

SPECIAL EMPHASIS AREAS

Existing special emphasis management areas within the Diamond Mountain Resource Area fall into the following categories: suitable river segments previously identified as suitable for designation into the National Wild and Scenic River System (NWSRS); Wilderness Study Areas; and Areas of Critical Environmental Concern and other special emphasis areas.

WILD AND SCENIC RIVERS

Currently, there are no designated Wild and Scenic Rivers within the resource area.

The upper Green River flows between Flaming Gorge Dam and the Utah-Colorado state line, a distance of approximately 30 miles. In 1980, an interagency team analyzed the upper Green River and recommended it suitable for designation as a scenic river under the criteria established by the Wild and Scenic River Act (National Park Service, 1980). No further action has been taken by the Secretary of Interior on this recommendation.

The middle and lower Green River segments flow between the southern boundary of the Dinosaur National Monument near Jensen, Utah, down to the southern boundary of the resource area at the Uintah-Carbon county line, a distance of approximately 102 miles. These segments have been determined eligible for designation into the NWSRS. A preliminary analysis suggests the middle Green River segment between Dinosaur National Monument and the public land boundary north of Ouray, Utah, meets the criteria for a recreational river, and the lower Green River segment between the public land boundary south of Ouray and the Carbon County line, a scenic river.

All three of these river segments are currently being managed to protect the identified outstandingly and/or remarkable values for waters eligible for further study as a wild and scenic river. In addition, two segments of Nine Mile Creek and one segment of Argyle Creek has been determined eligible for designation (refer to Map 3-29).

Argyle Creek and the upper segment of Nine Mile Creek have been assigned preliminary classification as Recreational Rivers, while the lower Nine Mile segment received a Scenic preliminary classification.

The above river segments are being managed to protect the outstandingly remarkable values that make them eligible for designation. Refer to Appendix 7 which explains the eligibility determination process and

summarizes the eligibility determinations made for the Diamond Mountain Resource Area.

All eligible river segments are further analyzed in this document to determine if they are suitable for designation into the NWSRS. A summary of the suitability assessment is included in Appendix 7.

- Diamond Breaks WSA (3,940 federal acres within Utah) will be recommended as suitable for wilderness designation.
- West Cold Spring WSA (3,300 federal acres within Utah) will be recommended as nonsuitable for wilderness designation.

Both areas are being managed under the Interim Management Guidelines for WSAs until a final designation is made by Congress.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

DMRA presently has two designated Areas of Critical Environmental Concern (ACECs)—the Green River Scenic Corridor and Red Creek Watershed. These areas were established in the Browns Park Management Framework Plan and designated as ACECs by *Federal Register* notice dated March 7, 1984. Another area, Red Mountain, was evaluated and determined in the Ashley-Duchesne Management Framework Plan to meet the criteria required for ACEC designation; however, it was not designated. Other areas were identified in the existing planning documents for special management consideration. None of these areas were designated as ACECs; however, special management considerations were made for these areas (refer to Map 3-30).

Green River Scenic Corridor

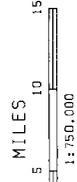
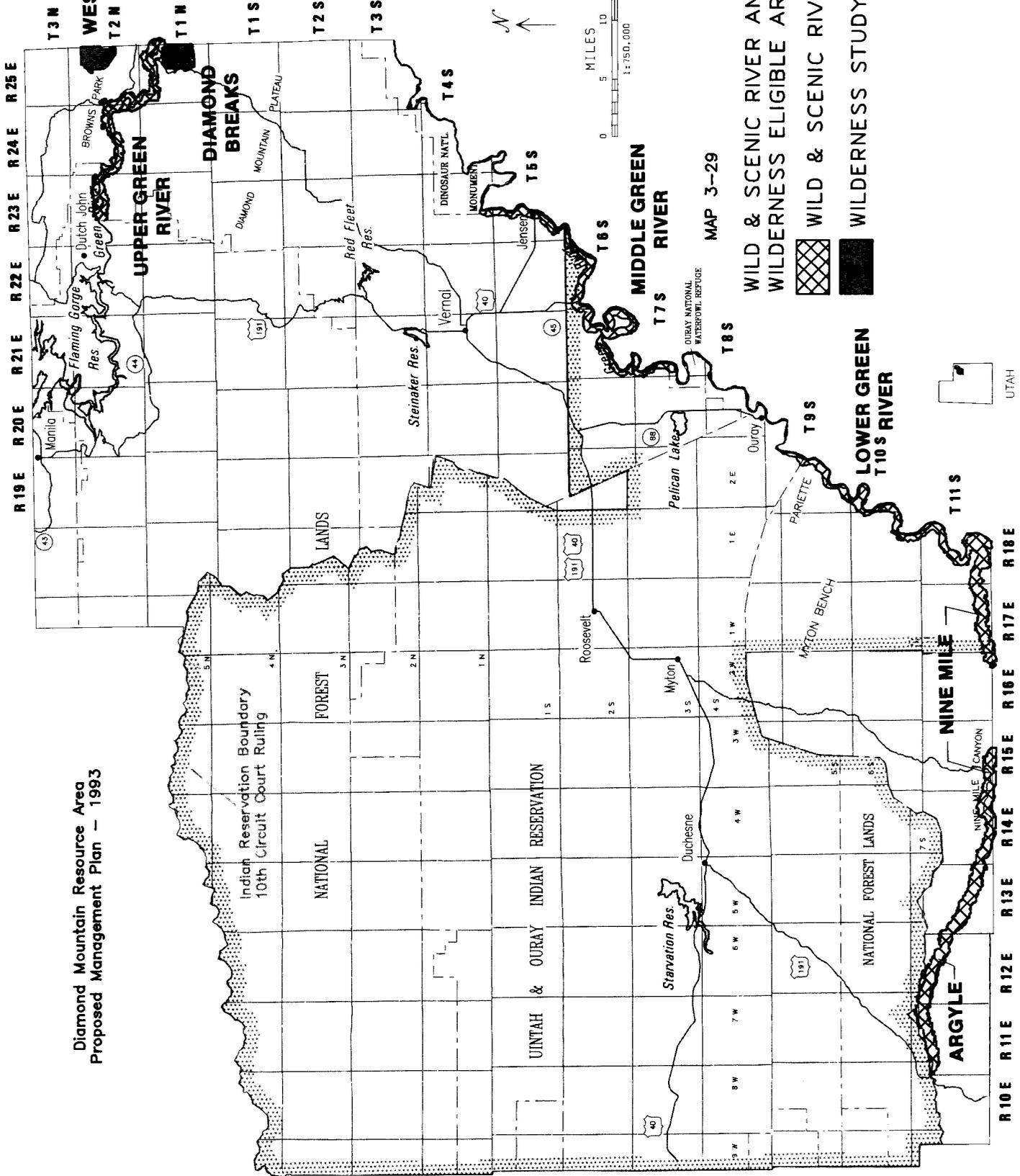
This ACEC contains approximately 19,400 federal acres. The boundary is defined as within line-of-sight or 2 miles from the river bank, whichever is closer (BLM, 1984a). It was designated to support the BLM recommendation to designate the Green River in Browns Park as a scenic river in the Wild and Scenic River System, giving primary management emphasis to scenic, historic, archeological, biological, and scientific values of the area.

