

management prescriptions proposed for the three (3) relict vegetation communities in the ACECs are small and scattered throughout the resource area, and therefore will not result in any appreciable cumulative impacts outside their immediate zones of influence, however, they may add to the overall understanding of the ecology of the Intermountain West.

Not designating the remaining ACEC proposals (Nine Mile Canyon, the middle and lower Green River, the remaining areas within the Red Mountain-Dry Fork Complex, and Pariette Wetlands) may result in long-term, negative impacts culminating in cumulative losses in recreation, aesthetics, social well being, local economics, and cultural sites within this region. Also, current and planned management under this alternative may lose sight of and/or compromise values in these local, commercial and non-commercial resources.

The protection of areas and objects to the traditional lifestyle and religious ceremonies of the Ute Tribe occurring in the Green River Corridor will have a long-term, positive impact on the social diversity and health of the people and resources area, Uinta Basin, and the nation as a whole.

Alternative C fire management objectives will give human health and safety highest priority. At the same time, however, this will allow for a build up of hazardous fire fuels, which may potentially create an even more damaging, large-scale wildfire in the reasonable foreseeable future.

Establishing a corridor for a common river crossing in level 2 lands in the Green River Scenic Corridor ACEC, and avoidance areas in level 2 lands in the Red Creek Watershed ACEC will mitigate negative, cumulative visual and watershed impacts.

There may be potential impacts to the northeast portion of the resource area from increased visitor-use days. This would be due to the development of additional facilities in level 2 areas and allowing OHV use in the Green River Scenic Corridor ACEC. Impacts may include riparian zone site damage, wildlife disturbance, increased hunting pressure, increased human health and safety risks, and an overall lessening of the recreational experience.

There are some socioeconomic cumulative impacts in the Green River Scenic corridor ACEC, Red Creek Watershed ACEC, Red Mountain, Nine Mile, Pariette Wetlands, and the designated Wild and Scenic Rivers. The social perception in the community is divided. The worker group, although sympathetic to conservation/preservation of these areas, would want to protect industry. Social

perceptions in the communities are divided over wildlife management, visual resources, and scenic resources. Ranchers and business people oppose restrictions placed on commodities, labor groups want to protect industry, and conservation groups want to protect ecosystems.

### **Wild and Scenic Rivers**

Six river segments were determined to be eligible for further study in this alternative. They are the upper, middle, and lower segments of the Green River, two segments on Nine Mile Creek and one segment on Argyle Creek.

All six river segments would be dropped from consideration and returned for uses that would benefit other users of public lands. Recreation use would not increase as it would have if Wild and Scenic River status were maintained and, over time, identified outstandingly remarkable values could be lost. This could result in a loss of up to 5,000 visitor days annually in 10 years. This would be a long-term impact.

## **DIRECT AND INDIRECT IMPACTS OF IMPLEMENTING ALTERNATIVE D**

### **IMPACTS TO CULTURAL AND PALEONTOLOGICAL RESOURCES**

#### **From Management Actions for Fish and Wildlife Habitat Programs**

Accidental disturbance of both cultural and paleontology resources would continue to occur as developments such as land treatments and water developments are completed to benefit wildlife.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

#### **From Management Actions for Livestock Programs**

Accidental disturbance of both cultural and paleontology resources would continue to occur as developments such as land treatments and water developments are completed for livestock.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

### **From Management Actions for Minerals Programs**

Accidental disturbance of both cultural and paleontology resources by activities associated with mineral exploration and development would occur more frequently than in any other alternative because more mineral development would take place.

Any paleontological information lost would limit knowledge of the behavior of different species of animals, their social organization, including adaptive behavior and interspecies interaction.

Any cultural information that is lost would limit our ability to understand the behavior and social structure of past societies.

### **From Management Actions for Recreation Programs**

Continued active management the John Jarvie Historic District in Browns Park would allow the public to gain a better understanding of the history of this fascinating area. By preserving, displaying, and interpreting the many structures and items at the site, the public gains a better appreciation of the need to protect and preserve cultural and paleontological resources.

Protecting the Desolation Canyon National Natural Landmark on the lower Green River below the Sand Wash Recreation Site would increase public awareness of the importance of John Wesley Powell's historic trip down the Green River in 1869.

### **From Management Actions for Special Emphasis Areas Programs**

Not designating Nine Mile Canyon, the Browns Park Complex, and the remaining portion of the Red Mountain-Dry Fork Complex as ACECs would make it more difficult to stabilize and protect the important cultural resources in these areas because they would not receive the management priority consideration afforded an ACEC. As

a result site deterioration would continue and eventually some resources would be lost.

## **IMPACTS TO FISH AND WILDLIFE HABITAT RESOURCES**

### **From Management Actions for Fish and Wildlife Habitat Programs**

Allowing permanent surface disturbance and routine human activity near active ferruginous hawk and golden eagle nest sites, even after the young have left the nest, could force these species to continually seek new, possibly less quality habitat nesting sites. This action could further prevent the delisting of these species and thus be a significant negative long-term impact. This would be the least beneficial alternative along with Alternatives A and C for these species.

