Based on past treatments, an average of 50 structures would be constructed per 1,000 acres. Each structure would have a sediment capacity of 0.25 acre-feet and function for approximately 20 years without maintenance. The exact number of structures and their location are not currently known. The location of critical and severe erosion condition areas are shown in Figure 2-6.

The seeding of detention-retention dams and the utilizing of runoff diversion structures, would minimize adverse soil impacts, which might result from gas and oil activities.

Land Tenure Adjustment

The approximately 1,360 acres of land made available for disposal (Figure 2-7) would be small, isolated tracts, surrounded by state and private lands. ***These lands meet the basic FLPMA requirements for disposal. They have been identified in this document so they may be considered in future land exchanges or sales. Exchanges would be the preferred method of disposal. Site specific analysis would be required prior to any disposal effort.*** Potential lands for disposal or exchange are shown in Figure 2-7.

RESOURCE PROTECTION ALTERNATIVE

Oil and Gas.

Implementation of this alternative would place land into restricted use areas, emphasizing renewable resource values. ***Approximately 470,000 acres would be placed into Category 2 (see Appendix 4). Specific wildlife resource values requiring special mitigation include: Crucial winter elk habitat such as chainings and burns, crucial elk summer range, the Monument Ridge Deer Migration Corridor, and crucial antelope range. Perennial streams, severe and critical erosion areas, VRM Class II areas, and three scenic travel corridors would receive special mitigation to protect important watershed and recreation resources. The Green River Corridor from Ouray to Jensen and the White River Corridor upstream from the proposed damsite would receive special mitigation to protect wildlife, watershed, and recreation values.***

Surface occupancy would not be allowed on 49,000 acres in order to protect sagegrouse leks, deer and elk calving and fawning areas, floodplains, wetlands, public water reserves, and a watershed study area.

In addition, thirteen campsites, six scenic overlooks, the Book Cliffs Natural Area, and two ecologic features would be precluded from surface occupancy. The Green River adjacent to Dinosaur National Monument and from Ouray to Tabyago Canyon, along with the White River downstream from the proposed damsite, would also receive this special protection to enhance wildlife, watershed, and recreation values.

Leasing would not be allowed on approximately 36,000 acres due to current limitations of offsite or slant drilling. Additionally, the Naval Oil Shale Reserve would remain closed to oil and gas leasing.

Oil Shale.

Approximately 18,000 acres would be available for lease and would be designated a priority management area, (Figure 2-9). Two future oil shale tracts, totalling approximately 10,500 acres, could be leased within this area after implementation of the RMP. The actual size of the tracts could vary due to offsite disposal considerations or other legislation that may be forthcoming. Detailed environmental documentation would be required for any lease proposal and would require specific mitigation measures. A schedule for oil shale leasing would then be developed. Exploration drilling of the resource would be allowed to verify the projected estimates before a competitive leasing program would be started.

Tar Sand.

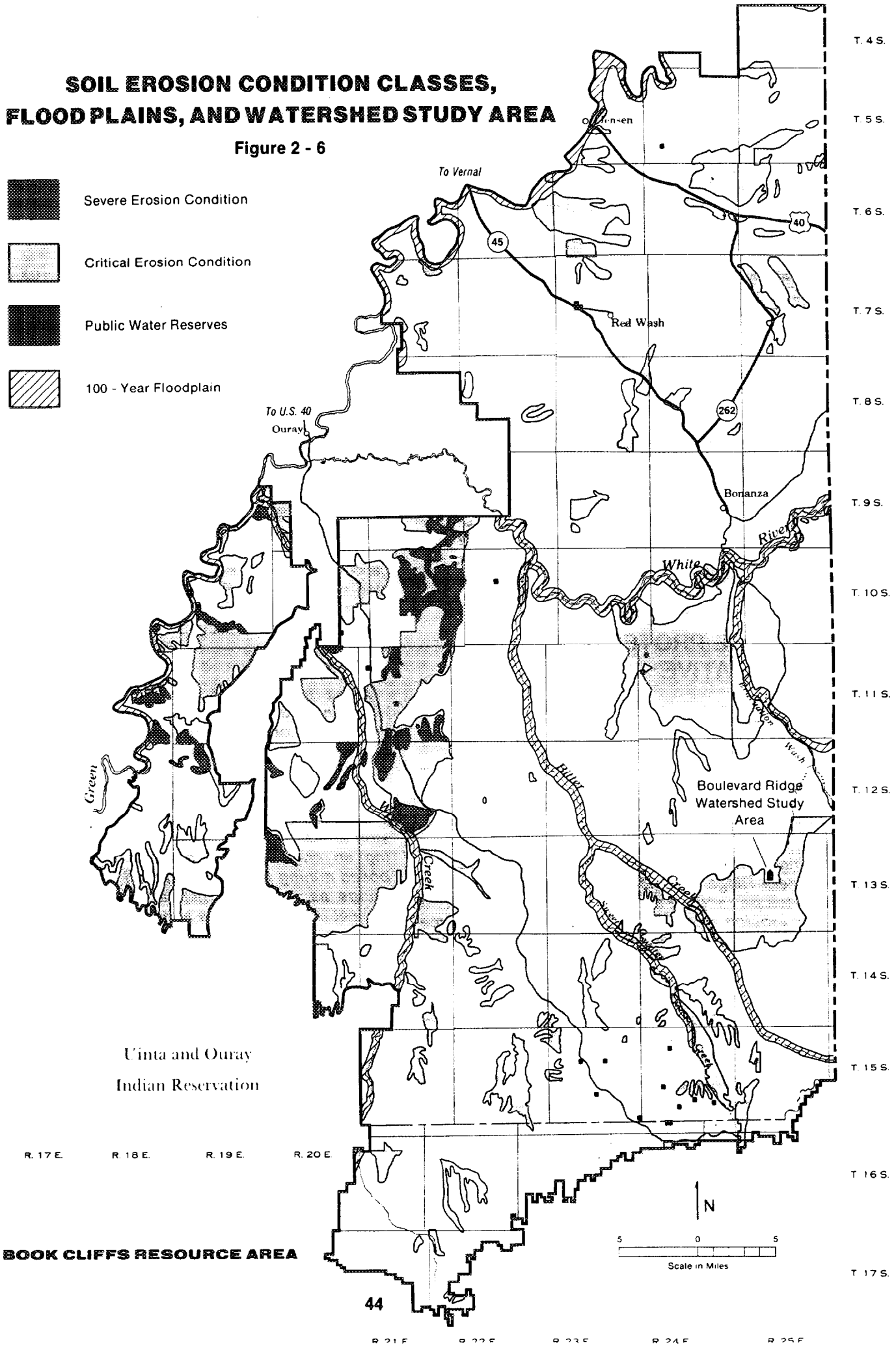
Areas in Category one and two (Figure 2-10), would be administered according to standard laws and regulations (refer to Appendix 4 for more discussion).

