The Mad Gas Rush

Our addiction to corn-derived alcohol is not only costing us a lot of money, it's also wiping out fish and wildlife habitat, and polluting our air, soil, and water.

By Ted Williams

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Extract as much gas and oil as possible as fast as possible, at any cost to fish and other wildlife and with enormous subsidies to industry at a time of record profits. That pretty much sums up the Bush administration's "energy policy," hatched in secret with the energy companies themselves. Currently the administration is devising ways to overcome what it calls "impediments" to energy development and what the rest of society calls environmental laws. Although the U.S. Forest Service and the Bureau of Land Management (BLM) must manage the public's land for multiple use, the BLM has been instructed that developing gas and oil is its number-one priority, and the Forest Service is behaving as if it has the same directive. Moreover, Interior Secretary Gale Norton has decreed (illegally, according to the environmental community) that the BLM can no longer designate wilderness or protect "wilderness study areas" anywhere, even in Alaska.

In an effort to convert the gas and oil industry's wish list to law, the administration seems to have temporarily shelved its unpopular plan to drill in the Arctic National Wildlife Refuge. So distracted are the media by this move that they're paying scant attention to the administration's plans for the Rocky Mountain West.

And that rankles Tweeti Blancett, a rancher who calls herself a "cowgirl" and sits on New Mexico's Livestock Board and whose husband, Linn, is a director of the New Mexico Cattle Growers Association. Linn's great-grandfather, a scout for the U.S. Army, came into the San Juan Basin with Kit Carson in the 1870s, and the family has run cattle here ever since. "If you want to see what the West will look like, take a good look at this valley," Tweeti Blancett told me on the morning of December 8, 2003, as she loaded a PowerPoint program at her Aztec, New Mexico, office. Five days earlier she had given the same "preview" to the Sierra Club, the very outfit that has called her profession "welfare ranching" and tried to get cows off public range.

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But the devastation chronicled on Blancett's computer screen had been caused by gas and oil companies, not cattle. As hideous as it was, what impressed me more was that it had been sufficient to drive her into the arms of people she loathed. "An unholy alliance," she calls it. Tweeti Blancett is about as Republican as you get, even in New Mexico. In 2000 she had been a campaign coordinator for George W. Bush. During two senate races (though not the last) she had stumped for U.S. Senator Pete Domenici.

Most of the oil has been pumped out of the Rocky Mountain West. What's left is gas—conventional and coalbed methane. With the latter, a technology barely 15 years old and therefore an experiment on public resources, you have to bust up the coal seam and pump out groundwater contaminated with a witch's brew of toxins and carcinogens. Ranchers aren't safe even if they graze their own land because, in virtually all cases, subsurface mineral rights were sold or leased to gas and oil companies at least half a century ago. The companies routinely drill in front yards and backyards. A recent study reveals that if you have a gas well within 500 feet of your house, your property value declines 22 percent.

"These guys made \$4.5 billion in San Juan County last year," continued Blancett. "But they barely do any site restoration; they want everything. And in the San Juan Basin there are three BLM enforcement agents to cover 35,000 wells. We either have droughts or gully washers, so when you disturb desert soil and don't revegetate, you lose it. This whole county is a disaster area. Our water is polluted; our air is polluted; our ground is polluted. They've ruined our ranch. With \$4.5 billion coming out of one county in one year, New Mexico ought to be the richest state, not one of the poorest."

Photos can deceive, so I asked rancher Chris Velasquez of Blanco to show me his grazing allotment on the Rosa Mesa, 45 miles south of Aztec. Like Blancett's ranch, this is high, fragile desert, but it contains some of the most important wildlife habitat in the state—especially for mule deer and elk seeking winter refuge from higher, colder country to the north. Velasquez says that because he adores wildlife, he returned 10,000 acres of his 32,000-acre grazing allotment. Now it's growing gas wells and weeds. The Rosa is part of the BLM's Farmington District, in which there are 83,500 acres disturbed by gas extraction, 15,000 miles of roads, and 18,000 gas wells. On top of this the administration is proposing development that will create 44,300 additional acres of disturbance, 805 miles of new roads, and 9,942 new wells. By comparison, there are about 50,000 producing gas wells on public land in the entire West.

