular scenic vistas. We urge you to oppose any such provisions in Senate energy legislation.

For more information, please contact Elise Jones at the Colorado Environmental Coalition (303-534-7066, elise@ceeenviro.org), Tom Darin at Wyoming Outdoor Council (307-332-7031, tom@wyomingoutdoorcouncil.org), Mark Pearson at the San Juan Citizens Alliance (970-259-3583, mpearson@frontier.net), or Heidi McIntosh at the Southern Utah Wilderness Alliance (801-486-3161 x15, heidi@suwa.org).

August 26, 2001

SUNDAY REPORT

Bush's Energy Plan Bares Industry Clout

Cheney-led task force consulted extensively with corporate executives. Its findings boosted their interests. Environmental groups had little voice.

By JUDY PASTERNAK, TIMES STAFF WRITER

WASHINGTON -- Throughout February and March, executives representing electricity, coal, natural gas and nuclear interests paraded quietly in small groups to a building in the White House compound, where the new administration's energy policy was being written.

Some firms sent emissaries more than once. Enron Corp., which trades electricity and natural gas, once got three top officials into a private session with Vice President Dick Cheney, who headed the energy task force. Cheney did "a lot of listening," according to a company spokesman.

Many of the executives at the White House meetings were generous donors to the Republican Party, and some of their key lobbyists were freshly hired from the Bush presidential campaign. They found a receptive task force. Among its ranks were three former energy industry executives and consultants. The task force also included a Bush agency head who was involved in the sensitive discussions while his wife took in thousands of dollars in fees from three electricity producers. The final report, issued May 16, boosted the nation's energy industries. It called for additional coal production, and five days later the world's largest coal company, Peabody Energy, issued a public stock offering, raising about $60 million more than expected. While Peabody was preparing to go public, its chief executive and vice president participated in a March 1 meeting with Cheney.

The report also touted new gas extraction technologies. An early draft noted controversy over a gas recovery technique offered by Halliburton Co., the firm Cheney ran from 1995 to 2000, before becoming vice president. The plan released to the public deleted the negative language.

Cheney continues to resist demands by Congress to disclose who met with administration officials during the 106 days earlier this year when the energy plan was fashioned. The private nature of the work fostered candid and creative discussions "from new and unused quarters," said Cheney Press Secretary Juleanna Glover Weiss.

But interviews and a review of task force documents show how the administration relied on familiar faces who stood to benefit from the process.

Just once, the task force departed from its pledge to keep secret the names of people invited to pitch their opinions face to face. After producers of power from the sun, wind and geothermal heat met with Cheney, officials led the group to the front of the White House and waiting reporters.

The date was May 15, just one day before the plan was sent to President Bush.

Others whose views might conflict with industry--the Union of Concerned Scientists, the Sierra Club, even federal agency staff--found themselves shut out or overruled.

In the sessions they held while they worked on the plan, Cheney and his staff generally heard a message reinforcing their own mind-set: Free markets, fewer pollution rules and expanded development of traditional fuels.

Using less energy and energy in different forms were notions mentioned but not emphasized. "What do you expect?" asked one energy industry insider whose colleagues met with Cheney. "These people make their living from coal and natural gas and nuclear power. Do you think they're going to push for solar and wind?"

The influences are evident in the final product.

The report focuses on easing regulation for oil and gas drilling, coal-fired generators, nuclear power plants and transmission of electricity, while providing energy assistance to poor households. Though the plan also backs alternative fuels and conservation, it gives the most support to increasing the supply of traditional sources of energy.

One passage adopts word for word a proposal on global warming from the U.S. Energy Assn.'s National Energy Strategy, which is dominated by trade groups. The section suggests encouraging other countries to build factories with clean technologies sold by U.S. companies.

Even basic assumptions in the report were tailored to industry's measure.

A briefing paper prepared for a March 19 task force meeting with Bush said that, "on the whole, U.S. energy markets are working well, allocating resources and preventing shortages." But two months later, the final task force report proclaimed that "America faces the most serious energy shortage since the oil embargoes of the 1970s."

The energy situation hadn't changed. One staffer recalls seeing a memo that discussed "utilizing" California's rolling blackouts and the past summer's high-priced gasoline to press for more drilling for gas and oil.

The task force began work in late January, nine days after Bush's inauguration.

By all accounts, the vice president dominated the meetings. Energy Secretary Spencer Abraham; Bush's chief economic advisor, Lawrence B. Lindsey; and Environmental Protection Agency Chief Christie Whitman were the others with the most to say, one administration official said. But everyone jumped in on matters outside his or her own immediate jurisdiction.

There was no shortage of private energy experience. Besides Cheney's stint as Halliburton's chief executive, Commerce Secretary Don Evans ran an oil company and Lindsey served on an Enron advisory board.

The committee still gathers on occasion, most recently last month, to monitor progress of its recommendations. The House of Representatives passed an energy measure that reflects the plan. Once the Senate votes next month and the two houses of Congress sit down to negotiate a final bill, "we'll be bringing a lot of pressure to bear," Weiss said. "Our objective is to get that legislation as close to the policy as possible."

To Howard "Bud" Ris, who heads the Union of Concerned Scientists, the process represents an opportunity lost. He disagrees with the report's conclusions but says he would have felt better if task force members and staff had thoroughly explored all sides.

"They should have done a really rigorous review. They foreclosed all kinds of options."

Electricity

If any group had the White House wired, it was the electricity industry.

The director of its major lobbying arm, the Edison Electric Institute, roomed at Yale University with George W. Bush. Electricity generators and marketers contributed $19.7 million to Republicans since 1998, roughly double what they gave Democrats, according to the Center for Responsive Politics. And electricity companies negotiated contracts with administration friends, political operatives and, in one case, a family member.

Take Haley Barbour, former chairman of the Republican National Committee. In the spring of 2000, the Bush campaign recruited him to help with strategy.

A year later, as a lobbyist for several electricity producers, he pushed Bush and Cheney to renege on a campaign promise to restrict power plant emissions of carbon dioxide. The gas has been linked to global warming.

On March 1, Barbour sent a sternly worded memo on the subject to Cheney. "A moment of truth is arriving," the note

began. Complying with carbon dioxide limits would be so expensive that Bush should reverse his position, Barbour argued.

"Clinton-Gore policies meant less energy and more expensive energy," he wrote. "Most Americans thought Bush-Cheney would mean more energy, and more affordable energy."

Within weeks, Cheney's task force had adopted the same reasoning on carbon dioxide. Bush cited the task force position when he announced in March that he had changed his mind.

The National Electric Reliability Council, an industry trade group, hired former Montana Gov. Marc Racicot as a Washington representative. Racicot was a close Bush advisor during the tumultuous postelection days in Florida.

Racicot said he met with Cheney and his energy director, Andrew Lundquist, on the subject of the EPA's forcing old plants to update their clean air equipment.

The task force report suggested that the Justice Department consider dropping lawsuits it has already brought for alleged violations.

Three electricity companies employ Diane Allbaugh as a lobbyist. She is married to Joe Allbaugh, the only member of Bush's so-called iron triangle of trusted Texas cohorts to serve on the energy task force. During meetings of the panel, Joe Allbaugh always took a chair at one end of the table, with Abraham to his right and Whitman to his left. He serves by virtue of his position as director of the Federal Emergency Management Agency.

In her most recent disclosure reports in January, Diane Allbaugh said that the three firms--Reliant Energy, Entergy and TXU, paid her $20,000 apiece in the previous three months. She wrote that she did no lobbying on their behalf. The companies say she performed other consulting duties.

Reliant spokesman Richard Wheatley said the company is "actively supporting" the energy plan, but Diane Allbaugh's "minimal assignments have not involved the task force, specifically to avoid any specter or allegation that there is a conflict of interest." She is a consultant on "Texas-related" issues, he said.

Spokeswomen for TXU and Entergy said Diane Allbaugh's work for them is likewise restricted to their Texas operations.

Meanwhile, her husband, Joe Allbaugh, has participated in task force talks with a direct bearing on the energy companies' interests generally, such as environmental rules for power plants and electricity deregulation--a specialty of his wife's.

At least twice he was privy to updates from economic advisor Lindsey on California's malfunctioning market, where Reliant stands accused by the state of overcharging. The company denies any wrongdoing.

Joe Allbaugh's spokeswoman, Christi Harlan, said that nothing "about the situation would suggest that the director would need to seek ethics guidance" and added that his wife's lobbying reports "are going to have to speak for themselves."

Diane Allbaugh declined comment. Visited at the townhouse that the Allbaughs bought in March from the Cheneys, she said: "I appreciate the effort you've gone to, but I don't think we're going to talk."

In 1996, the Dallas Morning News reported that she represented clients with interests in pending Texas state deregulation of telecommunications and utilities markets, while her husband served as then-Gov. Bush's chief of staff. At the time, Bush said he was troubled "if it creates a public perception that something unfair is taking place."

At the time, she wrote the governor's counsel that she was withdrawing from her contracts. And Bush instituted a policy that division heads and senior aides could not be married to registered lobbyists, according to Texas newspapers.

