Approximately 100 to 200 tons of building stone are sold annually within the BCRA. The purchase of stone is limited to 15 tons per person/company limiting the extent of commercial interest.

Locatable Minerals

The general mining law of 1872 authorized placer and lode mining claims to be located by a procedure that is largely unchanged to this day (17 Stat. 91). In 1930, it became apparent that mining claims located in lands considered valuable for oil shale posed a potential encumbrance against future oil shale development. Subsequently, lands considered valuable for oil shale were withdrawn from appropriation under the general mining laws. Approximately 75 percent of the BCRA remains under an oil shale withdrawal and is not open to entry.

Oil shale and tar sand were originally included in the claim-patent system and remained available to location until the passage of the Minerals Leasing Act of February 25, 1920, (41 Stat. 437). This law provided that deposits of coal, phosphate, oil, oil shale, tar sand, gas, and sodium could be acquired only through a leasing system and were no longer applicable to the Mining Law of 1872. This law recognized "prior existing" rights under the general mining law of 1872 for claims located prior to 1920. Unpatented oil shale and tar sand claims of record exist within the BCRA (Figure 3-5).

Within the BCRA, there has been no past production of any economic significance for those minerals presently considered locatable (uranium, placer gold, and copper for example). The BCRA is considered to have little or no potential for future economical mineral developments.

Passage of the surface management regulations of January 1, 1981, provides for reclamation of unpatented mining claims (including the pre-1920 oil shale claims) where surface disturbance is considered greater than casual use (43 CFR 3809). All required reclamation plans are subject to review and if they are deemed inadequate are subject to possible rejection.

RIGHT-OF-WAY CORRIDORS

Several hundred miles of rights-of-way currently exist in the BCRA. These rights-of-way are used for a variety of projects including, but not limited to, oil and gas pipelines, communication lines, powerlines, water pipelines, and roads.

Two major north-south corridors are the Seep Ridge Road on the western part of the BCRA and the Mapco pipeline route near the Utah-Colorado border. Both of these corridors currently accommodate oil and gas pipelines and roads and have the capacity for additional rights-of-way. Another north-south corridor accommodates the Vernal-Bonanza road and a water pipeline. The only major east-west corridor occurs along U.S. Highway 40. These existing corridors would not adequately serve tar sand and oil shale development areas.

The width of existing and planning corridors varies greatly, but averages approximately 0.6 mile.

FORAGE

For purposes of forage planning and analysis, the BCRA has been divided into four sub areas termed localities. These groupings are based upon resource problems that are common to several allotments and which could be resolved by similar management actions. These localities have been called Blue Mountain, Bonanza-Rainbow, Book Cliffs, and Hill Creek.

Blue Mountain Locality.

This locality contains Blue Mountain and is located east of the Green River and north of Highway 40. Elevation ranges from 4,800 feet to 8,300 feet. The bulk of the area consists of a high sage-grass plateau. The adjacent slopes breaking into the Green River are primarily occupied by pinyon and juniper with some mountain browse on the upper north-facing slopes. This locality is 38,000 acres in size. Soils and vegetation have been classified into ecological sites and rated by condition as summarized in Appendix 10 (Ecological Sites and Condition by Locality). Approximately 600 acres are rated in poor ecological condition, 8,000 acres in fair condition, 27,400 acres in good condition, and 2,100 acres in excellent condition. Maps and detailed ecological condition data are found in the Vernal District Office inventory files.

The locality contains 6 allotments. The season of use is predominantly summer; class of livestock is primarily cattle with some sheep and horse use Appendix 11 (Allotment Statistics) and Map 1.

Average livestock use is 5,835 AUMs. This is more than active preference because 157 AUMs have been allowed on a nonrenewable basis in the Blue Mountain allotment, due to sagebrush treatments and an Allotment Management Plan.