Additional special mitigation (Category 2) would be required for crucial deer and elk habitat, high productive woodlands, and critical and severe erosion areas. The mitigation would be developed during an environmental analysis of a specific proposed mining project. Mitigation could include such things as substitute habitat development prior to project initiation. Areas affected would total approximately 106,000 acres.

Certain areas would be delineated no surface occupancy. This designation would preclude development of tar sand deposits although conventional oil and gas resources could still be developed. Crucial wildlife habitat which would negate surface occupancy includes: Deer fawning and elk calving areas, McCook Ridge crucial winter habitat, the Monument Ridge Deer Migration Corridor, and sage grouse leks. Other limiting resource values would include: Public water reserves, VRM Class II areas, ten campsites, a portion of the Book Cliffs Divide Scenic Corridor, and a watershed study area. The area affected would total approximately 67,000 acres.

SOIL EROSION CONDITION CLASSES, FLOOD PLAINS, AND WATERSHED STUDY AREA

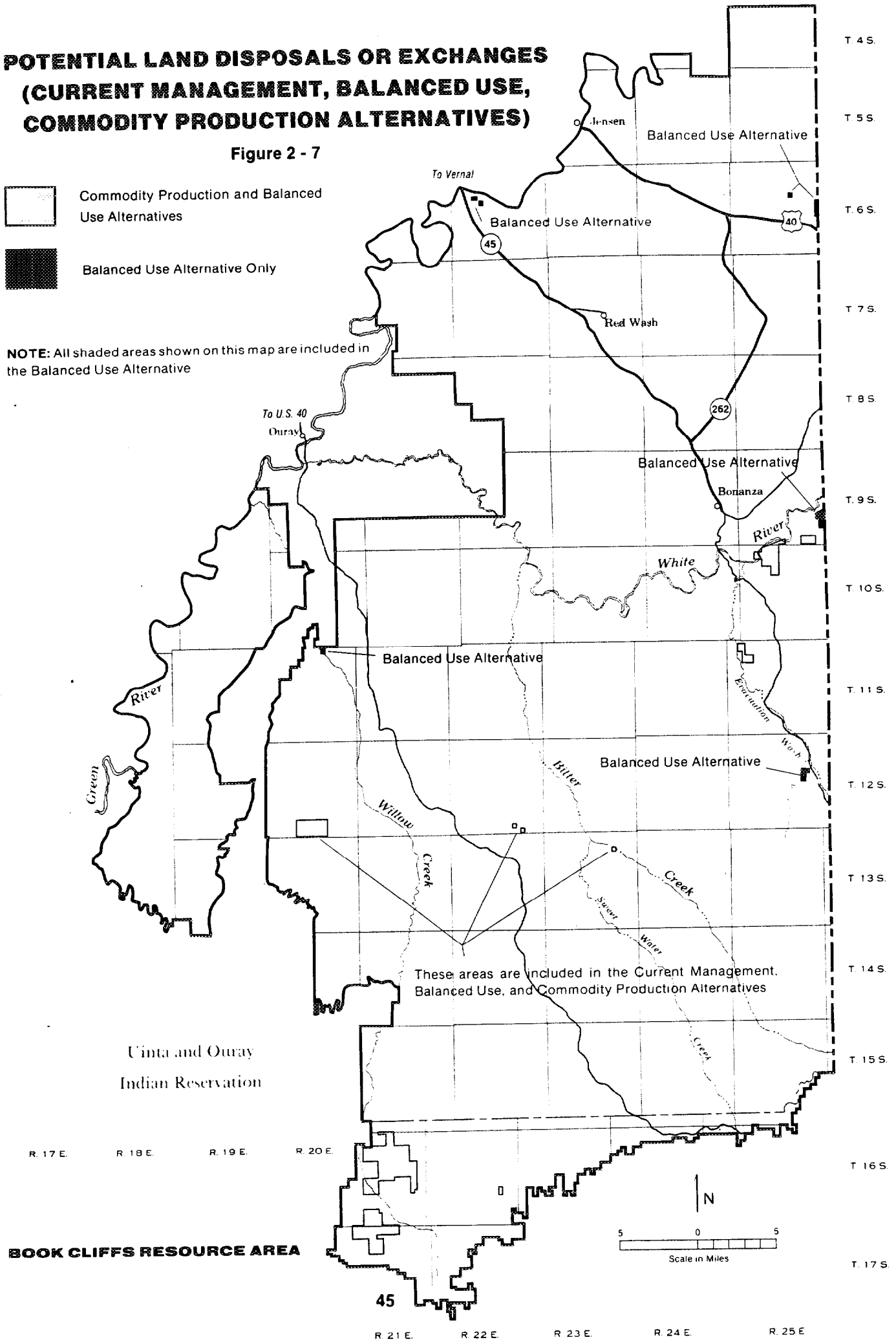
Figure 2 - 6



BOOK CLIFFS RESOURCE AREA

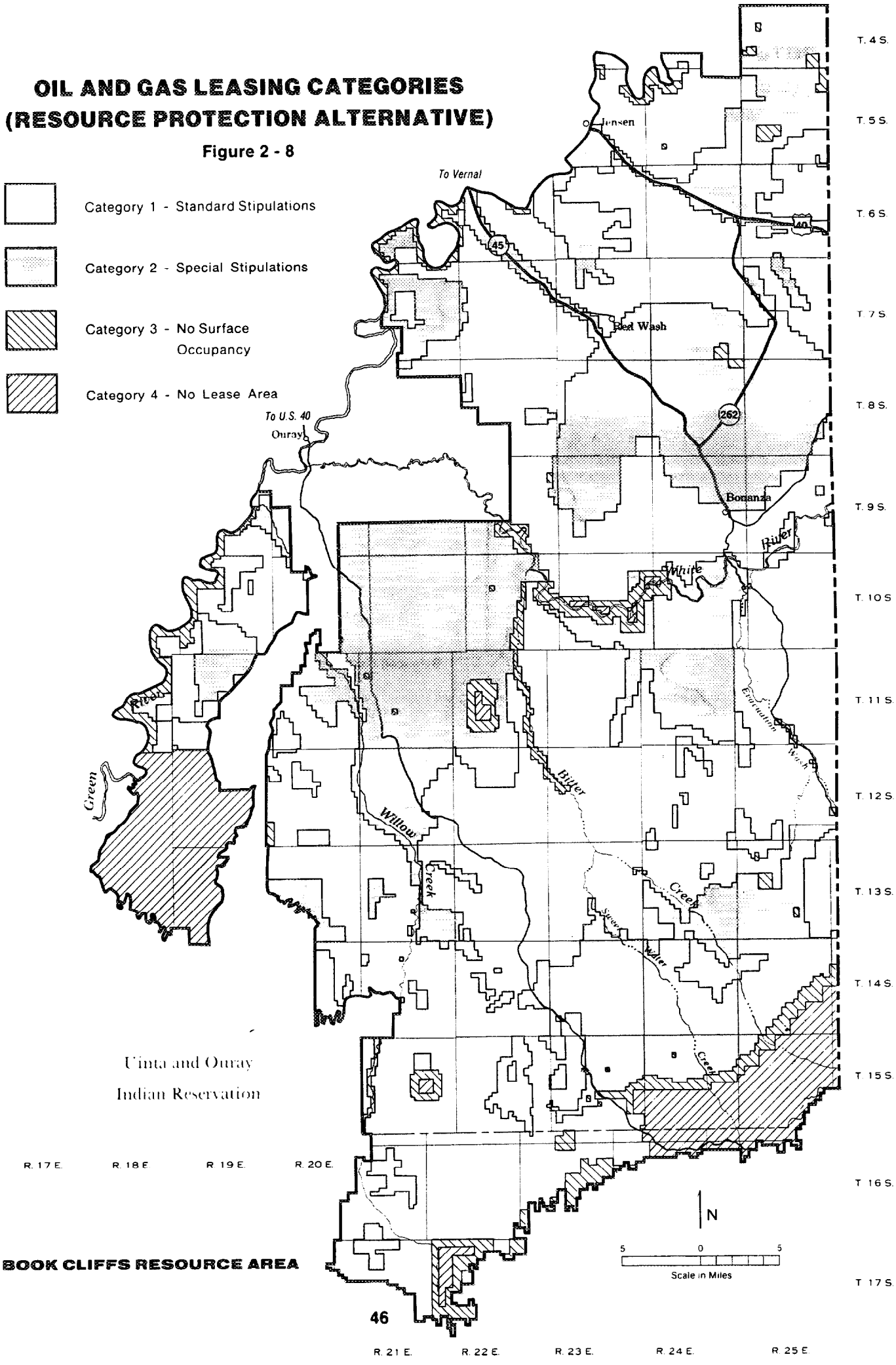
POTENTIAL LAND DISPOSALS OR EXCHANGES (CURRENT MANAGEMENT, BALANCED USE, COMMODITY PRODUCTION ALTERNATIVES)

Figure 2 - 7



OIL AND GAS LEASING CATEGORIES (RESOURCE PROTECTION ALTERNATIVE)