Protecting only sage grouse strutting grounds and nesting habitat within 1,000 feet of each strutting ground (3,600 acres or two percent of the total identified) seasonally, could eliminate a minimum of 72 percent of all sage grouse nests, reducing production. This would cause a significant, long-term negative impact to the species.

No prairie dog colonies would be maintained as potential black-footed ferret habitat and no reintroductions would be allowed. This would be a significant negative, long-term impact because potentially suitable habitat would not be available for the recovery of the species. BLM Special Status Species objectives (Manual 6840), as well as those outlined in the Recovery Plan and the Endangered Species Act, would not be met. The public's comments and request for black-footed ferret reintroductions would also not be met.

Only 3,900 acres of existing bighorn sheep habitat (3 percent of identified potential habitat) would continue to be managed for the species. An opportunity to reintroduce bighorn sheep into additional historical habitat would be lost, and the maintenance of the one existing population placed in peril. This would be the most significant negative impact to bighorn sheep along with Alternative C in the Draft RMP.

Forage allocated for wildlife would remain at the current use of 27,600 AUMs which would require a 21 percent reduction from current use levels of 35,000 AUMs. UDWR big game herd objectives would not be met. Planned reintroductions of bighorn sheep, moose, pronghorn antelope, and other species would not occur. Any additional revenues ranging between \$63,400 and \$126,100 annually would not be realized locally. This

would be a significant long-term negative impact to wildlife and the local economy.

### **From Management Actions for Lands and Realty Programs**

Acquiring additional public vehicle access could open 70,700 public acres of presently inaccessible public lands, resulting in an avoidance response by big game and predator species who would move into lower quality habitat.

### **From Management Actions for Livestock Programs**

Continuation of existing management actions will exacerbate the decline in high priority sage grouse habitat as 56 percent of known habitat has already been lost (see Chapter 3).

Allowing livestock use in bighorn sheep habitat would increase the risk of disease transmission from livestock to bighorn sheep. This would reduce or eliminate the successful return of Rocky Mountain bighorn sheep to their native habitat within the resource area. UDWR, BLM, and Utah sports people's objectives of increasing the populations of this native species would not be achieved. This alternative, along with Alternative C, would have the most negative, long-term impact to this species, of those offered in the Draft RMP.

### **From Management Actions for Minerals Programs**

Approximately 100 percent of the known Ferruginous hawk and 90 percent of the golden eagle habitat occurs within the area affected by mineral activity. Protective stipulations would protect nest sites only during the reproductive period. Before and after this reproductive period, all nest sites would be left unprotected and if rendered unusable by human disturbance, could lead to the loss of habitat and possible decline in population levels for these species.

One hundred percent of priority fisheries habitat, including proposed Critical Habitat for the four endangered fish in the Green River would not be protected from future mineral entry under the withdrawal decision for this alternative. Loss or severe degradation of these habitats and increased human disturbance would have a significant negative, long-term impact on these special status fish species.

ACEC designation would be proposed on 3 percent of DMRA, protecting and enhancing critical/crucial wildlife habitat on the upper segment of the Green River only. Other critical/crucial wildlife habitat at the other ACEC proposals would not be protected under an ACEC designation. This alternative proposes the least amount of acreage for designation and thus affords the least opportunity for wildlife habitat enhancement and management.

### **Impacts from Management Actions for Recreation Programs**

Allowing most of the resource area (704,500 acres) to remain open to OHV use would have a significant negative impact to wildlife as virtually 100 percent of riparian habitat, 100 percent of crucial big game habitat, all of existing and potential bighorn sheep habitat, and all sage grouse habitat except the strutting grounds would be open to OHV use year long. All these open OHV areas would significantly impact forage production with increased vegetation destruction and erosion rates. This would also increase the potential for wildlife harassment, poaching, and the possibility of species moving from their prime habitats to those of lesser quality.

### **From Management Actions for Riparian Programs**

Management actions for 7,200 acres of riparian habitat would provide direct long-term benefits to 14 of the 23 special status species in DMRA. Improved riparian areas might help afford the opportunity for downlisting or removal from listing of the long-billed curlew, western snowy plover, black tern, white-faced ibis, and Great Basin silverspot butterfly under the Endangered Species Act. Forage production would be expected to increase as well as vegetative cover, streambank stability, and instream habitat quality. These long-term, positive impacts would correlate up to a two percent population increase for over 20 big game, upland game, and non-game species. BLM objectives to have 75 percent of all riparian areas in proper functioning condition by 1997, as well as the public's concern to improve these areas could also be initiated. Thus these actions are seen to be significant to wildlife habitat management success for the resource area and the region. However, unfenced riparian areas could allow uncontrolled human and livestock use, resulting in continued deterioration of certain riparian areas in the resource area. This would adversely affect water quality and thus fisheries habitat.

