

Response to CSU data request for alternatives analysis
December 16, 2005

| CATEGORY/RESOURCE | Alternative A | Alternative B | Alternative C | Alternative D |
|---|--|---|---|---|
| SOILS | | | | |
| | Effects on oil and gas industry, livestock grazing, and wildlife are represented in those sections of this table | | | |
| WATER RESOURCES | | | | |
| Impacts associated with changes in salinity levels | Not RMP level determination | | | |
| Impacts associated with varying sediment load levels and turbidity | Not RMP level determination | | | |
| Distance from water for different soil disturbance activities | Not RMP level determination | | | |
| VEGETATION | | | | |
| Prescribed burning/Vegetation Treatments | | | | |
| Total disturbed acres (restoration and treatment) | Case-by-case (see BLM for guestimate) | As needed (Avg of 306,400 acres during the 20 year planning period) | Avg of 121,080 acres during the 20 year planning period | Avg of 306,400 acres during the 20 year planning period |
| Cost of treatment per acre-year (including noxious weed treatments) | BLM to PROVIDE | | | |
| FISH AND WILDLIFE HABITAT | | | | |
| Change in carrying capacity due to vegetative cover change as a result of treatments | BLM RESPOND No change. | | | |
| Change in wildlife populations as a result of allowing/restricting surface disturbances | BLM RESPOND No change. | | | |
| Relationship between livestock grazing and wildlife species (costs and benefits of reducing big game-livestock conflicts) | BLM RESPOND Relationship will not be given. | | | |
| FIRE | | | | |
| Cost of treatments | See vegetation | | | |
| Cost of fire suppression activities | BLM RESPOND | | | |
| SPECIAL MANAGEMENT AREAS | | | | |
| | See Recreation | | | |
| VISUAL RESOURCE MANAGEMENT | | | | |

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| Acres of Class I | BAH TO PROVIDE | | | |
| Acres of Class II | BAH TO PROVIDE | | | |
| Acres of Class III | BAH TO PROVIDE | | | |
| Acres of Class IV | BAH TO PROVIDE | | | |
| ENERGY AND MINERALS | | | | |
| Oil and Gas Production | | | | |
| Number of years of development | 20 | 20 | 20 | 20 |
| Net number of production wells per year (New minus abandoned) | 2,425 wells completed over 20 years (3,031 wells drilled with an 80% completion rate) | Same as Alt A. | Same as Alt A. | there would be a 25% reduction in number of wells (2,273 total wells, 1,818 completed [80%]) that could be drilled during the next 20 years because of an increase in closed and NSO areas |
| Labor required for each well drilled (person-months and capital costs) | BLM TO PROVIDE | | | |
| Number of types of wells (Coalbed vs. Conventional) | Of the 3,031 wells that are projected, approximately 54% (1,637) will be gas wells (both conventional and CBM), 20% (606) will be oil wells, 20% (606) will be dry holes, and 6% (182) will be other types of wells such as injection wells. | Same as Alt. A | Same as Alt A. | Of the 2,273 wells that are projected, approximately 54% (1,227) will be gas wells (both conventional and CBM), 20% (455) will be oil wells, 20% (455) will be dry holes, and 6% (136) will be other types of wells such as injection wells. |
| Annual well field production. Barrels of oil, | See Table 3 | | | |

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| cubic feet of natural gas. | (Production by Formation) on page 31 of the Little Snake RFD report for a breakdown of production by major formations (attached) | | | |
| Acres of surface disturbance associated with developments (gross) | 49,216 | Same as Alt. A | Same as Alt. A | BLM TO PROVIDE Probably 25% less |
| Acres of surface disturbance associated with developments (long-term) | 23,030 | Same as Alt. A | Same as Alt. A | BLM TO PROVIDE Probably 25% less |
| number of wells/pad | BLM RESPOND? May not be able to get this number | | | |
| number of separator heaters/well number of dehydration units and size number and type of compressors | 72 central facilities for the 2,425 completed wells. Central facilities include compressors, dehydration facilities, liquid storage/injection and metering facilities. (see page 58 of the Little Snake RFD) | Same as Alt. A | Same as Alt. A | BLM TO PROVIDE Probably 25% less |
| Number of well to be directional drilled and associated cost of directional drilling (labor and equipment) | BLM RESPOND | | | |
| Cost of reclamation activities | BLM RESPOND | | | |
| EPCA (BAH TO PROVIDE) | | | | |
| Open Subject to Standard Lease Term and Conditions | Area (Acres): 721,600 Total Liquids (Millions of Barrels [MMBbl]): 220 – 221+ | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: |

