

CHAP. 3 — AFFECTED ENVIRONMENT

Big Game

The development of water projects for wildlife, by alternative is referenced in Table 2-1 (Objectives and Actions of the Alternatives). Many areas of suitable wildlife habitat provide adequate forage and cover, yet are not utilized to their fullest extent as a result of the lack of a nearby, reliable water source.

Pronghorn Antelope

The locations of antelope herds 7 and East Bench are shown in Figure 3-10. Approximately 80,900 acres of crucial antelope habitat exist for the Bonanza herd, and **101,500** acres of crucial antelope habitat exist for the East Bench herd (Figure 3-10). Roughly 55 percent and **37** percent of the Bonanza and East Bench habitat, respectively, are rated in an unsatisfactory ecological condition. The UDWR population goals for pronghorn are 1,114 head, with approximately 700 at Bonanza and 414 at the East Bench location (Smith 1983).

Mule Deer

The locations of mule deer herds 26 and 28A within the BCRA, are shown in Figure 3-11. The BCRA contains approximately **50,200** acres and **303,200** acres, respectively, of seasonally crucial mule deer habitat in the Blue Mountain (herd 26) and Book Cliffs (herd 28A) areas (Figure 3-11). Mule deer are the most abundant big game species within the BCRA.

The majority of livestock grazing levels are compatible with current wildlife populations and objectives. The exception is mule deer herd unit 26 (Blue Mountain) where livestock levels are potentially in conflict with current mule deer numbers. Refer to the forage section for additional discussion.

Yearlong crucial mule deer habitat in the BCRA primarily consists of riparian habitat and totals approximately **53,300** acres, or 15 percent, of the total crucial habitat. Roughly **25,200** acres, or **47** percent, of the yearlong habitat is rated in an unsatisfactory ecological condition (Table 3-2).

Crucial summer mule deer habitat located within the BCRA totals approximately **121,900** acres, or **34** percent, of the total crucial habitat available. Approximately **21,800** acres, or **18** percent, of the total **summer habitat** is rated in an unsatisfactory ecological condition (Table 3-2).

Crucial mule deer fawning habitat, identified for the Book Cliffs herd area (28A), consists of approximately **54,100** acres, or **53** percent, of the crucial summer range (**18** percent of the total herd unit crucial habitat).

Considering the total crucial mule deer habitat available in the BCRA, **178,200** acres, or **59** percent, is crucial winter habitat. Perhaps the most significant deer winter habitat is the lower McCook Ridge area, where a large percentage of herd unit 28A spends the winter.

Of the winter habitat, **44,700** acres, or **25** percent, is rated in an unsatisfactory ecological condition (Table 3-2).

The Monument Ridge migration corridor consists of approximately 29,100 acres, or 8 percent, of the crucial mule deer habitat found within herd unit 28A (Book Cliffs). This habitat zone is utilized for approximately 2 to 3 weeks in the spring and 2 to 3 weeks in the fall as deer migrate from one seasonal use area (winter/summer) to the other.

The UDWR population goals for mule deer are 20,300 head, with 2,300 for Blue Mountain (herd unit 26), and 18,000 for Book Cliffs (herd unit 28A) (Smith 1983).

Rocky Mountain Elk

The location of elk herd unit 21 within the BCRA is shown in Figure 3-12. Approximately **301,900** acres of seasonally crucial elk habitat occur in the BCRA, entirely located within the Book Cliffs (herd 21) Management Unit (Table 3-2) (Figure 3-12). **Roughly 36 percent, or 109,500 acres, is crucial summer habitat. Of that amount, 54,100 acres, or 49 percent of the available crucial summer habitat, has been identified as crucial calving habitat.** Approximately 18 percent of the summer habitat is rated in an unsatisfactory ecological condition, as a result of overgrazing by livestock and wildlife, and as a result of the habitat becoming over-mature (Table 3-2).

Crucial winter elk habitat consists of approximately **192,300** acres, or **64** percent, with **49,400** acres, or **26** percent, rated as unsatisfactory ecological condition (Table 3-2). The UDWR population goals for elk **on BLM-administered lands** are 2,300 head, all located within the Book Cliffs (herd unit 21) area (Smith 1983).