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WEST COLD SPRINGS

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	32	33	34	35
36				

SECTIONED TOWNSHIP



MAP 3-29

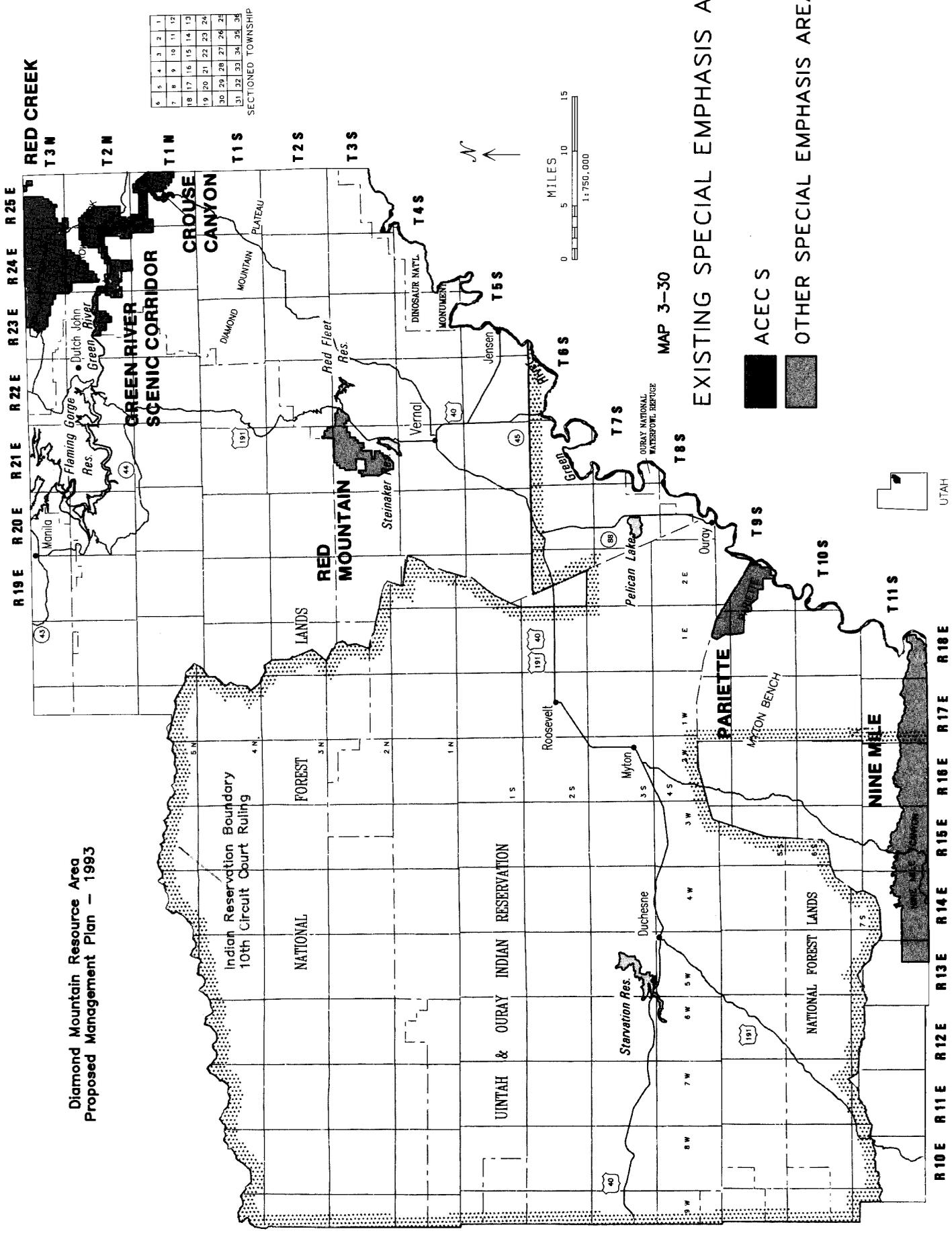
**WILD & SCENIC RIVER AND
WILDERNESS ELIGIBLE AREAS**



**WILD & SCENIC RIVER ELIGIBLE
WILDERNESS STUDY AREAS**



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6	5	4	3	2	1
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

SECTIONED TOWNSHIP

MAP 3-30

EXISTING SPECIAL EMPHASIS AREAS

ACECS
 OTHER SPECIAL EMPHASIS AREAS

Red Creek Watershed

This ACEC contains approximately 24,400 federal acres in Utah. It is a topographic extension of the Wyoming Red Creek Watershed ACEC, which contains the headwaters and majority of the watershed. This watershed's naturally fragile soil structure and susceptibility to erosion declared a need for special management emphasis.

WILDERNESS STUDY AREAS

The resource area contains 2 Wilderness Study Areas (WSAs): West Cold Spring and Diamond Breaks (refer to Map 3-29). These areas are natural topographic extensions from WSAs of the same name in Colorado. They were inventoried in 1980 by the Little Snake Resource Area (LSRA), Craig District, Colorado. Decisions regarding these WSAs were made by LSRA in their Resource Management Plan and Record of Decision (BLM, 1989b).

OTHER SPECIAL EMPHASIS AREAS

Crouse Canyon

This 600-acre canyon on Diamond Mountain was identified as having potential as an "Outstanding Natural Area" due to its high quality scenic characteristics and riparian values. The Browns Park Management Framework Plan (BLM, 1981) protected the canyon from "adverse uses" until a study could determine the suitability of the canyon for ONA designation.

Nine Mile Canyon

The 1984 Ashley-Duchesne MFP made several decisions concerning the management of Nine Mile Canyon. These decisions recognized the regional, if not national, importance of the cultural resource values contained within approximately 48,000 acres of the canyon. Management of the canyon was designed to protect cultural resources by avoiding placement of new roads, rights-of-way, energy-related development, or land exchange actions.

Pariette Wetlands

The 1984 Ashley-Duchesne MFP provided management direction for the 9,000-acre wetlands area. Mineral exploration and development and livestock grazing were restricted to protect the floodplain and enhance waterfowl and special status species habitats.

Red Mountain

This nomination contained approximately 8,500 acres. This area was evaluated and found to exhibit a "...unique combination of geologic, vegetation, wildlife, and prehistoric cultural values" worthy of special management (BLM, 1984a). The final MFP decision regarding this nomination did not designate an ACEC; however, the decision directed the area be managed to provide protection and enhancement of Red Mountain's identified special features.

VEGETATION

THE ROLE OF FIRE

One of the most significant factors in the present distribution and condition of vegetation communities within the resource area is the use and management of fire. Since the early 1900s, fire has been suppressed to protect natural resources and public safety. During the period 1980-1990, the resource area annually averaged 13 wildfires with an average size of 76 acres, due primarily to aggressive suppression strategies. Full suppression practices have led to pinyon-juniper woodland expansion into areas of historical brush and grassland, and sagebrush deterioration in areas throughout the resource area. This situation, in certain areas, has contributed to the degradation of watershed resources and lessened the size and value of crucial wildlife habitat (Wright et al., 1979).

PRESENT VEGETATION ZONES

Patterned after the work of Cronquist et al., (1972), DMRA is floristically categorized into four broad vegetation zones: shadscale, sagebrush, pinyon-juniper woodlands, and conifer forest (refer to Map 3-31). Further gradations within these ecological zones, or major vegetation communities, are quite common, making absolute delineations of specific zones impossible. Table 3-20 provides a summary of these zones and their federal acreages (refer to the riparian section discussed previously for a discussion of the vegetation associated with riparian ecosystems).

Shadscale Zone

This zone, characterized by numerous saltbush species typical of a cold desert environment, receives less than 8 inches of precipitation annually. The elevation range for this zone extends from 4,800 feet to approximately 6,000 feet, and includes highly saline soils. This zone is significant as it provides important winter and early spring

habitat for antelope. It demands management of watershed and water quality values due to the lack of vegetation cover and overall poor soil development. Historically this zone has provided significant winter and spring forage for domestic sheep and cattle. The Myton Bench oil and gas development region lies mostly within this zone.