### **From Management Actions from Vegetation Programs**

Maintaining wildlife forage demands at their current level of 27,600 AUMs with no increase and assigning additional forage to livestock would not allow DMRA to meet recreationists' and hunters' demand for increased wildlife numbers. Anticipated annual increases to the local economy of between \$63,400 to \$126,100 realized from increased wildlife numbers and wildlife species diversity would also not occur.

### **IMPACTS TO LANDS AND REALTY MANAGEMENT**

#### **From Management Actions for Fish and Wildlife Habitat Programs**

Restrictions would be imposed on lands containing active nest sites for raptor species and sage grouse strutting grounds. These restrictions would affect approximately 12,500 acres and would prohibit the construction of right-of-way projects unless the impacts could be mitigated.

Seasonal restrictions would be imposed on 295,000 acres to protect wildlife resources. These restrictions would not preclude land use authorizations but would limit construction periods to specific times of the year.

#### **From Management Actions for Lands and Realty Programs**

Adherence to designated corridors would prevent the proliferation of major utility systems across undisturbed public lands. The designation of specific corridors for future major right-of-way projects may impact those companies preferring alternative locations to some extent. However, this will ensure the protection of resource values through the land use analysis process which will be required for projects proposed outside of the established corridors. Closure of the designated corridor in Jesse Ewing Canyon upon reaching its capacity would essentially close off the only north-south passage from Wyoming through northeastern Utah on BLM-administered lands.

It can be expected that the counties of Daggett, Duchesne, and Uintah would not be largely affected by future acquisition of public lands as the preferred method for acquisition would be through exchange. The disposal of land by sale, state selection, or R&PP would have a positive impact on the counties.

### **From Management Action for Recreation Programs**

Recreation sites encompassing 5,500 acres would restrict those land use authorizations that would cause visual/aesthetics impacts and found to be inconsistent with the purpose of the recreational sites.

Seasonal restrictions on 8.5 miles of the designated corridor route within the Browns Park Complex would limit construction periods for rights-of-way.

### **IMPACTS TO LEASABLE MINERALS MANAGEMENT - OIL AND GAS**

#### **From Management Actions for Fish and Wildlife Habitat Programs**

Compared to all alternatives, this alternative and Alternative C will have the fewest amount of seasonal restrictions and will affect only 19 percent of high potential mineral estate.

Seasonal timing stipulations to protect deer and elk critical winter habitat will have adverse impacts on 13,000 acres of high potential mineral estate in the Myton Bench-Nine Mile Canyon and the Clay Basin oil and gas producing regions. This may result in altering drilling schedules of lessees which may further cause increased drilling costs.

The protection of sage grouse strutting grounds and known nests will have minor adverse impacts to exploration and development for oil and gas resources. Seasonal restrictions may result in altering drilling schedules of lessees which may further cause minor increased drilling costs.

Raptor protection zones shall have minor adverse impacts to exploration and development of oil and gas resources.

#### **From Management Actions for Lands and Realty Programs**

This alternative will have a positive impact on oil and gas activities by providing lands (leases, permits, and land transfers) to improve manageability and support oil and gas activities.

### **From Management Actions for Soil and Water Programs**

Restrictions on OHV use and surface-disturbing activities in areas of critical (highly saline and erodible) soils, floodplains, and municipal watersheds would have minor adverse impacts to oil and gas activities by causing minor delays in operations during wet periods.

### **From Management Actions for Visual Programs**

Visual constraints in the Nine Mile Canyon area would have minor adverse impacts on 3,200 acres of high potential mineral estate in the Myton Bench-Nine Mile Canyon oil and gas region. Operations may be required to be moved to less visible regions or roads necessary for operations or maintenance may have to be specially routed. This may cause minor delays in oil and gas operations and associated additional operational costs.

### **IMPACTS TO LEASABLE MINERALS MANAGEMENT - PHOSPHATE**

Lands now under preference right lease for phosphate (7,650 acres) would be open to development and/or occupancy under this alternative with specific restrictions to minimize adverse impacts to crucial deer winter habitat. This development could allow for the employment of up to 350 workers, adding \$4 million annually to the local economy.

### **IMPACTS TO LIVESTOCK MANAGEMENT**

#### **From Management Actions for Vegetation Programs**

Forage assigned to wildlife would not increase and any additional AUMs created from management strategies or vegetation treatments would be assigned to livestock. This additional forage could provide extra income to local economy of approximately \$133,455 a year.

Most rangeland improvements conducted under this alternative would have a significant benefit to livestock in improved quantity and quality of forage. The greatest amount of vegetation treatment would occur in this alternative (27,100 acres). Most of this treatment would consist of pinyon-juniper woodlands and decadent sagebrush prescribed burns. Additional AUMs gained from grazing systems would be approximately 500 AUMs.

### **From Management Actions for Woodlands Programs**

Allowing for firewood harvesting would benefit livestock due to the increase in forage resulting from increases of native and seeded grasses after removal of the trees. This alternative would provide approximately 225 AUMs from firewood harvest with approximately 100 acres a year being harvested over the live of the plan (15 years).

