

## **RECORD OF DECISION**

### **FEDERAL LEASE SALE OFFERING: "FLAT CANYON COAL TRACT" (UTU-77114)**

**United States Department of the Interior  
Bureau of Land Management  
Utah State Office  
Salt Lake City, Utah**

#### **I. INTRODUCTION**

##### **A. Decision to be Made/Authorities:**

This Record of Decision (ROD) documents the Bureau of Land Management's (BLM) decision to offer for lease by competitive bid a tract of Federal Coal identified as "Flat Canyon Coal Lease Tract" (UTU-77114). The parcel of Federal Land underlies National Forest System Lands in the Manti-LaSal National Forest and is located in Sanpete County, Utah. The United States Forest Service, (FS) issued a ROD on January 3, 2002 on the subject Federal coal Lands with certain terms and conditions. Under 43 CFR 3400.3-1, BLM can only issue coal leases on lands with the consent of the surface management agency, in this case, the Forest Service. The consent decision will have terms and conditions that are deemed appropriate for coal leasing on the National Forest.

The leasing action was considered in a Final Environmental Impact Statement (FEIS) issued on January 03, 2002. The BLM participated in the analysis jointly with the U.S. Forest Service, Manti-La Sal National Forest.

With this ROD, I am making the following decision as discussed in this document:

To offer for lease by competitive bid the "Flat Canyon Coal Tract." The range of alternatives considered included offering all of the tract, a portion of the tract or none of the tract; subject to the consent decision by the FS and with appropriate terms and conditions (stipulations) and additional stipulations by BLM.

#### **II. OVERVIEW OF THE LEASE AREAS AND EXISTING RESOURCES**

The Federal Coal lease area under consideration includes about 3,792 acres that underlie the Manti-LaSal National Forest in Sanpete County about 10 miles Southwest of Scofield, Utah on the Wasatch Plateau. Coal of economic interest is located in the Wasatch Plateau Coal Field which has been mined in Central Utah for over 100 years. The coal underlies a rolling upland plateau with surface elevations of 8,000 to 9,000 feet. The rock layers along the central and eastern portions of the Plateau dip gently to the west. West of the Plateau's crest, the rock layers

tilt more abruptly to the west, plunging into the Sanpete and Sevier Valleys. Primary vegetative types in the area include sagebrush, mixed conifer and pinion/juniper woodland. Coal of economic interest is in the Upper and Lower O'Connor, and Flat Canyon Coal beds. All are located in the Blackhawk Formation. Current land uses in the general area include coal mining, livestock grazing, wildlife habitat, watershed, dispersed recreation, transportation corridors and occasional timber and wood products recovery. Coal exploration drilling has been conducted throughout the area. Skyline Mine, one of the largest underground coal mining operations in Utah, is currently mining Federal coal in the adjacent area with production rates approaching 3 million tons per year. The mine has operated for about 25 years and has applied for the "Flat Canyon Coal Tract" to provide additional reserves to extend the life of the mining operation.

Surface waters in the Flat Canyon Coal Project are limited to the perennial drainages of Upper Huntington Creek, Flat Canyon, Boulger Canyon, Swens Canyon, Little Swens and possibly Cunningham Canyon. Boulger Reservoir and Flat Canyon Campground are public facilities that lie within the tract. Some private cabins and State Highway 264 also lie within the tract. Wildlife and cattle inhabit the area and use the ponds, small drainages and the limited springs on the plateau. The perennial drainages and occasional water courses support limited riparian vegetation. Springs in the area are small and tracts are primarily located in drainage tributaries. Any water in this area is important to surface and downstream users.

Primary ground water within the tract is found in shallow colluvial systems. Some limited deep ground water systems are in the Blackhawk Formation and Starpoint Sandstone. At the present time the mine is discharging into Electric lake adjacent to the lease tract at the rate of 2,000 to 4,000 gpm. In addition, mine water is discharged into Eccles Creek at the rate of 10,000 to 15,000 gpm.

The primary wildlife species on the tract are big game (elk and deer), sage grouse and transient raptor species. No rare and endangered bird species are known to nest on the area being considered for leasing. Upper Huntington Creek is the only disease free source of Yellowstone cutthroat trout in Utah. All tributaries of Huntington Creek (Flat Canyon, Boulger Canyon, Swens Canyon, Little Swens and Cunningham) and Boulger Reservoirs are classified as fisheries. The USFS has designated habitat for the goshawk, flammulated owl, and three-toed wood pecker on the lease tract. The only federally listed species that occurs in the tract is the bald eagle.

Paleontological resources identified in the area include vertebrate and invertebrate and animal species. None are specifically protected.