As president, Bush has no special guidelines beyond those of the Office of Government Ethics, said White House spokeswoman Claire Buchan. These regulations appear less stringent, prohibiting participation only if a particular matter applying to a specific company is addressed.

TXU Chief Executive Erle Nye--a client then and now--said Diane Allbaugh has been a consultant on deregulation issues. She registered as a lobbyist, he said, just in case she happened to talk about a pertinent issue to a politician. "To my knowledge, we would not have let her lobby," he explained, "because she is the wife of Joe."

Natural Gas

Natural gas was connected in high places too.

When the Energy Department drafted a chapter for the report about how to increase domestic energy production, the text mentioned the importance of hydraulic fracturing, a method of accelerating production of natural gas wells. It so happens that Halliburton is a major provider of the service.

Chemicals and sand are injected under high pressure into gas-bearing geological formations, causing underground cracks. The gas rises into the cracks and moves closer to the well, making recovery easier.

The process has its foes. Neighbors of natural gas wells in Alabama complained of oily goop and sulfur smells streaming out of faucets just after a company conducted fracturing. An Alabama federal appeals court ordered the state to regulate the process--and EPA to step in if needed. Natural gas drillers, and hydraulic fracturing purveyors, expect similar lawsuits to be filed in the Rocky Mountain states, according to material submitted to the task force by the Domestic Petroleum Council.

The EPA is studying whether hydraulic fracturing is linked to water well contamination but doesn't expect to finish its preliminary inquiry until at least February. The agency will decide then if further research is warranted, officials said.

Halliburton complained in federal court, during Cheney's last year at the company, that new federal restrictions on the process would "have a significant adverse effect" on its business.

The Energy Department chapter mentioned the environmental controversy as well as the potential of hydraulic fracturing. With the Energy Department chapter in hand, a Cheney assistant informed an EPA official in late March that hydraulic fracturing would go on the April 3 agenda for the Cabinet-level gathering. The agency was advised to prepare a recommendation.

EPA officials balked at suggesting any actions for the task force before the study was completed. The subject disappeared from the agenda by the day of the meeting.

But it didn't disappear from the final report. The document emphasized the technique's importance as "one of the fastest-growing sources of gas production" and noted that "each year nearly 25,000 oil and gas wells are hydraulically fractured." The information about potential water well contamination, the appeals court decision and the possibility of EPA controls had all been dropped.

A few paragraphs after the hydraulic fracturing discussion comes the task force recommendation that the nation "promote enhanced oil and gas recovery from existing wells through new technology."

Halliburton spokeswoman Wendy Hall said company executives did not discuss the energy report with Cheney. "Of course, we talk to him; you don't work with someone for that long and then not talk to him. But not about the plan, and not about hydraulic fracturing."

Coal

Perhaps the biggest winner in the task force report was coal.

Though coal produces more than half of the country's electricity, natural gas dominates the next generation of power plants. The reason: clean air rules. Burning coal produces a significant amount of carbon dioxide, which has been linked to global warming, and other elements tied to acid rain and smog.

Under President Clinton, " 'coal' was a dirty word," said John Feddock, an industry analyst based in Bluefield, Va.

Not so under Bush, whose U-turn on carbon dioxide was the coal industry's biggest victory in Washington in years.

"If rising electricity demand is to be met, then coal must play a significant part," the task force report stated. The plan recommended spending $2 billion in federal money for research into making coal-fired electricity cleaner. And the task force recommended directing federal agencies "to provide greater regulatory certainty relating to coal electricity generation."

"The president is friendly to energy, and so is the vice president, and thank God," said Fred Palmer, a vice president at Peabody Energy, the world's largest coal producer. "Our society needs energy."

Peabody, an affiliate called Black Beauty Coal and their employees have directed $900,000 to Republican coffers over the last two years. Peabody Chief Executive Irl F. Engelhardt personally gave $100,000 to Bush's inaugural committee.

Two Peabody executives and one from Black Beauty were named to Bush's energy advisory team after his election victory.

Two weeks after the task force was formed, Peabody announced plans to make a public stock offering. Several weeks later, on March 1, Palmer and Engelhardt attended a coal-interests meeting with task force members Abraham and Lindsey and Cheney's energy director.

On May 21, five days after the task force report touted coal, Peabody's stock went on sale. The company received $420 million, about $60 million more than analysts expected.

Could Peabody have gone public if Al Gore had beaten George W. Bush?

"That's an interesting question," Palmer said. "We'd been working on [the stock offering] for a long time. But it picked up steam this year, no question. I am sure it affected the valuation of the stock."

Conservation

Environmental leaders say they never got a real chance to influence the report in favor of greater conservation efforts and renewable power.

Just after the election and again in January, when the task force was announced, several groups requested meetings with Bush, Cheney or both.

Months passed without a reply.

Dan Becker, legislative director at the Sierra Club, heard suddenly from an Energy Department staffer in late March: Please give us your thoughts on the plan. We need them within 24 hours. Then, he says, the caller mentioned that Abraham was traveling and wouldn't be reading the response.

On April 3, the Energy Department submitted a briefing paper on nuclear power to the vice president's office, recommending the U.S. use more of it. Under "pros," the paper noted that this policy would be "a bold step" and added that it would underscore "the responsible approach of the administration towards carbon emissions"--the global warming issue.

But under "cons," the paper noted: "Environmental groups will sharply criticize any proposed expansion" because of waste disposal issues and the history of accidents at Three Mile Island and Chernobyl. Environmentalists will "use the proposal to fund-raise and organize to defeat the administration's policy, and use the proposal to suggest our national energy policy is out of the mainstream." Nuclear power would go on to win a place in the report as "a major component of our national energy policy."

By this time, the task force was well aware that environmentalists would be unhappy about many aspects of the report.

The panel had already abandoned its original plan for a release date of April 6. It was too close to Earth Day, a staffer with knowledge of the discussion said, and it would offer much too tempting a target.

In this wary atmosphere, Lundquist met April 4 with 15 emissaries from environmental groups.

The assembled activists barely had time to introduce themselves in the allotted 50 minutes. "To characterize it as meaningful consultation is quite a stretch," said Elizabeth Thompson, who attended for Environmental Defense.

Ris, from the Concerned Scientists, asked twice to meet directly with Cheney "to no avail," according to a memo written afterward by one of the participants.

Environmental leaders finally sat down with Cheney on June 5, weeks after the report was released.

The environmentalists' clear anti-Bush sentiments during the election campaign sealed their fate, said William K. Reilly, who headed the EPA when Bush's father was president.

"They have roles to play," he said. "But they're not going to be insider roles."

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Times staff writers Robert Patrick, Megan Garvey and Richard Simon contributed to this story.

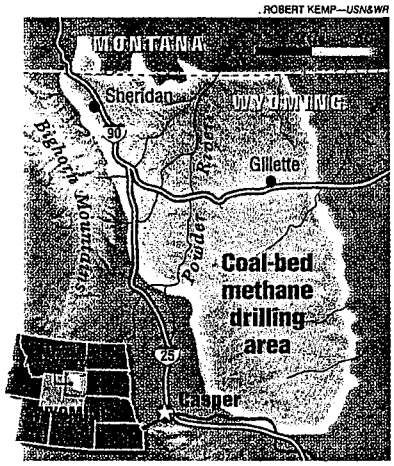
High stakes on the prairie

Energy companies in search of natural gas are raising a ruckus on the plains

BY MARIANNE LAVELLE

GILLETTE, WYO.—The Bush administration's drive to boost domestic energy production is already running into some unexpected roadblocks. Take, for example, the likely aproval this month of a plan to construct 2,500 natural-gas wells on federal property in Wyoming's Powder River Basin. Using a relatively new technology to extract gas from shallow beds of coal, the wells would provide fresh sources of a commodity in critically short supply across America. But the drilling pits the burgeoning gas industry here against an unlikely, and implacable, opponent—ranchers. For more than a century, they have kept herds of cattle on this windblown prairie.

ROBERT KEMP—USN&WR



In his address to Congress last week, President Bush insisted that "we can produce more energy at home while protecting our environment, and we must." But the clash over drilling for coal-bed methane, or natural gas, in Vice President Dick Cheney's home state illustrates just how tough it will be to reduce America's reliance on foreign energy. There's been much focus on the environmental controversy over Bush's proposal to open the Arctic National Wildlife Refuge to oil drilling. But the Alaskan coast is just one of dozens of places across the country that hold the promise of rich energy stores, and where the cost of extraction includes the risk of damage to land, water or life above ground. Because of such concerns, the administration has not advocated drilling off Florida or California. But in the sparsely populated Powder River Basin here, gas producers want the administration to open up the federal lands that hold more than half the area's resources.

The trouble is, the wells already operating here produce a troublesome byproduct—billions of gallons of water, which floods ranches, harms the fragile soil on the basin's rolling hills, and drains drinking wells. "It's killed native grasses, I've had to build new [cattle] crossings. [The flooding has] cut into the heart of my ranch," says Ed Swartz, who runs 325 cattle near Gillette. "They keep saying, 'This is good water.' Well, I don't need their water."

