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SHIVWITS RESOURCE AREA IMPLEMENTATION PLAN FOR THE ARIZONA STRIP DISTRICT APPROVED RESOURCE MANAGEMENT PLAN



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SHIVWITS RESOURCE AREA

IMPLEMENTATION PLAN FOR THE ARIZONA STRIP DISTRICT RESOURCE MANAGEMENT PLAN

U.S. Department of the Interior
Bureau of Land Management

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Dear Reader:

The document accompanying this letter includes the Approved Record of Decision for the Arizona Strip District Resource Management Plan and Implementation Plan for the Shivwits Resource Area. The Record of Decision, signed on January 31, 1992, was previously issued to the public, and is reprinted in its entirety in Section I of this Plan.

Following completion of the District's Resource Management Plan, two Implementation Plans were developed. One for the Shivwits Resource Area, and one for the Vermillion Resource Area. The purpose of this was to more closely link the decisions made in the Resource Plan with the District's Resource Areas where on-the-ground implementation will take place.

The decisions made in the Resource Management Plan are shown in Section II by Resource. Also included is a section discussing implementation priorities by geographic area within the Resource Area. The final section discusses how implementation progress will be monitored.

Each year a progress report will be issued listing completed, or partially completed decisions. In addition, an updated schedule will be shown listing decisions for the upcoming fiscal year and planned decision implementation for up to four additional years.

I again wish to thank all of you who have participated in this planning effort and encourage you to keep in touch. Any comments or suggestions are always welcomed.

Sincerely,

Raymond D. Mapston

Raymond D. Mapston
Acting District Manager

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SECTION I
RECORD OF DECISION

SECTION I
RECORD OF DECISION

INTRODUCTION

This Record of Decision documents approval of the Arizona Strip District Resource Management Plan (RMP.) The approved plan supersedes the Shivwits and Vermillion Management Framework Plans completed in 1981 and 1974 respectively. However, some decisions in these plans have been included into this plan because they are valid and have not yet been fully implemented.

The record of decision describes the selected alternative, other alternatives considered, and rationale for adopting the selected alternative. The environmentally preferred alternative is also identified. The selected plan is nearly identical to the one set forth in the proposed plan and associated final environmental impact statement published in December 1990. All practicable means to avoid or minimize environmental harm have been incorporated into the approved plan.

One protest was received on the final Resource Management Plan during the 30 day protest period. This protest, from American Rivers, has been resolved. Conditions of the resolution are found under the Recreation section found on page three of this Record of Decision.

DECISION

Major decisions of the plan are summarized below. These decisions are more fully described in the Proposed Arizona Strip District Resource Management Plan and Final Environmental Impact Statement in Tables II-1 and II-2 and in the Appendices and Maps referenced. These decisions will also be further defined and separated by resource area in the forthcoming Shivwits and Vermillion Resource Area Approved Resource Management and Implementation Plans. Major decisions established by this plan approval are:

Lands

Make land ownership adjustments by acquiring isolated parcels of state and private lands and by disposing of isolated tracts of public lands.

Allow development of airports on public lands provided alternative sites have been adequately analyzed and public lands represent the most suitable site and the highest and best use of the land.

Designate two right-of-way corridors to facilitate future transmission needs.

Terminate unneeded withdrawals.

Minerals

Provide for surface reclamation to maintain naturalness and unique resource values by incorporating new reclamation stipulations and returning the land to multiple use.

Mining plans of operation would be required in Areas of Critical Environmental Concern and in closed off-highway vehicle areas.

Establish oil and gas leasing categories to protect resource values. These are:

Category A: Areas open to lease subject to standard terms and conditions.

Category B: Areas open to lease subject to seasonal restrictions.

Category C: Areas open to lease subject to no surface occupancy.

Category D: Areas closed to leasing.

Cultural

Designate six Areas of Critical Environmental Concern to concentrate management and further protect significant cultural values.

Manage most cultural sites for information potential; manage 35 sites for conservation and nine sites for public values.

Develop plans for cultural related Area of Critical Environmental Concern's and provide appropriate cultural input into development of Resource Conservation Areas.

Watershed (Soil, Water, and Air)

Develop watershed activity plans on seven new areas.

Ecological site inventory data and desired plant community objectives will be an integral part of these activity plans.

Establish an Area of Critical Environmental Concern in the Fort Pierce area to protect watershed and endangered plant values.

Provide constraints and management direction for three Resource Conservation Areas.

Designate public lands along the Virgin River as an Area of Critical Environmental Concern to protect riparian and recreation values, and the endangered woundfin minnow.

Forest/Woodland

Designate wood cutting areas for personal and commercial uses and develop woodland harvest plans.

Limit dead and down wood cutting to designated areas. Develop an activity plan to manage the districts ponderosa pine forests for the enhancement of other uses.

Rangeland/Grazing Management

Administer rangeland and grazing management activity in accordance with national guidelines, goals and initiatives and site specific objectives established for allotment management plans, Resource Conservation Areas, Areas of Critical Environmental Concern, and threatened and endangered species. The intent is to

manage and improve rangeland resources within the framework of multiple-use needs and objectives so they are productive for all existing uses.

Continue to focus on developing, implementing, monitoring and evaluating allotment management plans in conjunction with the allotment categorization priorities. Ecological site inventory data and desired plant community objectives will be an integral part of Allotment Management Plans.

Wildlife

Continue implementing and monitoring the six Habitat Management Plans that cover the district; amend these plans to be consistent with Resource Management Plan decisions. Ecological site inventory data and desired plant community objectives will be an integral part of these activity plans.

Designate two Areas of Critical Environmental Concern to protect the threatened desert tortoise, and endangered woundfin minnow and Virgin River chub.

Emphasize habitat monitoring/evaluation, population dynamics, maintenance of projects, and non-game species in habitat management plan revisions.

Provide wildlife development proposals and protective measures for the three Resource Conservation Areas.

Recreation

Manage the majority of the district for extensive undeveloped recreation.

Complete off-highway vehicle management plans, for designated areas.

Designate five special recreation management areas.

Recommend the Paria River as a Wild and Scenic River and study the Virgin River in conjunction with adjoining states to determine if it is suitable for designation.

Reconsider Kanab Creek for Wild and Scenic River eligibility in accordance with the protest resolution between the BLM and American Rivers, Inc., as summarized below.

1. The BLM agrees to re-evaluate the eligibility of Kanab Creek from the border of the Kaibab Indian Reservation to the Forest Service boundary for inclusion in the National Wild and Scenic River System, and further to determine the suitability for designation of Kanab Creek if it is determined to be eligible. The BLM will endeavor to coordinate its assessment with Forest Service and National park Service evaluations of the eligibility of Kanab Creek on lands administered by those agencies.

2. The BLM will complete the cooperative assessment of Kanab Creek at the earliest practical date, and if at all possible by the end of Fiscal Year 1992. The suitability study, if necessary, will be completed by the end of Fiscal Year 1994, or sooner, if practical.

3. Pending completion of the eligibility and evaluation and, if found eligible, the determination of suitability, Kanab Creek will be managed and protected in accordance with the standards and guidelines of

the agreement between the BLM and American Rivers, Inc. until final publication of the BLM Wild and Scenic Rivers Manual Section.

ALTERNATIVES CONSIDERED

Four alternatives for managing the resources were considered in the development of the plan: Alternative 1 (No Action), Alternative 2 (Preferred Alternative), Alternative 3 (Protection) and Alternative 4 (Commodity.) These alternatives were described and analyzed in the draft and final environmental impact statements.

The No Action Alternative emphasized a level of management similar to the current level. This alternative is required by the National Environmental Policy Act.

The Preferred Alternative (called the Proposed Plan in the final environmental impact statement) emphasized protection of fragile and unique resources and production and development of renewable and nonrenewable resources. This alternative was modified between the draft and final, reflecting public comments and new information.

Alternative 3 emphasized protection of natural settings and protection and enhancement of fragile and unique resources over the development and use of commodity resources. This alternative had large areas closed to off-highway vehicles and mineral development.

Alternative 4 emphasized development of commodity resources that generate or produce goods and services. This was sometimes accomplished at the expense of unique resource values and the natural unspoiled nature of the Arizona Strip.

ALTERNATIVES CONSIDERED, BUT ELIMINATED FROM DETAILED STUDY

A fifth alternative in addition to the four studied was considered, but not chosen for detailed study. This alternative involved a number of large areas withdrawn from mineral entry. The withdrawal areas covered much of the southern half of the district. This alternative was eliminated from study for two major reasons; first, the evaluation of the Preferred Alternative did not reveal any significant impacts and second, it was not consistent with the Bureau of Land Management's mission.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

Alternative 3 is the environmentally preferred alternative, providing the greatest protection from surface disturbing activities. Lands administered as Areas of Critical Environmental Concern are four times greater in this alternative; lands closed to off-highway vehicles are twice as large as other alternatives and lands subject to mineral exploration and development are the smallest in this alternative.

Alternative 3 is followed closely by the preferred alternative in providing environmental protection. Rather than eliminating uses in the preferred alternative, special management tools are used to provide environmental protection while allowing for uses to occur.

REASONS FOR DECISIONS

This decision is based on an evaluation of the alternatives to determine which one best provides quality on-the-ground resource management while resolving planning issues and meeting planning criteria

described in the draft and final plan. Of all the alternatives considered, the proposed plan best balances competing and conflicting resource needs and public desires as expressed in public meetings and comments on the draft plan.

ISSUE RESOLUTION

All of the alternatives provided multiple-use benefits while protecting environmental quality. Issues are treated differently, however in each alternative and each alternative resulted in varying degrees of issue resolution. While the selected alternative does not provide the highest resolution of several individual issues, it provides the highest overall resolution of issues. It is ranked first in resolution of the mineral production issue because it allows for mineral exploration and development on most lands with strict reclamation standards and requirements for mining plans in sensitive areas.

PUBLIC COMMENT

The Final Arizona Strip District Resource Management Plan reflects many small changes from the Draft Plan. Greater emphasis has been placed on clarifying management of ponderosa pine stands, wildlife habitat and livestock grazing.

The public was exposed to and commented on the Draft and Proposed Plan and associated Environmental Impact Statement in a number of ways. Over 450 people commented in writing on the Draft. In addition, numerous people attended a series of open houses or other meetings to express opinions or ask questions. Local news-papers also published articles about the plan.

CONSISTENCY

The plan is consistent with plans and policies of state and local governments, of other federal agencies, and of the Department of Interior and the Bureau of Land Management.

MITIGATION

The following mitigation requirements for maintenance and enhancement of environmental quality are incorporated into many of the plan decisions and the management guidance section for each resource discipline. A summary of proposed mitigating measures are:

Realty actions will be evaluated for the presence of threatened and endangered species, floodplain/flood hazards, riparian areas, water sources, prime and unique farmland, and significant cultural resources before deciding whether or not to transfer land.

Reclamation guidelines would be added to all surface disturbing activities directed towards maintaining naturalness and unique features and returning the area to multiple-use management (Appendix 5 in the Proposed Arizona Strip Resource Management Plan and Final Environmental Impact Statement.)

Management and protection of cultural resources is assured through standards and guidelines that provide compliance with the National Historic Preservation Act and the Archaeological Resource Protection Act.

Watershed and riparian management protection and enhancement are provided for through "Best Management Practices" and continued monitoring to assure compliance. This management will be

coordinated with Arizona Department of Environmental Quality, U. S. Fish and Wildlife Service, and Arizona Department of Game and Fish.

Potential impacts on special status species would be analyzed through National Environmental Policy Act compliance procedures. Protection measures would be stipulated in the environmental assessment decision record or in a biological opinion prepared by the U.S. Fish and Wildlife Service in accordance with the Endangered Species Act.