The "Flat Canyon Coal Tract" will provide socioeconomic benefits to the Federal, State and County Governments. Two counties, Sevier and Emery, benefit from economic uses of the area including: coal production from the area adjoining the new proposed lease tract, livestock grazing and water production. The recreation, wildlife habitat, woodland and forest products uses produce some limited economic value.

### **III. ANTICIPATED IMPACTS FROM LEASING & DEVELOPMENT**

The maximum impact scenario considered in the EIS prepared on the subject coal leasing proposal would be full leasing of the delineated tract and maximum extraction of the coal resource through continuous miner and longwall panel extraction. There are multiple coal seams in this tract. Some of the coal seams over lie each other. Panel lengths and widths would be maximized to recover the coal seam between heights of 7 and 12.5 feet. As much as 36 million tons of coal could be recovered. All other action alternatives would result in less coal recovery. No leasing or mine development would result in the least environmental impact. The impacts of the maximum scenario would be:

#### Impact from Subsidence on Topography and Structures:

Subsidence causes a downward movement, starts soon after mining and is substantially complete in less than one year. This change will not be visibly perceptible but has potential for slight modification of water drainage patterns. Full extraction by underground mining of the coal will result in vertical subsidence of the surface up to 70 percent of the height of the coal removed. This tract contains more than one seam of coal and therefore the number of seams mined will dictate the amount of subsidence that will occur. The maximum subsidence will be found where 2 seams of coal will be mined and up to 14.4 feet of subsidence could take place. Where the underground workings will contain large barrier pillars, the surface gradient could change by up to 3 % adjacent to these pillars.

**PERENNIAL STREAMS:** Since this area is a high meadow area, surface water is extremely important. Water is vital to wildlife and cattle that use these areas and to downstream water users. The water resources in the area include, perennial drainages of Upper Huntington Creek, Flat Canyon, Boulger Canyon, Swens Canyon, Little Swens and possibly Cunningham. The results of Canyon Fuel's longwall extraction beneath Burnout Creek, adjacent to the tract, show that obvious detrimental effects to perennial stream-flow are unlikely if these drainages are undermined. The geology, overburden and degree of fracturing and faulting is expected to be similar to the Burnout Creek area. (FEIS p. 4-33 & 4-34)

**BOULGER RESERVOIR:** Mining under the Boulger Dam could cause the dam to fail. This is a small dam that can be taken out of service while the mining is taking place and placed back into service after mining is complete. If both coal seams are mined this would could cause the dam to be out of service for 12 years. If a single seam is mined then the impact would be 1-2 fishing seasons depending upon when the mining takes place (FEIS p. 4-15)

**STATE HIGHWAY 264:** The maximum predicted subsidence from 2 seams of mining under State Highway 264 is 13 feet. This would not happen all at once but in two segments when mining takes place. Canyon Fuel has mined under this highway in the past (single seam) without major problems. No major safety concerns are anticipated based on past experience. (FEIS p. 4-17)

**FLAT CANYON CAMPGROUND:** Mining under the Flat Canyon campground operated by the USFS will cause subsidence and may cause some damage to the restroom structures. There is some potential for damage to the water supply pipeline feeding the campground. (FEIS p. 4-18)

**Impact from Seismicity:**

The collapse of the ground from subsidence sends seismic (earthquake) waves that are strong enough to be measured. The seismic energy that could be released by a subsidence event was estimated using an empirical relationship developed by the USGS ( McGarr equation). It is known that the McGarr equation overestimates the attenuation of seismic energy for sedimentary strata found in the project area.. The equation suggests that if a Richter magnitude 3.45 event resulted from a subsidence event 5500 feet away from the Boulger Dam, the dam could fail. The 3.45 event is the maximum event that was recorded in this mining district. Less than 1% of the events are expected to be above 3.0 (FEIS p. 4-19)

**Groundwater Resources:**

The potential effects from underground mining include direct interception of local perched groundwater systems in the mine workings and the deformation of the strata above the mined area along with minor disruption of natural groundwater discharge. It is unlikely there will be impacts to groundwater resources from underground mining because most springs contain relatively recent water and are associated with shallow ground water systems. Ground water in-flows in the Skyline mine have been radiocarbon dated at over 13,000 years old and contain no tritium. This along with other evidences establishes the fact there is no communication between the water encountered in the mine and the surface waters. It is estimated that there is a negligible probability of perceptibly or quantifiably de-watering near surface groundwater systems as a result of mining-related subsidence and fracturing. Special stipulations require the mining company to replace any lost groundwater. (FEIS, pages 3-24 & 4-39).