Upland Game Birds/Waterfowl

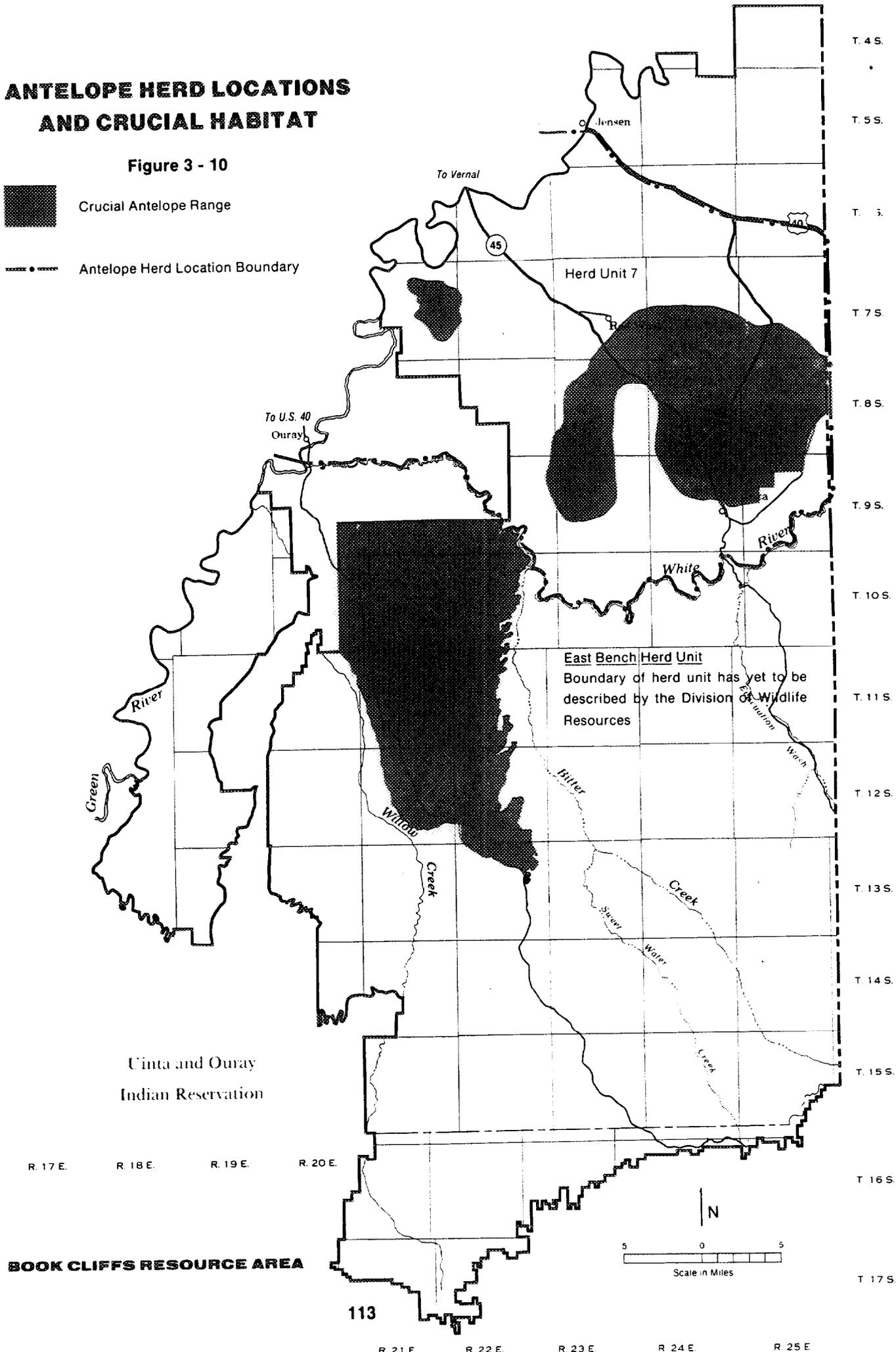
Sage grouse, blue grouse, chukar, and ruffed grouse are known to occur within the BCRA. The locations of known sage grouse leks are shown in Figure 3-13. Approximately 12,000 acres of crucial sage grouse habitat have been delineated for the BCRA (Table 3-2). Habitat for blue and ruffed grouse, and chukar is scattered throughout various portions of the BCRA and is not as easily definable as habitat for sage grouse. **Wild turkey populations previously existed in the BCRA. Turkeys were observed on McCook, Monument, and Boulevard Ridges in the late 1960s (Durfee 1971).**

Waterfowl occur throughout the BCRA with concentrations of goose and duck nesting and winter utilization along the Green and White Rivers. Livestock grazing limits nesting cover for waterfowl.