Hot play. But the push to drill is huge. Wall Street analysts view the Powder River Basin as one of the nation's hottest energy "plays." The region's rich store of coal has long been known, but the natural gas locked in those deposits was thought to be unrecoverable until recent technological breakthroughs. Geologists' estimate of drillable gas in the basin has jumped from 1 trillion cubic feet in 1995 to 25 trillion cubic feet today—enough to satisfy the entire nation's natural-gas needs for a year.

The gas industry is swarming into the basin, which stretches from Gillette to the foot of the Bighorn Mountains 80 miles to the west. Wyoming officials say 8,600 wells have been drilled since 1995, more than half last year, when natural gas wholesale prices hit an all-time high. Because the coal beds are less than 1,000 feet underground—compared with conventional gas deposits as deep as 20,000 feet—wells can be drilled with the same simple apparatus used for household water wells. That cuts the cost of a well from an average of $800,000 for a conventional gas deposit to about $60,000.

Profits, unsurprisingly, have soared. Last year, Western Gas Resources Inc. of Denver, the biggest producer here, saw profits jump 900 percent—from less than $6 million to over $56 million. Across the basin, ranchers fortunate enough to have

ROBBIE MCCLARAN—CORBIS SABA FOR *USN&WR*

Bill and Marge West on their Wyoming ranch, which has been flooded by runoff from new gas wells.

● *"We have been ditching... the last two years. We just didn't dig deep enough."*

coal-bed methane under their fields are suddenly sitting on stacks of money. A popular T-shirt here reads, "I'm a methane millionaire."

But all the water produced by the drilling has dampened enthusiasm for the boom. Wyoming officials estimate that 375 million barrels of water surged from the ground last year, along with 145 billion cubic feet of gas. Each well produces about 12,000 gallons of water a day. Excess water is an unlikely problem around the Powder River, which locals consider aptly named because it often slows to a trickle. The dusty floor of this sagebrush prairie has not taken well to the sudden deluge, especially in areas where the coal-bed water has a high salt content. Salty water, says Dennis Hemmer of the Wyoming Department of Environmental Quality, "tends to seal the soil so you can't grow your crops." Tom Darin, of the Wyoming Outdoor Council, says: "This is the biggest environmental threat the state has faced probably in decades."

Ditching and channeling. The enormous volume of water is forcing ranchers to change the way they work. Bill West and his wife, Marge, were appalled to find prime hay-growing fields flooded by water gushing from gas wells on a neighbor's ranch. "We have been ditching and channeling the last two years" to control the flow of water, West says. "We just didn't dig deep enough."

Wyoming's Department of Environmental Quality is watching the water problem. It has delayed issuing some drilling permits and required producers to mitigate water damage. Some ranchers want companies to reinject the water into the ground, but state officials say that could cause pollution. And it could cost plenty: In an otherwise bullish report last year, Morgan Stanley Dean Witter warned, "Reinjection could materially change the play's economics."

Some compromises may be emerging. In many cases, gas producers now create makeshift reservoirs so ranchers can use

the outfall to water their cattle. Where gushers have dried up drinking-water wells, gas companies have dug new, deeper wells for ranchers. When cattle have drowned in ditches, or gotten stuck in the muddy soil, the companies have compensated the ranchers.

Meanwhile, gas producers have been buying up leases to the basin's mineral rights, the majority of which were retained by the federal government when it sold off surface land to settlers. But much of that investment sits idle—only one eighth of the wells in the basin have been drilled on federal property. New drilling has been blocked pending completion of an environmental impact study by the Department of Interior's Bureau of Land Management, due in 2002.

Impediments. The gas industry wants faster action. "We have been saying for years that the Rockies are less mature than other gas-producing areas and our day in the sun would arrive," says Paul Rady, outgoing chief executive officer of Pennaco Energy Inc., founded in 1998 purely to drill for coal-bed methane. (Marathon Oil Co. is purchasing Pennaco in a tender offer valued at $500 million.) "But the irony," Rady adds, "is the Rockies are predominantly federal, so there are more impediments here than anywhere else."

In the next two weeks, the BLM is expected to ease those concerns with an interim decision permitting construction of 2,500 new wells on federal land. That will shortcut the 2002 study, but BLM says that natural gas under federal land—and potential federal royalties—are being sucked away by wells on surrounding private land. Environmentalists deplore the decision, saying the government should attempt to gain royalties for the drained gas instead of allowing new drilling.

The Bush administration gets little credit—or blame—for the decision on the new wells; it was well underway during the final months of the Clinton administration. But Interior Secretary Gale Norton, who has supported increased oil and gas development in the Rockies, will be the final arbiter. The study due next year will determine whether the gas industry can drill 50,000 wells on the 12,000 square miles of the basin by 2012 and discharge the accompanying water—600 million gallons a day at last year's rate. Juleanna Glover Weiss, spokeswoman for Vice President Cheney, says the administration won't discuss specific initiatives until the task force Cheney leads unveils a comprehensive energy plan in the coming weeks. But "he does know," she says, "that there is a balance that can be met." ●

MARKHAM JOHNSON FOR USN&WR

The California lab spawned the PC, the laser printer, and other high-tech goodies.
● *"This was a place where my ideas would go places I'd never thought possible."*

Putting a profit margin on ideas

Xerox's fabled research center must produce

BY JANET RAE-DUPREE

Once upon a time, there was a world without personal computers, E-mail, or laser printers. But there was a small band of scientists who thought such things *might* be possible. So in 1970 they created a research center in Palo Alto, near the heart of what would soon become known as Silicon Valley. The idea? To explore what this brave new world of free-flowing information might be like.

The results exceeded everyone's expectations. The Palo Alto pioneers not only explored the digital future, they *invented* it. Today, Xerox's Palo Alto Research Center is universally acknowledged as the birthplace of personal computing. "PARC is as much a part of Silicon Valley's history as Messrs. Hewlett and Packard starting their enterprise in a garage," says futurist Paul Saffo. "Nothing else has the pedigree and mythology and staying power of PARC."

But even that kind of brilliance doesn't guarantee success. With a cash-strapped Xerox desperately dodging bankruptcy, PARC for the first time must be financially innovative. Xerox executives, trying to dig out from a series of bad business decisions, must tame $17 billion in debt—including $1.4 billion due during the first half of this year alone. They hope to raise $4 billion by selling assets—including PARC, according to rumors rampant last fall. But rather than auction off its golden goose, Xerox has asked PARC to find investors willing to pump in money without meddling with its research culture. Why would any investor want to hand over its cash without attaching any management strings? The answer lies in PARC's burgeoning intellectual-property portfolio, an asset that Xerox has been accused of fumbling repeatedly.

Paperless office. It wasn't meant to be this way. PARC was created to guide Xerox toward the office of the future. In 1969, Xerox spent $920 million to buy mainframe-computer maker Scientific Data Systems. Corporate executives wanted to know how best to meld their

Californians for Western Wilderness * CoPIRG Citizen Lobby
Defenders of Wildlife * Greater Yellowstone Coalition
Land and Water Fund of the Rockies * MontPIRG
Natural Resources Defense Council * Oil and Gas Accountability Project
Powder River Basin Resource Council * San Juan Citizens Alliance
Sierra Club * U.S. PIRG * Western Colorado Congress
Western Organization of Resource Councils * Wyoming Outdoor Council

ENERGY AND THE WEST

The West is experiencing unprecedented energy development on public and private lands. Spurred on through implementation of the Bush – Cheney Energy Plan, new energy production activities are carving up Western landscapes with roads, displacing wildlife species and altering rural western communities. Scarce water sources are in danger of being polluted or destroyed. Private property is being damaged by the development of federal mineral resources.

National energy legislation must balance the national demand for energy production from sensitive western states with the impacts of that production on communities and our outstanding Western heritage.
America needs a bold national program for energy independence, based on developing renewable energy, <u>responsible</u> domestic production, and energy efficiency.

The House-passed version of energy policy would strip the land management agencies of their authority to balance energy development with other uses of public lands, and further tilt an already skewed system in the direction of the energy industry.

The House passed energy bill would give away billions in new subsidies and tax breaks for fossil fuel development, which are totally unnecessary for facilitating production of energy from Western lands. These giveaways are directed an industry that is enjoying record profits, while the government is running a deficit.

Even more special interest provisions have been introduced in different bills offered in the U.S. Senate, all at the expense of the environment and communities in the West.

Legislative proposals to further accelerate energy production on Western lands are expected. Industry advocates seek to roll back existing environmental safeguards, while giving the energy industry new tax breaks and subsidies.

We urge you to oppose attempts to roll back environmental safeguards and push new tax breaks and subsidies that benefit the energy industry at a cost to our communities and our natural heritage.

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To achieve a balanced energy future for the region, the Senate should:

- Strengthen efforts to balance energy development with other land uses by ensuring that the leasing and development of federal energy resources takes place only after the impacts of energy production on communities and the environment are considered.

- Protect private property interests by empowering landowners to have a real say over the leasing and development of federal energy sources that underlie their private lands.

- Save our last remaining wilderness quality lands from development by considering their special values before leasing for oil and gas is conducted in these areas.