### **IMPACTS TO RECREATION MANAGEMENT**

#### **From Management Actions for Cultural and Paleontological Programs**

Limiting OHV use to designated roads year long and trails on 2,400 acres to protect cultural sites eligible for or listed on the *National Register of Historic Places* would limit off-road use by hunters and sightseers who may depend on off-road vehicular access to pursue their interests. This would result in a reduction of approximately 100 visitor days for hunting, driving for pleasure, and the use of OHVs. These users would move to other areas in the resource area without restrictions.

#### **From Management Actions for Lands and Realty Programs**

No additional access to public lands presently surrounded by private lands would be provided, resulting in an adverse impact to hunters and recreationists. No additional recreation opportunities would be made available. The recommendation to establish protective withdrawals on 8,100 public acres of high value recreation lands would protect scenic, historic, aesthetic and recreational values from future development over the long term.

#### **From Management Actions for Mineral Programs**

Development of identified high potential oil and gas areas would result in 164,500 acres currently identified as possessing semi-primitive, motorized values in the Three Corners and Myton areas, dropping one class to roaded natural in the recreation opportunity inventory. This would result in a less natural recreation experience and would negatively impact people who desire varied opportunities for primitive recreation.

Individuals that enjoy more primitive, remote experiences would be displaced to other areas. The number of

persons affected is not known at this time, but it is expected to be significant and long term.

### **From Management Actions for Recreation Programs**

Semi-primitive, nonmotorized values on 60,800 would not be protected. This is 100 percent of this type of land in the resource area. This primitive form of recreation opportunity would, over time, no longer be available due to other management actions degrading or compromising these values. Demand for these primitive types of recreation experience is expected to increase between 5 and 10 percent annually over the long term.

Not providing additional developed facilities, such as campgrounds and picnic areas, would limit opportunities for people who prefer more developed and concentrated forms of recreation. Many of these individuals would not spend time on public lands. However, there would be additional opportunities for people that prefer dispersed types of recreation, such as hiking, backpacking, horseback riding and bicycling. These types of use would increase substantially. It is estimated that overall use would increase approximately 2 to 4 percent a year.

Although it is expected that recreation visits will go down in areas where vehicle access will be limited to protect critical resource values, overall use in the resource area will not be affected. Use patterns will simply change and people will move to areas with fewer restrictions.

### **From Management Actions for Soil and Water Programs**

Management actions to protect highly erodible and saline soils, and municipal watersheds by limiting OHV use to designated roads with seasonal restrictions on 88,500 acres could adversely affect driving for pleasure and, in the fall of the year, access by hunters to some hunting areas.

It is expected that 2,100 visits to public lands in the area would be displaced annually to other areas as a result of these restrictions.

### **From Management Actions for Special Emphasis Areas Programs**

All six river segments identified as being eligible for further study and possible inclusion in the Wild and Scenic River System would be dropped from consideration and returned for uses that would benefit other users of public lands. Recreation use would not increase as it would

have if Wild and Scenic River status were maintained, and over time, identified outstandingly remarkable values could be lost. This could result in a loss of up to 5,000 visitor days annually in 10 years. This would be a long term impact.

### **From Management Actions for Woodlands Programs**

Firewood gathering and Christmas tree cutting would provide family-centered recreation opportunities on 143,000 acres. This is 100 percent of the woodland type in the resource area. In addition, cottonwood could be cut on an additional 17,500 acres, allowing DMRA to meet the local demand for this resource. An increase of 28 percent could be accommodated in the cutting of pinyon and juniper in the resource area and still meet sustained yield goals.

## **IMPACTS TO RIPARIAN HABITAT RESOURCES**

The management action is to improve 7,200 acres, or 98 miles, of riparian from early and mid to late or climax ecological stage. This improvement would increase species diversity and result in wildlife, recreation, and watershed benefits.

Criteria for maintaining a minimum of three (3) inches of herbaceous growth after livestock grazing in riparian areas would enhance riparian vegetation productivity, resulting in streambank and water quality improvements.

## **IMPACTS TO SOCIOECONOMICS**

### **From Management Actions for Fish and Wildlife Habitat Programs**

AUM forage allocation would be identical to Alternative C, requiring an additional \$4,000 annually.

Crucial deer and elk winter range restrictions would be the same as Alternative C costing \$6,000 per annum.

Sage grouse restrictions are similar to Alternative C costing \$2,000 annually.

Special status raptor species restrictions are analogous with Alternative A requiring \$8,000 each year.

Fence modifications would be the same as the proposed plan necessitating an additional \$4,000 every year of operation.

Stream habitat and present forage allocation would be the same as *Alternative A* costing \$4,000 for planning annually and cost share of \$2,000 or as a whole \$4,000 totalling to \$8,000 per annum.

Habitat in Nine Mile Canyon for bighorn sheep reintroduction areas would be the same as *Alternative A* requiring \$2,000 annually for planning.