**Surface Water Resources:**

**PERENNIAL STREAMS:** Studies of mining under streams in this area have been limited to areas with stream gradients of 5% and greater. Where mining conditions dictate the use of fire barrier or abutment pillars (beginning and end of longwall panels) subsidence could change the stream gradient as much as 3%. This was extrapolated over the entire area. The EIS indicates that 4 miles of Boulger Creek, one-half mile of Swens Creek, one-half mile of Little Swens Creek and 1.5 miles of Flat Canyon have gradients flatter than this particular gradient change. (FEIS, pages 4-52 - 4-53). If the maximum subsidence impact were to occur under these streams, some ponding could occur. However these impacts would be limited and most areas could be mitigated, through re- establishing stream channels.

**ELECTRIC LAKE:** In order to minimize water flowing into the mine, Skyline Mine has started to discharge mine waters into Electric Lake. Skyline has requested that the Utah Department of Environmental Quality, Division of Water Quality change the designation of Electric Lake from High Quality Water - Category 1 (no new point source discharges allowed) to

High Quality Water - Category 2 (new discharge allowed if there is no degradation of water quality). It is estimated that 12,000 gpm will be discharged into Electric Lake. Skyline Mine will be required to obtain a UPDES permit for discharge with the Utah Division of Water Quality. In order to receive a new or modify an existing UPDES permit, it must be demonstrated that beneficial use standards would not be exceeded in the receiving water. Routine water quality monitoring of the discharge water by the company is required for all parameters requested by the Utah State Division of Water Quality. (FEIS p. 4-30)

**ECCLES CREEK:** Skyline Mine has increased mine water discharge into Eccles Creek and is currently pumping 10,000 gpm. It is anticipated that water quantities will increase as the mining moves into the Flat Canyon Coal Tract. The effort to divert water to Electric Lake will ensure that the Eccles Creek does not exceed flood stage. At the expected levels (15,000 gpm) the creek could be subject to flow capable of transporting sediment approximately 50% of the year and perhaps year-long. Due to the current high flows of the water, quality has improved for almost all parameters. Federal and State law requires replacement of any water lost by the mining company. (FEIS, pages 4-23 to 4-29).

Recreation:

Coal mining under Boulger Reservoir and the Flat Canyon Campground will directly impact recreation at these sites because they will have to be taken out of service due to the potential impacts of subsidence on these facilities. The loss of the campground will displace approximately 3000 recreation user days per year it is out of service. A concessionaire will lose approximately \$4000 per year. The reservoir will impact 5000 recreation user days per year. These will require some mitigation efforts by the operator/lessee. (FEIS, page 4-59 through 4-60).

Vegetation:

Up to 28 acres of established riparian vegetation could be affected as stream channels react to changes caused by subsidence. With Alternative B', stream channel stabilization and revegetation would be required; therefore, most adverse effects associated with lateral channel adjustments would be mitigated. If mine discharge is allowed to increase in Eccles Creek due to lack of discharge into Electric Lake, erosion could cause an increase in sediment. It could take as long as 10 to 20 years for the stream channels to stabilize and the riparian vegetation re-established. (FEIS, pages 4-47 to 4-48).

Wildlife Resources & Special Status Species:

**TERRESTRIAL WILDLIFE:** Subsidence will not directly affect terrestrial species dependent on riparian habitats. Surface cracks and minor changes to spring emergence location will affect individual animals but not populations. (FEIS, pages 4-51).

**AQUATIC WILDLIFE:** If stream gradients are reversed pooling and deposition of sediment would result from upstream entrenchment. This would reduce the habitat quality of existing pools and those created by subsidence. Because the majority of the fish habitat in Boulger Creek is in areas of relatively flat gradient, the possible effects of subsidence would affect the entire

stream system. Stream channel adjustment and the consequent loss of habitat features could significantly reduce the productivity of the currently very productive fishery. (FEIS, page 4-53)

**SPECIAL STATUS SPECIES:** Effects to Threatened, Endangered, and Sensitive Species would be negligible. (FEIS, page 4-56)

Cultural Resources:

Cultural resources on the surface could be impacted by subsidence. Any cracks caused by subsidence over 12 inches in width would naturally heal over in about two years. Larger cracks would be filled in by the lessee/operator in such a way as to protect the integrity of any features after consultation with the Utah State Historical Preservation Officer (SHPO). Any effects to cultural resources would be irretrievable but not necessarily irreversible. Restoration and repair could preserve the historic significance of the site. Recovery by excavation would preserve scientific information for further analysis. (FEIS, pages 4-70 to 4-71).