Visual quality is provided through the visual resource management guidelines. Additional standards and guidelines provide direction to maintain or enhance visual quality as an integral part of other activities.

Improved wildlife habitat, watershed condition and livestock forage condition will be achieved by establishing desired plant community objectives for various areas by using ecological site potentials.

Additional mitigating measures will be developed and applied to site-specific projects and future activity plans through the environmental review process.

IMPLEMENTATION

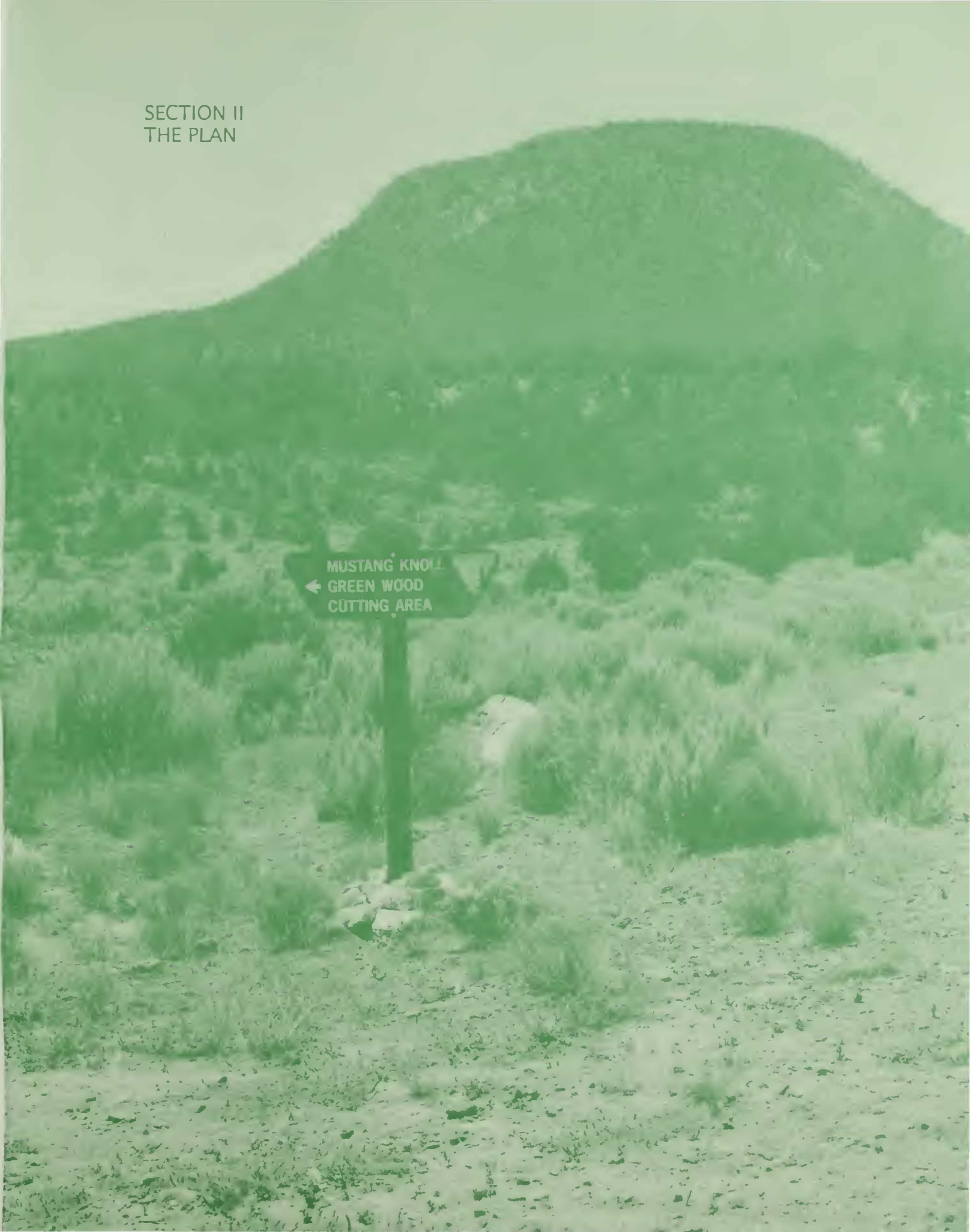
An Approved Resource Management Plan and Implementation Plan will be prepared following the issuance of this Record of Decision to establish schedules and budget proposals for implementing the plan. The implementation schedule describes actions to be accomplished in the next five-year period. The schedule will be reviewed and updated annually to maintain a five-year outlook.

Continued public participation will be encouraged during implementation. Opportunities for public participation will come through National Environmental Policy Act compliance procedures.

Appendix 4 of the Proposed Arizona Strip District Resource Management Plan and Environmental Impact Statement summarizes resource monitoring and evaluation. The purpose for monitoring is to evaluate whether the plan goals and objectives are being realized and to determine how effectively management decisions and guidelines are being applied. At specified intervals, monitoring and evaluation will measure progress of implementation and will help determine when amendments or revisions are needed.



SECTION II
THE PLAN



SECTION II

THE PLAN

RESOURCE MANAGEMENT PLAN DECISIONS

The following decisions were taken directly from the Resource Management Plan. They are listed by resource in alphabetical order. Some of the decisions were changed slightly for clarification, but the original intent of the decision was not altered. A number has been given to each decision for tracking purposes. Many of these decisions, such as the designation of Areas of Critical Environmental Concern and powerline corridors, have already been implemented with the approval of the Record of Decision. Other decisions will require expenditures of time and funding to implement over the life of the Resource Management Plan.

Program abbreviations:

CULTURAL RESOURCES= CL
FIRE MANAGEMENT = FM
FOREST/WOODLAND = FW
GRAZING MANAGEMENT = GZ
HAZARDOUS MATERIAL = HZ
LANDS & REALTY = LR
LAW ENFORCEMENT = LE
MINERALS = MI
OFF-HIGHWAY VEHICLES = OH
RECREATION = RR
RIPARIAN RESOURCE = RP
SPECIAL STATUS SPECIES = TE
TRANSPORTATION/ACCESS = TA
VISUAL RESOURCES = VR
WATERSHED = WS
WILD & SCENIC RIVERS = SR
WILDERNESS = WD
WILD, FREE ROAMING BURROS = BU
WILDLIFE = WL

CULTURAL RESOURCES

CL01 Develop and implement Shivwits Resource Area Cultural Resources Management Plan.

CL02 Classify and manage cultural resources in the Resource Area for (a) information potential, (b) conservation, and (c) public values. Appendix 6 lists guidelines for these objectives.

CL03 Manage the Areas of Critical Environmental Concern cultural sites located in each selected geographic region for conservation.

CL04 Manage Little Black Mountain, Honeymoon Trail and Temple Trail for public values.

CL05 Surface disturbing activities on public land will be reviewed for cultural values by a cultural resource specialist or a permitted archeologist hired by an applicant.

CL06 Continue ranger patrols of important cultural resource areas according to the Shivwits Resource Area Patrol Plan.

CL07 Designate approximately 200 acres at Little Black Mountain as an Area of Critical Environmental Concern and preserve its cultural values.

CL08 Initiate Class II inventory and develop a Cultural Resource Project Plan for Little Black Mountain Area of Critical Environmental Concern.

CL09 Improve road access to Little Black Mountain Area of Critical Environmental Concern from the east according to standard BLM design with 14' running surface and appropriate drainage. Design speed will be 30 MPH.

CL10 Provide a parking area at Little Black Mountain, suitable for cars, vans, and small school buses, large enough to accommodate eight to ten vehicles and surfaced with gravel. This area will also include a ramada, picnic table, toilets, guest register, and brochure dispenser.

CL11 At Little Black Mountain, install a visitor register and a large interpretive sign at the site entrance. Numbered posts keyed to the brochure will be installed at points of interest along trails.

CL12 Install one or two wooden photograph platforms at Little Black Mountain viewing sites.

CL13 Develop a brochure that interprets the cultural aspects of Little Black Mountain, as well as explaining the geology, vegetation, and wildlife of the area.

CL14 Implement a ranger patrol and volunteer site steward patrols at Little Black Mountain.

FIRE MANAGEMENT

FM01 Take appropriate action to suppress all wildfires; appropriate actions are based on preplanned analysis consistent with land management objectives, including threats to life and property.

FM02 Objectives for fire management zones (FMZ) are as follows. The objectives are specific to representative locations (RL) and may be adjusted to more accurately portray the districts suppression capabilities (Map 12.)

FMZ-1 Grassland

RL-1: Hold individual fires to 300 acres or less in the Pakoon Basin, 8 years out of 10 to protect the fragile desert environment and tortoise habitat.

RL-2: Hold individual fires to 500 acres or less in Hurricane Valley to protect watershed and other values specified in activity plans.

FMZ-2 Brush

RL-1: Hold individual fires to 10 acres or less on the Beaver Dam Slope Area of Critical Environmental Concern and adjacent lands to protect desert tortoise habitat.

RL-2: Hold individual fires to 500 acres or less to protect watersheds and other values specified in activity plans.

FMZ-3 Pinion Juniper

RL-1: Hold fires to 600 acres or less in the Resource Area to protect watersheds and other values identified in activity plans.

FMZ-4 Ponderosa Pine

RL-1: Hold individual fires with intensity levels of 3 or 4 to 10 acres or less to prevent damage to the ponderosa pine stands.

RL-2: Hold individual fires with intensity levels of 3 or 4 to 10 acres or less to prevent damage to the ponderosa pine stands.

FM03 Full suppression activities will be initiated in desert tortoise habitat.

FM04 Minimum tool policy is used in suppressing wildfires in wilderness areas, emphasizing hand crews; aircraft and other mechanized suppression methods may be used in emergency situations if approved and necessary.

FM05 Allow prescribed fire in wilderness areas if it benefits wilderness resources and as specified in the wilderness management plan.

FM06 Use naturally ignited prescribed fires to meet appropriate objectives for specific areas after prescriptions have been prepared and approved.

FOREST & WOODLAND

FW01 Develop and implement activity plans directed toward managing, maintaining and protecting ponderosa pine forest ecosystems located outside wilderness areas. Management practices that may be included in activity plans are:

1. Disease and insect control

2. Selective thinning necessary for the health, vigor, regeneration or biological diversity of the forest ecosystem.

3. Salvage harvest and rehabilitation of burned areas, diseased areas, and insect kill sites.

4. Reduction of fuel.

5. Prescribed burns.

6. Prescribed management of naturally occurring fires.

FW02 Maintain healthy, viable and biologically diverse forest ecosystems that will meet the needs of wildlife, recreation, livestock grazing, watershed and other resources. Commercial forestry or harvest is not the primary objective of activity plans (Appendix 15 and Map 8.)

FW03 Utilize personal and commercial woodland harvest activities to achieve other resource program goals and objectives.

FW04 In forest management activities, ensure protection of natural aesthetics, recreation, special status species, cultural resources, and other multiple-use values.

FW05 Conduct forest and woodland inventories to update information on woodland production and sustained yield.

FW06 Upgrade stocking levels on productive forest lands to their maximum potentials by:

1. Removal of competing juniper in Sections 1, 2, 13, and 16, T39N, R14W (Black Rock), and on the Parashant by minor forest products sales or by sanitation cuttings.

2. Plant and/or seed, from local stock, the burned areas in Section 12, T39N, R14W, and on Black Rock/Trail's End that are understocked and not adjacent to a seed source.

FW07 Fence small areas (100 acres or less) of successfully seeded or recently planted ponderosa pine to exclude livestock for a minimum of seven years.

FW08 Protect forests from catastrophic fires while managing prescribed burns or naturally occurring fires within established prescriptions to reduce fuel buildup, maintain healthy species composition and benefit wildlife habitat, watershed cover and livestock forage.