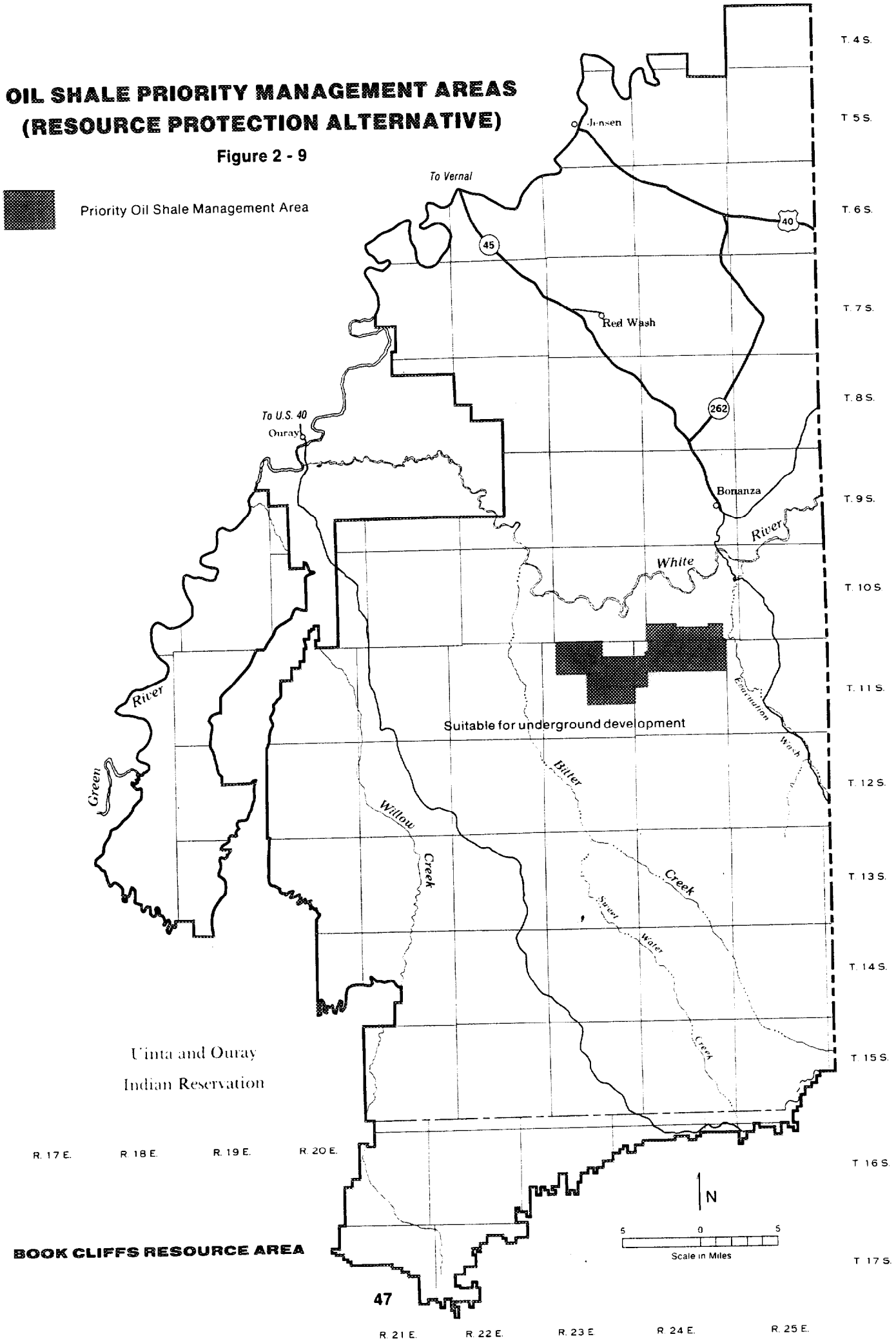
Figure 2 - 8



BOOK CLIFFS RESOURCE AREA

OIL SHALE PRIORITY MANAGEMENT AREAS (RESOURCE PROTECTION ALTERNATIVE)

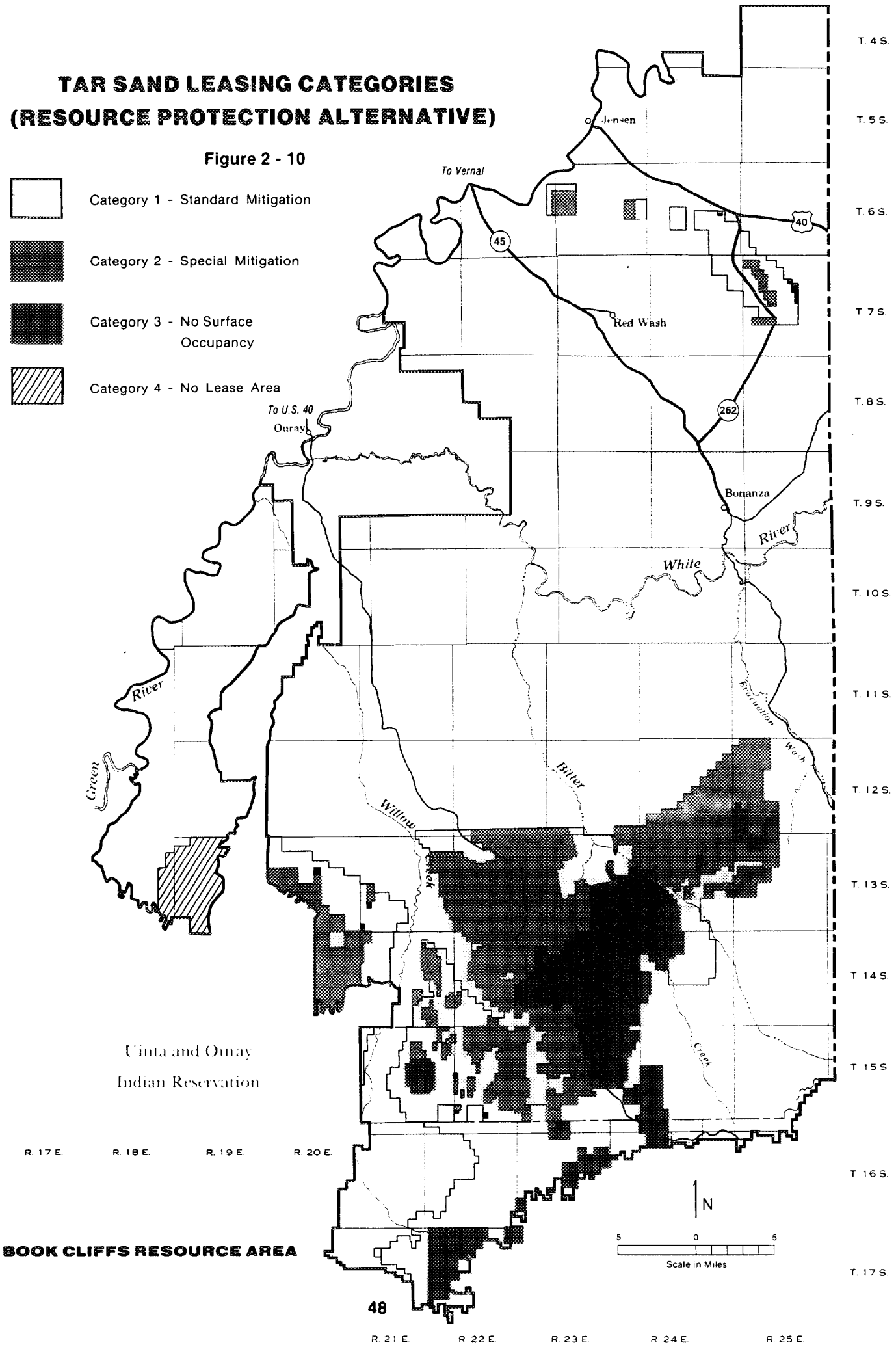
Figure 2 - 9



BOOK CLIFFS RESOURCE AREA

TAR SAND LEASING CATEGORIES (RESOURCE PROTECTION ALTERNATIVE)

Figure 2 - 10



BOOK CLIFFS RESOURCE AREA

Tar sand leases would not be issued within the Naval Oil Shale Reserve.