With this development will come 12,200 new wellhead compressors (stations that suck up the gas) and 319 larger compressors, which serve many wells at once through a web of pipes. Most of the compressors I inspected ran on motors powered by the gas itself. The bigger ones, sprawling tangles of tanks and pipes the size of small factories, are lit up at night like baseball parks, and they sound like a Laundromat washing cowboy belts.

"Clean natural gas" dirties up everything but your furnace. Already the Farmington District is flirting with the air-pollution limit for ozone, and each year the new gas wells will create more of ozone's key ingredients—72,000 tons of nitrogen oxide and 3,000 tons of volatile organic compounds. When the wells are operating, 88 percent of the wildlife in the district will be within a quarter-mile of a road. We walked around gas wells from one to eight years old. By law they were to have been revegetated, but all were bare or, worse, infested with Russian thistle and other noxious weeds that were spreading to undisturbed areas and choking out forage for wildlife and livestock.

As the previous night's snow melted, the dirt around each wellhead and compressor turned to mud the consistency of mortar. Several pounds of it stuck to each of my shoes, making me feel as if I were wearing leaking chest waders. At one site pinyons and junipers had been killed or sickened by the coal dust that still covered them and by flames from leaking gas, burned off during drilling. Columns of weeds marched up hills and along ridges, following buried pipelines.

Pump jacks, pecking the earth like giant flickers, removed contaminated groundwater ("produced water," as it's called), which is supposed to be stored in tanks and trucked away but often leaks or gets dumped. Sometimes the compressors drip toxic antifreeze. In this arid land, any standing liquid is swilled by cattle and wildlife. Cattle owned by Velasquez, Blancett, and other ranchers are regularly poisoned. Once Velasquez lost eight cows in seven days. Frequently the cows don't even make it off the well pad. Deer, elk, and small mammals travel farther before they die, but their carcasses show up regularly, too.

"The amount of mortality that the deer are experiencing in the Rosa, in particular Eul Basin, seems high to me," comments BLM biologist John Hansen. He suspects two main causes—"drinking produced water and other liquid by-products at well locations" and a reduction in natural forage, forcing a diet of plants that kill stomach bacteria, thereby causing starvation. "I believe we need to do all that we possibly can to restore and/or maintain what browse we have," he says. "We need to strongly encourage industry to minimize their destruction of sagebrush parks and other areas of deer forage."

But resource biologists only make recommendations. Instead of "encouraging" good behavior from industry, BLM policy makers are following White House orders to suspend rules that protect wildlife—for example, restrictions on drilling during winter, when ungulates are stressed and desperately conserving calories. The Clinton administration strictly enforced the restrictions. But now, when companies ask for exemptions, the BLM spits them out like tollbooth tickets. Lately agency field offices have been granting about 85 percent of the wildlife exemptions requested. Farmington is stricter, granting "only" about 75 percent, but Hansen expects more leniency because of an increase in designated "critical big-game habitat" in the new regional management plan.

Deep in the Rosa we came across a cluster of a dozen wells, a few hundred yards from one another. With a modest investment for diagonal drilling, every site could have been reached from a single well pad. But despite the BLM's multiple-use mandate, a square mile of habitat had been sacrificed. When a coal seam has been dewatered, the gas can go anywhere it wants—sometimes to the wellhead and sometimes to surface vents. Occasionally it drives people permanently from their homes. The previous morning I'd been assailed by the stench of rotten eggs when I'd stopped to read poison-gas warning signs along the state's "gold medal" trout section of the Animas River. It was hydrogen sulfide leaking from fractured, dewatered coal seams along with methane and other gases. But smelling rotten eggs is good; it means you're not going to get poisoned right away. If the smell gets sweet, hit the dirt and crawl fast, because you're one breath from death.