FOREST & WOODLAND (CONTINUED)

FW09 Protect ponderosa pine stands from serious insect and disease infestations.

FW10 In areas where substantial amounts of dead or dying trees exist, they should be removed, leaving only enough trees to meet needs for cavity nesters except in wilderness areas.

FW11 Maintain appropriate old growth and dead standing ponderosa pine and a healthy understory of vegetation (oak and other species) for wildlife habitat and natural aesthetics.

FW12 Improve the visual appearance of the edges of chainings in the Parashant area by creating an irregular edge for both wildlife and visual improvement.

FW13 Designate personal/commercial green and dead-and-down woodcutting areas (Map 7), under limitations imposed by Special Management Areas. Personal Christmas tree harvest is open everywhere except wilderness areas and Areas of Critical Environmental Concerns.

FW14 Locate woodland product sales and use areas on sites identified for vegetative treatments prior to the implementation date of this project.

FW15 Develop woodland management plans for cutting areas.

FW16 Sign woodcutting areas to accomplish objectives of management plans.

FW17 Wood cutting is allowed for camping district wide, except chainsaws are not permitted in wilderness areas for gathering camp firewood.

FW18 Commercial woodland harvest will be designated in specified areas (Map 7) and managed under the multiple use/sustained yield concept.

FW19 Up to 500 Christmas trees could be sold annually in the Shivwits personal use area on a first-come basis based on demands and sustained yield. Up to 1,000 trees could be sold annually in the Shivwits commercial use area for either commercial or personal use on a first-come basis.

FW20 Establish area-wide limits for personal use post cutting. Above this limit, permits will be considered commercial and subject to approval, mitigation and location requirements. The resource area will specify certain restrictions regarding approved post cutting areas.

FW21 Designate ponderosa pine forests on Parashant and Black Rock Mtn. located outside wilderness as Management Category C; these are areas of forest management for enhancement of other uses (Map 8 and Appendix 15.)

FW22 Develop a forest management plan in conjunction with the Parashant Resource Conservation Area subject to public participation, completion of National Environmental Policy Act compliance, and clearances for special status species and cultural values.

FOREST & WOODLAND (CONTINUED)

FW23 Open the Virgin River Area of Critical Environmental Concern to woodland product harvest on a case-by-case basis when beneficial to riparian resources. Allow collection of dead and down wood for personal campsite use only.

FW24 Manage for maintenance of existing natural vegetation and improvement of vegetative diversity and cover within the Ft. Pierce Area of Critical Environmental Concern.

GRAZING MANAGEMENT

GZ01 The goals of rangeland management on the Shivwits Resource Area are:

1. Administer livestock grazing on the public lands to balance use and sustain productivity and appropriately mesh livestock production and associated management practices with other multiple use needs and objectives

2. Manage, maintain, protect and improve rangeland resources within the framework of multiple-use needs and objectives so that they are productive for all rangeland values

3. Maintain close monitoring of the utilization, condition and trend of rangeland resources

4. Make sure that rangeland improvement projects provide multiple-use benefits, where appropriate

GZ02 Allotments will continue to be categorized into one of three management categories based on Bureauwide criteria (Appendix 1) focused on range resource condition, management needs, rangeland potential and conflicts with other resource values and improvement opportunities.

GZ03 Continue writing Allotment Management Plans, considering grazing management in relation to watershed resources, vegetation, wildlife and other multiple use needs and objectives.

GZ04 Continue monitoring resource condition, utilization, and actual grazing use.

GZ05 Complete an environmental review in accordance with National Environmental Policy Act on new allotment management plans or on major revisions and on site-specific rangeland improvement projects where necessary.

GZ06 Continue implementing the Shivwits grazing management program as described in the Grazing Environmental Impact Statement which specifies grazing systems, management facilities and land treatments, provided they are consistent with other Resource Management Plan decisions. Practices used to accomplish this include mechanical treatment, herbicide applications, biological treatments, prescribed fire, reseeding and construction of water control structures. Use of pesticides are prescribed, as appropriate and necessary to control insects, such as grasshoppers, crickets, etc.

GRAZING MANAGEMENT (CONTINUED)

GZ07 In areas inhabited by desert tortoise, conduct a biological evaluation of livestock grazing management activities and consult with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act.

GZ08 Develop new Allotment Management Plans and revise existing Allotment Management Plans where necessary to conform with the requirements of the BLM Rangewide Desert Tortoise Plan.

GZ09 Maintain a concentrated monitoring program to continue evaluating livestock grazing and desert tortoise habitat interrelationships.

GZ10 Continue grazing management in the Parashant area as one of the multiple uses in accordance with a plan to be developed for the proposed Resource Conservation Area.

GZ11 Parashant grazing authorization would be at BLM's discretion to provide rest as needed on other allotments because of fire damage, vegetative treatments or to allow rest to established Allotment Management Plan grazing systems.

GZ12 Complete ecological site inventories to determine site potentials and current ecological conditions.

GZ13 Establish desired plant community objectives for various areas and include them in Allotment Management Plans, Habitat Management Plans, and Watershed Management Plans, ensuring improvement practices achieve these objectives.

GZ14 Continue a systematic cycle of monitoring data evaluation on all allotments, involving a thorough review of consolidated utilization, condition, trend, actual use, and precipitation data, to determine whether objectives are being met or changes in management are necessary.

GZ15 Changes in kind of livestock from cattle to domestic sheep and/or goats would not be authorized within or adjacent to occupied bighorn sheep habitats unless monitoring studies and research indicate a disease transmission problem would not exist.

GZ16 No mechanical vegetation conversion will be allowed in Pediocactus sileri habitat unless benefits to Pediocactus sileri are shown.

GZ17 Allowable use on key forage species is 50 percent on allotments with rotational grazing systems except in desert tortoise habitat. On allotments in tortoise habitat or being less intensively managed, utilization is set at 45 percent.

GZ18 New range improvements will be tied to the implementation of Allotment Management Plans.

GZ19 Existing range improvements will be maintained in accordance with the District maintenance policy. Maintenance of existing vegetative treatments should be a high priority.

GZ20 Allotment supervision will continue on all allotments to ensure compliance with use authorizations.

GRAZING MANAGEMENT (CONTINUED)

GZ21 All allotments below the 3,600 foot elevation level are designed as perennial-ephemeral grazing lands.

GZ22 The location and placement of salt, supplements and water will be determined on an individual allotment basis and incorporated into the Allotment Management Plan.

HAZARDOUS MATERIALS MANAGEMENT

HM01 Continue to follow the Arizona Strip District Hazardous Material Response Plan that requires: reporting, site security, coordination of procedural clean-up steps, and monitoring results of the cleanup.

HM02 Ensure facilities compliance with the Resource Conservation and Recovery Act, the Clean Water Act and all other applicable laws and regulations concerning the handling, storage, use and disposal of hazardous materials.

LANDS

LR01 Terminate the following withdrawals: hybrid oak and Boulder Canyon portions of Virgin River scenic area.

LR02 Make up to 1,005.45 acres available for exchange, sale or Recreation and Public Purpose sale; exchanges would be first priority. These same lands plus an additional 2,309.27 acres would be available for exchanges only (Appendix 3 and Map 2 and 2a.)

LR03 Retain all desert tortoise Category 1 and 2 habitat in Federal ownership.

LR04 Acquisition of non-federal lands in the Virgin River riparian areas will be negotiated as opportunities arise.

LR05 Allow no land disposal under the agricultural land laws (Desert Land Act, Indian Allotment Act, and Carey Act.)

LR06 Acquire up to 57,662.38 acres of state land through exchange for public lands located in Apache and Navajo Counties (Appendix 4 and Map 2 and 2a.)

LR07 Acquire up to 7,191.64 acres of private land through exchange and acquire subsurface estate where BLM manages the surface (Appendix 4 and Map 2 and 2a.)

LR08 Lands acquired through exchange would be open to operation of public land laws consistent with this Resource Management Plan, unless specifically modified by the opening order.

LANDS

LR09 New physical facilities on Black Rock Mountain communication site will not be allowed. Facilities for existing Rights-of-Way could be completed.

LR10 Establish Seegmiller Mountain area as a communication site. Encourage the application of a commercial communicator as soon as possible as a means to keep future applicants in one building.

LR11 Other communication sites will be considered on a case-by-case basis.

LR12 Designate the existing Navajo-McCullough Right-of-Way corridor one mile wide. However, the width of the Right-of-Way across the Beaver Dam Slope will be only the width occupied by the existing powerlines and a second yet unbuilt line. Future proposals for powerlines across the Beaver Dam Slope would be considered on a case-by-case basis addressing impacts to desert tortoise.

LR13 Designate a one mile wide Right-of-Way planning corridor across the Resource Area via the Lime Kiln route. Actual planning will commence when the first Right-of-Way application is received.

LR14 Maximum use of existing Rights-of-Way, including joint use whenever possible, will be encouraged. Any Rights-of-Way in wilderness that expire will be evaluated and if still needed will be processed under 43 CFR 2920.

LR15 Where feasible, place linear Rights-of-Way underground along existing roads in the Parashant area. Temporary Rights-of-Ways could be excluded from underground placement.

LR16 Evaluate individual Rights-of-Way on a case-by-case basis with National Environmental Policy Act analysis.

LR17 Continue leasing 12 acres of agriculture land to Hafen, Hemmeter and Hughes.

LR18 Continue leasing 13 acres of agriculture land to Biasi if compensation for tortoise habitat can be included north of I-15.

LR19 Work with local, county and state governments on a case-by-case basis to close old landfill facilities. Environmental protection and public safety will be paramount.

LR20 Seek opportunities to acquire desert tortoise habitat.

LR21 The Big Spring water line taking domestic water to the Bar Ten Ranch will be evaluated for authorization under 2920.

LAW ENFORCEMENT

LE01 Continue implementing the goal of law enforcement on the Resource Area which is prevention of violations of federal law relating to public lands through voluntary compliance. When voluntary compliance does not occur, personnel are responsible for the enforcement of applicable laws and regulations.

MINERAL RESOURCES

MI01 Provide communities in or near the area with sand and gravel needed for development in a timely and orderly manner consistent with environmental constraints.

MI02 Designate 1,245,500 acres open to oil and gas leasing subject to standard lease terms and conditions; designate 149,000 acres open to lease subject to seasonal restrictions to protect important habitat for peregrine falcon and bighorn sheep; and designate 126,000 acres open to lease subject to no surface occupancy stipulations to protect important visual resources (Appendix 5 and Map 3.)

MI03 Approximately 1,374,600 acres would be open to mineral entry. Withdrawal review would need to be completed to reach this goal.

MI04 New reclamation stipulations would be added to exploration and development plans directed toward maintaining naturalness and unique features and/or remoteness on the Resource Area (Appendix 2). These stipulations would be applied to site-specific proposals.

MI05 Plans of operation would be required in all Areas of Critical Environmental Concern and areas closed to Off-Highway Vehicles.

MI06 Material disposal in Visual Resource Management Class II areas would not be allowed if reasonable alternative sources are available.

MI07 Mineral material disposal is not allowed in the following Area of Critical Environmental Concern's: Virgin River Corridor, Beaver Dam Slope, Little Black Mountain, or Fort Pierce.

MI08 Designate Section 9, E1/2 NW1/4 SW1/4 (20 acres) T. 40 N., R.15 W., as a potential community pit to serve the Littlefield area with small mineral material sales.

MI09 Leave Beaver Dam Slope Area of Critical Environmental Concern open to fluid minerals leasing and locatable mineral exploration and development subject to the requirements imposed by the Off-Highway Vehicle closure. A plan of operation will be required to eliminate impacts to desert tortoise. Activities may be limited by season as needed to protect habitat of the desert tortoise.