Average livestock use in this locality is currently near the active grazing preference. Average wildlife use is currently 1,768 AUMs, 768 AUMs above the allocated 1,000 AUM level. Thus, an apparent conflict in utilization of available forage by livestock and wildlife exists. The degree of noncompetitive use of available forage by livestock and wildlife was not fully considered during the inventory process of the 1960's (Oldroyd 1984). Additional monitoring studies may be needed to clarify the situation.

The grazing pattern for most allotments is season

long. An AMP has been developed and implemented on one allotment. In addition, a grazing system has been implemented on one allotment on a voluntary basis by the permittee.

Range studies show heavy utilization (61 to 80 percent) on three allotments (Blue Mountain, Stuntz Valley, and Point of Pines) and trend studies appear to show a slight downward trend. Sagebrush is increasing at the expense of grass and forb species on these three allotments (BLM 1983). Data from range studies are either not available or incomplete on the remaining three allotments.

From 1962 to 1966, approximately 11,000 acres of sagebrush were sprayed on the Point of Pines, Stuntz Valley, Doc's Valley, and Blue Mountain allotments. Present carrying capacity ratings for livestock and wildlife reflect the benefits derived from these land treatments. However, the benefits gained have greatly decreased as a result of reinvasion of sagebrush. Retreatment is needed to maintain the current grazing numbers of livestock and wildlife. In recent years, there has been some restraint imposed on sagebrush control in order to protect sage grouse habitat.

Bonanza-Rainbow Locality.

This locality is the largest of the four localities. The most prominent landmarks are the White River which flows through the center of the area and the Green River which makes up a portion of the western boundary. Elevation ranges from 4,800 feet to 6,800 feet. The area is composed mainly of desert shrub with pinyon and juniper in the higher elevations. This locality is approximately 633,200 acres in size. Soils and vegetation have been classified into ecological sites and rated for condition as summarized in Appendix 10 (Ecological Sites and Condition by Locality). Approximately 9,000 acres are rated in poor ecological condition, 257,500 acres in fair condition, 343,800 acres in good condition, and 22,800 acres in excellent condition. Maps and detailed ecological site and condition data are found in the Vernal District Office inventory files.

This locality contains 30 allotments (Map 1). Average livestock use is 37,352 AUMs. Active preference is 61,323 AUMs. This amounts to 39 percent nonuse. The season of use for livestock is dominantly winter and early spring; the class of livestock is mostly sheep with cattle use along the rivers and at the higher elevation Appendix 11 (Allotment Statistics). The grazing pattern for most allotments is season long. There are six AMPs completed. One AMP is winter use only and the other AMPs use a deferred rotation system to rotate spring use.

This locality is normally grazed with snow on the ground; hence, water for livestock is normally not a problem. However, increased waters would provide improved livestock distribution during the spring and fall and help prevent over utilization of areas around current water sources.

There are two antelope herd units within the locality, herd unit 7 and the East Bench herd. At the time the area was adjudicated, 312 AUMs were allocated for antelope (without regard for non-competitive use) in herd unit 7; and because of the small amount of antelope use, no AUMs were allocated on East Bench. Current antelope demand in herd unit 7 amounts to 592 AUMs annually. The antelope herd on East Bench presently requires 170 AUMs and the herd is expected to increase. This apparent deficit in antelope demand is currently absorbed by the high level of nonuse taken by livestock.

Although habitat for deer is generally marginal, portions of deer herd units 26 and 28A lie within this locality. No major forage problems exist. However, certain key habitat areas, such as along the Green and White Rivers and in the higher pinyon and juniper areas, present the possibility of localized forage competition between livestock and wildlife.

The wild horse herd within this locality was not adjudicated for in the 1960's. Currently, this herd consumes approximately 480 AUMs of forage annually. Nonuse taken by livestock has prevented over utilization of the range.

Overall, range studies indicate that trend is stable to slightly upward and utilization is light in most areas. In a few areas along the Green River, trend studies appear to show a slight downward trend (BLM 1983).