**TABLE 3-20:
VEGETATION ZONES WITHIN DMRA**

VEGETATION ZONE: MAJOR COMMUNITY	FEDERAL ACRES	PERCENT OF RESOURCE AREA
Shadscale	130,000	18
Sagebrush:		
Black Sage	144,200	20
Wyoming Sage	160,750	23
Mountain Sage	103,500	14
Pinyon-Juniper Woodlands	110,500	16
Conifer Forest	25,300	4
Riparian	15,650	2
Badlands/Rock Outcrop	9,100	3
Total	709,000	100

Source: DMRA files

The potential for success of any vegetation treatment, including revegetation following surface disturbance, is marginal for this zone. The limiting factors are poor soil development and a harsh, desert climatic regime. Small, scattered inclusions of deep and well developed soils afford a site-specific opportunity for vegetation improvement or rehabilitation success.

Sagebrush Zone

This zone comprises the largest vegetation component of the resource area, and includes the following communities: black sagebrush, Wyoming big sagebrush, and mountain big sagebrush-mountain browse. This zone extends from desert to mountain climatic regimes, and falls within a precipitation zone averaging 8 to 20 inches of annual precipitation. This zone ranges in elevation from 5,000 to 10,000 feet.

This zone, due to its ecological makeup and extensive size within the resource area, is significant for several reasons. It provides important and crucial habitat for antelope, deer, elk, sage grouse, and numerous small game and nongame species. It provides the majority of the allocated livestock forage. It also affords good opportunities for success with vegetation treatments, principally within the Wyoming and mountain sagebrush-browse communities.

Pinyon-Juniper Woodland Zone

Pinyon-juniper woodlands outline a vegetation band following the general elevation of 6,000-8,000 feet.

Understories within this zone range from nearly bare ground to black sagebrush or mountain sagebrush-browse communities. In the Nine Mile Canyon area, an association has formed with the Conifer Forest Zone, where pinyon and juniper fill in the understory components.

This zone provides a broad range of important resource management challenges. On woodland sites lacking an adequate understory, potential soil erosion hazards are a major concern. Sites having a more open vegetation pattern, allowing for sagebrush openings and other understory development, provide important habitat for big game species and livestock. Archeological artifacts occur more frequently in or at the edges of this zone than any other (West, 1989). This zone also provides a historic source of firewood and fence post materials for the residents of the area.

The potential for vegetation treatment success within this zone depends primarily on the microenvironment associated with a specific project area. Irregular-sized prescribed burns, averaging approximately 150 acres per year per project, have increased vegetation diversity and productivity and improved overall community vigor.