OFF-HIGHWAY VEHICLES

OH01 Designate Off-Highway Vehicle use areas as follows (Appendix 12 and Map 11):

Open:	0	acres (for further evaluation).
Closed:	68,404	acres (excludes wilderness).
Limited to Designated Roads and Trails:	278,921	acres.
Limited to Existing Roads and Trails:	1,031,341	acres.

OH02 Allow the annual Rhino Rally motorcycle race, but restrict it primarily to roads and washes and limit event to 300 entrants (Map 11.)

OH03 Prepare an activity plan to provide a variety of visitor uses in the Virgin River Campground and surrounding areas including longer term visitor use, tent and self-contained camping, river running and recreation and wilderness use. Include a detailed plan for operating and maintaining campground facilities. Upgrade campground loop and access roads to accommodate modern recreation vehicles.

RECREATION RESOURCES

RR01 Continue authorizing the organized recreational events now occurring on the Resource Area.

RR02 Evaluate requests for additional recreation permits through the National Environmental Policy Act process and for their consistency with management goals and objectives and processed on a case-by-case basis.

RR03 Limit camping to 14 days at any one location unless otherwise authorized.

RR04 Recreation management direction includes:

1. Accommodate current uses, protect cultural values, and complement wilderness management plans where appropriate
2. Provide visitor information
3. Use various methods to acquire visitor use data on a annual basis
4. Maintain a system of traffic counters, monitor results monthly and field-verify results annually
5. Conduct compliance patrols by district ranger

RECREATION RESOURCES (CONTINUED)

6. Consider visual impacts on all proposed actions and protect scenic values by using mitigation measures where feasible, including alternative locations, camouflage, vegetation or topographic screening and other appropriate measures

RR05 Improve and increase road signs and develop a sign inventory system.

RR06 Implement actions to restore and/or maintain natural conditions or appearance in all areas.

RR07 Maintain primary access roads, particularly Quail Hill Road, on a year around basis.

RR08 Manage the majority of the Resource Area for extensive recreation while maintaining its naturalness/remoteness. The exceptions to this are the Cedar Pockets campground.

RR09 Commercial recreation permits would be issued to the extent that their cumulative impacts are consistent with the overall objectives of this plan and in the public interest.

RR10 Designate the Parashant as a Resource Conservation Area (Map 4) and consider recreation as a priority land use and manage as follows:

1. Manage recreation to provide opportunities in settings ranging from roaded natural to semi-primitive non-motorized. See Recreational Opportunity Spectrum class definitions in Appendix 11.

2. Manage the area in coordination with the National Park Service Lake Mead National Recreation Area to ensure continued public use and enjoyment for a variety of recreational activities which do not impair the natural values of the area.

3. Improve visitor service related to information, interpretation, facility development and maintenance, and safety.

4. Protect remote characteristics by limiting type or amount of commercial recreation permits.

5. Protect and interpret historic features.

6. Provide a broad spectrum of back-country opportunities with low managerial oversight and regulations.

RR11 Designate the Parashant, Virgin River Corridor and Little Black Mountain Area of Critical Environmental Concerns as Special Recreation Management areas, ensuring recreation is considered as one of the priority land uses. All designated wilderness areas are also considered SRMAs and will be managed according to their Wilderness Management Plans.

RECREATION RESOURCES (CONTINUED)

RR12 In Visual Resource Management Class 3 and 4 areas (Map 9), provide settings for recreation opportunities associated with motorized vehicle use such as exploring backcountry roads, vehicle camping and picnicking. Other management decisions in these area are:

1. Allow for some changes in Recreational Opportunity Spectrum classes from semi-primitive-non-motorized to semi-primitive motorized or from semi-primitive-motorized to roaded-natural where necessary to meet recreation needs or other resource development. However, the goal is to maintain the desired recreational settings.

2. Provide recreational settings where restrictions on visitors are not noticeable, but blend with the natural setting.

3. Develop sign plans to provide road information for interpretation, public safety, and coordinate the plans with the Arizona Strip visitor map.

4. Regulate visitor use only if monitoring indicates a need for limiting or restricting use.

RR13 In Visual Resource Management Class 1 & 2 areas (Map 9), ensure continued public use and enjoyment of a variety of recreation activities that are compatible with the protection and enhancement of natural and cultural values. Other management decisions are:

1. Enhance opportunities for high quality, backcountry recreation experiences and provide for a range of recreation activities, including camping, vehicle exploring, sightseeing, hiking, limited off-road travel, horseback riding, rock hounding and hunting.

2. Provide recreation settings where restrictions on visitors are subtle.

3. Ensure maintenance of desired resource and social settings.

4. Regulate visitor use only when monitoring indicated a trend toward unacceptable change to desired recreation settings brought about by such use.

5. Inventory and develop sign plans compatible with the objectives of the area. Generally signing would be the minimum necessary to provide public safety and information.

RIPARIAN RESOURCES

RP01 All ongoing or proposed uses of the public lands would be managed to ensure protection of riparian areas.

RP02 Maintain, restore, or improve riparian areas to achieve a healthy and productive ecological condition for maximum long-term benefits. This can be accomplished using fire, mechanical, chemical or biological means.

RIPARIAN RESOURCES (CONTINUED)

RP03 Management direction for riparian areas includes:

1. Identify riparian areas and assign priorities for management.

2. Continue inventory of riparian areas to determine present condition and trend.

3. Implement management of riparian areas and their resources to maintain, improve, or restore riparian ecosystems, and eliminate or mitigate conflicts. Ensure support by all affected resource management programs.

4. Monitor important characteristics to assess significant changes and trends in condition.

5. Retain significant riparian areas in public ownership and acquire significant new riparian areas where possible to ensure the integrity of public riparian ecosystems and their dependent resources.

6. Coordinate with other federal and state agencies and interested user groups to ensure the development of top-quality management practices.

7. Explore research opportunities in cooperation with university or federal researchers to improve riparian management.

RP04 Designate public lands in the Virgin River bottomlands from Utah state line to the Nevada state line as a riparian Area of Critical Environmental Concern. Other reasons for designating this area as an Area of Critical Environmental Concern are endangered fish species, scenic values, wild and scenic river potential and recreation values.

RP05 Designate the Beaver Dam/Virgin River confluence area as a riparian demonstration area and manage the 80 acres under a riparian demonstration plan. Appendix 17 outlines management prescriptions for the Area of Critical Environmental Concern.

RP06 Acquire non-federal lands with riparian and high resource values within the Virgin River Corridor Area of Critical Environmental Concern as opportunities arise.

SPECIAL STATUS SPECIES

TE01 Carry out management consistent with multiple use for conservation of candidate species and their habitats and ensure that actions authorized, funded, or carried out do not contribute to the need to list any of these species as threatened or endangered.

TE02 Prior to surface disturbing activity on public land a special status species review will be conducted by a qualified specialist.

TE03 Special status species would continue to be monitored by the Arizona Strip District ranger.

SPECIAL STATUS SPECIES (CONTINUED)

TE04 Continue to implement the Habitat Management Plan that was completed in response to the recovery plan written for Siler pincushion cactus.

TE05 Improve the habitat and population levels of woundfin minnow and Virgin River chub to the point these species no longer need listing.

TE06 Maintain Virgin River spinedace habitat to support viable populations such that the species need not be listed.

TE07 Inventory potential raptor habitat.

TE08 Restrict Bureau-permitted activities within known/occupied nesting areas of endangered or threatened raptors.

TE09 Designate Siler pincushion cactus habitat in Fort Pierce area as part of the Fort Pierce Area of Critical Environmental Concern. Fragile soils in the Fort Pierce area make up the remainder of the Area of Critical Environmental Concern.

TE10 Designate 20,800 acres as the Beaver Dam Slope Area of Critical Environmental Concern.

TE11 Increase public awareness of desert tortoises through signs, information and education in the Beaver Dam Slope Area of Critical Environmental Concern.

TE12 Designate 8,100 acres along the Virgin River as the Virgin River Corridor Area of Critical Environmental Concern to protect important riparian vegetation and woundfin minnow and Virgin River chub habitat. This Area of Critical Environmental Concern also is designated to protect important scenic and recreational values.

TE13 Intensify management of sensitive and endangered species consistent with recovery needs, Desert Tortoise Rangewide Plan (1988), the draft Arizona Desert Tortoise Implementation Strategy, and the Endangered Species Act.

TE14 Designate and manage desert tortoise habitat as follows: 38,850 acres in Category I; 71,700 acres in Category II; and 189,800 acres in Category III (Appendix 10 and Map 13.)

TE15 Activities that could occur within one mile of an active peregrine eyrie, or "historic" or "superior" nesting habitat (Map 6), between March 1 and August 1, may not be allowed if it's determined by the BLM that the peregrine would be adversely affected. The one mile buffer indicates the point at which a thorough impact evaluation, considering topographic and other factors, will begin.

TE16 Activities that could adversely affect the desert tortoise during their active season within tortoise habitat may be limited to the period between October 15 to March 15.

TE17 BLM will support and assist with transplants of special status species.

TRANSPORTATION/ACCESS

TA01 Develop and maintain an active road/access transportation plan that supports the resource programs and uses identified in this plan.

TA02 Maintain existing access where needed to meet public and administrative needs.

TA03 Upgrade Quail Hill road to a graveled, all-season access road.

TA04 Close and rehabilitate existing roads where no public or administrative need exists in areas closed to Off-Highway Vehicle or where Off-Highway Vehicles are limited to designated roads and trails.

TA05 Reclaim newly constructed access after termination of the specific need (Map 11.)

TA06 Acquire legal vehicle access across private and state lands in locations listed in Appendix 14. Appendix 14 is an initial list subject to additions or deletions.

TA07 In the Beaver Dam Area of Critical Environmental Concern allow only temporary upgrading of existing roads and allow new roads only on a temporary basis or if positive benefits to desert tortoise occur. Reroute existing roads where feasible to improve manageability of tortoise habitat.

VISUAL RESOURCES

VR01 Assign Visual Resource Management Classes for the Resource Area (Appendix 13 and Map 9) as follows:

153,815 acres as Class I

310,318 acres as Class II (Includes the primary travel corridors)

188,695 acres as Class III

879,652 acres as Class IV

VR02 Continue the Virgin River Gorge 22,000 acre scenic withdrawal.

VR03 Support the designation of the Virgin River Gorge (I-15) as a scenic byway.

VR04 Consider designating backcountry byways as more information becomes available on environmental impacts and public need.

VR05 Activities which would cause adverse long-term impacts to the important visual resources in the following areas would be prohibited or mitigated to the extent practicable: Hurricane Rim, Upper and Lower Grand Wash Cliffs, Diamond Butte, Andrus and Parashant canyons.

VISUAL RESOURCES (CONTINUED)

VR06 Improve the aesthetics of the acquired lands in the Parashant area by feathering the edges of the existing seedings.

WATERSHED (Soil, Water, Air) RESOURCES

WS01 Manage vegetation cover towards ecological stability and sound long-term protective soil cover using mechanical, chemical, biological or fire as tools for accomplishment.

WS02 Complete and maintain an inventory of all water sources on public lands administered by BLM and to document and store this data in the Bureau's Water Data Management System.

WS03 Inventory riparian areas for water quality, stream bank conditions, channel dynamics, geomorphic relationships, and seasonal flow; and coordinate activities with Arizona Department of Environmental Quality and other state and federal agencies.

WS04 File water rights on all water sources in accordance with State of Arizona water laws. BLM will file, as appropriate, for recreational use, wildlife (including fish), livestock, administrative uses, and instream flows.

WS05 Ensure that all waters on public land meet or exceed established federal and state water quality standards for specific uses and mitigate activities to prevent water quality degradation.

WS06 Coordinate water quality planning, (such as the development of watershed activity plans), compliance with water quality standards, mitigation measures, and monitoring with the Arizona Department of Environmental Quality.

WS07 Continue to implement, maintain and monitor Fort Pierce Community Watershed Plan.