Paleontological Resources:

Paleontological resources of dinosaur footprints or casts in or directly above the coal seam being mined could be destroyed in the mining process. Studies from the College of Eastern Utah and other Universities have found that these foot prints have limited scientific significance. Surface construction activities such as placing vent holes for mining purposes might impact paleontological resources. The potential for this will be minimized by requiring the operator/lessee to conduct a clearance prior to placing any improvements in the area. (FEIS p 4-72 & 4-73).

Visual Quality: The only anticipated effects to visual quality would result from construction of new surface facilities. There would be no apparent visible effects of mining-induced subsidence and seismicity. (FEIS, page 4-64)

Transportation: Existing mine related traffic levels on SR-264 and SR-31, including haul trucks, support vendors, and employee traffic would continue for an additional 9-12 years. Any increased traffic levels would be negligible. Any subsidence caused cracks would be repaired immediately upon discovery and are not expected to cause safety hazards or significant traffic delays during repair. (FEIS, page 4-67).

Socioeconomic Impact and Coal Recoverability:

The FEIS for the Flat Canyon Coal Tract considered 4 alternatives from no leasing to full extraction mining on all minable portions of the proposed leasing area. At maximum recovery, an estimated 36 million tons of coal could be recovered. Assuming the existing mine was successful in acquiring the coal and current levels of production were maintained, 9 to 12 more years of mining would be possible at the mine. Total economic implications at maximum recovery would be:

Value of coal produced = \$720,000,000;

Royalty value to Local, State & Federal Government = \$57,600,000;

Man years of employment = 1980 direct worker personal income = \$82,700,000.

#### **IV. DECISION BY THE BLM**

The BLM decision concerning the Flat Canyon Coal Tract is to hold a lease sale for the coal in the tract and to offer a Federal coal lease to the highest bidder that meets or exceeds the fair market value of the coal as determined by the BLM. According to 43 CFR 3400.3.1, BLM may issue a Federal Coal Lease with the consent of the surface management agency (National Forest Service). The coal will be mined in an environmentally sound manner in accordance with the selected Alternative B' entitled, "Offer the Tract as Delineated with Special Coal Lease Stipulations but without Restrictions on Mining that would Cause Subsidence of Sensitive Surface Resources", subject to BLM stipulations identified in Attachment# 2 and the Forest Service ROD dated 03 January 2002. The BLM decision is constrained by the consent decision of the Manti-LaSal National Forest.

**Rationale:** The adjoining coal mining operation on Federal lands has been active for some 25 years and has indicated the need for additional adjoining coal lease acreage. The lands being considered for leasing have been extensively examined under an EIS entitled: Flat Canyon Lease Tract Project, released on January 3, 2002. Offering the lease will have no impact on the environment. Subsequent underground mining of the tract has been examined conceptually based on a logical plan for mining the coal. Mining is recognized as an interim land use allowed and encouraged by Department of Interior policies.

It is BLM's conclusion that the Flat Canyon Coal Tract can be leased and mined by continuous miner and longwall mining with minimal temporary impacts to the surface resources. With application of modified stipulations used on the Manti-La Sal National Forest, and extra BLM stipulations. This is based on the utilization of proven industry operating procedures in Central Utah in general and on the area adjacent of the Flat Canyon Coal Tract. Mining plans can be developed and implemented in the mining approval phase that avoid subsidence on specific resource features that have been identified in the area.

It is BLM policy to manage energy and mineral resources on public lands in accord with the provisions of the Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976, and the National Materials and Minerals Policy, Research and Development Act of 1980, consistent with other applicable statutory obligations. The Mining and Minerals Policy Act declares that it is the continuing policy of the Federal Government to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources. The following principals will guide BLM in managing mineral resources on public lands:

- A. Except for Congressional withdrawals, public lands shall remain open and available for Mineral exploration and development unless withdrawal or other administrative action is clearly justified in the national interest.

- B. BLM actively encourages and facilitates the development by private industry of public land mineral resources in a manner that satisfies national and local needs and provides for economically and environmentally sound exploration, extraction, and reclamation practices.
- C. BLM's land use plans and multiple-use management decisions will recognize that mineral exploration and development can occur concurrently or sequentially with other resource uses. The BLM further recognizes that land use planning is a dynamic process and decisions will be updated as new data are evaluated.
- D. Land use plans will reflect geological, energy and mineral values on public lands through more effective geology and mineral resource data assessment.
- E. The BLM will maintain effective professional, technical, and managerial personnel knowledgeable in mineral exploration and development.

