

SPECIFIC IMPACTS

CURRENT MANAGEMENT ALTERNATIVE

MINERALS

Interrelated Impacts

State leased and private oil shale and tar sand projects, (BLM 1982b) when considered collectively, would use a major portion of the available air quality increments and 36 percent of available White River water supply (refer to water use and air quality sections). Because of this, some future oil shale and/or tar sand programs located on public lands could be significantly delayed or eliminated. Air quality and water rights are handled through the State of Utah.

Oil and Gas

BLM Impacts

Total annual disturbance from drilling activities associated with 40 to 80 new wells would be 160 to 480 acres. Approximately 50 to 150 acres associated with non-productive wells would be subsequently available for reclamation. This level of activity and resulting disturbance would remain the same under every alternative. Drilling activities would continue to depend on market conditions.

The conflicts between other surface resources (reflected by the category system) and the potential oil and gas areas (favorability system) is summarized by alternative in Table 4-7 (Acreage Conflicts Between Category Designations and Oil and Gas Favorability Areas).

BLM's interim wilderness management policy could delay development of some existing and potential leases in the Winter Ridge Wilderness Study Area (UT-080-730, BLM 1979a), (Figure 1-4). The oil and gas resources could remain undisturbed until Congress makes a wilderness or non-wilderness determination.

Oil Shale

BLM Impacts

Anticipated production levels, environmental impacts, and mitigating measures associated with the White River Shale Project are analyzed in a detailed development plan, and will not be repeated here (Bechtel Petroleum 1981).

No additional leasing would occur.

Tar Sand

BLM Impacts

No tar sand development would be allowed under this alternative; therefore, no impacts resulting from tar

sand development would occur.

Gilsonite

BLM Impacts

Current activity and production levels would continue to depend on market trends. A total of 5 to 45 mine staging areas would be developed on new Federal leases causing a surface disturbance of 15 to 135 acres over a 10 year period. This level of impact would remain constant under all alternatives.

Sand and Gravel

BLM Impacts

No significant use of sand and gravel would occur as a result of BLM proposed actions for this alternative. Over the next several years, surface disturbance resulting from sand and gravel development would be negligible, as removal would generally continue to occur in established removal areas.

Building Stone

BLM Impacts

Collection of building stone would continue at approximately the same levels as experienced in the past several years. Anticipated demand would not require the opening of new building stone areas or major expansion of old ones; therefore, little additional surface disturbance would occur.

RIGHT-OF-WAY CORRIDORS

BLM Impacts

Approximately 61,500 acres would be informally designated as corridors under this alternative (Figure 2-5). Should these corridors be developed, anticipated resource conflicts would occur in crucial wildlife habitat, critical and severe erosion areas, habitat for threatened and sensitive plant species, floodplains, a river corridor, a public water reserve, visual resource management areas, and productive woodlands (Appendix 9, Utility Corridors and Segments by Alternative). However, because the number of rights-of-way applications that would be received over the next several years is not known, anticipated impacts cannot be quantified. Site specific environmental documentation would be prepared for construction within the 170 miles of proposed corridors when specific right-of-way applications are received.

Table 4-7

Acreage Conflicts Between Category Designations and Oil and Gas Favorability Areas

BLM Designation	Category 1 Standard Stipulations	Category 2 Special Stipulations	Category 3 No Surface Occupancy	Category 4 No Lease
Current Situation Alternative				
Oil & Gas Favorability				
F1 (low)	23,000	0	5,000	4,000
F2 (moderate)	653,000	159,000	21,000	12,000
F3 (high)	117,000	27,000	6,000	0
Resource Protection Alternative				
F1	<u>2,000</u>	<u>26,000</u>	<u>2,000</u>	0
F2	<u>416,000</u>	<u>370,000</u>	<u>38,000</u>	<u>24,000</u>
F3	<u>55,000</u>	<u>70,000</u>	<u>9,000</u>	<u>12,000</u>
Commodity Production Alternative				
F1	<u>28,000</u>	<u>2,000</u>	0	0
F2	<u>815,000</u>	<u>29,000</u>	<u>3,000</u>	0
F3	<u>146,000</u>	<u>4,000</u>	0	0
Balanced Use Alternative				
F1	<u>22,000</u>	<u>7,000</u>	<u>1,000</u>	0
F2	<u>470,000</u>	<u>365,000</u>	<u>13,000</u>	0
F3	<u>60,000</u>	<u>88,000</u>	<u>2,000</u>	0