Right-of-Way Corridors

The 150 miles of corridors consisting of 46,000 acres proposed for this alternative have been identified after considering industry's needs and other resource values. To give additional protection to wildlife habitat, severe and critical erosion areas, visual resources, and productive woodlands, 23,000 acres of land would be designated exclusion areas where no rights-of-way would be allowed. The proposed corridors and exclusion areas for this alternative are shown in Figure 2-11. Applications for rights-of-way and corridors outside of designated corridors and exclusion areas would be considered individually.

Forage

Forage related actions for this alternative are outlined by allotment in Appendix 5 (Forage Actions by Alternative) and Figure 2-12.

Grazing Practices.

Under this alternative, adjustments would be made in spring grazing practices to eliminate or decrease grazing impacts during the critical vegetative growth period (April-May). Current AMPs would be modified to minimize grazing impacts during this period.

Livestock Adjustments.

In addition to the above adjustments in grazing practices, overall decreases would be made in livestock grazing use. These adjustments would be made to afford protection to specific critical wildlife and watershed areas, e.g. critical wintering or fawning areas, riparian areas, 100-year flood plain areas, etc. The number of AUMs authorized for livestock would be ***53,459***. This is ***13,521*** AUMs less than current average use and ***49,456*** AUMs less than active preference.

Range Improvements.

Developments under this alternative would primarily improve wildlife habitat, ecological condition, and the natural environment. However, without the improvements, the downward adjustments to livestock would be much more significant. Vegetation treatments would include prescribed burning and pinyon-juniper clearcuts. Mitigating measures for the proposed treatments are described in Appendix 8 (Mitigating Measures for Land Treatments).

Implementation Schedule.

This alternative would be implemented as follows:

1. Begin the "5-year monitoring program" to determine any adjustment needs (livestock numbers, seasons of use, vegetative treatments).
2. Revise current allotment management plans (AMPs), develop new AMPs, and identify improvements needed.
3. Develop water facilities.
4. Construct fences.
5. Implement AMPs.
6. Develop land treatments.
7. Adjust stocking levels and seasons of use grazing practices in accordance with needs identified in monitoring and in consultation with affected users.

Riparian Habitat, Floodplains, and Crucial Wildlife Habitat

Approximately 5,950 acres of riparian habitat and floodplains would be afforded additional protection. Two hundred and ten acres would be fenced in the Sweetwater allotment. In the Green River allotment, 150 acres would be protected by eliminating cattle use. The remaining 5,590 acres in the Green River AMP, Birchell, and White River Bottoms allotments would be closed to grazing. Livestock would be limited from 14,000 acres of deer and elk crucial winter habitat on McCook Ridge.

Costs.

Approximately $342,000 would be used for new livestock improvements funded by BLM. This does not include cooperative projects, reconstruction or maintenance.

Wildlife and Wild Horses

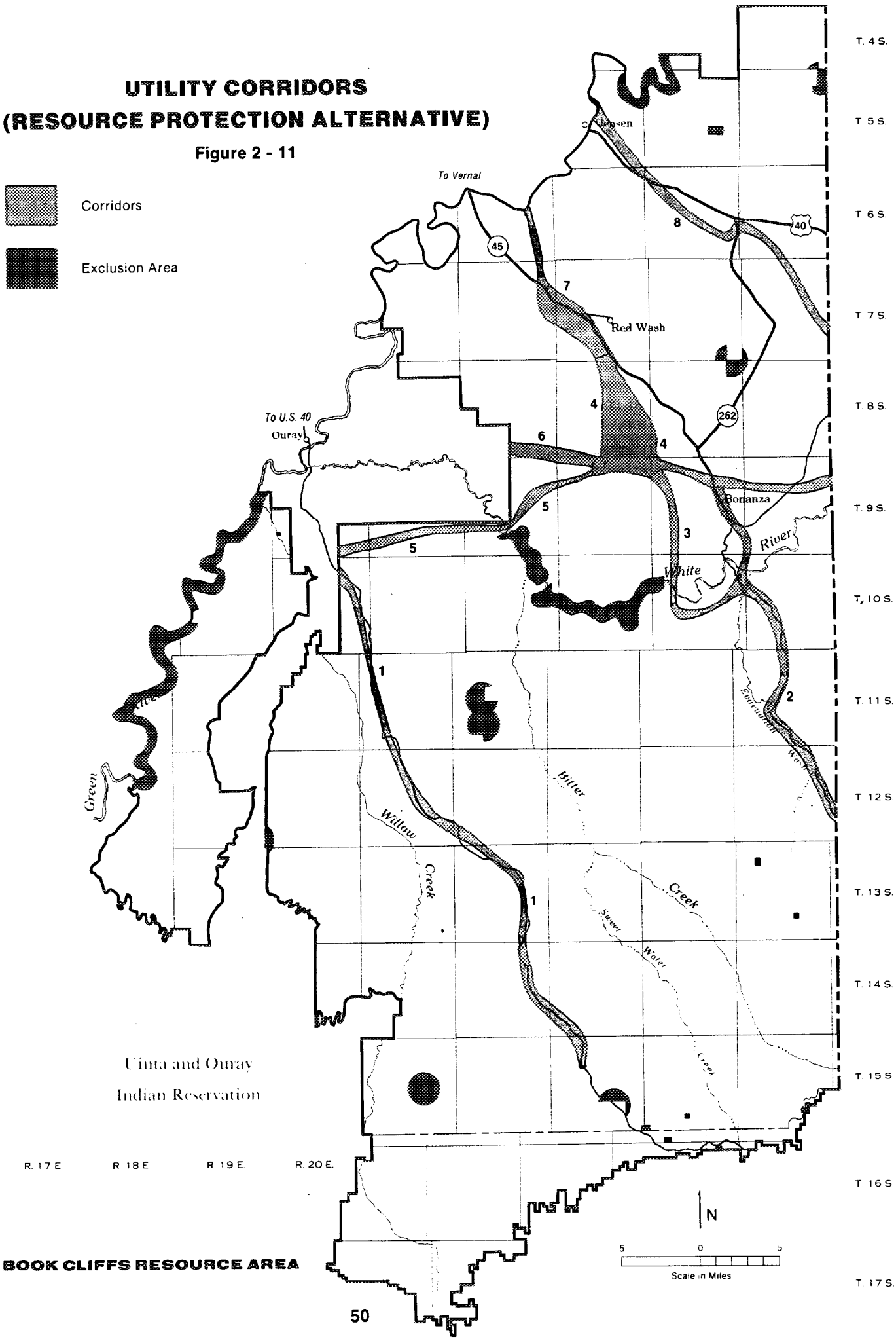
The 15,000 acres of prescribed burns would concentrate on mature sagebrush canyon bottoms, mature browse stands, and old chainings and burns that are becoming overgrown. Natural regeneration, mechanical reseeding and/or tubling transplants could be used to reestablish vegetation.