WS08 Improve water quality, water yield, and reduce erosion around springs.

WS09 Conduct an instream flow study of the Virgin River and Beaver Dam Wash to support instream flow applications.

WS10 Inventory and protect water resources including acquisitions of water and instream flow rights.

WS11 Manage to prevent degradation of Class I federal air quality standards in national parks. Maintain Class II air quality standards and State air quality standards on public lands.

WS12 Designate lands in the Fort Pierce area as an Area of Critical Environmental Concern.

WS13 Coordinate watershed and riparian objectives into applicable allotment management plans with emphasis on areas of moderate to severe erosion.

WATERSHED (Soil, Water, Air) RESOURCES (CONTINUED)

WS14 Develop and implement watershed activity plans for the following areas in accordance with shown priority.

1. Fort Pierce Wash
2. Wolf Hole Valley
3. Hobble Canyon
4. Lower Hurricane Valley

WS15 Reclamation stipulations (Appendix 2) will be followed for all surface-disturbing activities.

WS16 Complete ecological site inventories to determine site potentials and present ecological conditions.

WS17 Establish desired plant communities objectives for various areas and include in Allotment Management Plans, Habitat Management Plans and Watershed Management Plans and other applicable plans.

WS18 Develop management prescriptions or improvement practices to achieve desired plant community objectives.

WS19 Manage public lands in a manner that protects scientific, environmental, air and atmospheric, and water resource values.

WS20 Land use plans will be in compliance with applicable pollution control laws, including State and Federal air, water and other pollution standards.

WS21 Floodplain occupancy and development will be avoided, and base floodplain (100-year) retained or protected.

WS22 Manage watershed areas according to watershed categorizations to achieve identified objectives (Appendix 7).

WS23 Develop a coordinated plan for the Parashant Resource Conservation Area to integrate management of wildlife, livestock grazing, recreation and watershed values.

WS24 Develop or revise watershed and allotment management plans in accordance with management objectives for the Fort Pierce Area of Critical Environmental Concern.

WS25 Manage for maintenance of existing natural vegetation and improvement of vegetative diversity and cover within the Fort Pierce Area of Critical Environmental Concern.

WILD AND SCENIC RIVER

SR01 Study the Virgin River in conjunction with Utah and Nevada to determine suitability under the Wild and Scenic River Act (Appendix 18 and Map 10.)

SR02 Classify the Virgin River as wild from the Utah state line to the first I-15 bridge; scenic from the I-15 bridge to the Virgin River Campground; and recreational from the campground to the Nevada state line (Map 10.)

SR03 Potential actions that may affect the Virgin River wild and scenic values are subject to interim management protection. Management activities will not be allowed to damage the existing eligibility, classification, or suitability. Outstanding remarkable values of the river area must be protected and to the extent practicable, enhanced. The free-flowing characteristics of the river segment cannot be modified. Those sections outside wilderness designation and a scenic withdrawal are especially critical for increased management attention to preserve it's wild and scenic river values.

WILDERNESS

WD01 Continue managing the Paiute-Beaver Dam Mountains and Grand Wash Cliffs wilderness areas in accordance with their activity management plans.

WILD, FREE-ROAMING BURROS

BU01 Maintain a healthy population of wild, free-roaming burros in ecological balance with rangeland resources.

BU02 Remove excess burros when necessary; manage for a herd size of 90 to 100 animals within the existing habitat management plan.

WILDLIFE RESOURCES

WL01 Evaluate the area's three Habitat Management Plans annually in conjunction with Arizona Game and Fish Department to determine if management direction and actions are adequate and if planned objectives are being met.

WL02 Maintain productive wildlife habitat and ensure wildlife needs and considerations are incorporated into land use planning, National Environmental Policy Act documents and management decisions.

WL03 Improve wildlife habitat through construction and maintenance of habitat improvement projects.

WL04 Conduct inventories to obtain information required to effectively manage habitat and incorporate wildlife habitat considerations into activities of other programs.

WILDLIFE RESOURCES (CONTINUED)

WL05 Continue a long-term monitoring effort to monitor habitat condition, trend and utilization.

WL06 Continue restoration of native wildlife into historic range by transplanting wildlife in cooperations with the Arizona Game and Fish Department.

WL07 Manage wildlife habitat through the Habitat Management Plan process to achieve desired plant community objectives; practices used to accomplish this could include mechanical treatments, livestock grazing, herbicide applications, prescribed and natural fire, reseeding and water developments.

WL08 Provide recommendations to Arizona Game and Fish Department regarding harvest of wildlife to be consistent with carrying capacity of the habitat and other resource values. Interagency habitat monitoring studies will govern the need for adjustments. These studies can be either long-term or short-term and include vegetation trend, competition, diversity, composition, vertical cover and utilization levels.

WL09 Balance non-consumptive use of wildlife with consumptive uses by directing vegetation and habitat management towards maintaining an ecologically diverse plant community.

WL10 Manage wildlife habitat under the Habitat Management Plan program and revise objectives in the Habitat Management Plans as determined through monitoring studies and Habitat Management Plan evaluations.

WL11 Identify limiting habitat factors through Habitat Management Plan monitoring and minimize the effects of limiting factors through planned actions in Habitat Management Plan revisions. Emphasize project maintenance in Habitat Management Plan revisions.

WL12 Emphasize management on non-game species habitat and non-consumptive uses in preparing new Habitat Management Plan and revisions of existing ones.

WL13 Complete ecological site inventories to determine site potentials and present ecological conditions; establish desired plant community objectives for various areas and include in Allotment Management Plans, Habitat Management Plans, and watershed and other plans. Prescribe management or improvement practices to achieve these objectives.

WL14 Improve mule deer habitat where needed by increasing sufficient forage on summer ranges and nutritious browse on the winter range through vegetation conversion and management prescriptions.

WL15 Maintain good ground cover for nesting Merriam's turkey and large ponderosa pine trees for roosting in the Black Rock and Parashant areas.

WL16 Proposed projects and other surface disturbing activities would meet the reclamation standards identified in Appendix 2.

WILDLIFE RESOURCES (CONTINUED)

WL17 Ensure wildlife management activities do not contribute to the proliferation of natural predators within desert tortoise habitat.

WL18 Manage identified bighorn sheep habitat through the Habitat Management Plan process and the Bureau's Rangewide Plan for Desert Bighorn Sheep to achieve and maintain optimum numbers and distribution of bighorn sheep in the Virgin Mountains and Grand Wash Cliffs.

WL19 Do not permit activities that could adversely affect the lambing or rearing of newborn bighorn sheep along the lower Grand Wash Cliffs from December 1 through May 31. All other lambing areas are in designated wilderness.

WL20 Manage pronghorn habitat through the Habitat Management Plan process to achieve and maintain viable populations in accordance with Habitat Management Plan objectives. Initial target levels are 400 in the Shivwits Resource Area.

WL21 In cooperation with the Arizona Game and Fish Department, investigate suitability of transplanting Kaibab squirrels into ponderosa pine habitat at Black Rock and Parashant if studies reveal that they inhabited the area at any time.

WL22 In cooperation with the Arizona Game and Fish Department, emphasize mule deer habitat monitoring/evaluation and population dynamics studies to determine the reasons for low deer populations. Propose actions that might be cooperatively implemented to improve productivity.

WL23 Participate in the development of the Parashant Resource Conservation Area Management Plan, recognizing wildlife as one of the important resources (Appendix 17 and Map 4.)

WL24 In cooperation with Arizona Game and Fish Department, control exotic wildlife species and feral livestock in the Virgin River Corridor Area of Critical Environmental Concern.

WL25 Develop a proactive maintenance and inspection system to ensure all existing wildlife waters are inspected at least biennially.

WL26 Formulate and implement a cooperative maintenance exchange program between Arizona Game and Fish Department and BLM.

WL27 Revise the Virgin River-Pakoon Basin Habitat Management Plan.

WL28 Provide safe access and reliability on wildlife water developments. Maintenance of existing waters will take priority over new construction.

WL29 Determine the need for and identify suitable locations for construction of new wildlife waters in each Habitat Management Plan at least one year prior to the plan revision date.

WL30 Conduct non-game bird transects throughout key habitat areas across the Resource Area.

WILDLIFE RESOURCES (CONTINUED)

WL31 Inventory spotted bat and Allen's big brown bat habitat throughout the Resource Area.

WL32 Revise the Black Rock Habitat Management Plan.

WL33 Repair or reconstruct the following wildlife waters at the earliest date:

1. Low Mountain #1 Wildlife Catchment
2. Little Wolf Wildlife Catchment
3. Cottonwood Mountain Wildlife Catchment
4. Sullivan Draw Wildlife Catchment
5. Wolfhole Mountain #3 Wildlife Catchment

WL34 Enhance mule deer habitat by burning approximately 700 acres in the Wolfhole Mountain area. Reseed the area if necessary using native plant mixtures valuable for mule deer.

WL35 Complete supplemental Merriams turkey transplant to the Black Rock area. Monitor population trends as appropriate.

WL36 Conduct Ecological Site Inventory of mule deer habitat in the Black Rock Habitat Management Area, approximately 750,000 acres.

WL37 Conduct monitoring for trend and condition in key habitat use areas for mule deer identified by Ecological Site Inventory.

WL38 Develop desired plant communities for key habitat use areas for mule deer through the Ecological Site Inventory process.

WL39 Conduct supplemental transplants of up to 100 mule deer per year in the Black Rock Habitat Management Area. Monitor seasonal movements and causes of mortality.

WL40 Conduct annual mule deer pellet plot studies to estimate densities.

WL41 Conduct mountain lion scat analysis to determine the source and diversity of the prey base.

WL42 Revise the Parashant Habitat Management Plan.

WL43 Modify fences in these areas to provide safe access to wildlife at existing livestock waters:

1. Parashant Allotment - 1/yr, 7 total
2. Wildcat Allotment - 2/yr, 6 total
3. Grassy Mountain Allotment - 1/yr, 5 total

IMPLEMENTATION PRIORITIES

GEOGRAPHIC AREAS

Planning and implementing new management prescriptions on areas designated to protect special status species and other unique resource values will be the first priority for plan implementation. These designated areas include Areas of Critical Environmental Concern, Resource Conservation Areas, Special Recreation Management Areas, and Wilderness Areas.

First priorities for specific area planning are:

Virgin River Corridor Area of Critical Environmental Concern including Beaver Dam Wash Confluence Riparian Area

Beaver Dam Slope Area of Critical Environmental Concern

Ft. Pierce Area of Critical Environmental Concern

Little Black Mountain Area of Critical Environmental Concern - plan has been completed and is being implemented

Parashant Resource Conservation Area

Paiute-Beaver Dam and Grand Wash Cliffs Wilderness Areas - plans are complete and being implemented

The second priority will be Off-Highway Vehicle designations beginning with the area of desert tortoise habitat in Arizona west of the Virgin Mountains. The entire Shivwits Resource Area will be designated in subsequent years.

GENERAL PROGRAM PRIORITIES

The priority for all programs would be to serve the public and respond in a timely manner to their needs as consistent with the BLM plans and policies. Administrative tasks required by laws, regulation and policy to operate programs would also be priority.

SPECIFIC PROGRAM PRIORITIES

Cultural

The Shivwits Cultural Resource Management Plan will be revised to reflect Resource Management Plan changes including site allocation updates and site protection strategies.

Cultural field examinations will be made on lands proposed for various uses and inventories conducted when possible to gain new site occurrence information.

Fire Management

Desert tortoise habitat will continue to receive highest priority for fire suppression actions under a lightning detection, repositioning strategy when fuels are dense.

Wildfires in other areas will be suppressed based on a preplanned analysis consistent with values and land management objectives.

The fire management plan will be updated regularly and a prevention plan completed.