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The informal corridors considered for this alternative would not be sufficient to accommodate anticipated industry requirements.

FORAGE

Interrelated Impacts

There are two interrelated projects which will effect the forage resource in the BCRA: the White River Shale Project and the White River Dam Construction (Bechtel Petroleum, Inc. 1981), (BLM 1982c). These impacts will occur within the Bonanza-Rainbow Locality; five allotments will be affected (Table 4-9, Forage Impacts from Interrelated Projects).

The permittees in the Little Emrna and White River Bottoms allotments will be the only operators that are significantly affected. Construction and spent oil shale disposal will eliminate 14 percent of the forage in the Little Emma allotment. The loss of forage will exceed ten years in duration; however, rehabilitation may eventually eliminate the loss. The White River Bottoms allotment will lose 21 percent of the available forage. Since this area will become part of the White River Dam Reservoir, the forage will be permanently lost.

BLM Impacts

Blue Mountain Locality:

Authorization of 5,835 AUMs for livestock and 1,768 AUMs for wildlife would continue under this alternative. A gradual decline in ecological condition would continue on three allotments: Blue Mountain AMP, Point of Pines, and Stuntz Valley. Three other allotments would remain static (Appendix 14, Anticipated Trend in Ecological Condition). Approximately 7,200 acres (19 percent) would decline. Of the areas in decline, approximately 10 percent would change a full condition class (Appendix 16, Anticipated Changes in Ecological Condition Class). The remaining 30,800 acres would remain in a static condition. This decline would occur mainly in the mountain stony loam and mountain loam sites (Appendix 10, Ecological Sites and Conditions by Locality). Sagebrush would continue to increase on the sagebrush treated areas because no treatment of sagebrush would take place. The apparent decline in condition results from three factors: the current pattern of heavy utilization of forage by livestock and wildlife, continuous season long use, and the natural tendency of sagebrush to dominate over grass.

Bonanza-Rainbow Locality:

Continuation of the present grazing practices and 37,352 AUMs for livestock, 762 AUMs for antelope, 480 AUMs for wild horses, and an unknown portion of

12,784 AUMs for deer would not change the existing trend in ecological condition. Six allotments (Antelope Draw, Asphalt Draw AMP, Hells Hole, Olsen AMP, Stateline, and West Deadman), would continue to improve and 19 allotments would remain stable. Four allotments would continue to decline: Badlands, Jensen, Kane Hollow, and Spring Hollow Appendix 14 (Anticipated Trend in Ecological Condition) and Appendix 5 (Forage Actions by Alternative). Approximately 24,800 acres would continue to decline, 363,600 acres would remain static and 244,900 acres would continue to improve. A net effect for the locality would be a change of less than 5 percent in ecological condition class from fair to good Appendix 16 (Anticipated Change in Ecological Condition Class).

Areas that are receiving light or no grazing use due to a lack of water, licensed nonuse, or other limiting factors, would continue to show an improvement in ecological condition. Areas where livestock tend to concentrate (near water, bedgrounds, etc.), or where heavy spring use occurs, would continue to decline or remain static. Season long use would affect plant vigor as discussed in the general impact section. The present practice of grazing fewer animals (39 percent nonuse) would decrease the potential for forage impacts resulting from spring grazing.

Both antelope and wild horses would continue to consume forage which has been allocated for livestock use. Based upon the existing level of livestock nonuse, the forage resource would not be overutilized; however, the improvement in ecological condition that would be expected through livestock nonuse would not be attained.