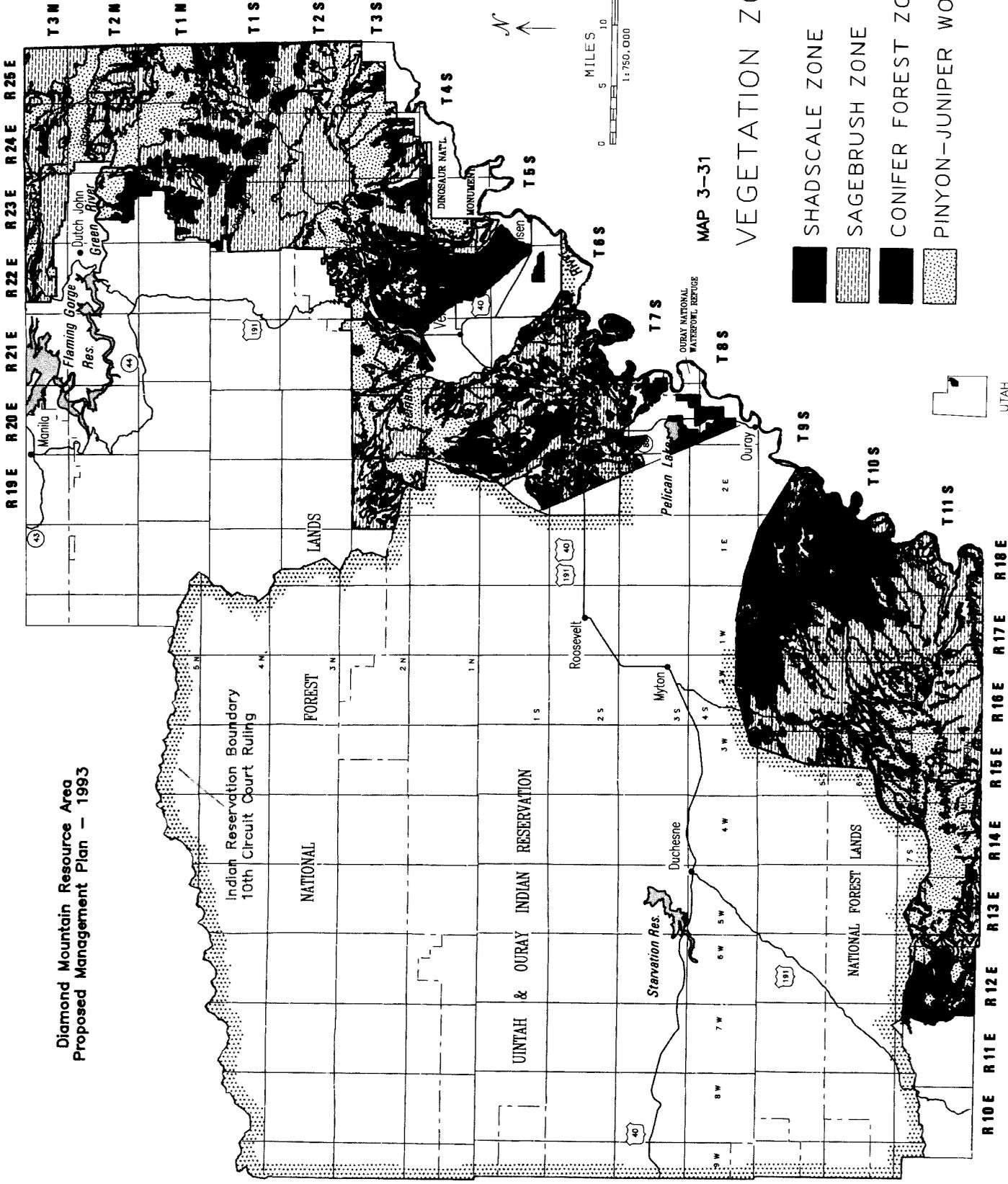
Conifer Forest Zone

This zone includes the vegetation communities occurring at 7,500 -10,500 feet, the highest elevations within the resource area. It is restricted to generally steep slopes, cooler temperatures and the moister microclimates. The zone is scattered on favorable sites within the Three Corners Mountains, Diamond Mountain, and West Tavaputs Plateau in the Nine Mile Canyon area.

Aspen, ponderosa (western yellow) pine, Douglas fir-subalpine fir and fir-spruce communities are included in this zone. Generally these communities do not occur in sufficient abundance to be commercially valuable. They do provide a vital watershed service by functioning as natural snow fences and slowing spring snowmelt to an even, less damaging flow (West, 1989).

Elk and deer use these communities for shade and cover during the summer. The more open ponderosa "parks" contain an understory providing a variety of forage and cover for these big game species, as well as a variety of small game and nongame species. Domestic cattle also use these communities for summer shade and grazing.

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7	8	9	10	11	12
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SECTIONED TOWNSHIP



MAP 3-31

VEGETATION ZONES

-  SHADSCALE ZONE
-  SAGEBRUSH ZONE
-  CONIFER FOREST ZONE
-  PINYON-JUNIPER WOODLAND ZONE

R 10E R 11E R 12E R 13E R 14E R 15E R 16E R 17E R 18E

R 19E R 20E R 21E R 22E R 23E R 24E R 25E

T 3N

T 2N

T 1N

T 1S

T 2S

T 3S

T 4S

T 5S

T 6S

T 7S

T 8S

T 9S

T 10S

T 11S

UTAH

However, the steep slopes, associated especially with the mixed conifer community in the Nine Mile Canyon area, restrict cattle movement to the narrow drainage floors. The small, scattered locations of this zone, coupled with poor soil development, are the main constraints to any vegetation treatment.

Badlands

Filling in the gaps in this vegetation picture are scattered inclusions known as "badlands" and outcrops of bedrock. These areas are not completely devoid of vegetation; however, they are mostly considered unproductive. Typical areas include the very steep slopes of the Badland Cliffs between Gate Canyon and the Green River. These areas are not considered suitable for vegetation treatment.

SPECIAL VEGETATION PROGRAMS

Undesired Plant Species

Within these broad vegetation zones, specific circumstances combine to create conditions favorable for either undesired plant species or special status plant species.

