

LAND SUBSIDENCE

FROM LONGWALL MINING

Law allows mining companies the great privilege of undermining private land without consent. With this privilege comes a greater responsibility of protecting and restoring the land and water resources in the life-of-mine plan. Bull Mountain Land Alliance and Northern Plains Resource Council intend to ensure that Signal Peak Energy meets this responsibility and allows mining and agriculture to co-exist.

North of Billings, Montana, in the Bull Mountains, Signal Peak Energy (SPE) has no legal requirements for bonding for damages to water or landscape from mining-caused subsidence. Bull Mountain Land Alliance and Northern Plains Resource Council are challenging the BLM's findings of no significant impacts.



Terrain in the Bull Mountains is steep mesas and spring-fed coulees that are vulnerable to severe cracking and subsequent erosion, as well as dramatic changes to the aquifer.

Eighteen months after the start of mining, on-the-ground evidence shows that large cracks with strong erosion potential persist. Our intention is not to stop mining in the Bull Mountains, but to make provisions that allow for animal, human and home safety, livelihoods, and to ensure that existing classed water is replaced with the same type of water.

It will be at least seven years until the coal proposed for lease is mined, allowing adequate time to monitor the situation on the land and develop ongoing protective measures.

Surface estate owners have the right to make a living on their property and be safe while doing so. The U.S. Bureau of Land Management is the current owner of the coal under these surface landowners.

We believe BLM has the power and responsibility to put

stipulations on the lease to ensure protection and repair of the land and water.

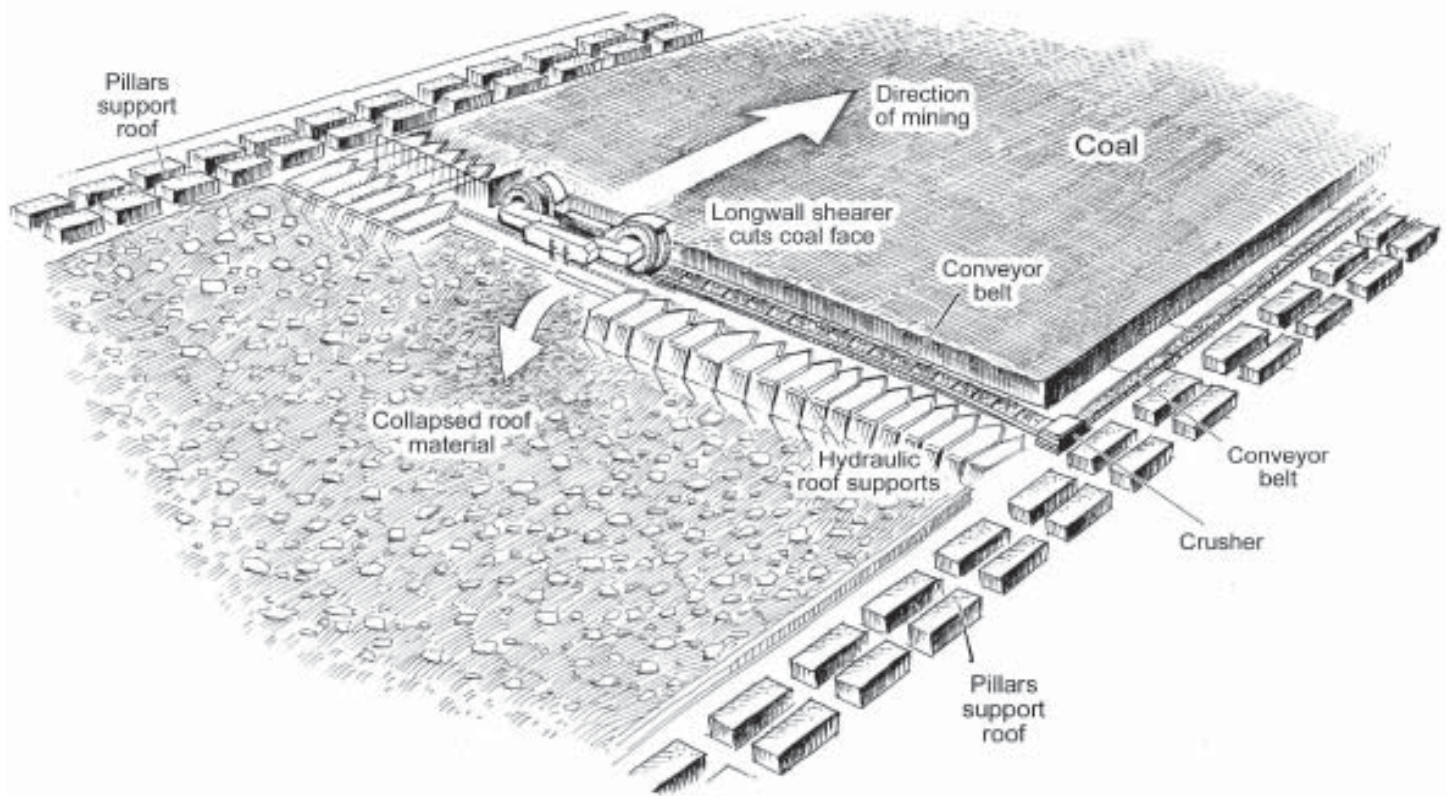
Montana's current political climate supports industry and mining over the protection of surface estate owners. Consequently, we are pursuing action from the owners of the federal coal, the BLM.