Book Cliffs Locality.

The Book Cliffs locality consists of the upper portion of the Roan Plateau between the Uintah-Ouray Indian Reservation and the Utah-Colorado state line. Elevations range from 6,200 feet to 8,700 feet. The locality is composed of long north-sloping ridges and drainages of the Roan Plateau. The vegetation is pinyon-juniper, Douglas fir, browse, sagebrush, grass and small areas of aspen. This locality is approximately 304,000 acres in size. Soils and vegetation have been classified into ecological sites and rated by condition as summarized in Appendix 10 (Ecological Sites and Condition by Locality). Maps and detailed ecological site and condition data are found in the Vernal District Office. Approximately 400 acres are rated in poor ecological condition, 64,200 in fair condition, 195,900 in good condition, and 43,500 acres in excellent ecological condition.

This locality contains 8 allotments (Map 1). Four of these allotments have grazing systems that either defer or rest pastures during the critical growing season. The degree of rest for these pastures vary by AMP according to terrain and livestock movement. Three allotments have season long use. One allotment is managed by BLM in Colorado.

Average livestock use is 17,351 AUMs. Active preference for livestock is 23,174 AUMs. This amounts to approximately 25 percent nonuse. The season of use for livestock is predominantly summer and fall. The class of livestock is mostly cattle Appendix 11 (Allotment Statistics).

This locality represents a major portion of deer herd unit 28A and elk herd unit 21. Inventories conducted in the 1960's set aside a total of 38,867 AUMs for deer in this locality. It has since been assumed that elk would also share in the utilization of the wildlife AUMs even though elk use was initially very minor. Current deer use is 12,784 AUMs (for the entire herd unit 28A area) and current elk use is 3,192 AUMs (for the entire herd unit 21). Therefore, 22,891 AUMs allocated to wildlife are not currently being utilized. It should be noted that deer numbers were significantly higher during the 1960's than at present. This accounts for the difference between present and adjudicated demands. It should also be noted that allowance for non-competitive use of available forage by livestock and wildlife was only partially considered during the inventory process of the 1960's (Oldroyd 1984). Additional monitoring studies may be needed to clarify the situation.

Lower McCook Ridge is considered crucial for wintering deer and elk. It is also an important grazing and trailing area during the spring and fall for livestock.

The wild horse herd within this locality was not adjudicated for in the 1960's. Currently, the herd consumes approximately 108 AUMs of forage annually. Nonuse taken by livestock has prevented over utilization of the range.

Range studies indicate that overall, trend is slightly upward and utilization is generally light with some areas of moderate and heavy use in canyon bottoms and treated areas.

The key forage production areas in this locality for both livestock and wildlife are the drainage bottoms. Historically, livestock and wildlife use have been concentrated in the drainage bottoms due to terrain and the availability of water. Many of these bottoms have been overtaken by dense, overmature stands of sagebrush in the higher elevations and invasions of greasewood in the lower elevations. Treatment of these areas through vegetative manipulation would greatly increase their utility for both livestock and wildlife.

Many of the ridges have an abundance of forage that is not useable because of the lack of water. Some of the ridges have been treated mechanically to increase forage. Without maintenance of these land treatments and development of additional water sources, much of this forage would not effectively be utilized and the current imbalance in the pattern of use of the ridges and drainage bottoms would continue.

Hill Creek Locality.

This locality is bounded on the west by the Green River and on the north and west by Willow Creek. The west half of this locality is separated from the rest of the BCRA by the Uintah-Ouray Indian Reservation. The area is composed of north-sloping benches cut by steep-walled canyons. The elevation ranges from 4,600 feet to 6,900 feet. The vegetation is composed mainly of desert shrub with pinyon-juniper at the higher elevations. This locality is approximately 140,000 acres in size. Soils and vegetation have been classified into ecological sites and rated for condition as summarized in Appendix 10 (Ecological Sites and Condition by Locality). Approximately 3,900 acres are rated in poor ecological condition, 34,300 acres in fair condition, 98,100 acres in good condition, and 3,700 acres in excellent ecological condition. Maps and detailed ecological site and condition data are found in the Vernal District Office inventory files.