Usually, areas dominated by undesired plant species are directly associated with surface-disturbing activities, where vegetation has been totally or significantly removed, or areas where the seed source is so prevalent as to out-compete the existing vegetation. An example of this latter situation is the pervasive presence of whitetop along the Green River. In certain areas, this situation has prevented the riparian species vegetation community from reaching its desired native composition. The resource area has identified approximately 850 public acres as needing treatment (BLM, 1988a). Table 3-21 provides a list of undesired plant species within the resource area.

Native poisonous plants are common throughout the rangelands of the resource area generally in insufficient concentrations to pose a significant threat to humans or livestock. An exception is halogeton, a poisonous introduced species generally not treated due to the nearly unlimited seed source.

Special Status Plant Species

As of July 1990, DMRA has 14 federal special status plant species. There are no plant species listed by the State of Utah as threatened, endangered, or sensitive within the resource area. These species can be considered rare from a population perspective (low total numbers) and/or habitat perspective (extremely restricted habitat). Table

**TABLE 3-21:
UNDESIRABLE PLANT SPECIES
OCCURRING WITHIN DMRA**

COMMON NAME	SCIENTIFIC NAME	COMMENTS
Tall or giant whitetop	<i>Lepidium latifolium</i>	State noxious
Whitetop	<i>Cardaria draba</i>	State noxious
Black henbane	<i>Hyoscyamus niger</i>	State noxious
Silverleaf nightshade	<i>Solanum elaeagnifolium</i>	State noxious
Quackgrass	<i>Agropyron repens</i>	State noxious
Field bindweed or morning glory	<i>Convolvulus arvensis</i>	State noxious
Leafy spurge	<i>Euphorbia esula</i>	State noxious
Russian knapweed	<i>Centaurea repens</i>	State noxious
Spotted knapweed	<i>C. maculosa</i>	State noxious
Squarrose knapweed	<i>C. squarrosa</i>	State noxious
Diffuse knapweed	<i>C. diffusa</i>	State noxious
Yellow star thistle	<i>Centaurea solstitialis</i>	State noxious
Musk thistle	<i>Carduus nutans</i>	State noxious
Scotch thistle	<i>Onopordium acanthium</i>	State noxious
Russian Olive	<i>Elæagnus angustifolia</i>	Uintah/Duchesne County noxious
Bullthistle	<i>Cirsium vulgare</i>	Non-palatable
Toadflax	<i>Linaria spp.</i>	Non-palatable
Buffalo-burr	<i>Solanum rostratum</i>	Non-palatable
Common cocklebur	<i>Xanthium strumarium</i>	Non-palatable
Common crupina	<i>Crupina vulgaris</i>	Non-palatable
Poverty weed	<i>Iva axillaris</i>	Non-palatable
Whorled or poison milkweed	<i>Asclepias subverticillata</i>	Poisonous
Low larkspur	<i>Delphinium nuttallianum</i>	Poisonous

