

CHAP. 3 — AFFECTED ENVIRONMENT

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.

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Land-Oriented Activities

The Bonanza area has some of the better opportunities for unrestricted cross country travel because of the open nature of the terrain. At higher elevations in the Book Cliffs mountains, where vegetation consists of trees or shrubs, travel is often confined to existing trails and ways. Over the past 10 years, the popularity of ORV activity appears to be increasing. The dominant ORV use is for big and small game hunting, firewood and post cutting, sightseeing and work-related needs. Some spontaneous use occurs south of Jensen on the east side of the Green River that causes damage to vegetation and soil. Because of the distance of the BCRA from population centers, and the availability of alternate sites, little demand presently exists for intensive-use areas. Resource values that conflict with ORV's include: The Boulevard Ridge Watershed Study Area, certain critical and severe erosion areas, antelope, *crucial wildlife areas*, wild horse ranges, *recreation sites*, *scenic corridors*, and the White River Canyon.

South of Township 11 South, on the Uintah and Ouray Indian Reservation, the Ute Indian Tribe has established a Wildlife and Cultural Resource Protection Area and does not permit travel off the established roads (Core 1984). Currently, BLM has not imposed travel restrictions on public lands adjacent to Tribal borders and Tribal members are concerned that inadvertent trespass may occur.

Hunting takes place in the fall and winter and mule deer are the most popular game animal. In the Book Cliffs, approximately 6,800 visitor days, or 48 percent of the total recreational use, is attributable to big game hunting (UDWR 1983).

Fifteen popular camping areas, established by impromptu use of hunters, were set aside in previous years (BLM 1973b; BLM 1974b; BLM 1974d; BLM 1975). A list of features, present status and future potential is identified in Appendix 6 (Campsites Identified in Previous Years for Possible Development). The campsites are located in Figure 3-15. Except for PR Spring, no physical improvements have been made to these sites. Hunters have shown little interest for improved facilities such as sanitation, fire pits, or water systems.

A scenic corridor was established along U.S. Highway 40 from Jensen to the Utah/Colorado border (BLM 1974b). Outstanding panoramas exist along two other highway segments. The first is adjacent to the new Bonanza highway (Utah 45) from Red Wash to the Green River, a distance of 6 miles. The second corridor is along the Book Cliffs Divide road, which extends from PR Spring to Fatty Canyon (Utah/Colorado border), a distance of 20 miles.

Two geologic features, Fantasy Canyon and Duck Rock, contain unique erosional figures, have future interpretive potential but lack protection (Figure 3-15).

Like the camp sites, 6 overlooks were set aside and protected for future development (BLM 1974a, 1974b, and 1975). Three of these sites continue to receive use by recreationists and have retained their aesthetic and scenic values. These sites are Point of Pines, Musket Shot Spring, and Grand Valley overlooks. The other 3 sites are located in remote areas and receive little or no use. The locations of the scenic travel corridors and overlooks are shown in Figure 3-16. A summary of the important characteristics of each overlook appears in Appendix 7 (Scenic Overlooks and Geologic Features).

The Book Cliffs Mountain Browse Natural Area is located on Upper McCook Ridge (Figure 3-16). It contains 400 acres and was set aside to protect a representative sample of the Book Cliffs mountain browse vegetation type. Dominant species include birchleaf mahogany, serviceberry, Gambel oak and big sagebrush. Present management protects the area from livestock grazing and surface-disturbing activities. Recreation use of the Natural Area is very low and consists of limited big game hunting in the fall (BLM 1975). The area has scientific value for the preservation of a vegetative type in its natural condition.