The total cost for administering the wildlife program as described in *Alternative D* would come to approximately \$34,500 per annum. These expenditures by BLM, other agencies, and interested parties may be viewed as an economic injection into the community and region. *Alternative D* has the second lowest cost (\$34,500) of the five alternatives for the wildlife program.

### **From Management Actions for Lands and Realty Programs**

Easement acquisitions would be the same as *Alternative A*, necessitating an additional \$10,600. Land use authorizations under this alternative would cost about \$138,809 to administer annually. There could be future constraints to development between the Wyoming and northeastern Utah corridor, which can allow only 3 more new facilities. Making 704,500 acres available for agricultural leases could promote the agriculture sector, if the productivity of the lands in question made such ventures feasible. New communication sites would be identical to the proposed plan, requiring a one time cost of \$16,000. Rights-of-way considerations are the same as discussed under *Alternative C*. Trespass resolutions would be the same as under the proposed plan.

### **From Management Actions for Livestock Programs**

Average annual actual use is 38,916 AUMs, which would contribute \$385,658, using \$9.91/AUM. If the AUMs taken in nonuse were activated, this would realize an additional 11,383 AUMs or \$112,806 annually.

### **From Management Actions for Minerals Programs**

Gilsonite deposits in the Myton area would be generally available for development, which could lead to 15 additional jobs and \$525,000 each year.

Table 4-15 provides an estimate of the impacts to the community from *Alternative D* decisions as they affect oil and gas development.

Referring to Table 4-19, it is estimated that approximately \$561,359 could be lost annually to the community. Therefore, over the life of this plan, approximately \$9 million of oil and gas earnings (before royalty and tax payments) would not be realized. From these earnings, a total of \$1 million (12.5 percent of total oil and gas earnings) in royalty payments would not be obtained by the federal and state governments. Of this total, the State of Utah would lose total royalty payments of approximately \$557,000. In turn, the counties involved in the RMP would lose total royalty payments from the State of Utah of approximately \$139,000. In addition, counties would lose revenues from associated and supporting taxes (i.e., property, sales, ad valorem, and severance).

Losses from precluded wells would be primarily to oil and gas companies. The loss to the counties would be a loss of royalties, severance tax, ad valorem tax, property tax, and sales tax. There also would be a loss of revenues to oil service companies and community businesses.

Opening up 7,650 acres of moderate to high grade phosphate lands could lead to mineral development and ultimately to additional employment of 350 jobs and \$4 million each year during full production.

Tar sand development would be authorized on 66,200 acres of federal mineral estate and Duchesne County could forego between \$500,000 and \$1,500,000 annually in pavement costs, perhaps leading road paving.

### **From Management Actions for Recreation Programs**

Administering the OHV program could require a one time cost of \$20,000 \$40,000 annually.

Site development is the same as *Alternative A* with the exception of Horseshoe Bend. This would require a one time expenditure of \$385,000 and \$24,000 in administrative costs and \$6,000 in maintenance costs annually.

Interpretive sites would be developed as discussed under *Alternative A*, requiring a one time cost of \$40,000, \$4,000, and \$1,000 in administrative and maintenance costs each year.

Trail development would be identical to the proposed plan's description, necessitating a one time cost of \$70,000 and \$12,000 and \$3,000 to administer and maintain annually.

**TABLE 4-15:  
ESTIMATED ANNUAL OIL AND GAS,  
REVENUES FOREGONE BY THE COMMUNITY, ALTERNATIVE D**

Region	No of Precluded Successful Wells	Estimated Precluded Annual Production		Estimated Lost Annual Revenue		
		Oil	Gas	Oil	Gas	Total
Myton Bench/ Nine Mile Canyon	2	15,800 barrels	68,466 MCF	\$316,000	\$102,699	\$418,699
Horseshoe Bend/ Ashley Valley	.2	5,333 barrels	2,667 MCF	\$106,660	\$4,000	\$110,660
Clay Basin/Manila	.1	100 barrels	20,000 MCF	\$2,000	\$30,000	\$32,000

As in Alternative C, no semi-primitive, nonmotorized areas will be maintained. In addition, no more back-country byways will be established.

When these one time development costs are added up and divided by the number of years in the life of the plan an annual cost may be derived, in this alternative \$34,333. In addition, there would be \$80,000 required and about \$10,000 annually to administer and maintain these projects. This additional expense would increase the total annual average cost to about \$124,333.

Not only will these developments cause injections into the community, but also additional recreationists will be able to use the area at any one time perhaps leading to greater expenditures for local merchants.

### **From Management Actions for Riparian Programs**

To improve the 7,200 public acres of riparian habitat to a late or climax seral stage would require a one time cost of \$88,500.

### **From Management Actions for Soil and Water Programs**

Management actions to protect highly erodible and saline soils, and municipal watersheds by limiting OHV use on 94,300 acres to designated roads (March 1 to April 30 and September 1 to October 31), could adversely affect driving for pleasure and, in the fall of the year, close access by hunters to some hunting areas. It is expected that 1,600 visits to public lands in the area would be displaced annually to other areas as a result of these restrictions.