**Environmentally Preferred Alternative:**

**Take No Action on Applications for Leasing the Flat Canyon Coal Tract**

**Decision:** This alternative would have the least impact on the environment but is determined to not be in the public interest and is not selected.

**Rational:** The no action alternative is not in accordance with management policies and objectives of the BLM for minerals management including offering coal lease tracts. The FEIS for the Flat Canyon Coal Tract has not identified multiple use management concerns so extensive that coal leasing and subsequent development should not be allowed. Terms and conditions (stipulations) and monitoring requirements can be exercised sufficient to reasonably protect the environment and multiple resources or mitigate, through terms and conditions, the minor impacts expected to be created by mining. All practicable means to avoid or minimize environmental harm from the alternative selected have been adopted.

The Forest Service restriction on second seam of mining would result in by-passing Federal Coal that could provide economic benefits to the people of Utah. This coal meets Phase II Clean Air Emissions standards. The decision to not allow mining of this coal was based on the best available information and subsidence modeling. BLM's supplement to the Forest Service's Stipulation #9 allows the decision to be re-evaluated after actual subsidence and stream gradient information have been gathered. After site-specific information have been compiled, the restriction on second seam mining may be lifted to allow the mining of this coal with the consent of the Forest Service.

## **APPEAL PROVISION AND IMPLEMENTATION**

It is my decision to implement and offer the Flat Canyon Coal Tract as described in Attachment 1. The terms and conditions for this leasing action will be in accordance with the FS consent decision. The BLM stipulations are attached to this document as Attachment #2.

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4, and the enclosed Form 1842-1. If an appeal is taken, your notice of appeal must be filed in this office (at the above address) within 30 days from publication of this decision in the Federal Register. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition (pursuant to regulation 43 CFR 4.21) (58 FR 4939, January 19, 1993) (request) for a stay (suspension) of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay **must** also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed in this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

### Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied,
- (2) The likelihood of the appellant's success of the merits,
- (3) The likelihood of immediate and irreparable harm if the stay is not granted,  
and

(4) Whether the public interest favors granting the stay.

*Sally Wisley*  
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SALLY WISLEY  
State Director  
Bureau of Land Management

*4/11/02*  
\_\_\_\_\_  
DATE

ATTACHMENT #1

Land Description

T.13S.,R.6E., SLM, UT

Sec. 21, lots 1-4, E2E2;

Sec. 28, lots 1-8, S3NW, SW;

Sec. 33, E2W2, NWNW, SWSW.

T.14S.,R.6E., SLM, UT

Sec. 4, lots 1-4, S2N2, S2 (all);

Sec. 5, lots 1-4, S2N2, S2 (all).

**ATTACHMENT #2**  
**BLM Supplemented Stipulation**

**Stipulation #9**

The Authorized Officer (AO) can approve full extraction of multiple seams if the Lessee can provide information, based on actual subsidence data from the tract, that impacts can be tolerated or mitigated. The Forest Service will have to consent to the decision and issue a new record of decision.

**BLM New Stipulations**

**Stipulation #21**

All shafts or portals will be back filled after mining has ceased or abandoned and all designs will be approved by the AO.

**Stipulation #22**

Prior to mining on lease, the Lessee shall submit a plan for mining under the Boulger Reservoir facilities to the Authorized Officer. This plan shall include but not be limited to type of mining, when and how the dam will be taken out of service while undermining and/or subjected to mining-induced acceleration of 0.1g and greater, and what mitigation measures will be taken to place the dam and reservoir back into full service. Prior to mining this plan shall be submitted to and be approved by the AO of the BLM, with consent of the surface management agency, and any requirements by the regulatory authority.

**Stipulation #23**

The Lessee shall submit a plan for mining under the Flat Canyon Campground 2 years prior to development of the panels that would cause subsidence of associated facilities. This plan shall include but not be limited to mining, when and how the Flat Canyon Campground will be taken out of service and what mitigation measures will be taken to place the Flat Canyon Campground back into full service. The plan shall be submitted to and be approved by the AO of the BLM, with consent of the surface management agency, in addition to any requirements required by the regulatory authority.

**Stipulation #24**

The Lessee shall submit a plan for monitoring the gradient of the perennial streams within the lease and the associated effects to aquatic ecosystems and wetlands. The plans shall also include measures for mitigating detrimental effects discovered during monitoring. The plans shall be submitted to and be approved by the AO of the BLM, with consent of the surface management agency in addition to any requirements by the regulatory authority, prior to mining.

**Stipulation #25**

The Lessee shall immediately notify the Authorized Officer of any seismic events that trigger a Richter scale reading in excess of 3.0.