- Support a sustainable energy plan to reduce our reliance on fossil fuels and set us on the path to an efficient, renewable energy society.

Californians for Western Wilderness * Colorado Environmental Coalition
CoPIRG Citizen Lobby * Defenders of Wildlife
Greater Yellowstone Coalition * Land and Water Fund of the Rockies
MontPIRG * Natural Resources Defense Council * Oil and Gas
Accountability Project * Powder River Basin Resource Council
San Juan Citizens Alliance * Sierra Club * U.S. PIRG
Western Colorado Congress * Western Organization of Resource Councils
Wyoming Outdoor Council

ENERGY AND THE WEST

Balancing Uses on Public Lands

The West is experiencing unprecedented energy development on public and private lands. Spurred on through implementation of the Bush – Cheney Energy Plan, new energy production activities are carving up western landscapes with roads, displacing wildlife species and altering rural western communities. Scarce water sources are in danger of being polluted or destroyed. Private property is being damaged by the development of federal mineral resources.

National energy legislation needs to balance the demand for energy production from western states with the impacts of that production on communities and our outstanding natural heritage in the West.

WE ASK CONGRESS TO ENSURE THAT THE TRADEOFFS BETWEEN ENERGY DEVELOPMENT AND OTHER USES OF THE PUBLIC LANDS ARE FULLY CONSIDERED BEFORE LEASING OUR NATION'S HERITAGE.

Federal Law Requires a Balancing of Uses on Federal Lands

Most of the National Forests, National Grasslands and Bureau of Land Management (BLM) lands in the Western United States are open and available for oil and gas development. However, before that development takes place, the land management agencies are required to consider the impacts of that activity on other uses of the public lands. This is the fundamental principle of multiple use – to assess and determine tradeoffs in land use before opening areas to potentially harmful development.

Oil and Gas Leasing and Development Activities are Altering Western Landscapes

The boom and bust cycle of mineral development on Western lands has always had adverse environmental and social impacts. Now, in the biggest boom ever contemplated, the American public's heritage is suffering from damage to wildlife habitat, water resources, and noise, dust and air pollution.

Just in the past year, the federal Bureau of Land Management has leased over 2.8 million acres of our national heritage lands to the energy companies, without completing a thorough review of the impacts of energy development on all the lands now under threat of development.

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- **Wildlife habitat** is affected by oil and gas development through the creation of a network of roads, pumpjacks and compressor stations that create disturbances and displace wildlife populations. The construction of roads and well pads causes habitat fragmentation in wildlife habitat. Road densities may be as high as 4-5 miles of road for each square mile of oil and gas development, depending on the area.

- **Surface and groundwater resources** may be affected by the contamination of water supplies with oil and gas drilling mixtures used to facilitate the production of the energy resource. Hundreds of millions of gallons of water are pumped from the ground to the surface and wasted. In this arid region, surface and ground water supplies important for domestic and agricultural use and for recreation and wildlife on public lands are simply depleted and disposed of.

- **Noise, dust and air pollution** are increasing as damaging impacts from oil and gas development. The compressor stations associated with oil and gas production make a tremendous amount of noise, disrupting wildlife and livestock on the public lands. Dust and air pollution associated with the roads, pumpjacks and other activities around the development areas is destroying pristine air quality areas.

Tradeoffs between Different Land Uses Must be Considered.

BLM is currently leasing areas with outstanding natural values, key wildlife habitats and other significant public resources to energy companies without evaluating the impacts of possible future development on the natural resources held in trust for all Americans.

- In the badlands of southern Wyoming, leases have been granted in the middle of habitat for one of the largest migratory pronghorn antelope herds in the Nation.

- In the roadless areas of the San Juan Mountains, the Forest Service is leasing lands for energy production without first considering how that development might affect these national treasures.

- In historic oil and gas development areas in northern New Mexico, new large - scale energy development is destroying water resources and native vegetation historically used for livestock grazing, without any analysis of the effects on rural communities in the region.

The result of this current push for energy development is the loss of critical natural values on public lands, with almost no consideration of the tradeoffs between energy use and all other resources.

Energy legislation considered in the Senate must ensure that future oil and gas leasing and development takes place only in appropriate areas after the trade-offs between the benefits to the petroleum industry and the costs to other land uses are fully evaluated in a public process.

Californians for Western Wilderness * Colorado Environmental Coalition
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ENERGY AND THE WEST

Protecting Private Property Interests

The West is experiencing unprecedented energy development on public and private lands. Spurred on through implementation of the Bush – Cheney Energy Plan, new energy production activities are carving up Western landscapes with roads, displacing wildlife species and altering rural Wwestern communities. Scarce water sources are in danger of being polluted or destroyed. Private property is being damaged by the development of federal mineral resources.

National energy legislation needs to balance the demand for energy production from Western states with the impacts of that production on communities and our outstanding natural heritage in the West.

WE ASK CONGRESS TO ENSURE THAT THE PRIVATE PROPERTY INTERESTS ARE PROTECTED IN THE DEVELOPMENT OF FEDERAL ENERGY RESOURCES.

Many Western Communities Are a Mix of Private Lands Underlain by Federal Minerals.

In the West, it's common for the mineral and surface rights to the same parcel of land to be held by different parties (known as a "split estate"). The most common split estate situation involves federal minerals under private surface. Some 58 million acres of privately owned land in the United States are estimated to overlie federal minerals, with most of this acreage in the West.

There are millions of acres of private land in New Mexico, Colorado, Wyoming and Montana where the underlying oil and gas estate is owned by the federal government. Most of this federal oil and gas estate has been leased, and hundreds, if not thousands, of additional federal oil and gas leases are likely to be sold in 2002 across the West!

Developing Federal Mineral Resources Damages Private Property Interests

Unlike property owners affected by coal mining or hard rock mining, private property owners affected by oil and gas development have very little say over the course of mineral development on their private lands. These rural landowners have to live with the damage that oil and gas development on federal minerals causes their private property, including:

- reduction in property values, or loss of income (especially from farm/ranch operations);
- contamination and/or diminution of drinking water, irrigation water and stock wells;
- loss of privacy;
- introduction and spread of noxious weeds, trash and litter;

- more -

- noise from compressor stations, generators, traffic and drilling;
- drilling rigs in close proximity to residences;
- soil damage, contamination and erosion;
- extensive road construction and heavy traffic;
- damage to fences, and the resultant escape of livestock; and
- harm to wildlife species and habitat.

Federal Law Provides for Mineral Development, at the Expense of the Landowner

The mineral operator may enter land for exploratory purposes by simply filing a notice of intention with the BLM, and providing a copy of the notice to the surface owner. Entry for this purpose, however, may cause no more than "a minimal disturbance of surface resources" and may not include the use of mechanized equipment, explosives, the construction of roads, drill pads, or the use of toxic or hazardous materials.

Oil and gas operators on federal leases may, but are not required to, secure a written damage agreement with the landowner. Absent an agreement, the operator can simply rely on a bond, which is unlikely to be enough to cover potential reclamation costs or other surface damages. And in cases where agreements are actually obtained, bonds are almost never posted. Either way, landowners usually suffer.

Federal Insurance Policies Are Inadequate to Protect Landowners

Federal land management agencies require oil and gas operations to obtain an approved insurance policy (or "reclamation bond") designed to cover the costs of cleaning up the well site in the event the company fails to meet its obligations. Unfortunately, these insurance policies cover only a fraction of the real clean up costs.

The bond must exceed $1,000 and is supposed to cover damage to crops, improvements, and any loss of income from using the land. For oil and gas wells located in one state, a company is allowed to post a blanket bond of $25,000 no matter how many wells it plans to drill. A company that operates in more than one state is allowed to post a bond of $150,000 regardless of the number of wells it plans to drill. These bonding levels are grossly inadequate.

At any given well, the cost for cleaning up the site may range from $5,000 – $25,000. If the well is on private lands, the burden shifts to the landowner to correct the damage to their property, because the federal policies do not cover the full cost of cleaning up the sites.

Impacts on Rural Western Landowners and Communities Continues to Grow

Thousands of landowners in the West face a growing threat to their livelihoods and quality of life from coal bed methane development, not to mention the damage being done to land, air and water resources. Most of the federal oil and gas estate has already been leased in Montana and Wyoming, and landowners are largely powerless to stop irresponsible development on their land.

Federal energy legislation needs to protect private property interests by giving private property owners consent over prospective energy leasing affecting their lands, and by requiring energy companies to secure agreements with land owners that ensure that lands damaged by energy development are restored to a productive use for the private landowner.

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ENERGY AND THE WEST

Protecting Special Places

The West is experiencing unprecedented energy development on public and private lands. Spurred on through implementation of the Bush–Cheney Energy Plan, new energy production activities are carving up Western landscapes with roads, displacing wildlife species, and altering rural Western communities. Scarce water sources are in danger of being polluted or destroyed. Private property is being damaged by the development of federal mineral resources.

National energy legislation needs to balance the demand for energy production from Western states with the impacts of that production on communities and our outstanding natural heritage in the West.