In this locality, 308 AUMs of forage would be lost as a result of mineral developments (Appendix 15, Forage Impacts).

Book Cliffs Locality:

The trend of ecological condition would remain unchanged with current grazing practices and allocations of 17,351 AUMs for livestock, 108 AUMs for wild horses, an unknown portion of 12,784 AUMs for deer, and an unknown portion of 3,192 AUMs for elk. Three allotments (Atchee Ridge AMP, Horse Point AMP, and Sweetwater AMP) would continue to have an improvement in ecological condition; four allotments would remain in a static ecological condition. No allotments would decline in overall ecological condition (Appendix 14, Anticipated Trend in Ecological Condition). Approximately 4,400 acres would decline in ecological condition, 86,800 acres would remain in a static condition, and 212,900 acres would continue to improve. The net improvement would be a change of less than 5 percent in ecological condition class (Appendix 16, Anticipated Trend in Ecological Condition Class).

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Table 4-9

Forage Impacts From Interrelated Projects

<u>Allotment Name & Number</u>	<u>Approximate Acres Lost</u>	<u>Approximate AUMs Lost</u>	<u>Percentage of Active Preference</u>
White River Shale Project			
Hells Hole 8819	470	27	1%
Little Emma 5852	2,475	653	14%
Subtotal	2,945	680	
White River Dam Project			
White River			
Bottoms 5850	640	103	21%
State Line 5863	285	41	2%
Antelope Draw 5854	597	86	1%
Subtotal	1,522	230	
 Total	 4,467	 910	

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Four allotments (Atchee Ridge AMP, Horse Point AMP, Sweetwater AMP, and Winter Ridge AMP) totalling approximately 270,200 acres, would operate under grazing systems which rotate grazing use to avoid the impacts of spring grazing upon plant vigor. Three allotments (Book Cliffs Pasture, McClelland, and Westwater Point) approximately 11 percent of the locality, would operate with season-long grazing use Appendix 5 (Forage Actions by Alternative). The changes in ecological condition resulting from grazing distribution, licensed nonuse (25 percent), and season-long grazing would be similar to the impacts described for the Bonanza-Rainbow Locality.

A lack of water on many of the ridges would keep both livestock and wildlife from using the existing forage, even though it was allocated during the 1960's (Oldroyd 1984). Forage consumption would thus be increased in areas in proximity to useable water. The nonuse taken by livestock operators and the existing wildlife populations, would not result in enough cumulative demand for forage to adversely affect range trend. Localized problems in range condition, totalling approximately 4,400 acres, would exist (Appendix 11, Allotment Statistics).

Wild horses would continue to use approximately 108 AUMs which have been allocated to livestock. No competition would occur for the forage because of the existing livestock nonuse. The total improvement in ecological condition that would be expected to result through livestock nonuse, would not be attained.

Forage for elk (approximately 3,200 AUMs) would continue to be provided from forage that was initially allocated to deer (approximately 38,800 AUMs). The average deer use in herd unit 28A would be approximately 12,800 AUMs. This leaves approximately 22,800 AUMs allocated for, but unused by wildlife in deer herd unit 28A and elk herd unit 21.

Within this locality, approximately 224 AUMs would be lost through mineral developments (Appendix 15, Forage Impacts).

Hill Creek Locality:

Continuation of the present grazing practices and 6,442 AUMs for livestock, 1,881 AUMs for wild horses, an unknown portion of 12,784 AUMs for deer, and an unknown portion of 3,192 AUMs for elk would not change the present trend in ecological condition. No allotments would decline. Three allotments (Lower Showalter, Oil Shale, and Ute) would continue to improve; nine allotments would remain static (Appendix 14, Anticipated Trend in Ecological Condition). Approximately 107,200 acres would remain in a static condition and 32,700 acres would continue to improve. A net improvement would be a change of less than 5 percent in ecological condition class (Appendix 16, Anticipated Trend in Ecological Condition Class).