Water-Oriented Activities

White River

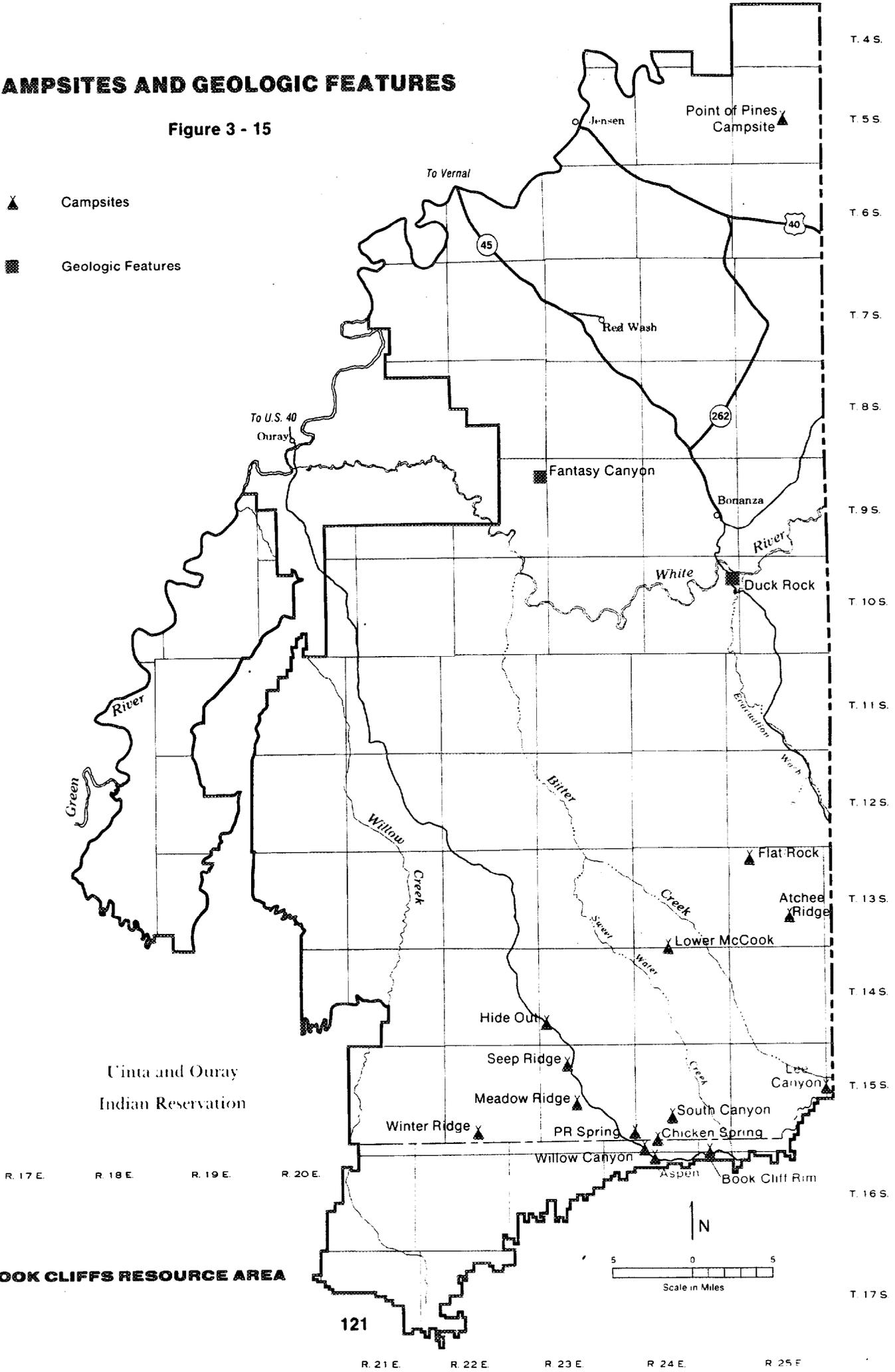
The White River and its desert canyon offer spectacular scenery, remoteness, and relatively safe currents for novice and intermediate rafters and canoeists. Associated opportunities include sightseeing, viewing wildlife, and dispersed camping. Ten years ago, records indicate only one or two float trips per year; but, observation by BCRA personnel in 1983 estimated 40 to 50 float parties (BLM 1973).

After the construction of the proposed White River Dam, recreation use is expected to increase mainly around the lake and somewhat on the river below the dam. Activities focused around the lake will be managed by the State of Utah. Recreation opportunities along the river will continue to be managed by BLM and will include a limited fishery, hiking and possibly river floating. Water flows would be adequate for canoeing and rafting during normal and average water years during May, June and part of July. However, from August through the remaining recreation use period and during drought years, flows would approach the lower limit necessary and may even be inadequate for satisfactory floating.