On April 15, 2011, BLM issued findings of "no significant impact" on the Environmental Assessment completed for Signal Peak Energy for the Bull Mountain Mine No. 1 application for the August 2011 lease sale. These findings have not been materially updated from 20-year-old findings.

In response, Bull Mountain and Northern Plains have filed an appeal with the Department of the Interior protesting this action.

What is being sold are five sections of publicly-owned coal leases. This will complete SPE's life-of-mine plan. Should this sale go forward, even with the current on-the-ground impacts, a fair price, adequate bonus and equitable royalties need to be ensured.

LAND SUBSIDES AS LONGWALL MINING PROGRESSES



At the north end of the Bull Mountains, 300-800 feet below the surface, lies Signal Peak Energy's coal mine. Currently, it is using longwall mining, shown above.

In long-wall mining, a cutting shear moves back and forth across a panel of coal up to 1,000 feet in width and several miles in length. Cut coal falls onto a conveyor and is carried to the mouth of the mine.

Longwall mining is done under hydraulic roof supports (shields). As the shields advance, the seam is cut leaving the roof in the mined-out areas collapsing behind them.

These “subsidence” mine spoils are more immediate

than room and pillar mining, and greatly affect the land and water resources within the panel.

Experience in other areas undermined by longwall methods shows threats to water resources are real and serious.

Mining officials downplay these effects and promise remediation as necessary. Without significant bonding for potential damages there is little guarantee for surface landowners and stakeholders.

” The BLM’s approach to their environmental assessment of the subsidence has been based on the best-case scenario. If there is a lesson to be learned from the oil spill in the Gulf of Mexico it is that it is important to plan for the worst-case scenario. This is why we felt it was necessary to challenge the assessment. So that if by chance things do happen for the worst, the land and water will be restored and our agricultural livelihood will be protected.

- Steve Charter, Bull Mountain rancher

ADVISORY COMMITTEE, PUBLIC TOURS, WATER BONDING

Our stipulations rely on generous bonding. Without bonding, bankruptcy is too attractive of an option for a company, leaving the reclamation bill to the state.

Montana's political climate, at best, is lax in its commitment to enforcement for protecting the land and people. Any provisions that threaten mine profitability are vulnerable. This is why we seek to establish stipulation language in coal lease sale documents.

The State of Montana is operating under the assumption that no damage is occurring from longwall subsidence. Given the on-the-ground developments, regulators need to get up to speed. We propose establishing a subsidence damage and control advisory committee for the mine, landowners, regulators and the public to ensure adequate protection.



There are large unhealed cracks on very steep slopes. To a layman's eye, these appear to have a strong possibility of slope failure. An experienced expert is necessary to establish actual risks and avenues for mitigation.

Water quality greatly affects the health and performance of livestock, and it is important that in mitigating damages to water, water resources are replaced with water of equal class.

With new technology, deeper seams of coal may be feasible to mine in the future. Lease language should indicate the specific seams proposed to be mined now. This ensures public coal is not given away too cheaply, and allows for updated environmental consideration when future coal seams are mined.

A public tour will allow the state, federal government, landowners and the public to see the effects of mining on the landscape. Given the proposed sale of public coal, the public should have the opportunity to see what is happening first hand.

Longwall coal extraction causes slope damage, erosion, rock toppling, surface collapse and cracking of nine feet or more. This type of damage leads to water quality concerns for aquifer-fed springs and wells.



DOING IT RIGHT WITH LONGWALL MINING

OUR PROPOSED FEDERAL LEASE STIPULATIONS

1. Financial bonding for water replacement, erosion control, and damage to improvements.

2. Establishment of a systematic subsidence damage control and surveillance program for the entire mine area.

3. Establishment of a subsidence damage control and damage advisory committee.

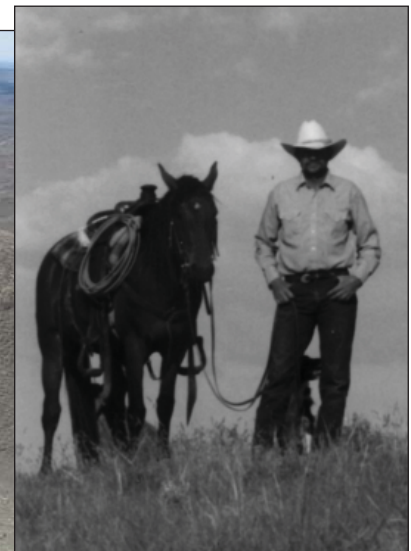
4. A slope failure assessment conducted by an expert.



5. A stipulation mandating the replacement of water resources with a like class (e.g. Class 1 for Class 1).

6. For the lease to be seam-specific and not generally applicable to all coal in the leased sections, and to apply exclusively to underground-mineable coal (vs. strippable coal).

7. A tour of subsidence areas, open to the public and press.



Bull Mountain rancher Steve Charter wonders if fractured grasslands will continue to be productive and safe for grazing.



**Bull Mountain
Land Alliance**

**Produced by Bull Mountain Land Alliance
PO Box 32133, Billings, Montana 59107
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**Informational websites:
www.northernplains.org and www.worc.org**