ANTELOPE HERD LOCATIONS AND CRUCIAL HABITAT

Figure 3 - 10

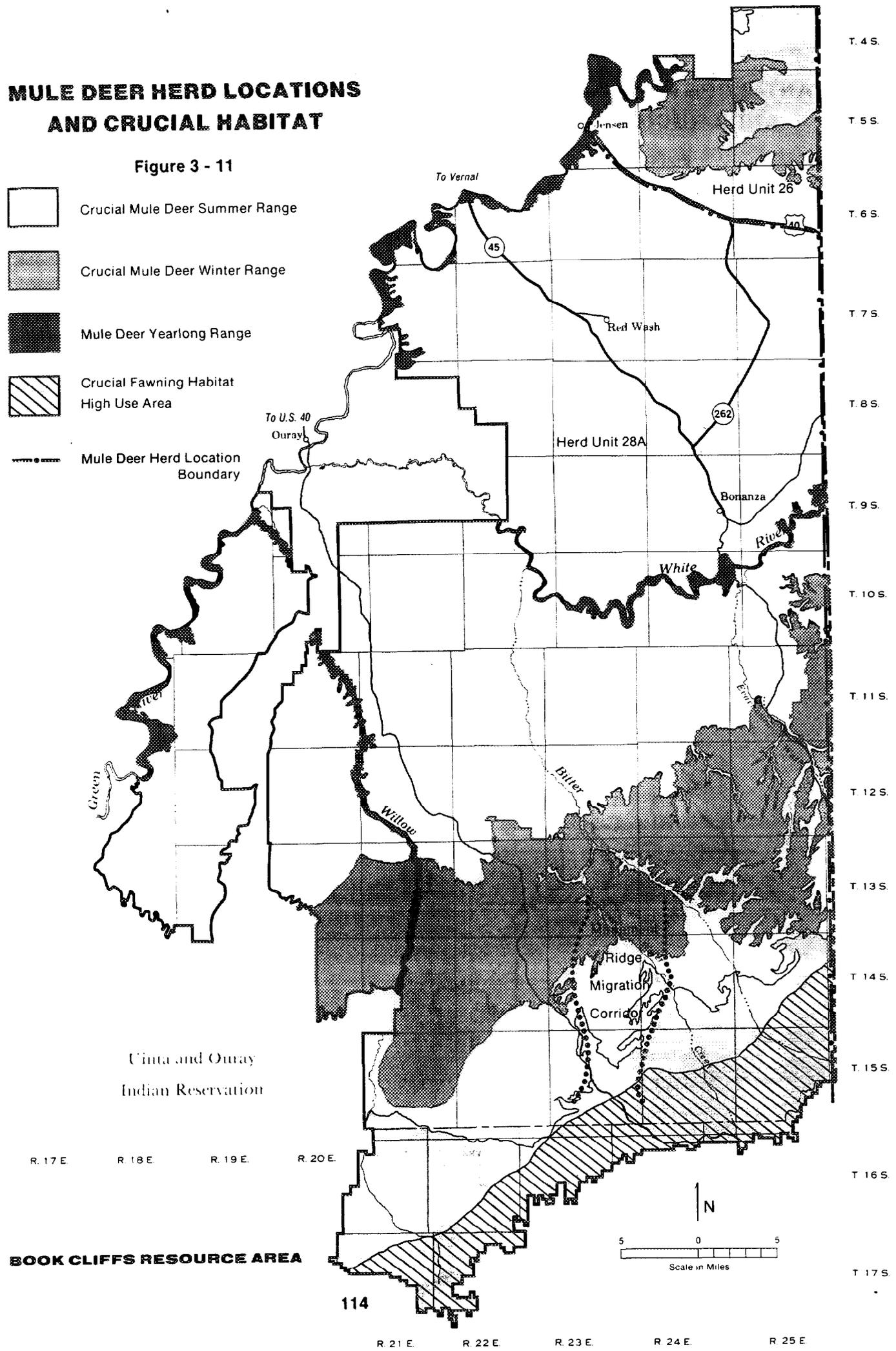
-  Crucial Antelope Range
-  Antelope Herd Location Boundary