The BLM doesn't do meaningful gas-field enforcement, but when an environmental group called the San Juan Citizens Alliance offered to help out by designing an information packet on how to identify violations, BLM officials were horrified. Such info in the hands of hikers, hunters, birdwatchers, and the like might "encourage" them to venture onto their property, thereby exposing them to deadly gases. In other words, the public can't use its land because it's reserved for industry. Such is multiple use in action.

Rivers like the Animas and the San Juan are receiving major sedimentation from gas-field soil disturbance. Where Navajo Dam disgorges the San Juan River (just as muddy now as when I had floated it in August), we encountered a gas well perched atop three acres of sticky mud, and a reeking, coal-stained wastewater pit the size of an Olympic swimming pool that was easily accessible to waterfowl and other wildlife. The crude fence was down, but even when it had been up, deer or elk could have stepped over it. "Look at that," Velasquez declared. "Right next to the tarred road." That's the kind of faith the gas and oil industry has in BLM's non-enforcement.

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Late in the day we pulled off the road to make way for a dozen "frac trucks" the size of school buses, heading into the Rosa. Frac trucks pump fluids into the earth at high pressure to fracture coal seams and release the methane. Because frac fluids contain and/or pick up benzene and other dangerous poisons, they can pollute groundwater. But the Bush energy plan exempts fracing from Safe Drinking Water Act standards—this despite the fact that an Environmental Protection Agency study had warned that fracing could endanger the public by contaminating aquifers. Offering no scientific basis other than "feedback" from industry, Bush's EPA changed the data to indicate that fracing wasn't a problem after all. In the final draft of the White House National Energy Policy, the administration deleted the whole section on fracing, including information on how it pollutes drinking water. The leading producer of frac fluids is the Halliburton Company, the gas and oil giant formerly run by Vice-President Dick Cheney and which, according to his most recent financial disclosures, paid him deferred payments of at least \$1.7 million in 2001 and at least \$177,393 in 2002.

Despite the effusions of Tweeti Blancett, the San Juan Basin isn't the only, or even the most graphic, preview of what the West will look like under Bush's energy plan. For example, the 13-million-acre Powder River Basin in Montana and Wyoming, which sustains about 157,000 mule deer, 109,000 pronghorn, and 12,000 elk, is ventilated by about 10,000 coal-bed methane wells. (See "Powder Keg," Audubon, December 2002.) Still, on January 21 Secretary Norton announced she intended to triple the BLM's annual allotment of gas-drilling permits in Wyoming, from 1,000 to 3,000. In all, the administration proposes 66,000 new wells, 26,000 miles of new roads, 52,000 miles of new pipelines, and 1,000 new compressors. The dewatering of coal is drying up aquifers, springs, and creeks. The disposal of produced water is killing forage for wildlife and livestock; wiping out plant communities; sterilizing soil; polluting rivers; and jeopardizing trout, smallmouth bass, walleye, channel catfish, and the imperiled sturgeon chub. As in New Mexico, ranchers have been driven into the arms of environmentalists. Together they're suing the BLM.

Maybe the ugliest preview of all is Wyoming's Upper Green River Basin, flanked by the Wind River Mountains on the east, the Gros Ventre and Hoback ranges on the north, and the Wyoming range on the west. Part of the greater Yellowstone ecosystem and the largest big-game winter range south of Alaska, the basin links Grand Teton National Park with the Red Desert. Each fall, in the longest ungulate migration in the contiguous states,100,000 mule deer, elk, bighorn sheep, and pronghorn make their way down from the high country to spend the winter. The basin also sustains peregrines, golden eagles, imperiled Colorado River cutthroat trout, and the world's largest population of sage grouse, a species endangered in fact if not by fiat. No wildlife habitat in America is more important.