Forest/Woodland

Maintain healthy ponderosa pine ecosystems on Parashant and Black Rock Mountain. These areas will be managed to contribute to visual, recreation, wildlife habitat, livestock grazing, watershed and other uses.

Woodland management plans will outline programs for product harvest, including personal or commercial dead or green woodcutting areas and allow up to 500 Christmas trees to be harvested each year for personal use and up to 1,000 commercial Christmas trees in an area specifically identified as available for commercial harvest.

Grazing

Allotment Management Plans will be developed and/or revised in desert tortoise habitat allotments as the highest priority.

The Ecological Site Inventory process will be used to determine condition of existing vegetation compared to potential natural plant communities on tortoise habitat and other allotments during the life of the Resource Management Plan. Using this information, desired plant communities will be developed for all multiple uses of vegetation resources including livestock grazing. Allotment Management Plans will continue to be developed, evaluated and revised based on desired plant communities and other vegetation monitoring data. Adjustments in time management methods or amount of grazing will be made to conform to desired plant communities and other resource issues identified in evaluation.

Hazardous Materials (HAZMAT)

BLM will take an active role to report unpermitted HAZMAT discharges on public or other lands under the provisions of the Comprehensive Environmental Response, Compensation and Liability Act.

After reporting, site security, and procedural cleanup, coordination and monitoring will follow.

BLM will also comply with Arizona Department of Environmental Quality ground water protection and State Resource Conservation and Recovery Act regulations pertaining to the storage, handling and disposal of hazardous materials.

Lands

Working with local government to meet land needs for public purposes, including bringing the Littlefield/Beaver Dam landfill into compliance, will be top priority. Meeting public demands for rights-of-way, leases, permits and other land uses will also be pursued as quickly as possible. Land ownership adjustments to enhance land ownership patterns and acquire lands with high public values will be pursued as the opportunity and time allows.

Law Enforcement

The primary emphasis of rangers will be to prevent federal law violations on public lands through contacts and providing understanding to gain voluntary compliance. Public contacts will be made through regular patrols through the resource area.

Ranger patrols also prevent loss of resources or damages to public property by citation, apprehensions, or other charges for flagrant or repeated violations when voluntary compliance is not possible.

Minerals

Notices and plans under 3809 regulations, mineral material sales and applications for permit to drill will receive timely processing within areas open for these users. Appropriate bonding and stipulations for operating and reclamation will be applied.

Off-Highway Vehicle

Off-Highway Vehicle designations and management plans will be completed with public input as a high priority. Special emphasis will be on identifying roads to remain open in Limited to Designated Roads and Trails areas.

Recreation

The remote back country setting of the Arizona Strip is a valuable recreation asset where the public can roam relatively free of restrictions and human influences. These values will be maintained to the extent possible. In order to improve these opportunities, signing, information and interpretation for visitors will be pursued.

The Cedar Pockets campground, along I-15, adjacent to two wilderness areas, and in the highly scenic Virgin River Gorge, will be renewed with maintenance and facilities to improve utilization and enjoyment.

Riparian

Determine present conditions, ecological potentials of riparian lands and implement management actions to improve or maintain the health of these ecosystems. Another integral part of the riparian program will be the acquisition and protection of water rights to support these systems. These efforts will include instream flow studies to pursue instream water right applications on the Virgin River and Beaver Dam Wash.

Special Status Species

Priorities for special status species will follow two fronts. First to use monitoring, inventories, studies, research and recovery plans to provide information and guidance for species management. The objective for these efforts will be species recovery. Second, intensify information and data collection to improve management on sensitive species to avoid, if possible, the need for listing on additional species.

Transportation/Access

Quail Road upgrading started in the 1980's will be completed. An overall access/road transportation plan will be developed and maintained to provide guidance.

There are at least eight areas where legal access to public lands need to be acquired. These situations will be pursued on a time available basis.

Visual

Visual Resource Management classes as designated in the Resource Management Plan will be maintained with emphasis on primary travel routes, wilderness areas and other specifically designated areas.

Watershed

The recently completed Ft. Pierce Salinity Plan will be implemented. New activity plans will be developed for other areas according to Resource Management Plan priorities.

The ongoing water inventory will be completed and maintained.

Water rights filings for Virgin River and other waters will be continued and pursued through the Arizona Department of Water Resources procedures. Instream flow studies will be completed to support Virgin River and Beaver Dam Wash filings.

Wild and Scenic Rivers

Wild and Scenic River studies will be completed for the Virgin River.

Wilderness

Management plans will continue to be implemented to protect the three wilderness areas.

Wildlife Habitat

The Habitat Management Plans will continue to be revised and updated as necessary. Emphasis will be on sensitive species, recovery of the mule deer herd and maintenance of existing wildlife developments. Nonconsumptive uses and management of nongame species will receive additional attention.

SECTION III
MONITORING PLAN



SECTION III
MONITORING PLAN

INTRODUCTION

The purpose of plan monitoring is to track implementation progress and determining plan effectiveness. It enables us to determine when plan modification is necessary.

Monitoring of this plan will be divided into three levels - tracking, measuring, and evaluating

Tracking is systematically tracking each decision implementation action to make sure that implementation is occurring, that priorities are being followed, standards are being applied, and to identify stumbling blocks to proper implementation.

Measuring is measuring the success of the actions in meeting the objectives and goals set forth in the plan. How well are we doing? This tier is the primary link with the results of resource monitoring.

Evaluating is evaluating the plan to see if it is still meeting management needs, and to determine if the goals and objectives were the right ones and reasonably achievable. Or is it necessary to schedule a full revision?

TRACKING

Tracking is the yearly mechanical tracking and documentation of the implementation of Resource Management Plan decisions and management actions.

This process will consist of tracking a five year implementation schedule:

A. Year 1 (consistent with Annual Work Plan)
B. Year 2 (consistent with Budget Year)
C. Year 3 (consistent with Program Year)
D. Year 4
E. Year 5

The 5 year schedule will be tracked using the "DATA INPUT FOR APPROVED RMP IMPLEMENTATION PLAN INFORMATION BY TASK" form, input in to a computer data base program on a yearly bases, for ease of storage and analysis. This data base program will allow the tracking of decisions as they are implemented, identifying decision priorities, tasks required to implement each decision, proposed and actual completion dates, and units of accomplishment etc.

A yearly report will be provided from this program to illustrate the progress of Resource Management Plan implementation identifying the decisions involved.

Parties involved in tracking are generally Resource Area personnel.

MEASURING

The purpose of measuring is to determine if implementation of the Land Use Plan is meeting planned goals and objectives set forth in the plan.

This will be determined by measurement and documentation of the success and effectiveness of management prescriptions and actions of; range, wildlife, soils, recreation, cultural, etc. in collectively meeting defined goals and objectives for a specific geographic area of the plan.

The product of measuring will be a list of decisions monitored, a determination of how well the actions met or are meeting plan goals and objectives, recommendations about what actions to take next time, and recommendations on any modifications to the plan that is indicated. (Plan modifications identified in this process should normally lead to plan maintenance activities or a plan amendment).

Process steps are as follows:

1. Observe how far along we are in the schedule of implementing specific decisions.

2. Compare resource program monitoring data with plan goals and objectives to determine how well the goals are being met.

3. Provide documentation for use in evaluating.

Measuring differs from resource program monitoring. It addresses how well the completed action meets goals and objectives, rather than the objectives of an individual resource activity.

Parties involved in measuring are generally resource area personnel.

Measuring to be completed at five year intervals.

EVALUATING

Evaluating is a formal evaluation of plan decisions, goals, and objectives as a whole, to see if they are still current and meeting our needs.

This evaluation looks at the sum of the original plan; maintenance, refinements, and amendments that have occurred; and the record of proposals that did not pass conformity determinations.

The product of evaluating is a determination of whether the plan is appropriate, whether modification may be needed, and where additional monitoring would best be directed.

Plan modification may be recommended if:

1. Goals and/or objectives have changed and we cannot meet them by implementing the plan.
2. Decisions are no longer valid.

Evaluating may indicate need for a change in plan monitoring to:

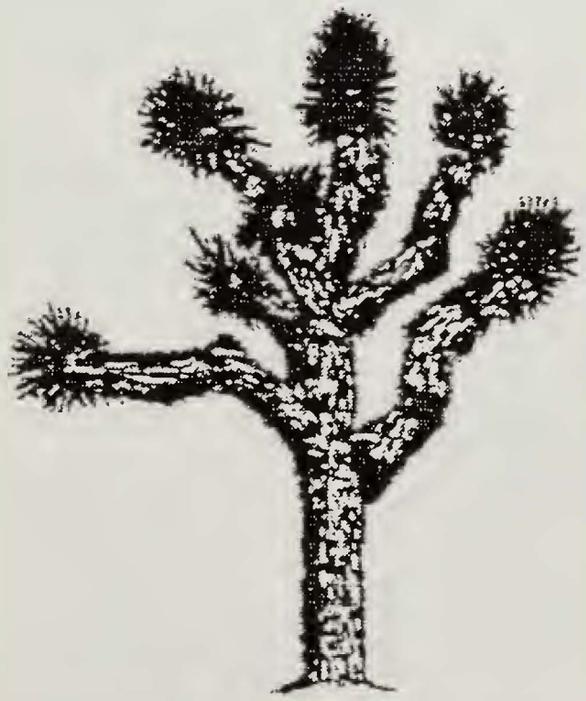
1. Focus on specific decisions.
2. Curtail monitoring on decisions and parts of the plan which have been completed, proven successful, and need little continued monitoring.

Those parties involved in evaluating are resource and district personnel and could possibly include state office representatives.

This formal evaluation would occur periodically (5-10 years) based on the volume of non-conforming proposals that result in amendments to the plan, or as a result of changes in policy or legislation.

SUMMARY

The evaluating process is largely a thought process. It involves looking at plan goals, objectives, and decisions, and comparing them to current needs and policies. The evaluating process is also a cumulative result of tracking and measuring. Plan monitoring and evaluation actually starts when plan implementation starts. Monitoring and evaluation is a link to the plan modification process. A plan that is not meeting our needs may need to be modified now or in the future.