Two allotments (Green River AMP and West Tabyago AMP), totalling approximately 32,100 acres, would operate with grazing systems that would rotate livestock use to avoid the impacts of spring grazing. Ten allotments (approximately 77 percent of this locality) would operate with season-long grazing use (Appendix 5, Forage Actions by Alternative). The changes in ecological condition resulting from grazing distribution, licensed nonuse (49 percent), and season-long grazing would be similar to the impacts described for the Bonanza-Rainbow Locality.

Wild horses would consume approximately 1,880 AUMs that have been allocated for livestock use. Elk would also consume an unquantifiable amount of forage which has been allocated for livestock use. The expected total forage consumption by all animals would be less than the carrying capacity of the range, due to the large percentage of livestock nonuse taken by the permittees. The improvement in ecological condition that would be expected through nonuse would not be as great.

Within this locality, approximately 437 AUMs would be lost through mineral developments (Appendix 15, Forage Impacts).

WILDLIFE/WILD HORSES

BLM Impacts

The utilization of 18,506 AUMs of existing forage from BLM lands by big game species, including 1,325 AUMs from Dinosaur National Monument, and approximately 2,469 AUMs by wild horses, would be sufficient to support big game and wild horse forage demands.

The distribution of the various wildlife species would be: 611 antelope (475 at Bonanza-herd unit 7, 136 at East Bench); 7,700 mule deer (1,500 at Blue Mountain-herd unit 26, 6,200 at Book Cliffs-herd unit 28A); 500 elk (all located at Book Cliffs-herd unit 21); 206 wild horses (40 at Bonanza, 157 at Hill Creek, 9 at Winter Ridge). Wild horse populations would continue to be managed at all 3 locations--Bonanza, Hill Creek, and Winter Ridge. Projected oil and gas development (up to 80 new wells per year) would affect crucial antelope, mule deer, elk, and wild horse habitat. The majority of the animals affected would be displaced into surrounding areas (Hamilton 1984). Forage lost to development is shown in (Appendix 15, Forage Impacts). ***Impacts to sage grouse populations on Blue Mountain, East Bench, Winter Ridge, and the Bonanza and PR Spring areas would be insignificant. This is based on the buffer zone surrounding known leks and mitigation provided (Appendix 4). Given the amount of surrounding suitable habitat, other upland game***

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bird species and waterfowl would not be significantly affected. Opportunities for significant population expansion would probably be limited, should the projected degree of development occur simultaneously. Generally speaking, the BCRA itself receives limited waterfowl use. Displaced birds would most likely shift their activities to adjacent habitat outside the BCRA (the Green River, Stewart Lake, Pelican Lake, Pariette Waterfowl Area, etc.). The net overall change in number of broods produced would not be significant.

While disturbing existing habitat conditions for the short term, over the long term prescribe burns would improve wildlife habitat and increase the quality of available forage. Development of 10 to 30 water projects would result in a better distribution of big game species and result in utilization of suitable areas of habitat and forage not currently in use.

Threatened and endangered wildlife species would not be affected by development as detailed in this alternative.

WOODLANDS

Interrelated Impacts

With an annual harvest rate of 6,500 cords, demand would exceed current wood growth by 2,400 cords by 1995. In 1982, firewood demand from the population of the Uintah Basin amounted to 2,200 cords per year. By 1995, the increased population associated with interrelated projects proposed in the Basin could increase demand by 4,300 cords for a total of 6,500 cords per year.

Assuming a harvest rate of 6,500 cords per year and an average stocking of 11 cords per acre, woodlands would be eliminated at a rate of approximately 220 acres per year. The conversion of woodlands to rangeland as a result of harvest activities would eventually result in additional forage for livestock and wildlife.

BLM Impacts

Because no actions which would result in large population increases are proposed for this alternative, demand for firewood in the BCRA would not significantly increase.