Four habitat management plans would be prepared. They would include plans for Blue Mountain (deer herd 26), Bonanza antelope herd 7), East Bench (newly reestablished antelope herd) and Book Cliffs (deer herd 28A and elk herd 21). Wild horse management plans would be prepared for herds in the Hill Creek and Bonanza locations.

Surface-disturbing activities associated with mineral exploration and development, woodland harvest, etc. would require rehabilitation. Disturbed wildlife habitat

UTILITY CORRIDORS
(RESOURCE PROTECTION ALTERNATIVE)

Figure 2 - 11

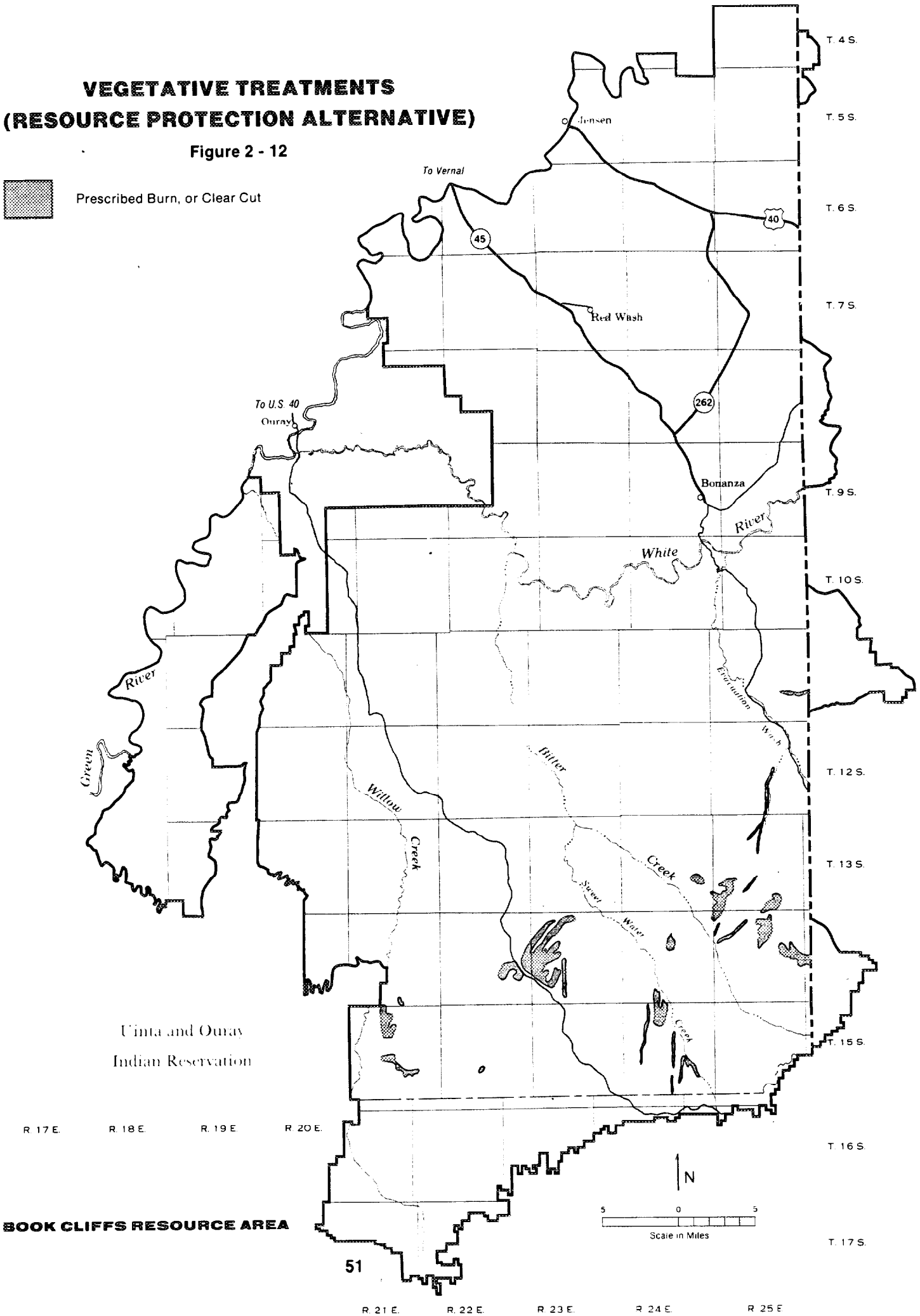


BOOK CLIFFS RESOURCE AREA

VEGETATIVE TREATMENTS
(RESOURCE PROTECTION ALTERNATIVE)

Figure 2 - 12

Prescribed Burn, or Clear Cut



BOOK CLIFFS RESOURCE AREA

would be required to be returned to a state comparable to that which existed prior to development.

Seasonal restrictions on mineral exploration and development would occur on crucial antelope fawning habitat (from May 15 to June 20) and crucial deer and elk winter habitat located within chainings and burns (November 1 to April 1). Seasonal protection would be afforded to deer and elk crucial summer areas (May 10 to October 1). Seasonal restrictions (mid-April to mid-May) would also apply to mule deer during migration from winter to summer range across the Monument Ridge Migration Corridor. No surface-occupancy restrictions would be utilized on crucial deer fawning and elk calving areas, sage grouse habitat, and important riparian zones. Tar sand exploration and development would not be allowed on the McCook Ridge deer and elk wintering area. Crucial antelope habitat (East Bench) lost to potential oil shale exploration and development would be replaced by additional suitable habitat of equal amount.