APPENDICES



APPENDIX 1
ALLOTMENT CATEGORIZATION
SHIVWITS RESOURCE AREA

"I" IMPROVE CATEGORY ALLOTMENTS

Allotment		Current Management	Proposed Management	Stage of Implementation
Name	Number			
Belnap	4849	Season Long	Deferred	Not
Belnap West	4822	Season Long	Deferred	Not
Big Spring	4871	Season Long	Deferred	Not
Big Spring Pipeline	4870	Season Long	Deferred	Not
Blake Pond	4813	Deferred	Deferred	Implemented
Cold Spring	4873	Season Long	Deferred	Not
Cole Spring	4872	Season Long	Deferred	Not
Cottonwood	4809	Season Long	Deferred	Partial
Grassie Mountain	4825	Deferred	Deferred	Partial
Hat Knoll	4837	Deferred	Deferred	Implemented
Hidden Spring	4803	Season Long	Rest-Rotation	Partial
Imlay	4817	Season Long	Deferred	Not
Ivanpah	4858	Deferred	Deferred	Implemented
Jump Canyon	4801	Deferred	Deferred	Implemented
Lambing	4838	Deferred	Deferred	Implemented
Link Spring	4819	Season Long	Deferred	Not
Littlefield Community	4827	Season Long	Season Long	Implemented
Lower Hurricane	4837	Deferred	Deferred	Implemented
Mesquite	4832	Less Intensive	Less Intensive	Implemented
Mud & Cane	4850	Deferred	Deferred	Partial
Mustang Spring	4859	Season Long	Deferred	Partial
Pakoon Spring	4800	Season Long	Rest-Rotation	Planning
Pocum Tank	4840	Deferred	Deferred	Implemented
Quail Canyon	4856	Deferred	Deferred	Implemented
Red Pond	4806	Season Long	Deferred	Not
Sullivan Tank	4816	Deferred	Deferred	Implemented
Sunshine	4863	Season Long	Deferred	Not
Wildcat	4854	Season Long	Deferred	Partial
Wolfhole Canyon	4811	Deferred	Deferred	Partial
Wolfhole Lake	4823	Season Long	Deferred	Not
Wolfhole Mountain	4839	Deferred	Deferred	Partial

APPENDIX 1
ALLOTMENT CATEGORIZATION
SHIVWITS RESOURCE AREA

"M" MAINTAIN CATEGORY ALLOTMENTS

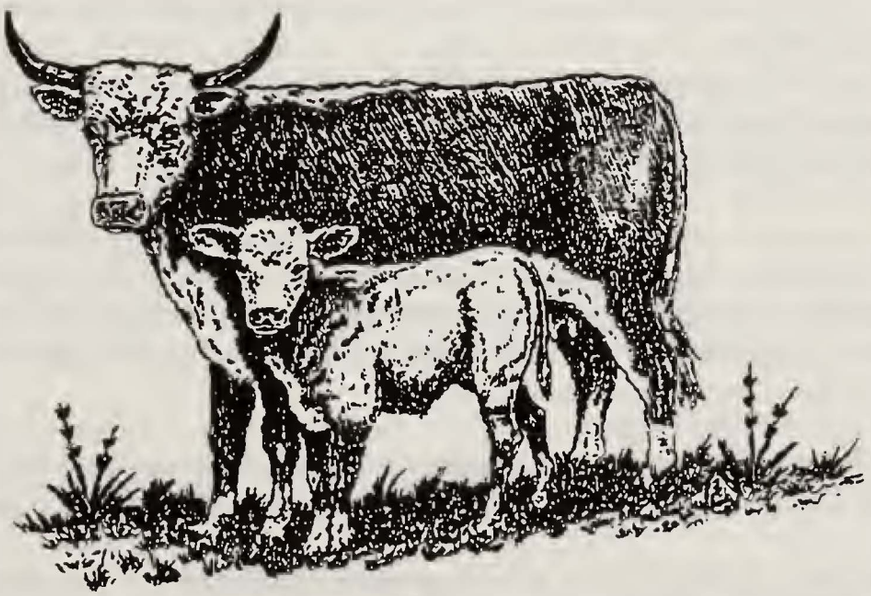
Allotment		Current Management
Name	Number	
Beaver Dam Slope	4828	Deferred
Black Rock	4841	Deferred
Cedar Pockets	4866	Deferred
Cedar Wash	4842	Less Intensive
Clay Spring	4845	Deferred
Coyote	4805	Season Long
Diamond Butte	4833	Season Long
Duncan Tank	4820	Deferred
Highway	4812	Deferred
Jackson Tank	4830	Deferred
Last Chance	4815	Deferred
Little Tank	4853	Deferred
Little Wolf	4814	Rest-Rotation
Lizard	4857	Deferred
Mainstreet	4808	Best Pasture
Mormon Well	4844	Season Long
Mosby	4835	Deferred
Mosby-Nay	4836	Less Intensive
Mount Trumbull	4826	Deferred
Mule Canyon	4821	Deferred
Pa's Pocket	4848	Season Long
Pakoon	4802	Deferred
Penn's Well	4852	Season Long
Purgatory Canyon	4831	Season Long
Sullivan Canyon	4810	Deferred
Tassi	4851	Less Intensive
Toquer Tank	4861	Deferred
Whiterock-Soapstone	4804	Deferred

APPENDIX 1
ALLOTMENT CATEGORIZATION
SHIVWITS RESOURCE AREA

"C" CUSTODIAL CATEGORY ALLOTMENTS

Allotment		Current Management
Name	Number	
Dripping Spring	4818	Season Long
Faught Place	4807	Season Long
Home Ranch	4855	Season Long
Iverson	4834	Season Long
Littlefield Free Use	4843	Season Long
Mountain Sheep	4806	Season Long
Parashant	4829	Deferred
Pat's Pond	4862	Season Long
Rosenberry	4846	Season Long

Many allotments have been moved to "M" from "I" as improvements occur due to management. Other allotments are moved into "I" when problems occur. Recategorization is an ongoing process.



APPENDIX 2
RECLAMATION STIPULATIONS
SHIVWITS RESOURCE AREA

Appendix 2 contains general requirements for preserving and protecting the special environmental and unique resource values of the Arizona Strip. These requirements will guide the formulation of specific stipulations, construction, and/or operating standards that will be applied to surface-disturbing activity. They are designed to provide public land users with a clear understanding of what constitutes prevention of unnecessary or undue degradation and what is required for reclamation. These requirements are supported by Federal Land Policy Management Act and other environmental laws. Suitable site-specific stipulations regarding construction and reclamation and the prevention of unnecessary or undue degradation will be developed by the authorized officer and applied to each authorization in order to minimize long-term impacts and ensure that sites are effectively reclaimed.

UNNECESSARY OR UNDUE DEGRADATION

1. All surface disturbance, including road construction and associated travel, shall be kept to the minimum necessary to accomplish the task. Road upgrade and realignment requests shall include plans for reclamation and a proposal for a post-operations final alignment.

2. All new temporary or existing upgraded roads may require mitigation to reduce the potential adverse impact of fugitive dust as specified by the authorized officer.

3. Where soil characteristics warrant, topsoil shall be stockpiled from a surface depth specified by the authorized officer.

4. All surface-disturbing activities on slopes greater than 15 percent shall include measures to stabilize soils and control surface water runoff.

5. During construction and operation of facilities or improvements, care shall be taken to minimize, to the extent practicable, impacts to the natural and human environments. This may be accomplished through the painting or screening of structures and facilities to blend with the surrounding environment; the suppression of dust and noise; the proper disposal of waste products; and provisions to safeguard public safety.

6. Coloration products may be required along travel corridors and in Visual Resource Management Class II areas to reduce color contrast and restore the natural color balance.

7. Construction and reclamation activities shall be designed to minimize long-term impacts to natural lines, form, textures and color contrast. Reclamation methods shall avoid disturbing more area or exposing greater color contrast than resulted from the original operation.

8. All facilities or improvements that are no longer needed must be removed.

APPENDIX 2
RECLAMATION STIPULATIONS
SHIVWITS RESOURCE AREA

9. In order to protect the wildlife, the public or other important values and discourage unnecessary public contact with authorized activities, the authorized officer may require improvements or facilities to be fenced, gated and locked.

10. Mineral material disposal in Visual Resource Management Class II areas shall not be allowed if reasonable alternative sources are available in other Visual Resource Management classes. Any mineral material disposal sites authorized in VRM Class II shall not compromise the Visual Resource Management class objectives.

11. All powerlines shall be constructed to minimize visual impacts. This may include burying them along existing roads in Visual Resource Management Class II, Area of Critical Environmental Concerns or Resource Conservation Area.

12. Applicants shall supply, at the discretion of the authorized officer, pertinent information regarding impacts from the proposal on surface and groundwater quality and quantity and anticipated impacts from 100-year, 24-hour storm events.

13. All forms of residential occupancy are discouraged on public lands within the Area. Exceptions may occur for the protection of public health and safety, the protection of private property. In regard to locatable mineral development, occupants must be actively and diligently engaged in substantially continuous operations. Intermittent, part time, seasonal or recreational mining operations do not meet occupancy standards. All plans for residential occupancy must be fully incorporated into submitted notices and plans. All proposals for residential occupancy shall be subject to requirements to prevent unnecessary or undue degradation and shall comply with all applicable state and federal laws, regulations and permits. Residential occupancy not in conformance with applicable laws, Bureau guidelines and district policy will be subject to immediate trespass action by the Bureau.

14. Applicants may be required to provide inventories for threatened or endangered plants and/or animals and cultural resources. All inventories shall be to Bureau standards.

15. No surface disturbance shall be authorized which would impact any cultural sites prior to consultation with the State Historic Preservation Officer and threatened or endangered species prior to compliance with the Endangered Species Act.

16. No surface disturbance will be authorized which would impact any cultural property that is allocated to Conservation Use in an approved Cultural Resource Management Plan.

APPENDIX 2
RECLAMATION STIPULATIONS
SHIVWITS RESOURCE AREA

RECLAMATION

1. Reclamation of all surface disturbances must be initiated immediately upon completion of activities, unless otherwise approved by the authorized officer. Reclamation of disturbed areas shall, to the extent practicable, include contouring disturbances to blend with the surrounding terrain, replacement of topsoil, smoothing and blending the original surface colors to minimize impacts to visual resources, and seed the disturbed areas with a mix specified by the authorized officer.

2. All chemicals, trash, garbage or other foreign material must be removed completely from the project area by the applicant immediately upon completion of the project. All material must be properly disposed of in an approved disposal facility. Exceptions to this limitation shall be approved by the authorized officer.

3. At no time shall vehicle or equipment fluids be dumped on public lands. All accidental spills must be reported to BLM and be cleaned up immediately, using best available practices and requirements of the law. All spills of federally or state listed hazardous materials that exceed the reportable quantities shall be promptly reported to the appropriate state agency and the Arizona Strip District.

4. Disturbed areas, where soil and rainfall are adequate for anticipated success, shall be revegetated. In all Visual Resource Management Class II areas, Area of Critical Environmental Concerns and Resource Conservation Areas revegetation of native species shall be preferred. Rates and seed mixes shall be determined by the authorized officer.

5. Revegetation efforts must establish a stable biological ground cover equal to or exceeding that which occurred prior to disturbance. Mulching may be appropriate for conserving moisture and holding seed on-site thus improving the chances for successful establishment.

6. All unnecessary roads shall be reclaimed and closed immediately upon termination of the project. Recontouring all cut slopes to approximately the original contour shall be required. Reclaimed roads shall be barricaded or signed to protect them until reclamation is achieved. All existing roads that require upgrading shall be reclaimed to their original dimensions upon completion of the project. Exceptions must be approved in writing by the authorized officer.

APPENDIX 3
PUBLIC LANDS IDENTIFIED FOR DISPOSAL BY SALE OR EXCHANGE SHIVWITS RESOURCE AREA

DISPOSAL DESCRIPTION	ACREAGE
SALE OR EXCHANGE	
T. 39 N., R. 16 W.,	
sec. 4, lot 2;	39.97
sec. 5, lots 2 and 3, N1/2 lot 6, N1/2SW1/4SE1/4.	118.21
T. 41 N., R. 12 W.,	
sec. 6, lots 1 to 5, incl., SE1/4NW1/4.	237.74
T. 41 N., R. 13 W.,	
sec. 1, S1/2N1/2, W1/2SW1/4, SE1/4.	400.00
T. 41 N., R. 15 W.,	
sec. 33, lots 4 and 5, SW1/4NE1/4, NW1/4SE1/4, N1/2SW1/4SE1/4, SE1/4SW1/4SE1/4, SE1/4SW1/4.	209.53
Comprising 1,005.45 acres	
EXCHANGE ONLY	
T. 39 N., R. 16 W.,	
sec. 3, SW1/4SE1/4, N1/2NE1/4SW1/4;	60.00
sec. 9, SW1/4NE1/4, SE1/4;	200.00
sec. 10, W1/2NE1/4, SE1/4NW1/4, NE1/4SE1/4.	160.00
T. 40 N., R. 15 W.,	
sec. 4, all of S1/2SE1/4 above Virgin River rim	70.00
sec. 6, lots 1 thru 7, S1/2NE1/4, SE1/4NW1/4, E1/2SW1/4.	462.88
T. 40 N., R. 16 W.,	
sec. 33, N1/2NE1/4, NW1/4;	240.00
sec. 34, N1/2NW1/4.	80.00
T. 41 N., R. 12 W.,	
sec. 8, SW1/4NW1/4, W1/2SW1/4.	120.00
T. 41 N., R. 15 W.,	
sec. 31, E1/2;	320.00
sec. 35, all south of I-15.	160.00
T. 42 N., R. 12 W.,	
sec. 31, all.	436.39
Comprising 2,309.27 acres.	