RECREATION

Interrelated Impacts

By 1995, the increased population associated with interrelated projects proposed in the Basin could increase the number of BCRA visitor hunting days by an additional 3,650 to 10,420 visitor days. As a result, hunter

success would likely decline by an unquantified amount, thereby lessening the recreational experience.

In 1982, participation for all other forms of recreation such as small game hunting, river floating, and ORV use was estimated to be 7,200 visitor days. An estimated increase of 12,000 for a total of 19,200 visitor days is expected by 1995. The impact of increased visitor use will affect ORV use. Since the Current Management Alternative proposed no ORV travel restrictions, ORV travel is expected to increase by an unquantified amount, especially in areas close to Vernal and adjacent to developed energy sites.

It would be expected that damage to vegetation and soil, harassment to antelope and wild horse herds in the Bonanza area, and disruptions to the deer herd on their crucial winter range on Lower McCook Ridge would become a growing problem.

Sufficient undeveloped areas would be available to accommodate the increase in dispersed activities such as sightseeing, camping and river floating. However, there would be a slight, undetermined decrease in solitude in popular use areas and a slight, undetermined increase in vandalism of both public and private property.

BLM Impacts

Continuation of BLM current management would not change demand for outdoor recreation except for a small (400 visitor day) increase in big game hunting by the year 1995.

No large-sized surface disturbances are anticipated that would alter VRM class standards.

Retention of the Book Cliffs Mountain Browse Natural Area would continue to provide a useful vegetation study plot where long-term vegetative changes on managed lands could be compared to untreated areas.

FIRE MANAGEMENT

BLM Impacts

Employment of full suppression of wildfire would protect 1,070,000 to 1,075,000 BCRA acres, safeguard private property, and prevent the spread of wildfire to non-Federal lands.

Prescribed burns, while disrupting the existing conditions, would, in the long term, improve overall forage quality, benefitting livestock and wildlife.

WATERSHED

Water Use

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Interrelated Impacts

Interrelated projects would annually deplete 167,000 acre-feet from the White River (*refer to Chapter 4, Water Use Assumptions*). The depletion is 36 percent of the average annual flow and exceeds by 58,000 acre-feet the capacity of White River Dam. This would require proponents of some projects to purchase water rights from other sources.

BLM Impacts

Implementation of any of the BLM actions, would not cause a significant increase in water use.

Water Quality

Interrelated Impacts

Depleting an additional 167,000 acre-feet of water from the White River per year, would increase the total dissolved solids (TDS) concentration at the mouth of the White River by an estimated 12 milligrams per liter (mg/l). At the Imperial Dam, the TDS increase would be approximately 5 mg/l.

BLM Impacts

BLM actions would have no significant impacts on water quality.

Soils

BLM Impacts

The construction of up to 500 detention-retention dams on the 10,000 acres of severe or critical erosion areas, would reduce soil loss by 64,000 tons over the next decade. Surface disturbances caused by dam construction would increase wind and water erosion by an expected insignificant, but undetermined, amount for three to five years.

Under this alternative, severe and critical erosion areas would not be protected from oil and gas activities. However, the small amount of surface disturbance (1,200 to 3,800 acres during the next decade) would not significantly affect cumulative soil erosion, although localized erosion problems could occur.

No other BLM actions would significantly affect soils.

Floodplains

BLM Impacts

Floodplains would not be significantly affected by implementation of any BLM actions.

Boulevard Ridge Study Area

BLM Impacts

Management of the watershed study area would continue to provide scientific data.

LAND TENURE ADJUSTMENT

BLM Impacts

Land ownership could change on up to 1,360 acres available for exchange or sale (Figure 2-7). No applications or specific proposals have been received, so a detailed impact analysis is not possible at this time. However, no significant changes in environmental condition or land management practices would result if exchanges or sales occurred as anticipated for this alternative. Site specific environmental analyses would be done when proposals are received.