Source: BLM, 1988a

3-22 provides a summary of these species and their current status. There is one existing recovery plan; for the federally threatened *Sclerocactus glaucus* (USF&WS, 1990c).

ECOLOGICAL CONDITION

Ecological conditions for the vegetation resource have been categorized into four broad ecological stages (seral stages), relating current vegetation compositions to a standardized ecological site description of the climax community's composition. For example, if less than 25 percent of the theorized climax community was present, then an ecological rating of "early seral" was assigned; if

between 26-50 percent, then a "mid-seral" stage was assigned, etc. Public lands not falling into one of these ecological stages (e.g., badlands), or where inventory data is lacking, were included in the "undetermined" category. Table 3-23 provides a summary of the present ecological condition for the vegetation resource on public lands within the resource area. (Refer to Appendix 8 for a breakdown of ecological condition by grazing allotment).

management decisions. Table 3-24 and Map 3-32 summarize and depict VRM information for the resource area.

**TABLE 3-23:
ESTIMATED ECOLOGICAL CONDITION BY
VEGETATION ZONE AND COMMUNITY**

ZONE/ COMMUNITY	SERAL STAGE (% FEDERAL SURFACE ACRES)				PER- CENT UNDE- TER- MINED
	EARLY	MID	LATE	CLIMAX	
Shadscale Zone	7	71	20	0	2
Sagebrush Zone:					
Black Sagebrush	4	67	28	0	1
W. Big sagebrush	5	69	23	1	2
M. Big sagebrush	3	49	43	2	3
Pinyon-Juniper Zone	6	68	20	1	5
Montane Zone:					
Aspen	0	65	35	0	0
Mixed Conifer	1	56	37	4	2
Wetlands/Riparian	25	54	21	0	0
Badlands	1	18	2	0	79

Source: DMRA files

The objective of VRM Class I is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

Class II's objective is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

The objective of Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Class IV's objective is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the

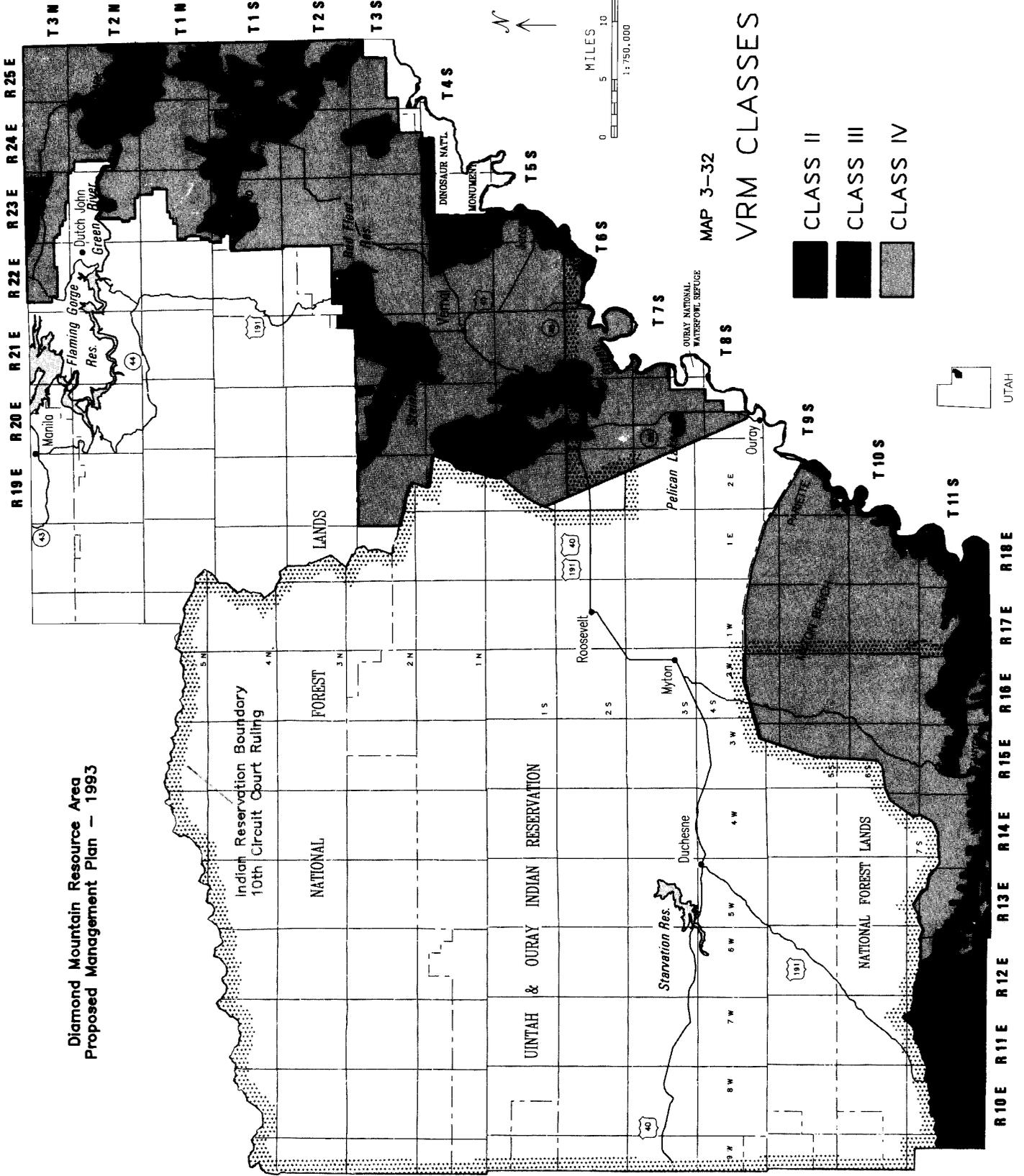
**TABLE 3-22:
SPECIAL STATUS PLANT SPECIES OCCURRING
OR HAVING POTENTIAL WITHIN DMRA**