WE ASK CONGRESS TO ENSURE THAT THE BLM "LOOKS BEFORE IT LEASES" THE LAST REMAINING WILD PLACES IN THE WEST.

Most Western Public Lands are Open to Oil and Gas Drilling

Nearly 58,000 wells are already drilled on our nation's public lands, administered by the U.S. Forest Service and Bureau of Land Management (BLM). Most public land oil and gas activity is centered in the states of Utah, Wyoming, Colorado, New Mexico, and Montana -- where well over 90% of the BLM lands are open to leasing and development.

These lands are being leased and drilled at an unprecedented pace. For example, in 2001, the Vernal BLM Field Office in Utah approved more than three times the average number of wells approved every year since 1990, and in Colorado, 669 new leases were approved last year – a 2500% increase in the last decade. And now even bigger energy projects are being proposed across the West, such as in Wyoming's Powder River Basin where the BLM is proposing another 51,000 wells – which would nearly double the total number of wells on all public lands.

This incredible level of activity is evidence that there are few obstacles to energy development on our public lands. With increasing pressures to accelerate oil and gas extraction, it's critical that we act now to safeguard the last untouched areas of our western public lands.

BLM Wildlands Are Important for Wildlife and People

From serpentine river canyons to towering redrock buttes to high desert mesas, the BLM's wild, roadless lands provide a legacy of clean air, open spaces, spectacular vistas, and abundant wildlife. BLM wildlands also

provide a diversity of recreational opportunities, including kayaking, hiking, rafting, hunting, fishing, rock climbing and backpacking.

- In Colorado, half of the state's endangered species occur within citizen-proposed wilderness areas.
- The country's largest antelope herd inhabits the Jack Morrow Hills area of Wyoming's Red Desert, a BLM roadless area, which is threatened by drilling.

These important values could be destroyed by energy extraction activities, contaminating air and water, and scarring the landscape with pumpjacks, well pads, and thousands of miles of access roads and pipelines.

BLM Roadless Lands Comprise a Small but Critical Part of the Western Landscape

Less than 5 percent of the 264 million acres of public lands managed by the BLM has been protected as wilderness so far. Yet many more acres of pristine, roadless lands qualify for and need wilderness protection. In the Overthrust Belt states, BLM has determined that 5.9 million more acres meet Wilderness Act standards (these Wilderness Study Areas are protected from drilling), and citizen groups have proposed an additional 9.1 million acres for wilderness designation (areas which largely have no protection). In all, the total proposed wilderness amounts to only about 20 percent of the total acreage of BLM managed lands in these five states.

BLM must recognize wilderness quality lands in its leasing decisions, until Congress has a chance to exercise its authority and consider wilderness legislation.

BLM Roadless Lands are Threatened by Drilling Proposals

- The Canadian-based Startech Corporation is proposing to drill a new exploratory well on BLM roadless land along **Montana's** spectacular Rocky Mountain Front, in occupied grizzly habitat.
- In **Colorado**, industry has asked for access to the spectacular Roan Plateau, a proposed BLM wilderness area home to a 200-foot high waterfall and one of the highest concentrations of biological diversity in the state.
- **Wyoming**'s spectacular Red Desert is home to the nation's greatest antelope herd and its only desert elk herd as well as towering buttes and prehistoric rock art, but the BLM is currently deciding whether to allow drilling in this area.
- In **Utah's** Comb Ridge and Butler Wash areas, which are rich with archaeological sites and ruins, the BLM has approved leases without doing an inventory of impacted sites, consulting with affected tribes, or implementing measures to protect these areas. The BLM has also recently approved a number of oil and gas projects in proposed wilderness areas a stone's throw from Arches and Canyonlands National Parks.
- As one of the wildest grasslands in **New Mexico**, the Otero Desert is rich with wildlife like bobcats, pronghorn antelope, and Aplomado falcons, but the oil and gas industry is lobbying BLM for large-scale oil and gas development there.

BLM is Promoting New Energy Development in Roadless Areas

Under the guise of implementation of the Bush–Cheney energy plan, these and other special wildlands are now in the pipeline for future energy development. The BLM is ignoring its own federal policy, which requires the agency to evaluate the roadless characteristics of its remaining wildlands before undertaking damaging activities like oil and gas drilling in any of these areas.

Energy legislation should include a provision to ensure that future BLM wilderness areas are not degraded by oil and gas drilling before Congress has a chance to decide these areas' fate.

Oil & Gas Accountability Project

Hydraulic Fracturing Threatens Drinking Water

The oil and gas industry is pushing the U.S. Senate to exempt the dangerous practice of hydraulic fracturing from the Safe Drinking Water Act. Section 604 of S. 1766 proposes a 41-month moratorium on the regulation of "fracing." This provision would effectively overturn a U.S. Court of Appeals decision by amending the Safe Drinking Water Act to establish an unjustifiable moratorium on EPA regulation of hydraulic fracturing—a risky activity that must be regulated to assure protection of public health and drinking water quality.

The environmental community strongly urges the U.S. Senate to remove section 604 from S. 1766.

Safe drinking water, for now: The oil and gas industry's domination of regulatory agencies and boards over the past 50 years has resulted in an industry that is woefully under-regulated, when regulated at all. The industry has won numerous exemptions, loopholes, and subsidies from federal, state and tribal governments. One of the few areas where the oil and gas industry faces serious regulation is for hydraulic fracturing. The Safe Drinking Water Act helps prevent fracing from contaminating potential drinking water sources.

Hydraulic fracturing? Hydraulic fracturing ("fracing" – rhymes with "cracking") is a common procedure. Fracing is used to fracture underground formations with toxic fluids under very high pressures to force production of oil and gas. A wide variety of polymers and other materials (called "proppants") remain in the formation to "prop" open the fractures created by the frac job.

Not just sand and water! The Bush/Cheney National Energy Policy promotes fracing as an innovative technique to increase production from oil and gas wells. Cheney's former employer, Halliburton, is one of the world's leading providers of fracing services. Surprisingly, Vice-President Cheney signed off on the industry's false myth that just a little water and sand are pumped underground to enhance production. The pages of Halliburton.com detail numerous variations of chemical cocktails and polymer proppants used for fracing.

What kinds of fluids are really used in fracing? A single frac job involves the injection of a ton of sand mixed with huge amounts of hazardous materials that include: 6 gallons of biocides, 120 gallons of foaming agents, 950 gallons of gelling agents, 60 gallons of pH buffers, 145 pounds of breakers, 50 gallons of clay stabilizers, 60 gallons of crosslinkers, 50 gallons of solvents, and 15 gallons of surfactants. Source: Glenwood Springs Bureau of Land Management's Oil and Gas Draft Supplemental Environmental Impact Statement (L-5). Multiply each of these hazards by an estimated *25,000 fracturing jobs performed each year* in the United States.

Regulation of hydraulic fracturing: The Safe Drinking Water Act requires that states or the U.S. Environmental Protection Agency (EPA) regulate "underground injection" activities to ensure the protection of "underground sources of drinking water." Underground injection means "the subsurface emplacement of fluids by well injection." The U.S. EPA has launched a two year study of the environmental problems associated with the hydraulic fracturing of coalbeds for methane production.

Efforts underway to exempt fracing from Safe Drinking Water Act protections: In 1997, the Legal Environmental Assistance Foundation won a federal court order that required Alabama and the Environmental Protection Agency to regulate hydraulic fracturing in Alabama. This victory for the environment has ignited an effort by the oil and gas industry to exempt hydraulic fracturing from the Safe Drinking Water Act.

For more information contact OGAP: 970-259-3353. Visit us on the web at www.OGAP.org.

Colorado Environmental Coalition ♦ CoPIRG ♦ Dakota Resource Council
Dakota Rural Action ♦ Defenders of Wildlife ♦ Earthjustice
Grand Canyon Trust ♦ Greater Yellowstone Coalition
Land and Water Fund of the Rockies ♦ National Wildlife Federation
Natural Resources Defense Council ♦ New Mexico Wilderness Alliance
Northern Plains Resource Council ♦ Oil & Gas Accountability Project
Powder River Basin Resource Council ♦ Southern Utah Wilderness Alliance
The Wilderness Society ♦ Western Colorado Congress
Western Organization of Resource Councils ♦ Wyoming Outdoor Council

January 11, 2001

The Honorable Tom Daschle
United States Senate
Washington, DC 20510

Dear Senator Daschle:

On behalf of the hundreds of thousands of members we represent throughout the Rocky Mountain region and the rest of the country, we are writing to express our appreciation for your leadership in developing a new national energy policy and to provide our feedback on the land provisions of S. 1766, the Energy Policy Act of 2002.

America deserves and needs a clean, safe, affordable energy future. We can reduce our dependence on both foreign and domestic fossil fuels, develop cleaner sources of energy like solar and wind, and make our cars, homes and appliances more energy efficient. And we can balance our nation's energy needs with adequate safeguards for America's public lands and private landowners. We hope that you will consider our changes to your legislation in order to achieve this energy future and assure protection for property owners, the environment, and the precious and threatened wild places of the American West.