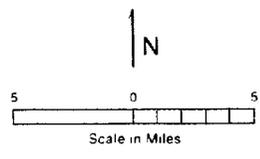
CAMPSITES AND GEOLOGIC FEATURES

Figure 3 - 15

- ▲ Campsites
- Geologic Features



BOOK CLIFFS RESOURCE AREA



SCENIC TRAVEL CORRIDORS, OVERLOOKS, WHITE RIVER CANYON AND BOOK CLIFFS MOUNTAIN BROWSE NATURAL AREA

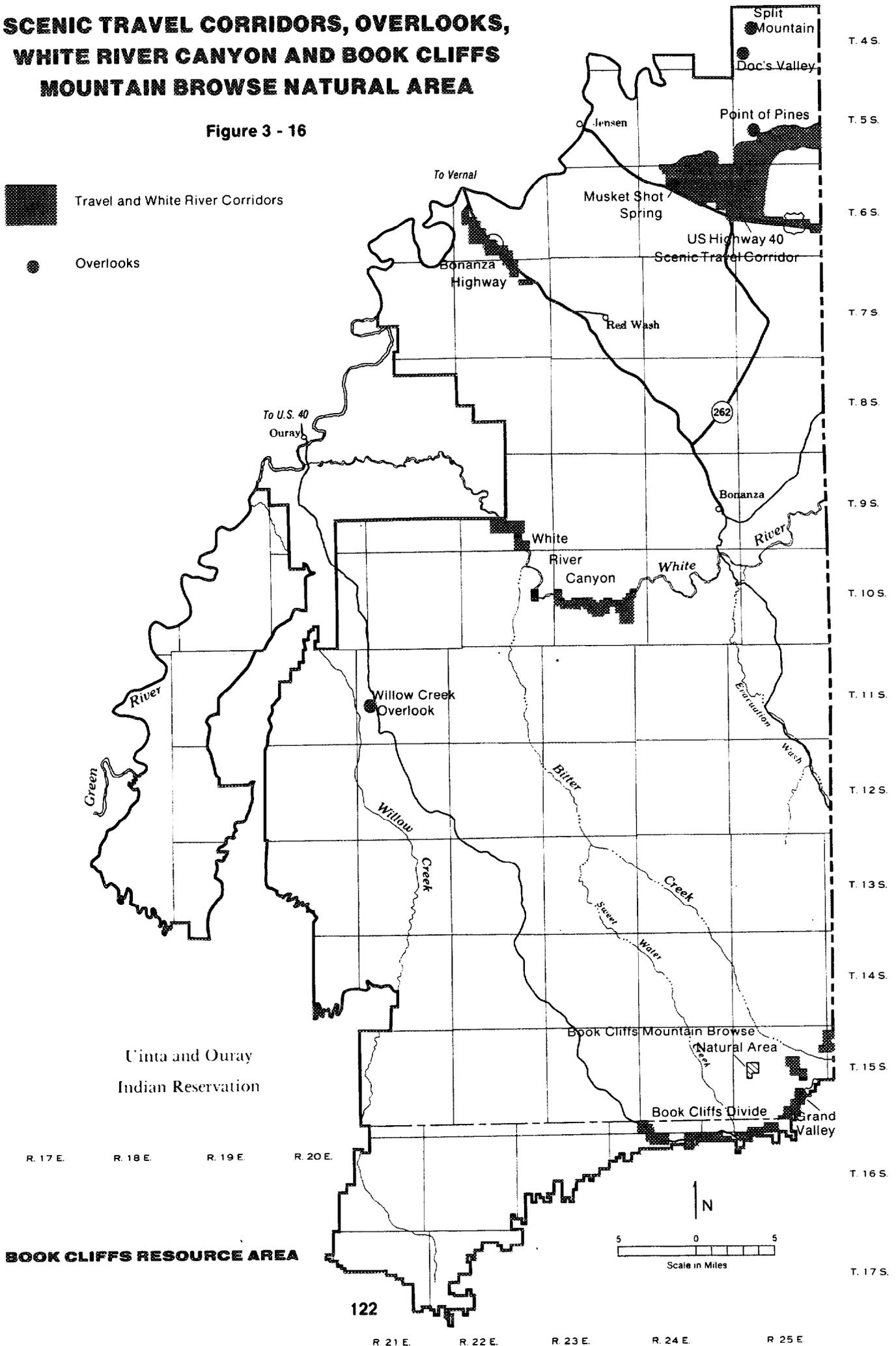
Figure 3 - 16



Travel and White River Corridors



Overlooks



BOOK CLIFFS RESOURCE AREA

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Green River

Recreation opportunities along the Green River consist of river floating, fishing for channel catfish, and limited deer, duck, and goose hunting. Fishing has proven popular in recent years and during the summer months, estimates indicate that there would be at least 100 recreationists per week (Cranney 1983). Most floatboating takes place from Split Mountain Campground at Dinosaur National Monument downstream to the town of Jensen. In 1982, permits were issued to 220 people (Davies 1983).