Already the basin is pocked with 4,100 gas wells. Still, the BLM is flinging around drilling permits like wedding rice, and it proposes as many as 10,000 new wells. In some areas 3-acre well pads are spaced every 20 acres, and companies are demanding, and apparently will get,

10-acre spacing. Restoration, if it's even attempted, doesn't work here either; 20-year-old well pads are still naked. In the harsh northern winter, birds and mammals tend to die if they're stressed by lights and noise from compressors, frac trucks, and drilling rigs. The state game and fish department reports that for every acre in the basin covered with well pads and drilling pads, elk abandon 97 acres. So the BLM has a rule that forbids drilling between November 15 and April 30. Essentially, it applies to everyone save those who find it inconvenient. For example, in the winter of 2002–2003 and up until this writing (mid-January), the regional BLM office in Pinedale, Wyoming, granted 87 requests for winter (big-game) range exemptions and issued 3 denials. During the same period it granted 182 requests for sage grouse exemptions and issued no denials.

Luna Leopold—an internationally known hydrologist, member of the National Academy of Sciences, and son of Aldo Leopold—has a cabin in the basin overlooking the New Fork River. When I asked him what he thought of all the gas development around him, he said this: "The sage grouse is already so diminished that it's very likely to be listed as endangered, and this is practically the only large area of sage grouse habitat left. All the wildlife links are being wrecked. I've flown over the place, and it's a disaster—absolute devastation." A coalition of sportsmen and environmentalists is suing the BLM.

America desperately needs more energy. But it doesn't desperately need more natural gas. The overall demand for gas has been flat since 1996; in fact, it has been declining 2 percent per year. What's more, proven, economically recoverable reserves have increased in seven of the past eight years. In 2004 we have more known gas reserves than we had in 1990. So why the mad rush? With gas prices as high as they are, why not turn to renewable energy or, better yet, energy conservation. It would be far cheaper. But the Bush energy plan cuts funds for research into energy efficiency and alternative power by almost a third. "Conservation may be a sign of personal virtue," pronounces Cheney, but it shouldn't be the foundation of a "comprehensive energy policy." And why, when the gas and oil industry is raking in record profits, are Americans being asked to sacrifice their last best fish and wildlife habitat to a White House scheme that further engorges the industry with billions in direct subsidies, loan guarantees, and tax breaks?

"The analogy I make is the oil-shale boom and bust in the early 1980s," says Pete Morton, an economist retained by the Wilderness Society. "The industry made incredible projections—15 million barrels of oil a day for 200 years. But it didn't consider the cost of getting it out of the ground or the cost to the environment. People built all these houses and infrastructure, passed bonds for roads and sewers. And two weeks after Exxon pulled out of Rifle, Colorado, on Black Sunday [May 2, 1981], 10,000 people were unemployed. Now, 20 years later, it's déjà vu. All we're saying to the BLM is, 'Do the math.'"

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The U.S. Department of Agriculture's Forest Service, also under gas-at-any-cost marching orders, needs to do some math, too. In Bayfield, Colorado, I interviewed four local environmentalists—Dan Randolph, Mark Pearson, and Janine Fitzgerald, all of the San Juan Citizens Alliance, and Lisa Sumi of the Oil and Gas Accountability Project. The first thing they told me was they weren't against gas development—they just wanted it done right. They'd even settle for legally. We met at Fitzgerald's ranch, which abuts the San Juan National Forest's 40,000-acre HD Mountains Roadless Area—low foothills far more valuable to wildlife than the high rock and ice that make up most of the forest's designated wilderness. The HDs are sanctuary for wild turkeys, black bears, mule deer, elk, northern goshawks, mountain bluebirds, all manner of warblers, and some of the last old-growth ponderosa pine in the San Juan Mountains. But, in the first big test of its "roadless rule" forbidding such activity, the Forest Service is rushing to put in 297 gas wells, 10 compressors, and 60 miles of roads. Pearson spread out a map on which planned and existing gas wells in the San Juan Basin showed as black dots. Save for a dollop of green—one-tenth of one percent of the basin—the map looked as if it had been used to test shot patterns at a skeet range. The dollop of green was the HDs. "They want it all," says Randolph.