The Rocky Mountain region is profoundly and, in many ways uniquely, impacted by our nation's energy practices and policies due to our abundant public lands and energy reserves, our spectacular wild lands, which are treasured by Americans across the nation, our critical agricultural economic base, and our great potential for renewable energy development. Our states are already experiencing a great acceleration in oil and gas development, which is causing significant impacts to the people, wildlife and environment of the West.

We welcome and encourage the Energy Policy Act's overall emphasis on increasing the role of renewable energy sources, conservation and efficiency measures in meeting America's energy needs. Similarly, the bill's recognition of the need for policies to address our country's impacts on the global climate, and its stated goal of increasing fuel efficiency standards for cars and trucks are long overdue and necessary to reduce the impacts of and ease our dependence upon fossil fuels. Our groups also unanimously and strongly support your decision not to include

provisions found in the House energy bill, HR 4, that open up the Arctic National Wildlife Refuge to drilling and undermine existing policies to mitigate the environmental impacts of energy extraction on our nation's federal public lands. Additionally, we appreciate the inclusion of provisions to begin addressing the growing crisis of the more than 6,000 abandoned and orphan oil and gas wells that needlessly degrade our public lands and threaten land and water with hazardous pollution.

However, as introduced, the bill falls short of assuring achievement of a sustainable and environmentally-friendly energy policy for our country. We would like to work with you to address these concerns, and meet with your staff as soon as possible to discuss the issues outlined below.

Safeguarding the Threatened Wildlands of the American West

The bill needs to provide better protection for the outstanding natural values of the West's remaining roadless lands. Specifically, the bill should be amended to halt new leasing of roadless Bureau of Land Management (BLM) and National Forest lands until and unless the appropriate agency has evaluated the wildland values of these areas and determined these lands are not roadless under its land use planning program. The vast majority of lands managed by the BLM in the Rocky Mountain States are already open to oil and gas development.

Ensuring Compliance with Our Environmental Laws

We have strong concerns with Section 602, which increases funding for the processing of oil and gas-related environmental reviews on public lands, and requires "timely" leasing, "timely" action on permits, and "expeditious" compliance with NEPA. While it is good to provide adequate resources to enable agencies to undertake required reviews of the environmental and public impacts of energy development, we must also ensure that this section does not serve to inappropriately elevate and "fast-track" energy development over other important public land uses and values. To accomplish this, we ask that the bill explicitly affirm federal agency responsibility to analyze the full environmental costs of energy development, assess environmentally-friendly alternatives, and recommend appropriate environmental and surface landowner protections **prior to oil and gas leasing**. Additionally, we request explicit clarification that the phrase "leasing of lands containing oil and gas" means only lands that agencies have determined through the land use planning process to be open and appropriate for oil and gas leasing, and urge the removal of the words "timely" and "expeditious" which have historically led to inappropriate shortcuts in the implementation of our environmental laws.

Protecting Drinking Water and Private Property Rights

Our organizations are very concerned about the need for better regulation of coalbed methane development in the face of the more than 100,000 new coalbed methane wells and associated well pads, access roads, and pipelines being developed and proposed in Western states. Development of this energy source is having many drastic impacts on landowners and natural resources, including depletion of groundwater aquifers, contamination of drinking water, soil erosion, and destruction of soil through pollution of irrigation water. Consequently, we urge you

to delete Section 604, which requires a lengthy study of the impacts of hydraulic fracturing for coalbed methane development on underground drinking water sources, and postpones the regulation of hydraulic fracturing during the study's duration.

Additionally, we support the study of the impacts of coalbed methane development on water resources in Section 608 as a good first step towards developing a strategy for addressing the major water-related effects of this energy source. However the study does not address the damaging impacts already occurring today. As a result, we call for additional protections for landowners from damage caused by coalbed methane and other energy development on the 58 millions of acres of split estate lands with private surface and federal mineral ownership. In particular, surface owners must be notified and given the opportunity to consent to the leasing of oil and gas resources under their private lands, similar to existing federal policy for coal and hardrock mineral extraction.

Other Concerns

In addition to these priority issues, our groups find Section 609 problematic as its goal appears to be the maximization of domestic production and financial returns to the oil and gas industry without an analysis of the full cycle costs of energy production or consideration of the public interest in environmentally-sound production practices. We also oppose the provision in Section 603 to raise the limit on the amount of acreage that an oil and gas company can hold under lease. Such a policy will increase the number of speculative leases held by companies rather than focusing leasing in areas where there is a legitimate interest in energy development. Additionally, while we certainly support providing greater incentives for the development of renewable energy resources, including on federal lands, where appropriate, we oppose the provision in Section 266 that would waive review of the environmental impacts of such projects.

In conclusion, we urge you to make these changes to the Energy Policy Act in order to create a sustainable energy policy that provides for America's energy needs while simultaneously protecting the natural heritage and landowners of the Rocky Mountain West. Thank you again for your leadership on this important issue and your willingness to consider amendments to S. 1766.

Sincerely,

Elise Jones, Executive Director
Colorado Environmental Coalition

Matt Baker, Executive Director
CoPIRG

Mark Trechock, Staff Director
Dakota Resource Council

Bill Nibbelink, Board Chairperson
Dakota Rural Action

Robert Dewey, Vice President for
Gov't. Relations and External Affairs
Defenders of Wildlife

Susan Daggett, Managing Attorney
Earthjustice

Geoff Barnard, President
Grand Canyon Trust

Michael Scott, Executive Director
Greater Yellowstone Coalition

Bruce Driver, Executive Director
Land and Water Fund of the Rockies

Catherine Johnson, Director
Rocky Mountain Natural Resource Center
National Wildlife Federation

Johanna H. Wald, Land Program Director
Natural Resources Defense Council

Edward Sullivan, Executive Director
New Mexico Wilderness Alliance

Mark Fix, Chair, Coal Bed Methane Task Force
Northern Plains Resource Council

Gwen Lachelt, Executive Director
Oil & Gas Accountability Project

Kevin Lind, Director
Powder River Basin Resource Council

Heidi McIntosh, Conservation Director
Southern Utah Wilderness Alliance

Dave Alberswerth
The Wilderness Society

Art Stephens, President
Western Colorado Congress

Patrick Sweeney, Regional Director
Western Organization of Resource Councils

Dan Heilig, Executive Director
Wyoming Outdoor Council

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ENVIRONMENTAL DEFENSE • FRIENDS OF THE EARTH
NATURAL RESOURCES DEFENSE COUNCIL • PHYSICIANS FOR SOCIAL RESPONSIBILITY • SIERRA CLUB • THE WILDERNESS SOCIETY
US PUBLIC INTEREST RESEARCH GROUP

December 5, 2001

Democratic Members of the Senate Environment & Public Works Committee
United States Senate
Washington, DC 20510

Dear Senator:

We strongly encourage you to continue to protect public health and the environment by not including, in final energy legislation considered by the full Senate, legislative language (S. 1374) which effectively postpones, potentially permanently, regulation under the Safe Drinking Water Act of hydraulic fracturing.

Drinking water from private wells that serve homes, farms, and ranches across the country has been contaminated, and its availability altered and destroyed, contemporaneous with hydraulic fracturing projects. Approximately 1,400,000 hydraulic fracturing events have put US drinking water sources at risk since 1982. In fact, 37 states report that injection wells are one of their greatest concerns for potential sources of groundwater contamination. It is time to require the oil and gas industry to utilize recovery processes that do not have adverse impacts on groundwater quality and availability.

In spite of the fact that hydraulic fracturing injection fluids typically contain hazardous and carcinogenic chemicals, EPA has collected data on fluids from no more than 30 of these procedures - according to the EPA's January, 2000 Associated Waste Report. In fact, it took a 1997 US Court of Appeals (Eleventh Circuit) decision that found hydraulic fracturing to be "underground injection" to get EPA to regulate this activity in Alabama under the Safe Drinking Water Act.

It is noteworthy that the oil and gas industry achieved exemptions to the Resource Conservation and Recovery Act with a similar EPA "regulatory determination" process that was completed in 1988. Our air, land, water, and health are already threatened by lack of oversight due to these RCRA exemptions for oil and gas wastes and the lack of reporting under an exemption to the Community Right to Know/Toxic Reporting Inventory. The hydraulic fracturing provision represents the latest attempt by the oil and gas industry to diminish the public's ability to track this industry's use and generation of toxic chemicals. We urge you to not add to the list of exemptions by including the hydraulic fracturing provision in the final Democratic energy plan to be considered by the full Senate.

Given the long term and large-scale risk that hydraulic fracturing poses to US drinking water sources, the Senate Environment and Public Works Committee should appropriately assert its jurisdiction over this issue by holding hearings on this issue prior to considering any legislation that would impact the regulation of this dangerous practice. A full hearing of this issue before legislating would also provide a forum for the growing number of residents, farmers, and ranchers whose water quality and availability have been adversely affected by hydraulic fracturing events. With fifty percent of the US population relying on ground water for drinking water and 20,000 new hydraulic fracturing projects each year, we need to expedite regulation under the Safe Drinking Water Act rather than legislate additional delay.