MULE DEER HERD LOCATIONS AND CRUCIAL HABITAT

Figure 3 - 11

-  Crucial Mule Deer Summer Range
-  Crucial Mule Deer Winter Range
-  Mule Deer Yearlong Range
-  Crucial Fawning Habitat High Use Area
-  Mule Deer Herd Location Boundary

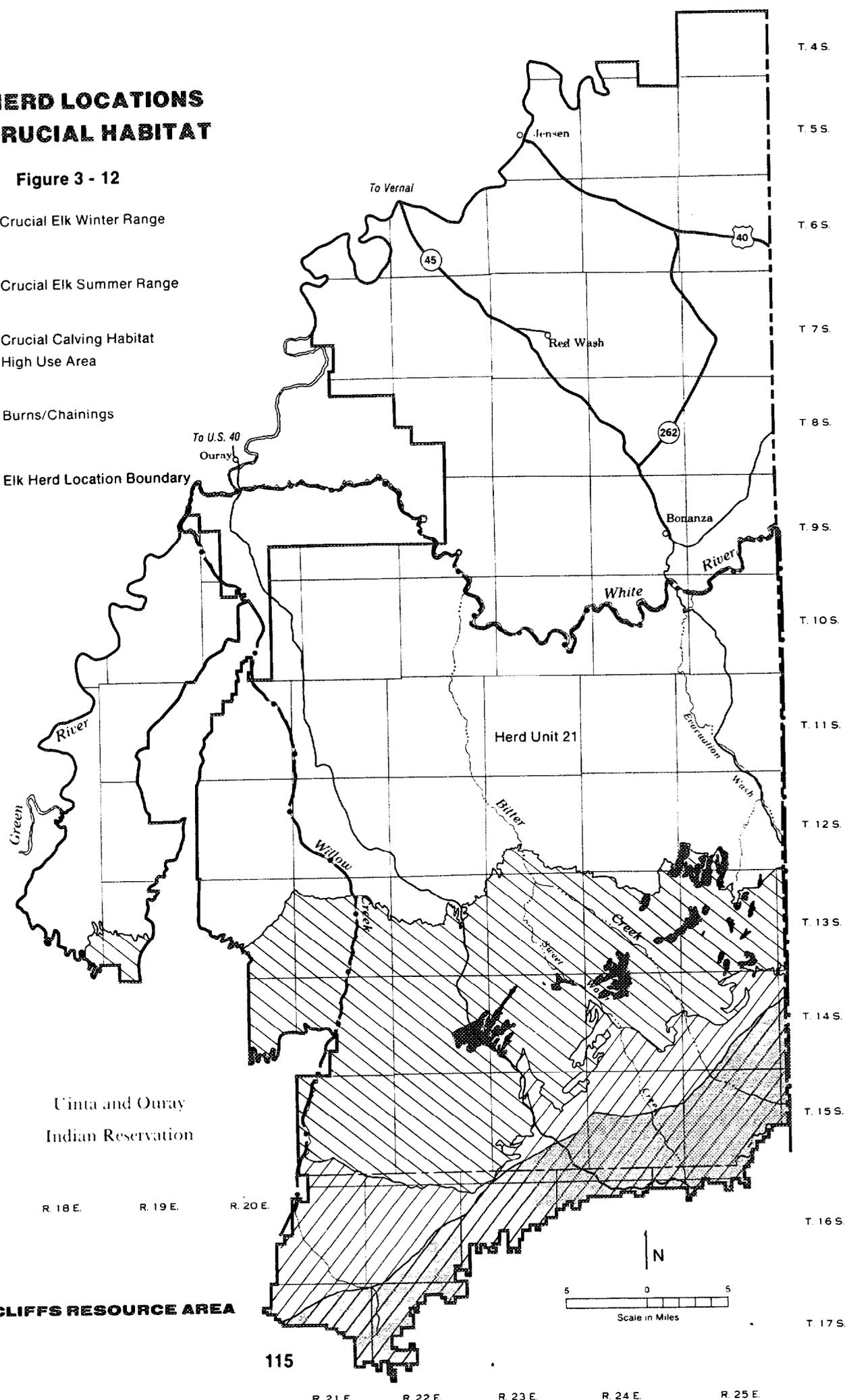


BOOK CLIFFS RESOURCE AREA

ELK HERD LOCATIONS AND CRUCIAL HABITAT

