

Horizontal drilling

The industry's proposed development in the HD Mountains comprises over 100 coalbed methane wells plus dozens of miles of roads and pipelines within the inventoried roadless area, with an additional 30 coalbed methane wells and two injection wells on the periphery. Regardless of the environmental safeguards required, this development would fundamentally change the nature of the HD Mountains from a roadless area worthy of wilderness status to an industrial zone. Development in the HD Mountains is intended to be rapid, which could increase the likelihood of coincident or synergistic impacts, if all road construction or all drilling processes (and their associated wildlife impacts) occur within a short window of time.

In the end, the tradeoffs of development are fairly straightforward. If drilling proceeds in the HD Mountains, the amount of gas likely to be recovered over the next 30 years would provide two days' worth of current US consumption. At peak production, it would provide only 0.03% of annual US demand, and less than 1% of annual Colorado demand. The amount of gas produced from the HD Mountains over the next 30 years would be a negligible contribution to meeting US energy demands, but the impacts on the roadless area and the surrounding community would be profound.

Technology is rapidly evolving in the area of **horizontal drilling** to tap much of the gas beneath the HD Mountains without devastating surface impacts. Several companies are experimenting with horizontal drilling near the HD Mountains. The leader among these has been CDX Gas, which has drilled two horizontal wells southwest of the HDs and is pursuing permits for several additional wells. The two CDX wells each produce 1-2 million cubic feet per day of gas, highly productive wells in the San Juan Basin. Horizontal drilling can recover significantly higher percentages of gas in place, 80-90% versus 50% using conventional vertical wells, and can produce this gas faster with less water production. BP Amoco plans to drill several of its own horizontal wells, as has Williams. Horizontal wells can drain up to 1,200 acres from a single well pad versus the 160 acres drained by traditional vertical wells.

Low Impact Alternative

If the Forest Service allows drilling in the HDs, drilling technology has advanced to the point where very minimal surface impacts within the proposed wilderness area are necessary. Such constraints are legitimate exercises of federal authority over protected public lands, and establish the market conditions to which technology will inevitably respond to make low-impact drilling profitable. The vast majority of the coalbed methane resource in the HDs could be reached using a small number of wells on the perimeter of the roadless area and utilizing preexisting roads.

A **low impact alternative** could include horizontal drilling from existing roads, maintaining the existing 1.5-mile regulatory setback from Fruitland Formation outcrop (to prevent methane seeps and underground coal fires), and avoiding new roads within the roadless area. This approach honors both of the valid desires expressed by stakeholders in this debate: to protect a rare natural resource and provide additional energy resources to the region.