This locality contains 12 allotments (Map 1). Average livestock use is 6,442 AUMs. Active preference for livestock is 12,631 AUMs. This amounts to 49 percent nonuse. The season of use is dominantly winter and early spring with some summer use along the Green River. The class of livestock is mostly sheep with some cattle use along Willow Creek, the Green River, and some higher benches (Appendix 11, Allotment Statistics).

The grazing pattern for most allotments is season long. There are 2 AMPs within the locality. Both AMPs use a deferred rotation grazing system.

This locality is normally grazed with snow on the ground. Hence, water for livestock is normally not a problem. However, increased waters would provide improved livestock, wildlife, and wild horse distribution during the spring and fall and help prevent over utilization of areas around current water sources.

A part of deer herd unit 28A falls within this locality. Five hundred AUMs have been allocated for wildlife and deer forage is considered adequate. However, in recent years, increasing numbers of elk coming off the Uintah-Ouray Indian Reservation have been wintering in this area. No forage has been allocated for this use and no studies have been completed to determine the AUMs removed.

The wild horse herd within this locality is the largest within the District. Forage was not adjudicated for this herd in the 1960's. Currently, the 157 horse herd consumes 1,884 AUMs annually. Nonuse taken by livestock users has minimized the impact of wild horse utilization.

Trend in this locality is generally stable. General observations on sheep allotments show utilization to be

light with moderate use in key areas. Use on cattle allotments is moderate in the bottoms and light on the benches (observations by BCRA personnel).

Endangered, Threatened, or Sensitive Plants

Within the BCRA, the following plants have been listed as endangered, threatened or sensitive and under review for listing (Federal Register, December 15, 1980, and Federal Register, November 28, 1983, Supplement to Review of Plant Taxa for Listing).

Endangered

None

Threatened

Sclerocactus glaucus (Cactus, Hookless) (Uintah Basin)

Sensitive

Arabis sp. nov. (Rock Cress) (Gray Knolls, Uintah County)

Astragalus hamiltonii (Milk-vetch, Hamilton)

Astragalus lutosus (Milk-vetch, Dragon)

Astragalus equisolensis (Milk-vetch) (Horseshoe Bend, Uintah County)

Cryptantha barnebyi (Catseye, Barneby)

Festuca dasyclada (Fescue, Sedge)

Glaucocarpum suffrutescens

Lepidium barnebyanum (Pepper Cress, Barneby)

Oenothera accutissima (Evening-Primrose) (Moffat, Daggett, & Uintah Counties)

Penstemòn grahamii (Beardtongue, Graham)

Penstemon goodrichii

Penstemon albifluvis (Beardtongue) (White River, Uintah County)

Thelypodiopsis argillacea (Thelypody, Clay)

The BCRA has been inventoried for endangered, threatened, and sensitive plant species. Known plant locations and potential habitat have been identified (Figure 3-9). However, specific locations are purposely not shown to protect the populations from collectors. These areas total over 300,000 acres and occur throughout the BCRA. Refer to Figures 3-1 through 3-8 to determine where this potential habitat coincides with potential oil and gas, oil shale, gilsonite, and tar sand development areas.

Since most of the sensitive species are associated with unique soils or other environmental factors that limit their distribution, the areas shown in Figure 3-9 merely indicate where these species could occur.

WILDLIFE AND WILD HORSES

Crucial wildlife habitat delineation was based on Utah Division of Wildlife Resources (UDWR) data and observations, a recently co[illegible] (Kar-[illegible]) and BLM observations and inventory.