Woodlands

No cottonwood or Douglas fir would be harvested except for salvage sales where stands have been killed due to a natural disaster such as wildfire. Allowable annual cut from managed pinyon-juniper stands would be 2,650 cords per year and 820 cords from old chainings, burns, and unproductive low-site woodlands for a total of 3,470 cords per year.

Recreation

Up to ***710,400*** acres, would be designated as limited or closed to ORV use. Closed areas would include most severe erosion areas, the White River canyon, the Book Cliffs natural area, Boulevard Ridge Watershed Study Plot, certain cultural sites, certain areas contiguous to the Uintah and Ouray Indian Reservation, and areas adjacent to the Book Cliffs Divide and Bonanza Highway. ORV use would be limited in critical erosion areas, certain recreational sites, crucial wildlife habitat, and wild horse range areas (Figure 2-13).

Two camp sites protected under the Current Management Alternative (Winter Ridge and Lower McCook) would be discontinued because their aesthetic and recreational values have been substantially degraded. One geologic feature (Duck Rock) would be added and the Point of Pines scenic overlook would be increased in size from 320 acres to 480 acres (Table 2-2).

The scenic corridor along U.S. Highway 40 would be located only on the north side of the highway and extend to the Blue Mountain escarpments, Figure 3-16. Two additional scenic corridors would be established. The first corridor would be along the new Bonanza highway and would extend from the Green River bridge south for 6 miles. The second corridor would extend from PR Spring along the Book Cliffs Divide road to the Utah/Colorado border and include both Dick and Fatty Canyons.

Within the 3 corridors, no visible above-ground structures would be permitted within 0.5 mile of the highway. Underground facilities would be permitted within the corridor if they would not create a disturbance that would attract attention. For the Highway 40 corridor, developments would be permitted beyond 0.5 mile from the highway only if they would not detract from the visual quality.

A corridor would be established along the Green River within the BCRA and would extend 0.5 miles or line of sight, whichever is closer, from the center of the river. Within this corridor from Tabyago Canyon to Ouray and from Jensen to Dinosaur National Monument, the placement of structures, surface disturbance or other types of visible developments would be prohibited. Developments outside this corridor that would be visible from the river would be designed to minimize impacts to the visual quality standard for that area. This area would contain 10,900 acres. In the remaining area along the river between Ouray and Jensen (3,500 acres), structures, developments, and surface disturbance would be designed to minimize impacts to visual quality.

Watershed

Treatment Measures.

Watershed treatment measures would be implemented on 98,800 acres in critical erosion condition and 12,300 acres in severe erosion condition. Areas of high natural, geologic erosion rates would not be treated if they have low resource values and a low probability of success. Approximately 5,550 detention-retention dams would be built; however, their locations are not currently known. Figure 2-6 identifies the location of critical and severe erosion condition areas.

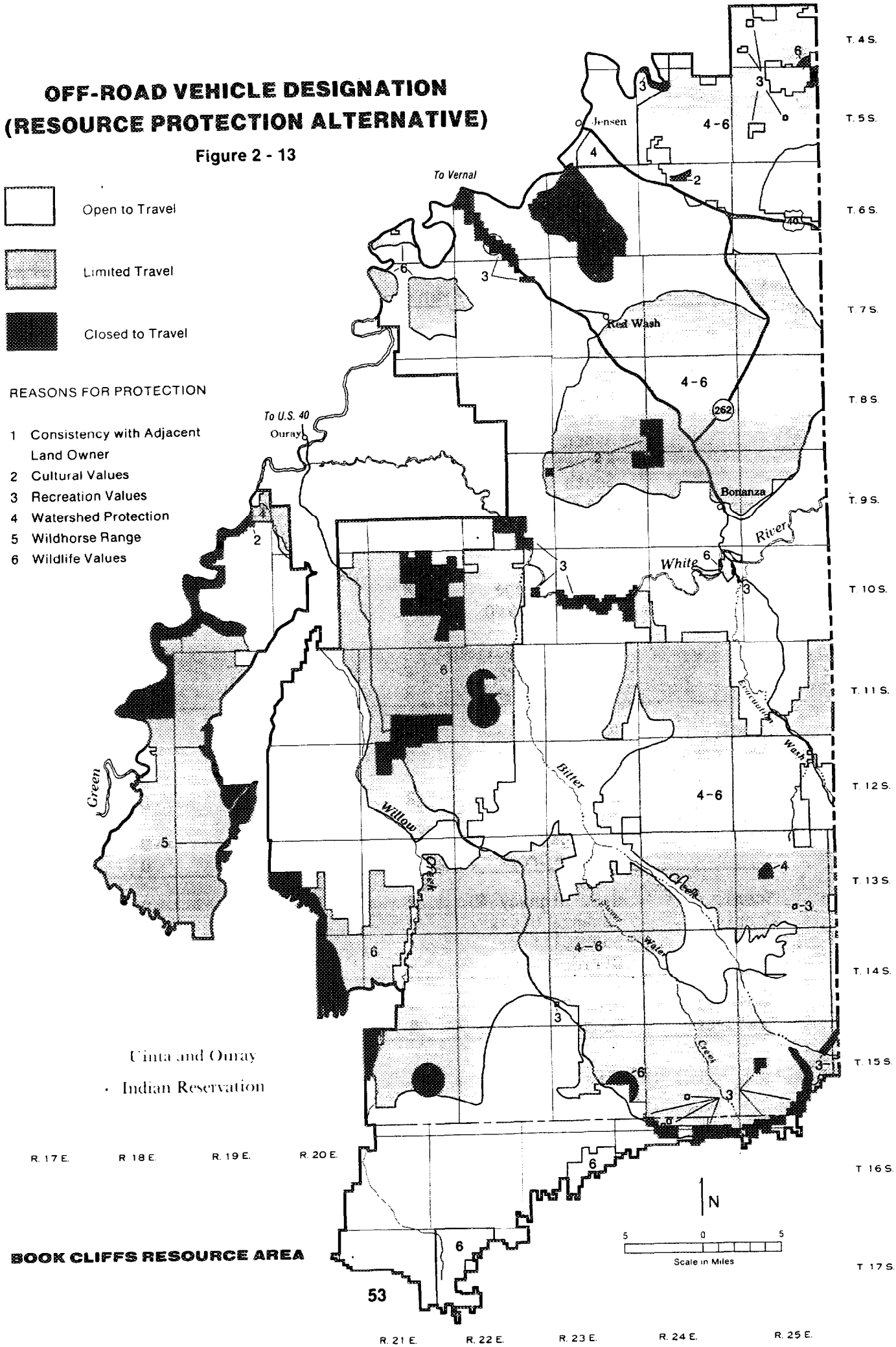
Seeding of detention-retention dams, utilizing runoff diversion structures and retention ponds where mineral development disturb the surface, would minimize adverse impacts to soils. Additionally, special restrictions such as seasonal shutdowns in severe and critical erosion areas, would decrease soil loss.