We urge you to keep the hydraulic fracturing provision out of the final Democratic energy legislation to be considered by the full Senate to protect our precious underground drinking water sources.

Thank you for your consideration of this important issue.

Sincerely,

Alyssondra Campaigne
Legislative Director
Natural Resources Defense Council

Anna Aurilio
Legislative Director
US Public Interest Research Group

Robert Dewey
Vice President for Government Relations &
External Affairs
Defenders of Wildlife

Susan West Marmagas
Director, Health & Environment Program
Physicians for Social Responsibility

Lynn Thorp
National Campaigns Coordinator
Clean Water Action

Linda Lance
Vice President for Public Policy
The Wilderness Society

Gawain Kripke
Director of Economic Campaigns
Friends of the Earth

Elizabeth Thompson
Legislative Director
Environmental Defense

Debbie Sease
Legislative Director
Sierra Club

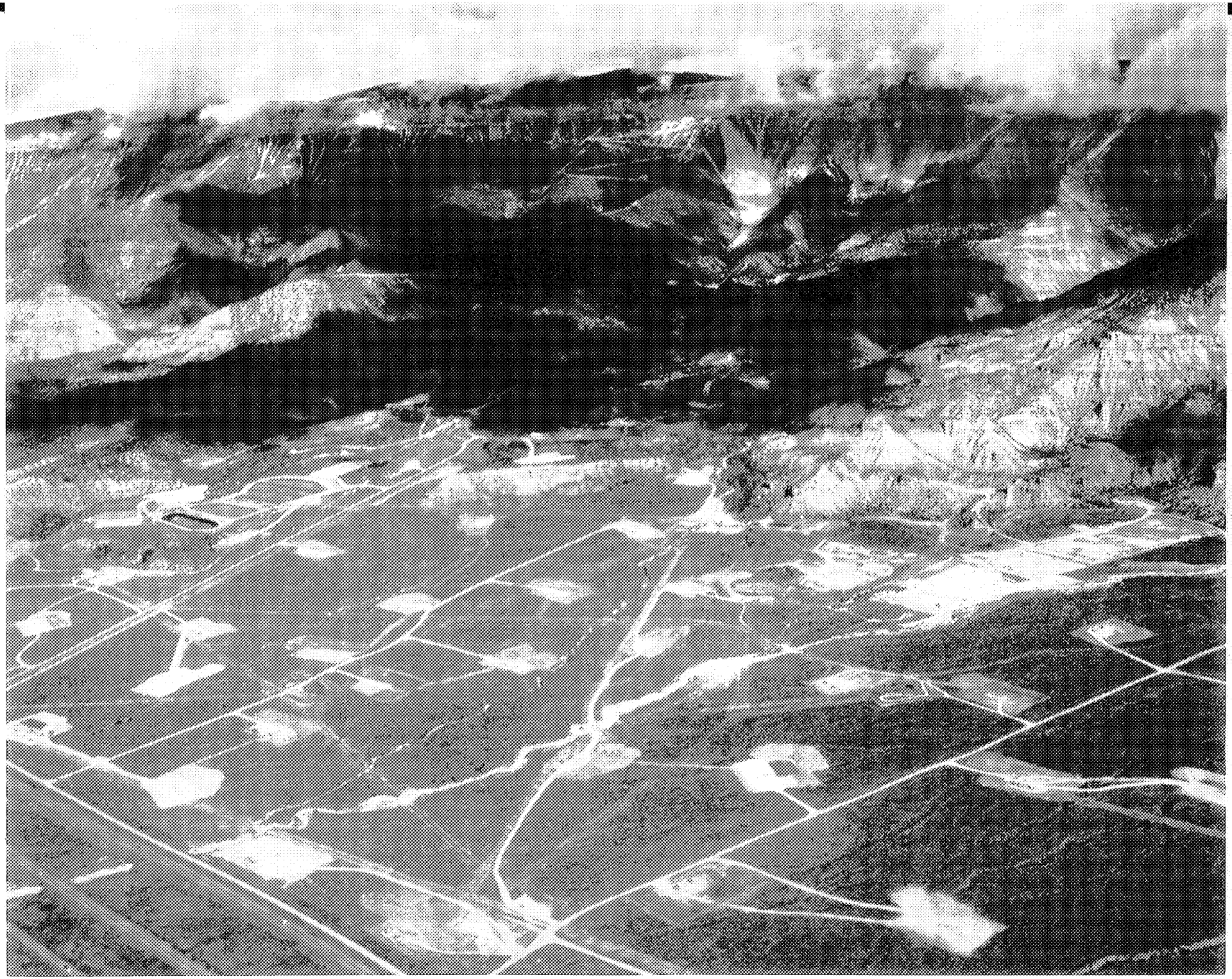
Diana Neidle
Public Policy Associate
Consumer Federation of America

Marty Hayden
Legislative Director
Earthjustice Legal Defense Fund

cc: The Honorable James M. Jeffords
The Honorable Thomas A. Daschle

Damage from oil exploration work completed 10/01
east of Canyonlands National Park.

Copyright Mike Painter

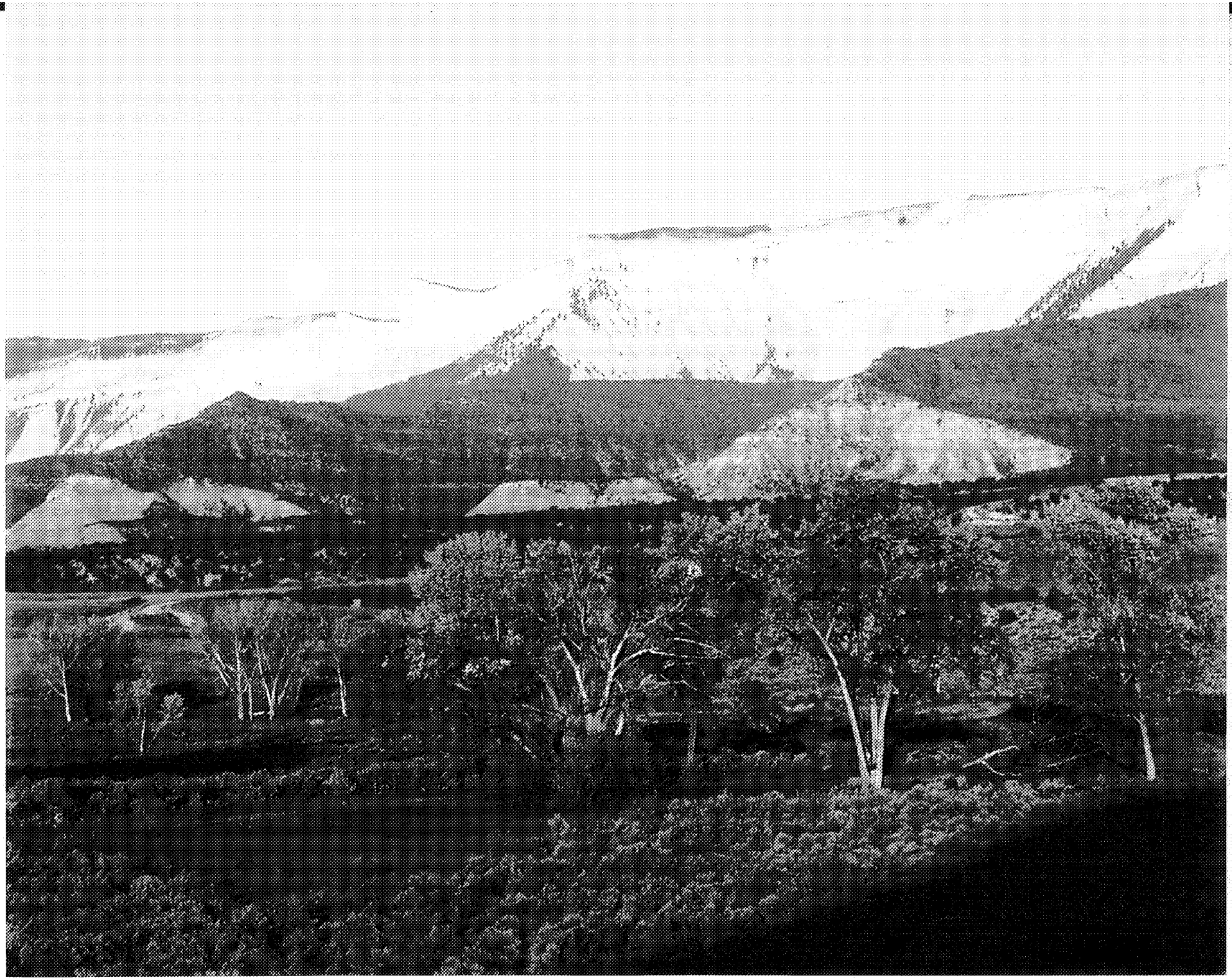


Recent oil and gas development along I-70 in Colorado, below the Roan Plateau, a citizen-proposed wilderness area threatened by similar development.

Photo by Kurt Kunkle

leaking coal bed methane
retention ponds.

prairie dog creek, wyoming



The moon rising over the Roan Plateau, a citizen-proposed wilderness area that is threatened by oil and gas leasing and development.