Assignment of current condition ratings were made for the crucial seasonal wildlife and wild horse habitats found within the BCRA. Habitat areas were assigned ratings of excellent, good, fair, or poor based on the ecological site, condition, and soils inventory (BLM 1982), and observations and existing wildlife data. Habitats rated in either fair or poor ecological condition were considered "unsatisfactory" for supporting manageable wildlife and wild horse populations. Habitats rated either excellent or good were considered "satisfactory". It should be noted that habitats rated unsatisfactory are capable of improvement into the satisfactory category as a result of the application of a variety of management practices (rotation of grazing, vegetation manipulation, reseeding, etc.). The various factors (overgrazing, maturation of vegetation, etc.) potentially responsible for portions of wildlife habitats being rated in fair or poor condition, cannot be determined with information currently available ((BLM 1982), Table 3-2, (Amount and Condition of Crucial Wildlife Habitat)).

It was assumed that all wildlife and wild horse habitat and forage discussed in this document occurred on Federal lands only. It is known that wildlife and wild horses also utilize adjoining State and private lands for forage and habitat and freely travel between Federal and non-Federal lands. The BCRA consists of approximately 76 percent Federal and 24 percent non-Federal lands.

It has been assumed, therefore, that a comparable percentage of AUMs (in terms of forage) are available to, and utilized by, wildlife and wild horses from non-Federal lands.

In addition, it is known that mule deer on Blue Mountain (deer herd unit 26) regularly move back and forth between BLM-administered lands and lands administered by the National Park Service (NPS) as part of Dinosaur National Monument (Franzen 1968). It has been estimated that a total of 1,325 AUMs are utilized annually by this deer herd from NPS lands (Kennedy 1983). They have also been included in subsequent forage discussions (see Chapter 4).