AIR QUALITY

Interrelated Impacts

Air quality in the region of the BCRA is expected to deteriorate to some degree over the next ten years, without any further Federal leasing actions. Air pollution emissions from resource development, conversion activities and population growth, and the resulting air quality increment consumption, were analyzed in the Uintah Basin Synfuels Development EIS (BLM 1982b). The emission sources analyzed included units one and two of the Bonanza Power Plant, the White River Oil Shale Project, the Plateau Refinery Expansion, and seven Utah Synfuels proposals, assumed to be on line by 1990. Synfuel production levels analyzed were 320,500 bpd for the high level alternative, and 121,400 bpd for the low production level.

It was determined that air quality impacts resulting from the direct emissions of these projects would not exceed applicable air quality standards and PSD increments. However, near source, maximum 24-hour average total suspended particulate (TSP) concentrations, would be close to the Class II PSD incremental increase allowances.

Secondary emission sources related to population growth and related activities were also analyzed. The analysis considered the potential limitation of the prevention of significant deterioration (PSD) Class I and Class II standards, as well as impacts to areas of special concern, including the Uintah and Ouray Indian Reservation, Dinosaur National Monument, and the High Uintas Primitive Area.

The Class II increment limitations could be exceeded in the Dinosaur National Monument and the Uintah and Ouray Indian Reservation. The impacts to Dinosaur Na-

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tional Monument would be largely from secondary particulate emission sources, whereas impacts to the Uintah and Ouray Indian Reservation would be the result of both primary particulate emissions from the synfuels facilities and secondary emissions. Both the 24-hour maximum and annual average incremental limitations could be exceeded in these areas. The towns of Vernal, Utah and Rangely, Colorado, would also be significantly affected, primarily from secondary emissions.

Because most of these particulates are large, they are not respirable and are believed to have little health effect. If the fugitive dust from secondary sources were to be included in the consumption of the PSD increments for TSP, and mitigation measures, such as paving roadways, were not employed, it is quite likely that PSD Class II increments for TSP would be exceeded in much of the region.

The predicted high TSP concentrations from secondary emissions are not expected to greatly reduce regional visibility; but, they would cause local dust clouds. Worst-case reductions in regional visual range are anticipated to occur in the summer when sulfate formation rates are highest. Worst regional visual range reduction is projected to be less than 10 percent, and would be principally due to sulfate aerosol formed in the atmosphere from regional sulfur dioxide (SO₂) emissions from synthetic fuel facilities and power plants. For up to 50 days annually, yellow-brown atmospheric discoloration, resulting from emissions of nitrogen oxides from synthetic fuel facilities and power plants, may be visible on the Uintah and Ouray Indian Reservation and at Dinosaur National Monument.

Significant, local reductions in visual range could occasionally be observed in stagnant haze layers, principally in the winter. These hazes would be caused by TSP emissions from industrial facilities, wind-blown dust, dust from roadways, and smoke from residential wood stoves and fireplaces. The hazes would be localized and would not affect regional visibility.

That amount of air quality degradation permitted for the interrelated projects is irretrievably committed for the life of those projects. Some degradation of air quality would be irreversible due to established urbanization in the area after closure of the oil shale and tar sand facilities.

BLM Impacts

As no major new projects are considered in this alternative, the continuation of BLM's current management would have no significant impact on the region's air quality.

SOCIOECONOMICS

Methodologies and computations that were used to

estimate economic impacts are discussed in Appendix 12 (Methodology for the Economic and Social Analysis).

Economic Conditions

Interrelated Impacts

The local economic conditions would be affected by development of the interrelated projects identified in Assumptions and Guidelines.