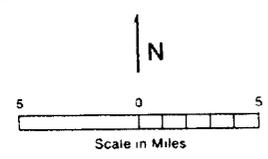
Figure 3 - 12

-  Crucial Elk Winter Range
-  Crucial Elk Summer Range
-  Crucial Calving Habitat High Use Area
-  Burns/Chainings
-  Elk Herd Location Boundary



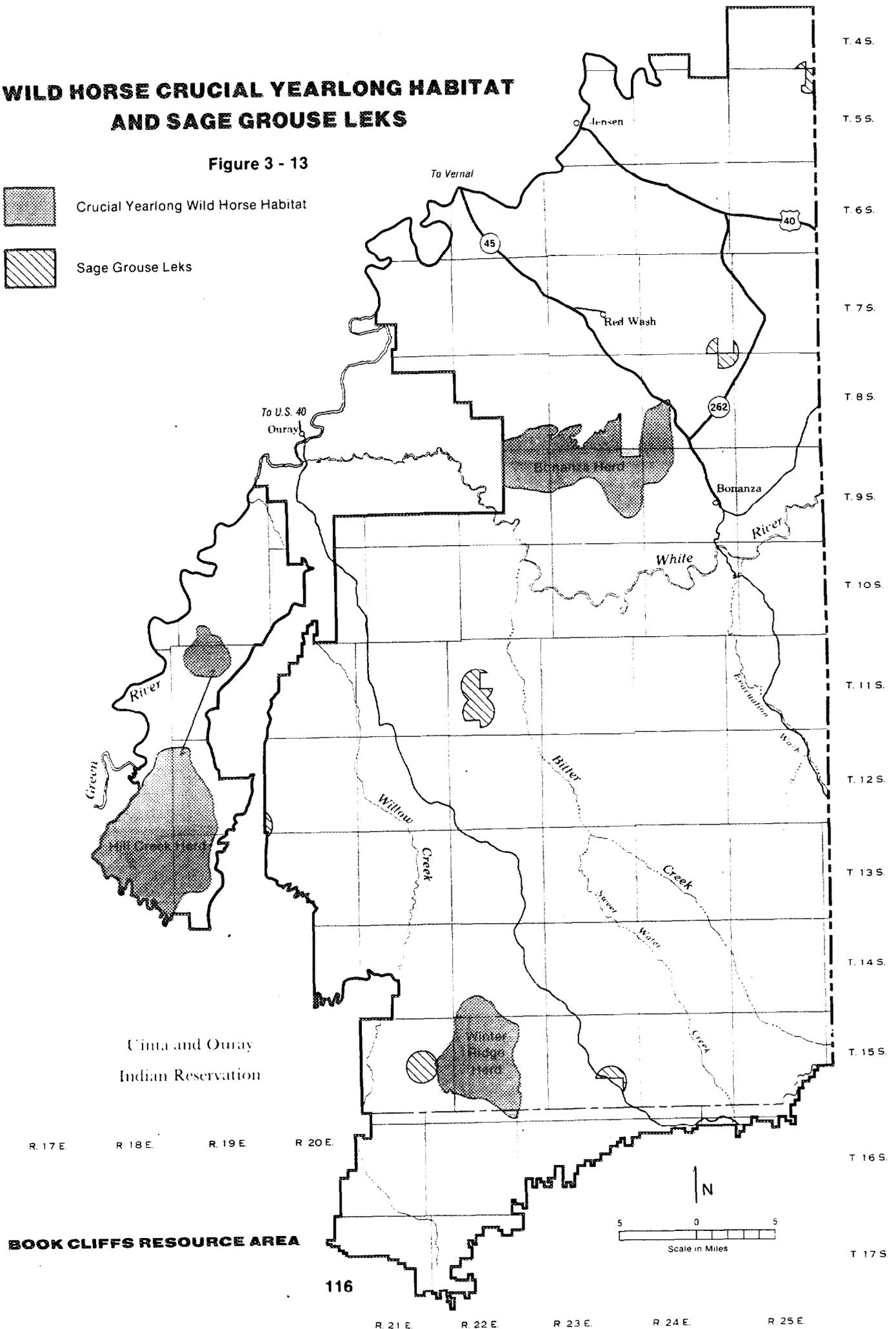
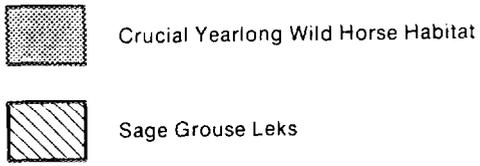
BOOK CLIFFS RESOURCE AREA