The river segment from Ouray to Sand Wash (31 miles) has limited popularity and use ranges from 50 to 150 people per year (Kenna 1983).

Hunting for ducks and geese along the river sand bars, and deer in the cottonwood bottoms, accounts for some 400 visitors per year.

There is limited public access to the river and no visitor use facilities exist along the river.

Visual Resource Management

A visual resource inventory and analysis for the entire BCRA has been completed (Environmental Associates 1979; Flores Associates 1979; Saube 1981). Management classes, which describe the different degrees of modification allowed to the basic elements of the landscape, are tabulated by acreage (Table 3-3, Visual Resource Management Classes). Management Class I is the most restrictive and applies to designated wilderness and natural areas. Class V is the least restrictive and applies to natural landscapes that have been disturbed to the point where rehabilitation is needed to restore it. The location of each VRM class is depicted in Figure 3-17.

FIRE MANAGEMENT

Fire management techniques employed in the BCRA have primarily consisted of extinguishing any and all wildfires, wherever they occur, in order to protect property and other resource values. During the last 11 years, an average of 7.6 wildfires have occurred annually, burning an average area of 18.2 acres per fire. An average of 137.4 acres have burned each year (Glenn 1983).

Limited amounts of prescribed burning have been carried out in the BCRA in recent years. These vegetation manipulation projects have concentrated on mature sagebrush canyon bottoms located primarily in crucial deer and elk summer habitats. These projects provided increased wildlife access through the canyon bottoms and, overall, increased forage quality.

A modified suppression program has not been initiated in the BCRA.

WATERSHED

Water Resources

The Green and White Rivers are the major surface waters of the BCRA. The average annual flow of the Green River is 3,120,000 acre-feet at Jensen, Utah. Flow of the White River at its mouth has averaged 457,900 acre-feet per year.

The proposed White River Dam would store 109,250 acre-feet, creating a reliable water source for mineral development. Mitigation agreements for that project provide a minimum release of 203,625 acre-feet during normal water years to support endangered fish species (BLM 1982e). Current depletions on the White River are 37,000 acre-feet per year (BLM 1982a).

Other smaller, perennial streams in the BCRA are Willow, Bitter, and Evacuation creeks. Insufficient flows and a lack of storage make them less suitable as potential water supplies for mineral development.

Salinity is a concern in all waters of the upper Colorado River Basin, although no highly saline water sources have been identified in the BCRA.

Several springs and seeps which are important for public use have been protected by designating them public water reserves. Nineteen public water reserves exist in the BCRA (Figure 2-6). These areas receive special consideration and protection in the mineral leasing category system.

No municipal watersheds are located within the BCRA.

Ground water in the BCRA is found in two types of aquifers — unconsolidated deposits of recent deposition, primarily stream alluvium, and structural rock units. The Bird's Nest and Douglas Creek aquifers are found in structural rock units above and below the oil shale layer (Holmes 1980). Recharge to all the aquifers in the southern Uinta Basin is estimated to be 120,000 acre-feet per year, and enters the system primarily on alluvial surfaces (Price and Miller 1975). The maximum practical withdrawal from these aquifers is estimated to be about 20,000 acre-feet per year (Lindskov and Kimball 1983).

Floodplains

Approximately 16,000 acres of floodplains are found along the Green and White rivers and Bitter, Evacuation, Sweetwater, and Willow creeks. Of these floodplains, 470 acres are in poor ecological condition (BLM 1982). The location of the 100-year floodplains in the BCRA appear in Figure 2-6.

Table 3-3

Visual Resource Management Classes

Class	Acres*	Percent
I	400	< 1
II	45,000	4
III	74,600	7
IV	932,000	86
V	28,000	3
Total	1,080,000	

Source: Environmental Associates 1979; Flores Associates 1979; Saupe 1981.

*Acreage figures were rounded to the nearest hundred.

VISUAL RESOURCE MANAGEMENT CLASSES (DIFFERENT DEGREES OF ALLOWABLE VISUAL LANDSCAPE CHANGE)

Figure 3 - 17

-  CLASS I Change not permitted
-  CLASS II Changes should not be evident
-  CLASS III Changes slightly evident
-  CLASS IV Changes may attract attention
-  CLASS V Rehabilitation needed