Total savings would equal vegetation treatments minus oil and gas costs or \$279,130.

### **From Management Actions for Vegetation Programs**

Limiting OHV use to designated roads year long on 3,000 acres to protect relict vegetation communities could affect driving for pleasure and, in the fall of the year, access by hunters to some hunting areas. This would result in a displacement of up to 35 visitor days use to other parts of the resource area annually. This would be a long-term impact.

### **From Management Actions for Woodland Programs**

Like the proposed plan, 3,700 cords would be taken costing individual wood cutters \$18,500 to harvest wood that may have a market value of \$370,000. Further benefits may be obtained by harvesting Christmas trees, juniper fence posts, pinyon pinenuts, live trees, and non-barrel cactus on 101,200 acres.

## **IMPACTS TO SOIL AND WATER RESOURCES**

### **From Management Actions for Minerals Programs**

In critical watersheds in the Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas producing regions, approximately 1,100 acres could be disturbed, causing disruption of the water cycle by exposing bare soil to wind and water, thereby

accelerating erosion. This area is difficult to revegetate due to low rainfall (less than 8 inches a year) and poor soil development. Because of the difficulty in revegetating these sites, accelerated erosion could increase if an active drilling program continues. This disturbance from oil and gas operation could cause an increase of soil erosion loss from two to five tons per acre per year. With five tons per acre per year increase in erosion from this activity, an additional 5,500 tons of soil per year could be lost.

Oil spills or pit failures would have the potential to cause soil contamination and loss of fertility around drill sites. If the spill were significant, either in extent into sensitive areas or amount of oil spilled, contamination could enter the area's surface water system. This could result in significant negative impacts to the area's riparian ecosystem.

### **From Management Actions for Soil and Water Programs**

Restricting OHV use to designated roads with seasonal restrictions on 94,300 acres to minimize adverse surface runoff during periods of saturated soils and to protect critical (highly erodible or saline soils) and municipal watersheds would significantly benefit these valuable resources.

### **From Management Actions for Vegetation Programs**

The 27,100 acres of proposed vegetation treatments proposed would consist of juniper-pinyon woodlands and decadent sagebrush prescribed burns and pinyon and juniper firewood harvesting (refer to Appendix 8). These improvements would provide long-term watershed benefits by increasing ground cover through natural establishment and seedings of herbaceous vegetation. One benefit derived from juniper and pinyon burning is increasing diversity of herbaceous vegetation species such as western wheatgrass (Severson and Rinne, 1988). An ancillary benefit derived from this would be greater ground cover to lessen soil movement. Estimated a long-term reduction in soil erosion by 50 percent, 406,500 tons of sediment would be saved over 15 years, resulting in a savings of approximately \$294,143. (See Appendix 8 for treatment type and acres by allotment.)

The ecological condition goal of this alternative would provide for a healthy watershed.

About 7,200 acres or 98 miles of riparian habitat would be improved under Alternative D. This improvement would result in on-site and downstream watershed benefits improving water quality, raising water tables, increasing

streambank stability, and reducing downstream flood damage.

## **IMPACTS TO VEGETATION RESOURCES**

### **From Management Actions for Minerals Programs**

Oil and gas activities in the desert Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley oil and gas regions could disturb approximately 1,100 acres. Low precipitation (less than 8 inches annually) and poor soil development in these areas creates difficulty in vegetation reclamation. Surface-disturbed sites in these areas may remain devoid of desired vegetation for years, allowing opportunities for undesired plant species such as halogeton to invade. Wells may produce for five to twenty years before any rehabilitation efforts take place.

### **From Management Actions for Recreation Programs**

Restricting OHV use to designated roads with seasonal restrictions would protect vegetation from damage on 94,300 acres of highly erodible soils, saline soils, and municipal watersheds.

### **From Management Actions for Vegetation Programs**

Treating 27,100 acres would result in high vegetation diversity and forage production because it provides for the most pinyon-juniper and sagebrush vegetation types in closed stands to be manipulated. A benefit derived from pinyon-juniper burning is increasing diversity of herbaceous vegetation (Severson and Rinne, 1988).

## **IMPACTS TO VISUAL RESOURCES**

### **From Management Actions for Lands and Realty Programs**

Not establishing protective withdrawals on the upper and lower Green River would leave the area open to locatable mineral development which could cause VRM standards to be degraded. VRM Class II would not be maintained along some sections of the upper Green River and Class III on the lower Green River.

The identified utility corridors pass through areas identified as being VRM Class II in Jesse Ewing Canyon, the Green River Scenic Corridor in Browns Park, along the Taylor Mountain Road north of Vernal, and in Nine

Mile Canyon near Gate Canyon. It is doubtful adequate mitigation could be accomplished to maintain the VRM Class II standard if transmission lines are constructed nearby. Up to 100 percent (60,000 acres) of Class II VRM could not be maintained over the long term.

## **From Management Actions for Minerals Programs**

Disposal of mineral materials within the Green River Scenic Corridor (VRM Class II) could degrade VRM values at specific locations along the river.