Uinta and Ouray
Indian Reservation



WILD HORSE CRUCIAL YEARLONG HABITAT AND SAGE GROUSE LEKS

Figure 3 - 13



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Wild Horses

At present, there are three distinct herds of wild horses on the BCRA. They are shown on Figure 3-13.

Bonanza-Red Wash Herd

This herd runs in about five bands northwest of Bonanza and south of Chevron's Red Wash Camp. There are approximately 40 head of horses in this herd, which is a remnant of a much larger herd that ran in this area in the early 1900's.

This herd is composed mostly of feral horses that have been turned out or strayed from local ranchers.

Crucial yearlong wild horse habitat in the Bonanza herd area (Figure 3-13) consists of 47,300 acres. Approximately 31 percent, or 14,800 acres, is in an unsatisfactory condition.

The Vernal District population objective for this herd is 50 head (Gardner 1983).

Hill Creek Herd

The Hill Creek herd's history is not really known, but the herd does show the coloration and conformation of the Spanish Mustang type and may be the last remnant of that breed.

For many years this herd had been the target of local wild horse chasers; and prior to 1971, there were permanent camps in the area that were used as base camps from which to chase the horses.

Approximately 35,400 acres of crucial yearlong habitat occurs for the Hill Creek herd, with 4,300 acres, or 12 percent, of that amount in an unsatisfactory condition (Figure 3-13). The herd currently consists of 158 horses. The Vernal District population objective for this herd is 195 head (Gardner 1983).

Winter Ridge Herd

This herd probably originated from horses which escaped from Native Americans or ranchers during the early history of the Uintah Basin. It is known that this herd was maintained and kept "bred up" by local ranchers living on Willow Creek who turned blooded stallions loose for that purpose.

No official herd record was ever kept prior to 1977. The first record, made in 1977, indicated that there were about 40 head. The winters of 1977-78 and 1978-79 were very severe, and deep snows and several weeks of below zero temperatures resulted in a herd loss of about 70 percent. The 1980 count revealed only eight horses in the Winter Ridge area. In 1982, the herd

consisted of six adults and two colts (Gardner 1983).

Roughly 15,200 acres of crucial yearlong habitat exists for the Winter Ridge herd (Figure 3-13). Approximately 11 percent, or 1,700 acres is rated unsatisfactory. The Vernal District population objective for this herd is zero (Gardner 1983).

Endangered or Threatened Species

The bald eagle, federally classified as endangered under the Endangered Species Act of 1973, occurs in the BCRA. Bald eagles are fairly common along the Green and White Rivers during winter months and into early spring. Eagles are occasionally observed in white-tailed prairie dog towns several miles from the rivers. National Wildlife Federation midwinter bald eagle surveys indicate that an average of 45 eagles occur within the Vernal District annually (BLM 1983d).

The whooping crane has occasionally been observed in close proximity to the BCRA.

Potential blackfooted ferret habitat exists within the BCRA, but no confirmed sightings have been made to date.

The Colorado squawfish, an endangered species, has been found in the White River. The humpback chub (endangered) and the razorback sucker (a candidate species for listing) may occur in the White River. There is a reported capturing of an adult squawfish more than 130 miles above the mouth of the White River, but no evidence of reproduction has been found (Miller, et al. 1982a). No razorback suckers or humpback chubs have been located. The White River Dam would present a barrier to movement between the White and Green Rivers at river mile 50 of the White River. All three species are found in the Green River, although reproductive success of the razorback sucker is unknown (Miller, et al. 1982b).