The Uintah Basin Synfuels EIS analyzes various levels of development associated with these projects. The reader is referred to that document for an in depth analysis of the anticipated socioeconomic impacts of synfuel development in the Uintah Basin. In summary, that analysis suggests that the most challenging consequence of the development of the synfuels projects would be the need for orderly management of population growth and its attendant factors. The Uintah Basin population is projected to increase to as much as 151,739 by 1995, or about two and one-half times its present number. This could create problems of substantial magnitude for local city and county governments, as well as for the Ute Indian Tribal Council. Meeting this challenge would necessitate a cooperative effort by the synfuels project developers, the governing entities, and the majority of the citizens involved.

BLM Impacts

Management decisions associated with the Book Cliffs RMP would not alter the interrelated projects or their resulting impacts.

Implementation of the Current Management Alternative would result in the retention of the existing oil and gas category system. As a result, oil and gas development would continue in much the same manner and production level as in the past, and would continue to be a reflection of current market conditions. Under this alternative, the petroleum industry would continue to provide 71 percent of the total employment in the mining sector of Uintah County, 16 percent of the total county employment, and 26 percent of total county personal income. Duchesne County would continue to receive 30 percent of its employment and 44 percent of its income from the petroleum industry. These figures are averages, recognizing that the BCRA would continue to experience minor "boom" and "bust" cycles, which would affect employment and personal income figures.

For the foreseeable future, gilsonite, sand and gravel, metal mining, and miscellaneous mineral activities would continue as they have for the past several years, employing about 300 persons and contributing a minor amount of employment and personal income to Uintah County residents (Table 3-5).

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Implementation of this alternative would not result in the development of the tar sand resource in the BCRA and oil shale development would be limited to the U-a and U-b leases. Therefore, potential employment and revenues associated with tar sand and additional oil shale development would not be realized in the foreseeable future.

None of the quantifiable management actions under this alternative would cause any significant change to livestock operators or existing livestock operations. The public rangeland forage available to many livestock operators would continue to be decreased by ongoing mineral-related activities (see forage section). These losses would not affect existing forage use or rancher income; however, they would reduce the potential carrying capacity of several ranches. Since one of the major factors affecting operator wealth is ranch carrying capacity, these forage losses could reduce ranch values. Since base properties are used as collateral for some types of loans, a reduction in ranch value could have some effect on the total indebtedness allowed.

Since the aggregate rancher income is not expected to change under this alternative, the rancher's ability to repay a loan should not be affected.

Recreation activities would not be significantly affected by BLM recreation management actions. However, estimated population increases, as projected, would increase recreational activities and activity days. Expenditures, income, and employment in the impact area would correspondingly increase as more hunters are attracted to the area. By 1995, BLM actions would result in a 400 hunter day increase and an \$18,000 hunter expenditure increase.

Social Conditions

None of the management actions discussed in implementing the Current Management Alternative would noticeably change the social environment of local communities.

TRANSPORTATION

Interrelated Impacts

Increases in traffic volumes and changes in levels of service on the four major area highways, resulting from interrelated projects, are shown in Table 4-10. By 1995, all roads, with the exception of County Road 262 between U.S. 40 and Bonanza, could have an unsatisfactory level of service which would result in a possible accident rate increase, traffic congestion, and road deterioration.

If a new town were to be constructed at Westwater, in Grand county, as discussed in the economics section, a new road up the south slope of the Book Cliffs Mountains to the BCRA, would be required. BLM actions alone would not be the determining factor in deciding if such a town and highway would be built. If the new town and highway are constructed, the projected traffic volumes for the four major highways in the BCRA, could be reduced by an unknown amount.

BLM Impacts

Under this alternative, BLM impacts to transportation would be insignificant and the levels of service would not change from those discussed above.

UNAVOIDABLE ADVERSE IMPACTS

Forage on an estimated 5,135 acres would be lost as a result of mineral developments. Ecologic condition would continue to decline on 38,600 acres.

Wildlife and wild horses displaced by mineral development into surrounding areas of suitable habitat could be subject to crowding, stress, and competition for forage, water, and cover. In addition, an unquantifiable amount of habitat surrounding each oil and gas well would be abandoned by most wildlife species. This impact could be significant if it is concentrated in or near deer and elk fawning and calving areas.

