

## SUMMARY

Thunder Basin Coal Company (TBCC) has applied to the BLM for a lease for federal coal adjacent to TBCC's existing Black Thunder Mine (BTM). The tract proposed for leasing is called the West Black Thunder (WBT) tract.

This environmental assessment characterizes and quantifies the environmental impacts that would likely result from leasing the West Black Thunder tract. It also addresses the cumulative impacts of this application and the other pending lease-by-applications.

In preparation of this environmental assessment four alternatives were considered as follows:

- Alternative 1- Lease the coal as a maintenance tract for an existing mine. This case assumes that the applicant is the successful bidder. This is the preferred alternative.
- Alternative 2- Take no action on the lease application.
- Alternative 3- Lease the coal to open a new, stand-alone mine. This alternative assumes that the applicant is not the successful bidder.
- Alternative 4- Postpone the lease sale.

Under Alternative 1 and Alternative 3 the lease would be offered under a competitive bid process, with the coal rights going to the company or individual that submits the highest qualified bid for the property.

Under Alternative 1, the proposed action, the tract would be mined by TBCC in order to extend the life of the BTM. Coal would be recovered from beneath about 3,225 acres of land adjacent to and west of the existing BTM. The tract is assumed to contain 400 million tons of recoverable coal. The reserves requested in the application for the WBT tract would extend the number of years the mine would be able to produce at the currently permitted maximum production rate by approximately 13 years.

Two possible variations of the proposed action may be implemented by BLM. Option A would add about 33 million tons of federal coal underlying approximately 280 acres to the tract, extending the mine life by approximately one year. This coal is located between the WBT tract and Highway 450 and may be bypassed if not mined with the WBT tract. Option B would be to offer the WBT tract for sale in two parcels if BLM determines that offering the tract as two parcels would maximize revenues to the Federal Government. Option B would not change the coal tonnages. The proposed action with Option A included is the preferred alternative of the BLM.

The environmental impacts of Alternative 1, the proposed action, would not be significantly different than the impacts currently resulting from the mining of the current Black Thunder lease, except that the duration of these impacts would be extended. Water-level declines in the coal aquifer due to mining at the current Black Thunder Mine would be extended one mile further to the west. Drawdowns in the overburden aquifer would also be extended further to the west. The spoil aquifer which replaces the coal and overburden would cover a larger area if the WBT tract is mined, and consequently more time

would be required for the water levels to recover and a steady-state flow pattern to resume. Soils and vegetation are similar to those on the adjacent BTM, where reclamation is already occurring. A plan is in place to mitigate any impacts to raptor nests. The one small sage grouse lek on the property can be displaced to similar areas nearby. Cultural resources eligible for the Nation Register of Historic Places would be tested and mitigated prior to disturbance in conformance with an approved treatment plan. Visual impacts would not be changed under the proposed action, but may be increased under Option A due to the proximity of Highway 450. Air quality would be affected to approximately its current level, or less, but these effects would remain for several additional years. Economic benefits would be realized from bonus bid and royalty payments, production taxes and fees, and maintaining present employment levels for at least thirteen additional years (fourteen with Option A).

Alternative 2, the No Action Alternative, would keep the WBT tract essentially as it now exists. A small portion of the tract would be disturbed by overstripping along the existing lease boundary, and the existing disturbance associated with the diversion of Trussler Creek, BK Draw, and Little Thunder Creek would remain until the diversion is no longer needed. Economic and employment benefits associated with the mining of the WBT tract would be foregone.

Alternative 3, leasing the WBT tract for a new stand-alone mine, would have different environmental and economic impacts than Alternative 1. Affected area would increase due to the need to construct a new facilities area, coal preparation and load-out plant, railroad spur and loop, access road, and out-of-pit stockpiles. Air quality under this alternative would be impacted by the cumulative effects of two adjacent mining operations and two coal crushing and load-out plants. Also, it is probable that annual production from two mines would exceed that from a single mine. Royalty and production taxes would be approximately equal under Alternatives 1 and 3, but the annual distribution of these revenues would most likely be different. Employment probably would increase under Alternative 3, as would property taxes due to the need to construct new facilities.

Alternative 4 would delay leasing on the premise that the price of coal in the region may increase and the government may receive more revenues from the lease sale. Under Alternative 4, the impacts could be the same as for any of the previous alternatives, depending on the length of the postponement. If TBCC acquired the lease before the boundary between it and the BTM lease were mined and reclaimed, the tract could be mined as a maintenance tract as proposed. If leasing were delayed beyond that time, impacts would be increased over the proposed action if TBCC acquired the lease, or similar to those for a new start mine if someone else acquired the lease. If leasing were delayed and coal market conditions make it uneconomical as a stand alone mine, impacts would be similar to the no action alternative.