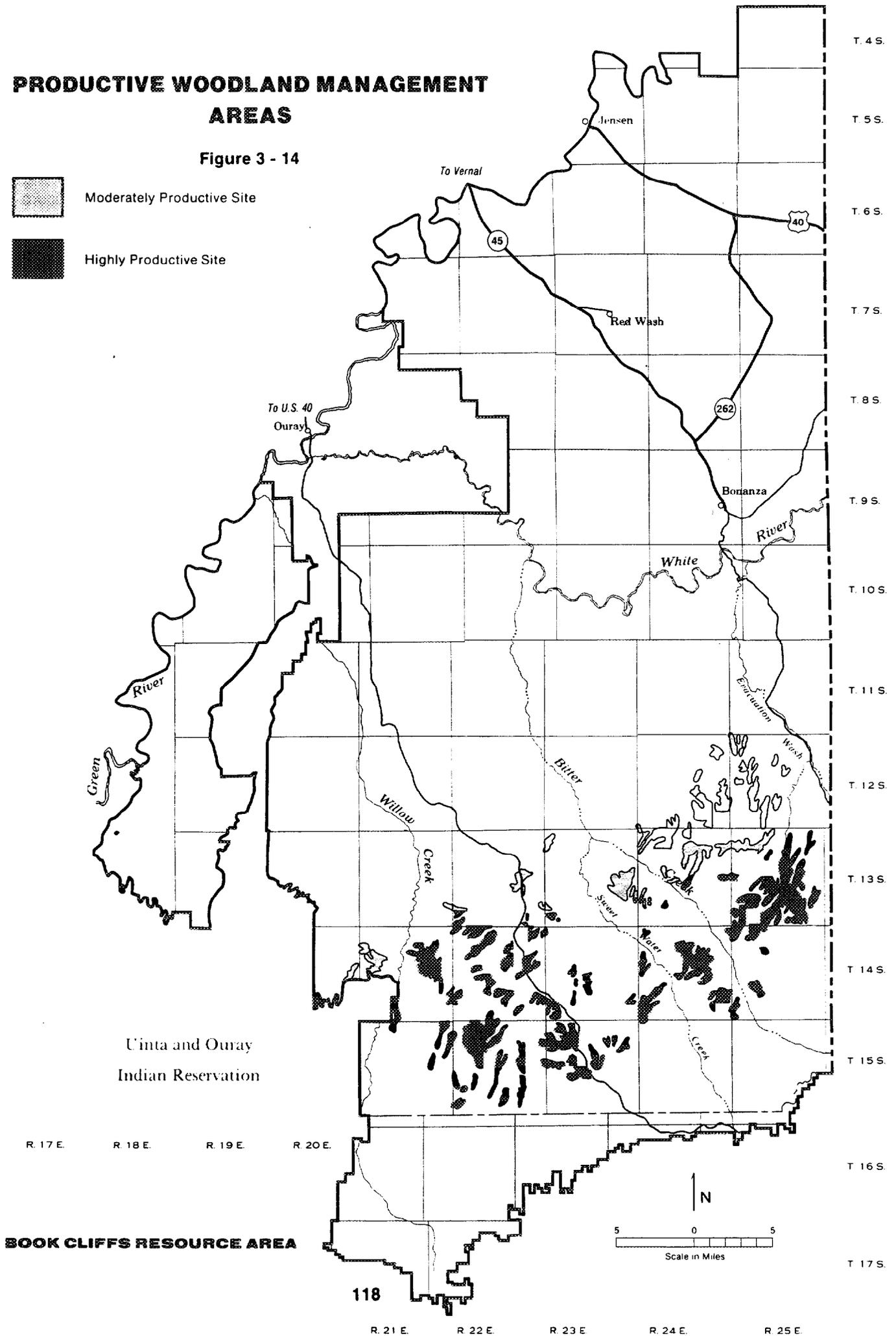
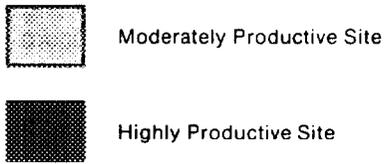
WOODLANDS

Total forested land within the BCRA is 410,600 acres. Of this amount, 80,100 acres are forested with timberland species: Douglas fir, ponderosa pine, aspen and cottonwood. The timbered areas are considered non-suitable for commercial harvest because of extreme topography and fragile soils. The woodland type consists of 306,400 acres, of which only 47,200 acres are classified as productive woodlands and desirable for fuelwood harvest (Figure 3-14). Principle species include pinyon, Utah juniper, and Rocky Mountain juniper. Approximately 24,100 acres of forested lands are unavailable for woodland management because of other resource uses.