Development of high potential oil and gas resources in the Nine Mile area could impact as much as 3,200 acres of VRM Class II, therefore VRM Class II could not be maintained.

## **IMPACTS TO WOODLAND MANAGEMENT**

Woodland harvesting would continue to meet demand on 183,000 acres (100 percent of the woodland stands in the resource area). Commercial quality woodlands open to cutting on 85,500 acres could support an annual harvest of 4,300 cords over an extended period of time on a sustained-yield basis. This means an increase of 28 percent could be accommodated in the annual cut and still meet sustained yield goals over the long term.

## **CUMULATIVE IMPACTS OF IMPLEMENTING ALTERNATIVE D**

### **AREAWIDE CUMULATIVE IMPACTS**

The cumulative effect of implementing the decisions outlined in this alternative, coupled with already existing decisions implemented by other land-managing federal, state, and local agencies affecting the Uinta Basin, is expected to have no significance.

The cumulative impacts to fish and wildlife under Alternative D would be:

- Special status raptor nest sites would only be protected seasonally from permanent surface disturbing activities resulting in a significant negative long-term loss of habitat for these species. This is the same impact as Alternatives A and C.
- Black-footed ferret reintroductions would not be permitted. BLM would be neglecting its policy (Manual 6840) and the Endangered Species Act

of conserving special status species habitat and aiding in the recovery of the species. This is the same impact as Alternative C.

- Approximately 3,600 acres (2 percent) of crucial sage grouse nesting habitat would be seasonally protected and only within 1,000 feet of existing strutting grounds. This would protect less than 10 percent of all nests and be a significant negative, long-term impact to the survival of the species.
- Only 3,900 acres (3 percent) of identified bighorn sheep habitat would be maintained for bighorn sheep. This would limit the population to 40-50 bighorn sheep within the resource area and be a significant negative, long-term impact to the survival and reintroduction of this native species.
- Wildlife forage assignments would be allowed to increase 21 percent over current use of 35,000 AUMs, a positive impact to wildlife. UDWR objectives for wildlife population levels and future transplants of native species to their historic range might not be achieved.
- OHV use would be restricted to designated roads and trails on 99,300 acres (14 percent) of the resource area seasonally or year long. This would be a moderate negative impact as wildlife poaching would not be reduced from the existing levels nor human disturbance to wildlife during reproductive or other crucial periods.

The irreversible and irretrievable commitment of resources would be the same as described in the Proposed Plan.

The cumulative impacts to the oil and gas activities under this alternative are summarized below in Table 4-16 by 1) oil and gas producing regions, 2) oil and gas potential, and 3) level of protection (level 2 no surface occupancy or special restrictions).

The cumulative significant impacts are minimal (see Table 4-16 above) because: 1) the amount of lands with no surface occupancy restrictions is low, 2) the number of seasonal restrictions are low, and 3) the areas having multiple, overlapping seasonal restrictions are not abundant.

Referencing recreation management objectives in Alternative D, approximately 609,300 acres would be open to OHV use and 99,700 acres would be restricted to designated and/or existing roads. This could impact

**TABLE 4-16:  
SUMMARY OF CUMULATIVE IMPACTS TO OIL AND GAS ACTIVITIES  
UNDER ALTERNATIVE D**

OIL AND GAS PRODUCING REGIONS	HIGH POTENTIAL				MODERATE POTENTIAL			
	MANAGEMENT LEVEL 1		MANAGEMENT LEVEL 2		MANAGEMENT LEVEL 1		MANAGEMENT LEVEL 2	
	Acres*	%**	Acres*	%**	Acres*	%**	Acres*	%**
Myton Bench-Nine Mile Canyon	0	0	80	<1	0	0	1,500	<1
Horseshoe Bend-Ashley Valley	0	0	633	1	0	0	2,500	2
Clay Basin-Manila	0	0	50	<1	0	0	20	<1

\* Acres of public land mineral estate  
\*\* Percentage of total high or moderate potential oil and gas mineral estate for the indicated region

watershed resources, soils, scenic values, wildlife habitat and nesting sites, and threatened and endangered species.

Traffic counter and visitor register information in Browns Park indicate that visitor-use on the upper Green River corridor will continue to increase between ten (10) and fifteen (15) percent annually. This may have negative, cumulative impacts on human health and safety, water quality, and aesthetic values within the river corridor.

Management decisions in Alternative D to improve 7,200 acres (or 98 miles) of riparian areas, by requiring a minimum of three (3) inches of herbaceous growth after grazing use and implementing range improvements and improved grazing prescriptions, will insure maintenance of plant vigor, increase plant and animal species diversity, provide streambank protection and aid deposition of sediments to rebuild degraded streambanks, and augment wildlife, recreation, and watershed benefits.