Fitzgerald first testified against gas development in 1985, when she was 22. At that time she and her parents were the only ranchers in the room who expressed reservations. "Ranchers thought they were going to get rich," she told me. "Now at public meetings the only people who want more gas development are employed by the industry. Ranchers lose cows that drink produced water. They lose water sources. Their pastures die off. And when they sell out, they find their property has been devalued." Randolph doesn't agree with Blancett that the coalition of ranchers and environmentalists suing the Forest Service is an "unholy alliance." He calls it a "natural alliance."

As we hiked, Fitzgerald pointed out shards of ancient Indian pottery. The HDs contain at least 100 undamaged pre-Puebloan cultural sites. We made our way through pinyon and juniper and climbed past huge ponderosa pines, some bearing scars where Indians, apparently desperate for food, had cut into them to extract cambium. In a clearing I looked down on the ranch house of Fitzgerald's parents and watched their border collies romping through a pasture, lush for this country. High above and to the east I studied the forested ridge where 6 of the 10 compressors would be built, and I tried to imagine what they would sound like in this hushed valley and how their lights would look against the night sky. From this vantage point I could better appreciate the true impact of roads. In hilly country you don't connect two wells with a road laid out like a first-base line; you connect them with a road laid out like a spiral staircase, a road that takes you one crow mile via a bleeding, sloughing 5- or 10- or 15-mile gouge.

There have been no studies to show how much gas might lie beneath the HDs. And no one knows what long-term effects coal-bed methane drilling will have on other public resources. Again, it's an experiment.

It's commonly believed that the HD Mountains were named for the Hatcher-Dyke (HD) Cattle Company, except that—although there were a bunch of cattle running around with HD brands—there never was a Hatcher or a Dyke anywhere near the area. In the mid-1880s the feds decided that the southern Utes—hunter-gatherers who each fall followed elk and deer down from what is now the Weminuche Wilderness—

needed to be ranchers. So the agency gave them 3,000 head of cattle branded with an ID, for Interior Department. Another, far more credible, explanation for the sudden appearance of the HD brand has been offered by local historians: It was the work of rustlers who edited the ID with a vertical and a horizontal bar. At any rate, neither the Interior Department nor the Beaver Creek Land Company (which owned the HD brand) had any idea how all these cattle might affect the native ecosystem. It was an experiment. The cattle ate everything they could eat, nuking the HDs, which haven't fully recovered to this day. Then they died, the wildlife starved, the Indians were moved onto reservations, and the Beaver Creek Land Company went belly-up.

In the 1940s an old man appeared in Bayfield and announced that he was going to hike back into the HD range, where he'd worked as a young foreman. "Bring plenty of water," the locals told him. They stared at him condescendingly when he explained that this wasn't necessary, because the country was full of springs. When he stumbled out later that day he said only this: "My heart is broken."

"We changed the ecology of the West," declared Fitzgerald as we pushed our way through old, spindly gambel oaks that should have been robust trees. "We didn't know what we were doing back then. But now we do know, and we're behaving the same way."

Editor-at-large Ted Williams heats with oil and wears down vests.

What You Can Do

Support the San Juan Citizens Alliance (970-259-3583; www.sanjuancitizens.org). To comment on draft environmental-impact statements for the gas-development plans BLM and Forest Service field offices have been ordered to complete before the fall elections, go to www.fs.fed.us/r2/sanjuan/. For the San Juan Basin office, call 970-385-1211. Contact information for other resource areas is available from the Northern Rockies office of the Wilderness Society; call Peter Aengst at 406-586-1600, extension 105.