Productive woodland sites were identified in a 1981 inventory (BLM 1982). These sites have the greatest

PRODUCTIVE WOODLAND MANAGEMENT AREAS

Figure 3 - 14



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potential for management because they have higher growth rates and volumes per acre, slopes of less than 25 percent, have not been chained or recently burned, and are accessible by road, paths or cross country travel. The productive sites were classified as either high or medium. Stand characteristics for high and medium sites are as follows:

High Productive Woodland Sites

Average volume per acre, green	10.5 cords
Average volume per acre, dead	1.6 cords
Estimated maturation period	125 years

Stand composition:

Pinyon	40 percent or more
Utah juniper	Up to 60 percent
Rocky Mountain juniper	1 percent
Douglas fir	1 to 10 percent
Crown cover	20 to 65 percent

High productive woodland sites total 34,100 acres.

Medium Productive Woodland Sites

Average volume per acre, green	7.5 cords
Average volume per acre, dead	1.0 cords
Estimated maturation period	150 years

Stand composition:

Pinyon	15 percent or more
Utah juniper	Up to 85 percent
Rocky Mountain juniper	None
Douglas fir	None
Crown cover	10 to 45 percent

Medium productive woodland sites total 13,100 acres.

Nonproductive sites are composed of stands that grow on slopes with grades over 25 percent, are non-accessible, or contain volumes of less than five cords per acre. Most nonproductive sites are found at the lower elevations and contain trees too small to be considered acceptable for firewood harvest. Total acreage is 259,200.

Cottonwood, *Populus fremontii*, grows on some 3,000 acres along the Green River and White River bottoms. Growth is rapid as trees reach a diameter breast height of 24 inches within 65 years. Volume per acre is estimated to be 15 cords for stands reaching maturity. Approximately 300 acres, along the Green River, are accessible for management. Trees along the White River are inaccessible.

Douglas fir grows in even-aged stands on the north and east side slopes and covers some 71,600 acres in the Book Cliffs Mountains. Volume per acre averages 20 cords and rotation age is about 150 years. Most stands are inaccessible and grow on slopes with grades over 25 percent. Although these stands are not regarded as commercial, up to 4,000 acres could be utilized as fuelwood without creating significant conflicts to watershed or wildlife.

The number of sale and free use permits have increased in the past decade. In 1972, approximately 250 cords of wood were sold or given away. Total harvest in 1982 amounted to 2,200 cords in the BCRA.

Demand for firewood has increased as home heating costs have increased. In the Uintah Basin, about 65 percent of the homes use wood as a heating source.

A segment of the wood burning public prefers pinyon and juniper fuel wood. In the Roosevelt and Vernal areas, the only dependable public source of this type of wood is from BLM administered lands.

RECREATION

The entire BCRA is the Book Cliffs Extensive Recreation Management Area. Limited facilities have been developed at two locations: Musket Shot Spring, a road-side pullover along U.S. Highway 40, and PR Spring, a semi-primitive campsite. The Musket Shot Spring site was constructed as a part of the 1976 Bicentennial Celebration and commemorates a segment of the Escalante Trail traveled by the Spanish Missionaries Dominguez and Escalante, in September 1776. Some vandalism of the interpretive signing and dumping of trash are management problems at the site.

PR Spring is the only recreation site in the resource area that has a developed water supply. It is fenced and contains the remains of a Civilian Conservation Corps Camp.

Dispersed recreation opportunities abound in the BCRA. The most popular forms include hunting, off-road vehicle (ORV) travel, sightseeing, and river floating.

The land plays a supplemental role in the regional recreation setting in that it offers the unique resource of open space where individuals can participate in dispersed activities in an unrestricted setting.

Data collected from October 1, 1981 to September 30, 1982 estimate participation for all recreational activities within the BCRA to be 14,000 visitor days (BLM 1983e). Major outdoor recreation areas adjacent to the BCRA within the Uinta Basin include Dinosaur National Monument and Ashley National Forest.