For the sake of analysis, costs represent expenditures by BLM which go into the community, thus stimulating the economy. On the other hand, benefits are a bit less tangible which are often based on economic forecasts that may be lacking adequate data. For example, the cultural program has well documented costs for various projects and developments, however the additional use or benefits that may occur due to these expenditures is not clear; neither is the "cause or effect" relationship.

Comparison between the "costs" and "benefits" is not reasonable for a variety of reasons: the lack of comparables, interrelated resources, missing measurable

benefits, and omitted industry sizes (to give perspective to alternative impacts). However, if the available benefits are divided by the available costs, a crude benefit/cost ratio may be devised. For Alternative D, benefits are over ten times as much as costs, making it an economically feasible option.

The biggest cost comes from the vegetation program and the biggest potential additional benefits are from the minerals program. The lowest costs are from the riparian program with the livestock program generating the lowest potential additional benefits (which is larger than the zero benefits under fish and wildlife). The problem is with inter-connected costs and benefits, for example, the costs of the vegetation program generate benefits that show up in the livestock, wildlife, and soils programs. The magnitude of most economic impacts would be dependent upon the magnitude of the individual program changes.

When the B/C ratios are compared by alternative, an ordinal ranking may be constructed. The following ranking may be useful: Alternative C, Alternative D, Alternative A, the Proposed Plan, and Alternative B.

From management actions for recreation, on a regional basis, the recreation visitor day total in the Uintah Basin have insignificant economic impacts, however, locally there are significant socioeconomic impacts. Assuming \$25 is the visitor-user day value, then 164,000 visitor-use days will bring \$4,100,000 into the local economy. Ranchers, workers and business people would support lands actions that would encourage commodity development. Recreation, cultural, and VRM resource

programs draw tourism, which is beneficial, but if commodity development is restrained by restrictions and special management designations support for these resources may decline.

Oil and gas development in the desert Myton Bench-Nine Mile Canyon and the Horseshoe Bend-Ashley Valley regions may reduce vegetation ecological conditions to an early stage, disturbing and/or eroding approximately 5,500 tons of soil per year. In reference to vegetation and rangeland management objectives, improvements on 27,100 acres of rangelands will mitigate a loss of 20,250 annual tons of sediment, and increase both vegetation diversity and forage production for both wildlife and livestock.

## **SPECIAL EMPHASIS AREA CUMULATIVE IMPACTS**

The Green River Scenic Corridor is the only ACEC proposal under this alternative. The existing designation for the Red Creek Watershed ACEC would be removed since it would be inconsistent with the general management theme for Alternative D. All other ACEC proposals discussed in this draft RMP would be managed under multiple-use concepts, as outlined in Chapter 2 under this alternative. As such, inattention will allow for degradation and/or loss of resource values creating negative, cumulative impacts to these non-designated, high resource value areas.

The suppression of wildfire to protect riparian resource values and human safety factors in the corridor will have long-term, positive impacts to the Brown's Park and adjacent recreational, scenic, and wildlife areas. This may, however, create a buildup of forage, fire fuel, which may create negative, large-scale wildfires in the reasonable foreseeable future.

Establishing a window for a common river crossing at Section 31, T.2N., R.25E., in level 2 lands in the Green River Scenic Corridor ACEC will mitigate negative cumulative visual impacts.

The Green River Corridor ACEC level 3 lands open to mineral leasing may have negative impacts to recreation, wildlife, visual, and vegetation resources; however, the leasing of these minerals, geophysical activities, mineral

materials, and locatables may have enhanced, cumulative, economic impacts in the tri-state area.

There may be potential impacts to the northeast portion of the resource area from increased visitor-use days due to the development of additional facilities in level 2 areas in the corridor. Impacts range from riparian zone site damage, wildlife disturbance, increased hunting pressure, to an overall lessening of recreational experiences. Increased visitor days may adversely impact human health and safety as well.

Surface-disturbing activities within the 330-foot riparian zone, and the manipulation of 900 acres of pinyon-juniper woodlands to increase forage production will have positive impacts to wildlife, recreation, special status plant species, sediment control, and overall watershed stability in the ACEC and surrounding areas.

There are some socioeconomic cumulative impacts in the Green River Scenic corridor ACEC, Red Creek Watershed ACEC, Red Mountain, Nine Mile, Pariette Wetlands, and the designated Wild and Scenic Rivers. The social perception in the community is divided. Although sympathetic to conservation/preservation of these areas, many individuals would want to protect industry. Social perceptions in the communities are divided over wildlife management, visual resources, and scenic resources. Ranchers and business people oppose restrictions placed on their use of the public lands, and conservation groups want to protect ecosystems.

## **Wild and Scenic Rivers**

Six river segments were determined to be eligible for further study in this alternative. They are the upper, middle, and lower segments of the Green River, two segments on Nine Mile Creek and one segment on Argyle Creek.

All six river segments would be dropped from consideration and returned for uses that would benefit other users of public lands. Recreation use would not increase as it would have if Wild and Scenic River status were maintained and, over time, identified outstandingly remarkable values could be lost. This could result in a loss of up to 5,000 visitor days annually in 10 years. This would be a long-term impact.