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| | Total Natural Gas (Billion Cubic Feet [Bcf]): 12,691 – 12,750+ | | | |
| Open Subject to Controlled Surface Use | Area: 422,600 Total Liquids [MMBbl]: 509 – 510+ Total Natural Gas [Bcf]: 18,185 – 18,869+ | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: |
| Cumulative Timing Stipulations <3 Months | Area: 46,800 Total Liquids [MMBbl]: 15 – 15+ Total Natural Gas[Bcf]: 4,193 – 4,249+ | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: |
| Cumulative Timing Stipulations 3-6 Months | Area: 948,800 Total Liquids [MMBbl]: 335 – 335+ Total Natural Gas [Bcf]: 801 – 826+ | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: |
| Cumulative Timing Stipulations 6-9 Months | Area: 62,300 Total Liquids [MMBbl]: 23 – 23+ Total Natural Gas [Bcf]: 18,716 – 18,927+ | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: |

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| Open Subject to No Surface Occupancy | Area: 224,000 Total Liquids [MMBbl]: 75 – 75+ Total Natural Gas [Bcf]: 1,305 – 1,311+ | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: |
| Closed to leasing | Area: 80,400 Total Liquids [MMBbl]: 12 – 12+ Total Natural Gas [Bcf]: 701 – 701+ | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: | Area: Total Liquids [MMBbl]: Total Natural Gas [Bcf]: |
| Cost of restrictions (NSO, CSU, and seasonal) to operator | BLM TO PROVIDE | | | |
| Other Minerals | | | | |
| Salable Minerals and Coal Production: Tons/yr of production of minerals and type of mineral. | Coal: Moffat and Routt Counties have an annual production of about 16.50 million tons of coal. Salable minerals: no production data in DEIS chp 3. | BLM TO PROVIDE | BLM TO PROVIDE | BLM TO PROVIDE |
| Locatable mineral restrictions | BAH TO PROVIDE | | | |
| Coal leasing restrictions | BAH TO PROVIDE | | | |
| Common variety minerals restrictions | BAH TO PROVIDE | | | |
| Other mineral restrictions | BAH TO PROVIDE | | | |
| LIVESTOCK GRAZING | | | | |
| Total AUMs (Based on surface use development/restrictions, habitat improvements, recreation) | BLM TO PROVIDE | | | |

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| Number of livestock range improvements | BLM TO PROVIDE | | | |
| Costs of livestock range improvements | BLM TO PROVIDE | | | |
| RECREATION | | | | |
| Visitor days (change by alternative due to OHV open areas/restrictions, SMA/SRMA designation, change from SRMA to ERMA, oil and gas development/restrictions, habitat improvements, wildlife populations, increase/decrease in developed recreation sites, types of recreation) | BLM TO PROVIDE | | | |
| FOREST AND WOODLAND PRODUCTS | | | | |
| Yield (wood harvest) and costs associated with yield | BLM TO PROVIDE | | | |
| LANDS AND REALTY | | | | |
| exchanges/disposal (estimated costs) | BLM RESPOND | | | |
| acres of ROW exclusion | BAH TO PROVIDE | | | |
| acres of ROW avoidance | BAH TO PROVIDE | | | |
| TRANSPORTATION AND ACCESS | | | | |
| Miles of trails | DO WE HAVE THIS? | | | |
| Acres closed to OHV use | BAH TO PROVIDE | | | |
| Acres limited to designated roads and trails | BAH TO PROVIDE | | | |
| Acres limited to existing roads and trails | BAH TO PROVIDE | | | |
| Acres open to OHV use | BAH TO PROVIDE | | | |
| SURFACE DISTURBANCE | | | | |
| Acres of no ground disturbance (NGD) | BAH TO PROVIDE | | | |
| Acres of site-specific relocations (SSR) | BAH TO PROVIDE | | | |
| BLM BUDGET TO IMPLEMENT ALTS | BLM RESPOND | | | |