THREATENED, ENDANGERED OR SENSITIVE PLANTS

Figure 3 - 9

Threatened, Endangered or Sensitive Plant Habitat

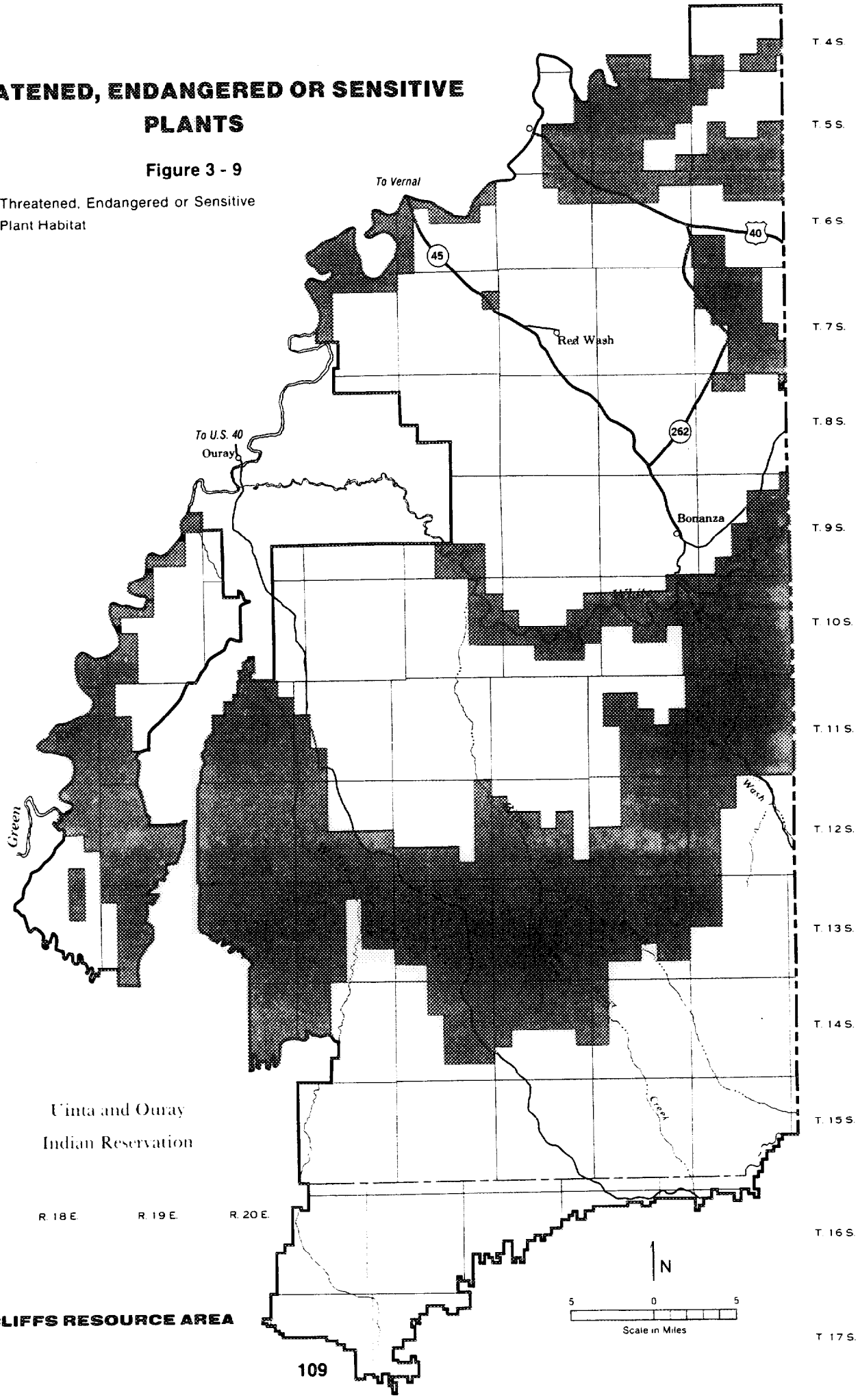

Table 3-2

Amount and Condition of Crucial Wildlife Habitat

TYPE OF HABITAT BY SPECIES BY AREA*	CURRENT CONDITION ACRES**	CURRENT CONDITION PERCENT OF TOTAL AVAILABLE
Antelope-BONANZA		
yearlong		
Satisfactory	36,200	45
Unsatisfactory	44,700	55
Antelope-EAST BENCH		
yearlong		
Satisfactory	63,900	63
Unsatisfactory	37,600	37
Mule Deer-BLUE MOUNTAIN		
yearlong		
Satisfactory	50	5
Unsatisfactory	1,050	95
summer		
Satisfactory	15,700	80
Unsatisfactory	4,000	20
winter		
Satisfactory	20,400	69
Unsatisfactory	9,100	31
Mule Deer-BOOK CLIFFS		
yearlong		
Satisfactory	28,000	54
Unsatisfactory	24,100	46
summer		
Satisfactory	84,400	83
Unsatisfactory	17,800	17
fawning	54,100	
winter		
Satisfactory	113,100	76
Unsatisfactory	35,600	24
Elk-BOOK CLIFFS		
summer		
Satisfactory	90,000	82
Unsatisfactory	19,500	18

Table 3-2 (Continued)

Amount and Condition of Crucial Wildlife Habitat

TYPE OF HABITAT BY SPECIES BY AREA*	CURRENT CONDITION ACRES**	CURRENT CONDITION PERCENT OF TOTAL AVAILABLE
calving	54,100	
winter		
Satisfactory	142,900	74
Unsatisfactory	49,400	26
Sage Grouse		
Strutting/Nesting	12,000	
Wild Horses-BONANZA		
yearlong		
Satisfactory	32,500	69
Unsatisfactory	14,800	31
Wild Horses-HILL CREEK		
yearlong		
Satisfactory	31,100	88
Unsatisfactory	4,300	12
Wildhorses-WINTER RIDGE		
yearlong		
Satisfactory	13,500	89
Unsatisfactory	1,700	11

*Refer to Figures 3-10, 3-11, 3-12, 3-13.

**Public Land