Fire Management

A program of modified wildfire suppression would be utilized on 965,500 acres, where control would be difficult or where other significant resource values would not be at risk of being damaged. At the discretion of the Resource Area Manager, wildfires could be allowed to burn until self extinguished or until significant resource values could be jeopardized.

OFF-ROAD VEHICLE DESIGNATION (RESOURCE PROTECTION ALTERNATIVE)

Figure 2 - 13



BOOK CLIFFS RESOURCE AREA

Table 2-2
MANAGEMENT ALTERNATIVES-RECREATION ACTIONS
Hunter Camps, Scenic Overlooks, Sightseeing

LEGEND: R=Retained; D=Dropped; P=Proposed

		Alternatives			
Type of Site	Name of Site	Current Management	Resource Protection	Commodity Production	Balanced Use
Hunter Camps	PR Spring	R	R	R	R
	Hide Out	R	R	R	R
	Chicken Spring	R	R	R	R
	Book Cliffs Rim	R	R	R	R
	Aspen Hollow	R	R	D	D
	Atchee Ridge	R	R	D	R
	South Canyon	R	R	D	D
	Lee Canyon	R	R	D	D
	Point of Pines	R	R	D	D
	Seep Ridge	R	R	D	D
	Meadow Ridge	R	R	D	D
	Willow Canyon	R	R	D	D
	Flat Rock (Massey Junction)	R	R	D	D
	Lower McCook	R	D	D	D
	Winter Ridge	R	D	D	D
Scenic Overlooks	Point of Pines	R	R	R	R
	Grand Valley	R	R	D	D
	Doc Valley	R	R	D	D
	Split Mountain	R	R	D	D
	Musket Shot Springs	R	R	D	R
	Willow Creek	R	R	D	D
Scenic Corridors	U.S. Highway 40	R	R	D	R
	Bonanza Highway	-	D	P	P
	Book Cliffs Divide	-	D	P	P
Geologic Features	Duck Rock	-	P	P	P
	Fantasy Canyon	R	R	R	R

Land Tenure Adjustment

Lands proposed for acquisition are shown in Figure 2-14.

COMMODITY PRODUCTION ALTERNATIVE

Leaseable Minerals

Oil and Gas.

Approximately 35,000 acres would require special mitigation (Category 2) for sage grouse leks, floodplains and wetlands, public water reserves, perennial streams, the Green River from Dinosaur National Monument to Sand Wash, the White River ***Corridor, four campgrounds, one scenic overlook, and two geologic features (refer to Appendix 4).*** Approximately 3,000 acres of key recreation areas including the Green River from Sand Wash to Tabyago would be protected from surface occupancy (Category 3). Refer to Figure 2-15. The remaining lands, 989,000 acres, would be available for lease under Category 1. No land would be withheld from leasing ***except for the Naval Oil Shale Reserve.***

Oil Shale.

Approximately 84,000 acres would be available for lease for underground mining and 14,000 acres, for in situ development (Figure 2-16). Four tracts consisting of approximately 21,000 acres could be located within these areas after implementation of the RMP. Scheduling for tract delineation and size of potential tracts would be the same under this alternative as are discussed in the Resource Protection Alternative.

Additional exploration drilling data on approximately 33,000 acres outside known oil shale lease areas would be required before a competitive leasing program would be developed.

Tar Sand.

Areas in Category one and two (Figure 2-17) would be administered according to standard laws and regulations (refer to Appendix 4 for more discussion).

Additional special mitigation would be required for public water reserves, perennial streams, sage grouse leks, and three campsites.

Such mitigation would be developed during an environmental analysis of a specific proposed mining project. Mitigation could include such things as substitute habitat replacement prior to project initiation. These areas would total approximately 4,000 acres.

Surface occupancy would not be precluded for any areas.

Leases would not be issued within the Naval Oil Shale Reserve.

Salable Minerals

Sand and Gravel.

Sales could be conducted to meet demand on areas having sand and gravel deposits (Figure 2-18). Where application is made for sand and gravel disposal outside the identified areas, sales would be conducted on a case-by-case basis. Approximately 12,500 acres of land would be designated as potential sand and gravel disposal sites along the Green and White Rivers and south of Blue Mountain.

Mitigation would be the same as for the Current Management Alternative.

Building Stone.

Collection and use of the stone in the in situ oil shale area could be accomplished prior to oil shale development construction through permit stipulations.

Right-of-Way Corridors

The 330 miles of corridors consisting of 174,000 acres proposed for this alternative have been identified after considering industry's needs and other resource values. The proposed corridors for this alternative are shown in Figure 2-19. Applications for rights-of-way and corridors outside of designated corridors would be considered individually.

Forage

Forage related actions for this alternative are outlined by allotment in Appendix 5 (Forage Actions by Alternative) and Figure 2-20.

Grazing Practices.

Under this alternative, emphasis would be placed on maximizing livestock production. It would be achieved through revision and implementation of existing AMPs and development and implementation of new AMPs or grazing systems. The new AMPs would be developed primarily on "I" allotments. Current management practices would be continued on a number of "M" allotments i.e., allotments where conditions are satisfactory, the potential for improvement is minimal and significant conflicts would not occur.