COMMON NAME	SCIENTIFIC NAME	STATUS	ACRE- AGE
Park Rock Cress	<i>Arabis vivariensis</i>	C2	Unk.
Horseshoe Bend milkvetch	<i>Astragalus equisolensis</i>	C1	13
Hamilton milkvetch	<i>A. hamiltonii</i>	C2	200
Owenbey's thistle	<i>Cirsium owenbeyi</i>	C2	90
Unterman's fleabane	<i>Erigeron untermannii</i>	C2	20
Barnaby's pepper cress or ridge cress	<i>Lepidium barnabyanum</i>	E ⁴	Unk.
Flowers penstemon	<i>Penstemon flowersii</i>	C2	Unk.
Gibbens beardtongue	<i>P. gibbensii</i>	C2	Unk.
Goodrich's beardtongue	<i>P. goodrichii</i>	C2	Unk.
Graham's beardtongue	<i>P. grahamii</i>	C1	Unk.
Clay reed-mustard	<i>Schoenocrambe argillacea</i>	T ⁵	Unk.
Toadflax cress	<i>S. suffrutescens</i>	E ¹	1,120
Uinta Basin hookless cactus	<i>Sclerocactus glaucus</i>	T ³	45,950
Ute ladies' tresses	<i>Spiranthes diluvialis</i>	T ²	20
E=Endangered; T=Threatened; 1C, 2C,=Special status category. See glossary for definition of these terms and their significance.			
1/ 52 FR 37420; dated October 6, 1987			
2/ 57 FR 1403; dated January 14, 1992			
3/ 44 FR 58870; dated October 11, 1979			
4/ 55 FR 39860; dated September 28, 1990			
5/ 57 FR 2053; dated January 17, 1992			

VISUAL RESOURCE MANAGEMENT

Classifying visual resources requires three determinations: scenic quality, visual sensitivity, and distance from an identified observation point. VRM classes are the result of combining these identified values into four visual categories usable as the basis for visual input into

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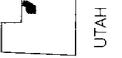
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SECTIONED TOWNSHIP

MAP 3-32

VRM CLASSES

-  CLASS II
-  CLASS III
-  CLASS IV



UTAH

R 10E R 11E R 12E R 13E R 14E R 15E R 16E R 17E R 18E

major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

WOODLANDS

Forest products within DMRA consist primarily of pinyon and juniper woodland species. Some areas on Diamond Mountain and in the drainages into Argyle and Nine Mile Canyons support other forest species such as Douglas fir, ponderosa (western yellow) pine, and aspen (refer to Map 3-33). Cottonwood is relegated to the area's perennial streams and the Green River.

Pinyon and juniper species cover approximately 183,000 public acres (this figure differs from that presented in Table 3-24 because of the large amount of scattered pinyon and juniper trees which are harvestable, but are not included in the pinyon-juniper vegetation zone). They exist in sufficient concentrations (>350 cubic feet per acre) to be of significance to the woodland program. Of this total, 78,000 acres are of commercial value (>700 cu. ft./ac.) and capable of being managed on a sustained yield basis. This amounts to an average annual production of 8,500 cords of wood each year. However, the average allowable firewood cut would be substantially less than this amount because of restrictions placed on woodland sales by other resources. The remaining 105,000 acres are harvestable for woodland products such as fuelwood and fence posts. They are not productive enough to manage for sustained yield.

Harvesting could prevent their return to a woodland site. Other forest species cover 84,000 acres. None are of commercial value and should only be managed to protect the health and vigor of the species.

FUELWOOD

Historically, pinyon pine has been the preferred species for fuelwood. Recently, juniper has become more popular. Commercial fuelwood cutters will harvest both pinyon and juniper when growing in mixed stands. Most fuelwood has been harvested from chainings in the resource area. Over the last 25 years; however, most of the usable wood has been removed. Over the last five years, greenwood cutting has become popular. During the period 1985-89, 12,750 cords of fuelwood were sold.