An unquantifiable increase in soil erosion and loss would result from oil and gas activity.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Minerals mined and subsequently consumed or left underground as unrecoverable would be irretrievably lost.

Soil lost to oil and gas activity would be an irretrievable loss.

Big game losses through displacement from habitat, or illegal killing would be irretrievable. Despite increased losses of individual animals, vitality of the herds would be expected to be maintained.

SHORT-TERM USE VERSUS LONG-TERM PRODUCTIVITY

Because of constantly improving mining technology and practices, present mineral production would be less efficient than future mineral production.

In areas where grazing has resulted in poor ecological condition, the loss of topsoil or source of seed for perennial plants, could reduce the long-term productivity of the range.

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Table 4-10
Projected Average Daily Traffic Levels for Current
Baseline and Interrelated Projects

Highway Segment	1985			1995		
	Baseline	Interrelated	Total	Baseline	Interrelated	Total
<u>Utah 88</u>						
From Ouray to U.S. 40	391	4,268	4,659	501	6,762	7,263
<u>U.S. 40</u>						
From Utah 88 to Vernal	3,955	8,907	12,862	4,739	16,430	21,169
From Vernal to Jensen	5,356	7,620	12,976	6,542	14,158	20,700
From Jensen to County 262	2,348	3,411	5,759	2,868	6,319	9,187
From County 262 to Colo. Line	1,975	3,404	5,379	2,412	6,249	8,661
<u>County 262</u>						
From Utah 45 to U.S. 40	323	750	1,073	413	1,131	1,544
<u>Utah 45</u>						
From Vernal to County 262	NA	4,107	-	NA	8,486	-

Source: Uintah Basin Synfuels Development Final EIS

NA = Not Available

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Burning 5,000 to 10,000 acres of browse would result in short-term losses of forage and habitat, but both would be improved in the long term.

Mineral development and woodland harvest would result in short-term abandonment of wildlife habitats. These habitats would again be occupied following satisfactory reclamation.

Harvesting woodland products to meet demand would result in an overcut of mature trees and reduced productivity in the long-term.

Implementing watershed treatments on 10,000 acres would cause short-term increases in soil erosion, but reduce soil loss by 64,000 tons over the next 10 years.

Impacts to water quality, air quality, socioeconomics, and woodlands are the same as those described for interrelated projects.

Transportation impacts would not change from those impacts caused by baseline and interrelated projects as identified in Table 4-10.

CUMULATIVE SUMMARY

The cumulative impacts to minerals would be the same as the BLM impacts previously discussed for this alternative.

Ecological condition would improve in 12 allotments, decline in 7 allotments, and remain static in 35 allotments. Approximately 36,400 acres would decline, 588,400 would remain static, and 490,500 would improve. An estimated 576 AUMs would be lost due to mineral development activities. Forage actions would result in the improvement of approximately 2 percent of the lands in fair ecologic condition to good condition.

The cumulative impacts upon forage resulting from both the interrelated projects and the BLM projects would not differ significantly from the impacts discussed in the BLM Impacts section. The Little Emma allotment would have a forage loss of 15 percent. The White River Bottoms allotment would have a forage loss of 21 percent. The State Line and Antelope Draw allotments would receive forage decreases of approximately two percent, and all other allotments would lose one percent, or less, of their available forage. Livestock active preference would be decreased by 910 AUMs, from 102,915 to 102,005 AUMs.

The cumulative wildlife impacts would be the same as the BLM Impacts previously discussed.

Sufficient undeveloped areas would be available to absorb the increase in dispersed activities such as sightseeing, camping and river floating. However, there would be a slight undetermined decrease in solitude in popular use areas and a slight undetermined increase in vandalism of both public and private property.

Annual depletions from the White River would increase by 167,000 acre-feet. Colorado's undetermined White River water entitlements, could further reduce the water supply available in Utah.