Photo by Kurt Kunkle

The Pinnacles, a citizens' proposed wilderness area in the Red Desert, Wyoming, is threatened by oil and gas leasing.

Photo by Erik Molvar, Biodiversity Associates

Figure E: an unlined coal bed methane water impoundment in southeastern Montana

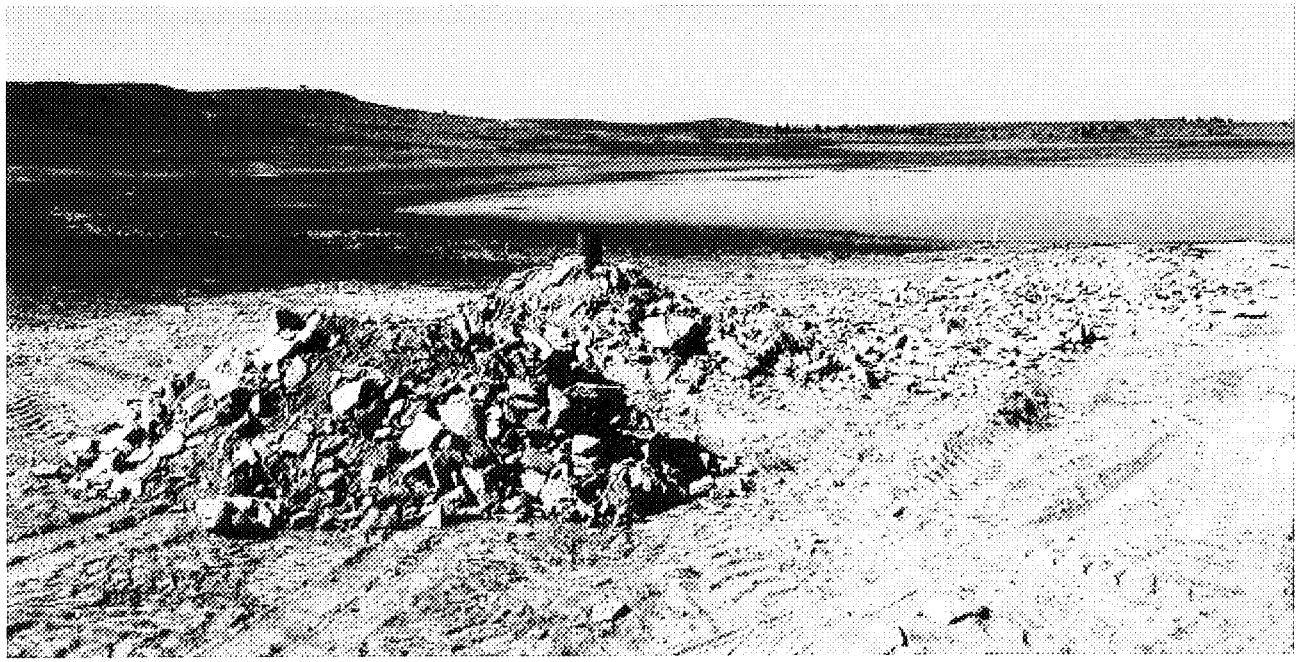


Figure E: *One of at least 29 unlined water impoundments that dot the CX Field in southeastern Montana. While farmers and ranchers are required to obtain water rights to store or otherwise divert water for beneficial uses, the State of Montana has effectively exempted the methane industry from this requirement, giving methane operators free license to waste millions and millions of gallons of groundwater.*

Figure F: *Discharge water pooling before draining into an unlined impoundment. Fidelity has reported that it is storing 200 gallons of water per minute in impoundments, or 288,000 gallons a day. Another 200 gallons per minute are delivered to a neighboring coal mine. The majority - 1,400 gallons per minute, are discharged into the Tongue River.*

Figure F: discharge pipe in Montana

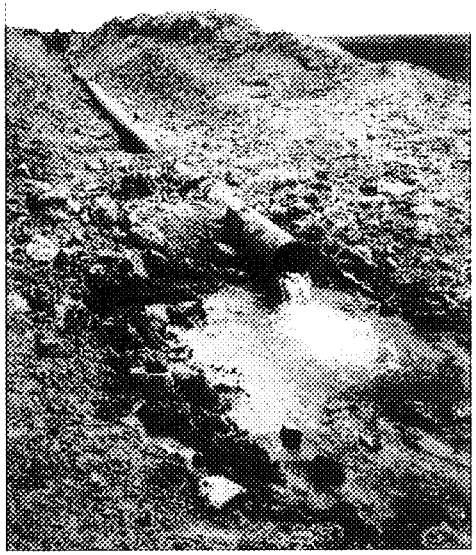


Figure G: *A water well at the Rocker Six Cattle Company near Colstrip, Montana. Flowing at a rate of 1 to 1 1/2 gallons per minute, this well waters approximately 100 head of cattle daily. In contrast, an average coal bed methane well withdraws around 10 to 11 gallons of water per minute. This water is essentially a by-product of methane production, and is not withdrawn for a specific use. Methane operators have suggested that methane water could be valuable to ranchers. However, it would take between five and fifteen million head of cattle, which is three to seven times to total number of cattle raised in Montana in 2000, to consume the amount of methane water that will be produced by 14,000 to 39,000 coal bed methane wells. Meanwhile, southeastern Montana does not have adequate forage - the primary determiner of cattle numbers - for increased cattle densities.*

Figure G: a water well in southeastern Montana

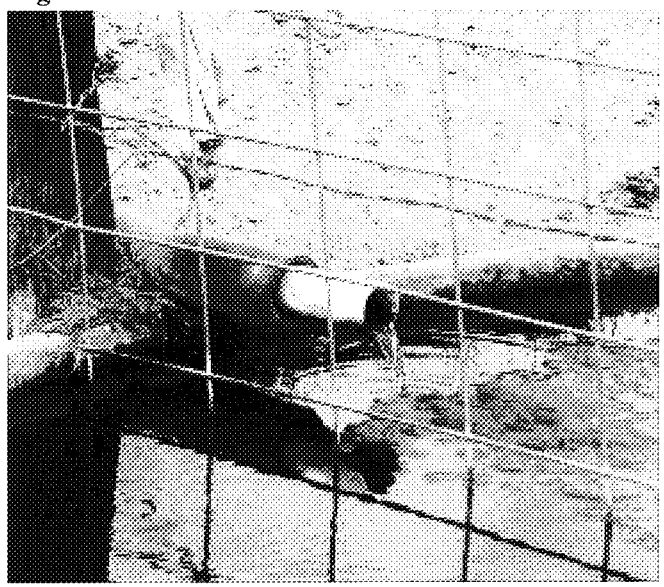


Figure A: aerial view of methane drilling in Colorado

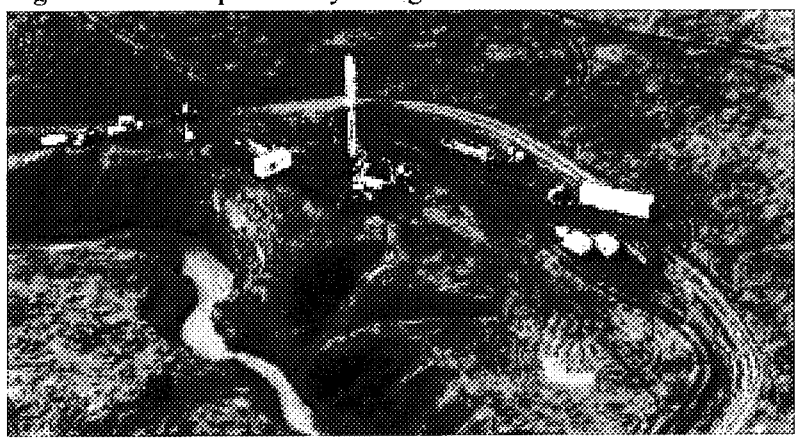
Figure B: aerial view of methane drilling in Wyoming

Methane drilling in Colorado and Wyoming's Green River Basin with access roads, drill pads, and containment ponds. The Bureau of Land Management estimates that a single coal bed methane well disturbs three to four acres of land, requiring the construction of a third to a fourth of a mile of new roads. The BLM estimates that up to 39,000 wells will be drilled in southeastern and south central Montana in the next ten years .

Figure C: salt damages to Wildcat Creek

Wildcat Creek, an intermittent stream, north of Gillette, Wyoming. Where previously waist-high grasses grew, the ground is virtually sterile following several months of coal bed methane discharges from upstream methane development. Rancher Ed Swartz has lost valuable forage for his cattle and the ability to use the water from the creek for irrigation. Coal bed methane water generally contains high concentrations of dissolved salts, which are toxic to plants and cause long term damage to soil structure.

Figure D: a drill pad in Wyoming



A drill rig in Wyoming. Methane is a form of natural gas held in coal seams by water pressure. To release the gas, developers dewater aquifers, which reduces water pressure and allows the methane to travel to the surface. An average well pumps 16,000 gallons of water per day (USGS figure) from aquifers..