FENCE POSTS

Trees suitable as fence posts are found on the more productive pinyon-juniper sites where soils are deep and well-drained. Locating them is difficult because of extraction over the last 60 years. Significant numbers of posts exist only in remote, often inaccessible areas.

Approximately 1,300 posts have been sold during the last half of the 1980s.



OTHER WOODLAND PRODUCTS

Good quality Christmas trees are rare within the resource area; however, in the past five years, 560 Christmas tree permits were sold.

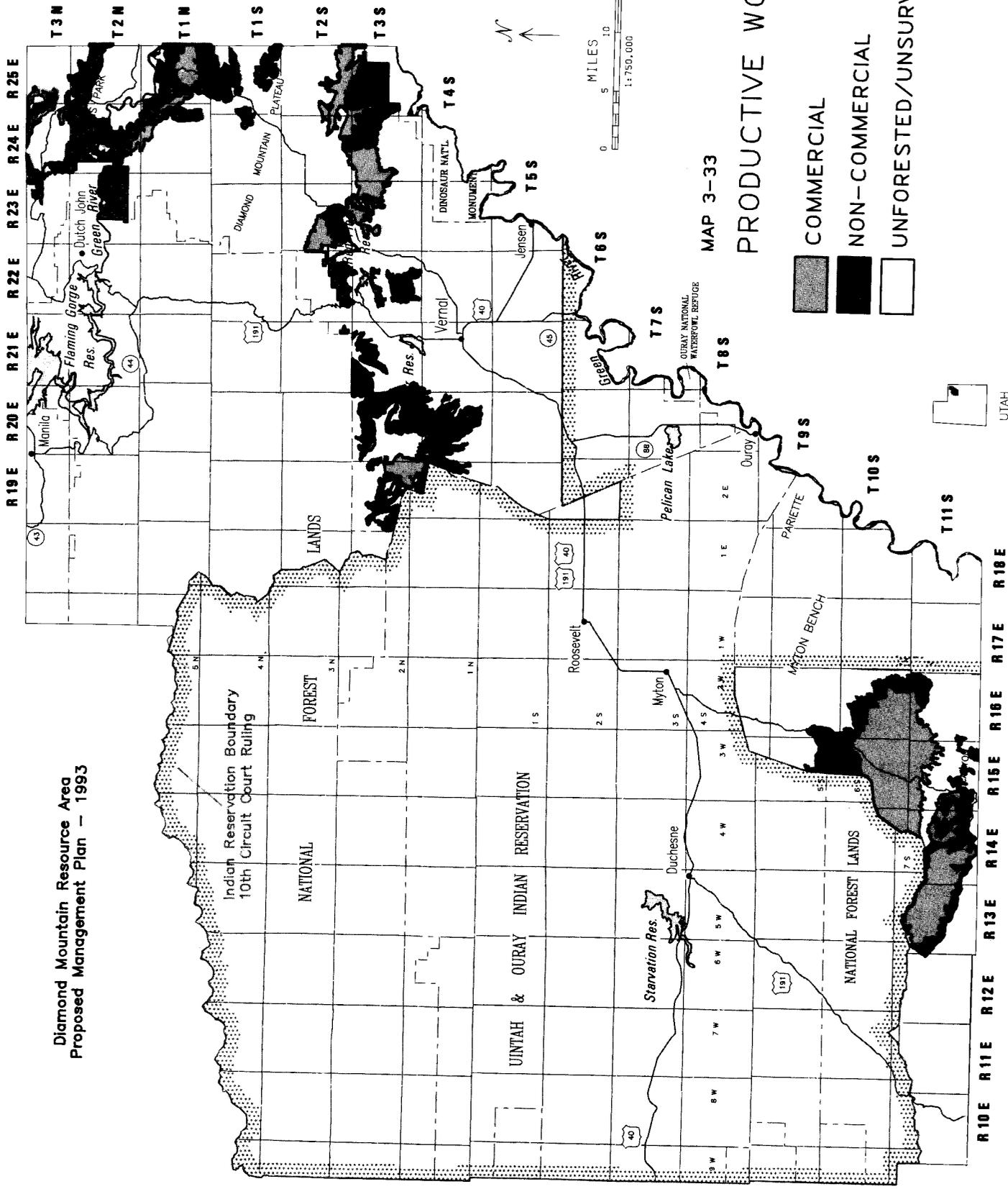
There is a limited demand in the resource area for live cactus, shrubs, trees, and seeds. When the crop is sufficient, pinyon nuts are collected. Some grass or browse species seed are commercially harvested if a crop is particularly outstanding.

**TABLE 3-24:
VISUAL RESOURCE
MANAGEMENT CLASSES**

CLASS	ACRES	% OF RESOURCE AREA
Class I	0	0
Class II	60,000	9
Class III	137,000	19
Class IV	512,000	72
Total	709,000	100

Source: DMRA files

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SECTIONED TOWNSHIP



MAP 3-33

PRODUCTIVE WOODLANDS

-  COMMERCIAL
-  NON-COMMERCIAL
-  UNFORESTED/UNSURVEYED AREAS