APPENDIX 4
PRIVATE LANDS IDENTIFIED FOR ACQUISITION
SHIVWITS RESOURCE AREA

MOHAVE COUNTY

DESCRIPTION	ACREAGE
T. 33 N., R. 9 W.,	
sec. 3, lots 1 to 4, incl., S1/2N1/2, S1/2;	636.44
sec. 5, lots 1 to 4, incl., S1/2N1/2, S1/2;	637.84
sec. 7, lots 1 to 4, incl., E1/2W1/2, E1/2;	637.04
sec. 9, all;	640.00
sec. 11, all.	640.00
T. 33 N., R. 10 W.,	
sec. 1, lots 1 to 4, incl., S1/2N1/2, S1/2.	641.00
T. 34 N., R. 8 W.,	
sec. 19, NW1/4NE1/4.	40.00
T. 34 N., R. 9 W.,	
sec. 9, SE1/4SE1/4;	40.00
sec. 31, lots 1 to 4, incl., E1/2W1/2, E1/2;	639.32
sec. 33, all.	640.00
T. 34 N., R. 10 W.,	
sec. 35, all.	640.00
T. 39 N., R. 16 W.,	
sec. 2, N1/2NW1/4;	80.00
sec. 3, S1/2NW1/4SW1/4, N1/2SW1/4SW1/4.	40.00
T. 40 N., R. 15 W.,	
sec. 4, S1/2SW1/4, NW1/4NE1/4, river bottom in SW1/4NE1/4;	135.00
sec. 17, S1/2NW1/4, NW1/4SW1/4;	120.00
sec. 18, NE1/4SE1/4.	40.00
T. 40 N., R. 16 W.,	
sec. 25, N1/2NE1/4, NW1/4.	240.00

APPENDIX 4
PRIVATE LANDS IDENTIFIED FOR ACQUISITION
SHIVWITS RESOURCE AREA

MOHAVE COUNTY

DESCRIPTION	ACREAGE
T. 41 N., R. 14 W.,	
sec. 30, SW1/4SW1/4	40.00
T. 41 N., R. 15 W.,	
sec. 25, SE1/4SE1/4;	40.00
sec. 34, NE1/4SW1/4, S1/2NE1/4NW1/4SW1/4, SE1/4NW1/4NW1/4SW1/4, SW1/4SW1/4NW1/4SW1/4, E1/2SW1/4NW1/4SW1/4, SE1/4NW1/4SW1/4, S1/2SW1/4;	145.00
sec. 36, E1/2.	320.00
T. 41 N., R. 16 W.,	
sec. 12, W1/2NE1/4, E1/2NW1/4.	160.00
Comprising 7,191.64 acres in Mohave County	

APPENDIX 4
STATE LANDS IDENTIFIED FOR ACQUISITION
SHIVWITS RESOURCE AREA
MOHAVE COUNTY

DESCRIPTION	ACREAGE
T. 32 N., R. 12 W.,	
sec. 2, N1/2SE1/4.	80.00
T. 33 N., R. 11 W.,	
sec. 16, all.	640.00
T. 33 N., R. 12 W.,	
sec. 36, all.	640.00
T. 33 N., R. 14 W.,	
sec. 36, SE1/4SE1/4.	40.00
T. 33 N., R. 15 W.,	
sec. 2, lots 1 to 4, incl., SE1/4NE1/4, S1/2NW1/4, S1/2.	600.40
T. 34 N., R. 9 W.,	
sec. 32, all.	640.00
T. 34 N., R. 10 W.,	
sec. 2, lots 1 to 4, inc., S1/2N1/2, S1/2;	641.94
sec. 16, all;	640.00
sec. 32, all;	640.00
sec. 36, all.	640.00
T. 34 N., R. 11 W.,	
sec. 32, W1/2NE1/4, NW1/4.	240.00
T. 34 N., R. 12 W.,	
sec. 2, lots 1 to 4, incl., S1/2N1/2, S1/2;	630.52
sec. 16, all;	640.00
sec. 36, all.	640.00
T. 34 N., R. 13 W.,	
sec. 2, lots 1 to 4, incl., S1/2N1/2, S1/2;	626.96
sec. 16, all.	640.00
T. 34 N., R. 14 W.,	
sec. 32, SW1/4SW1/4.	40.00
T. 34 N., R. 15 W.,	
sec. 2, lot 4, S1/2NW1/4, N1/2SE1/4, SW1/4SE1/4.	237.42

APPENDIX 4
STATE LANDS IDENTIFIED FOR ACQUISITION
SHIVWITS RESOURCE AREA

MOHAVE COUNTY

DESCRIPTION	ACREAGE
T. 35 N., R. 9 W.,	
sec. 18, SW1/4NE1/4, NE1/4NW1/4, E1/2SE1/4;	160.00
sec. 19, NE1/4, E1/2NW1/4, N1/2SE1/4;	320.00
sec. 20, W1/2NW1/4, NW1/4SW1/4;	120.00
sec. 32, all.	640.00
T. 35 N., R. 10 W.,	
sec. 5, lots 1 to 4, incl., S1/2N1/2, S1/2;	643.76
sec. 16, all;	640.00
sec. 29, NW1/4;	160.00
sec. 30. W1/2NE1/4;	80.00
sec. 32, all;	640.00
sec. 34, all;	640.00
sec. 36, all.	640.00
T. 35 N., R. 11 W.,	
sec. 2, lots 1 to 4, incl., S1/2N1/2, S1/2;	641.96
sec. 32, all;	640.00
sec. 36, all.	640.00
T. 35 N., R. 13 W.,	
sec. 16, SW1/4SE1/4, E1/2SE1/4;	120.00
sec. 36, N1/2, E1/2SE1/4.	400.00
T. 35 N., R. 15 W.,	
sec. 16, SE1/4NE1/4.	40.00
T. 36 N., R. 10 W.,	
sec. 2, lots 1 to 4, incl., S1/2N1/2, S1/2;	638.20
sec. 5, lots 1 and 2, S1/2NE1/4;	163.88
sec. 6, lots 1 and 2, S1/2NE1/4;	165.59
sec. 8, all;	640.00
sec. 9, N1/2SW1/4, W1/2SE1/4;	560.00
sec. 10, N1/2SW1/4SW1/4;	360.00
sec. 16, N1/2, NW1/4SW1/4, NE1/4SE1/4, S1/2S1/2;	560.00
sec. 17, all;	640.00

APPENDIX 4
STATE LANDS IDENTIFIED FOR ACQUISITION
SHIVWITS RESOURCE AREA

MOHAVE COUNTY

DESCRIPTION	ACREAGE
T. 36 N., R. 10 W., (cont.)	
sec. 20, N1/2;	320.00
sec. 29, W1/2;	320.00
sec. 31, lots 1 to 4, incl., E1/2W1/2, E1/2;	632.64
sec. 32, all;	640.00
sec. 36, all.	640.00
T. 36 N., R. 11 W.,	
sec. 2, lots 3 and 4, S1/2NW1/4, S1/2;	489.30
sec. 15, all;	640.00
sec. 16, E1/2, NE1/4SW1/4, S1/2SW1/4;	440.00
sec. 22, all;	640.00
sec. 27, S1/2NE1/4, NW1/4, S1/2;	560.00
sec. 28, all;	640.00
sec. 31, lots 1 to 4, incl., E1/2W1/2, E1/2;	629.08
sec. 32, E1/2NE1/4, SW1/4NE1/4, W1/2, SE1/4;	600.00
sec. 36, all.	640.00
T. 36 N., R. 12 W.,	
sec. 2, lots 1 to 4, incl., S1/2N1/2, S1/2;	671.28
sec. 16, all;	640.00
sec. 32, all;	640.00
sec. 36, all.	640.00
T. 36 N., R. 13 W.,	
sec. 32, all;	640.00
sec. 36, all.	640.00
T. 36 N., R. 16 W.,	
sec. 4, S1/2;	320.00
sec. 8, all;	640.00
sec. 9, all;	640.00
sec. 16, W1/2SE1/4;	80.00
sec. 32, all;	640.00
sec. 36, all.	640.00

APPENDIX 4
STATE LANDS IDENTIFIED FOR ACQUISITION
SHIVWITS RESOURCE AREA

MOHAVE COUNTY

DESCRIPTION	ACREAGE
T. 37 N., R. 9 W.,	
sec. 10, E1/2;	320.00
sec. 16, all.	640.00
T. 37 N., R. 10 W., (cont.)	
sec. 2, lots 1 to 4, incl., S1/2N1/2, S1/2;	670.32
sec. 10, S1/2;	320.00
sec. 15, all;	640.00
sec. 16, all;	640.00
sec. 21, all;	640.00
sec. 22, all;	640.00
sec. 32, all.	640.00
T. 37 N., R. 11 W.,	
sec. 16, N1/2, SW1/4, W1/2SE1/4, SE1/4SE1/4;	600.00
sec. 32, all;	640.00
sec. 36, all.	640.00
T. 37 N., R. 12 W.,	
sec. 2, lots 1 to 4, incl., S1/2N1/2, S1/2;	643.04
sec. 36, N1/2, SW1/4, E1/2SE1/4, SW1/4SE1/4.	600.00
T. 37 N., R. 13 W.,	
sec. 16, all;	640.00
sec. 32, all;	640.00
sec. 36, all.	640.00
T. 37 N., R. 14 W.,	
sec. 2, lots 1 to 4, incl., S1/2N1/2, S1/2;	640.84
sec. 16, all;	640.00
sec. 32, all.	640.00
T. 38 N., R. 9 W.,	
sec. 16, N1/2SW1/4, SW1/4SW1/4;	120.00
sec. 32, all.	640.00
T. 38 N., R. 10 W.,	
sec. 2, lot 1, S1/2;	359.74
sec. 16, W1/2.	320.00

APPENDIX 4
STATE LANDS IDENTIFIED FOR ACQUISITION
SHIVWITS RESOURCE AREA

MOHAVE COUNTY

DESCRIPTION	ACREAGE
T. 38 N., R. 12 W.,	
sec. 2, lots 1 to 4, incl., S1/2N1/2, S1/2;	645.72
sec. 10, all;	640.00
sec. 36, all.	640.00
T. 39 N., R. 9 W.,	
sec. 32, all.	640.00
T. 39 N., R. 12 W.,	
sec, 36, all.	640.00
T. 39 N., R. 13 W.,	
sec. 2, lots 1 to 4, incl., S1/2N1/2, S1/2.	639.08
T. 40 N., R. 10 W.,	
sec. 16, N1/2NW1/4, E1/2SW1/4, SW1/4SW1/4, SE1/4;	360.00
sec. 32, SW1/4NE1/4, NW1/4.	200.00
T. 40 N., R. 11 W,	
sec. 16, NE1/4NE1/4.	40.00
T. 40 N., R. 12 W.,	
sec. 16, SE1/4.	160.00
T. 40 N., R. 15 W.,	
sec. 16, S1/2NW1/4NE1/4, SW1/4NE1/4, W1/2SE1/4NE1/4, SE1/4.	240.00
T. 40 N., R. 16 W.,	
sec. 26, E1/2SE1/4.	80.00
T. 41 N., R. 13 W.,	
sec. 32, all;	640.00
sec. 36, all.	640.00

APPENDIX 4
STATE LANDS IDENTIFIED FOR ACQUISITION
SHIVWITS RESOURCE AREA

MOHAVE COUNTY

DESCRIPTION	ACREAGE
T. 41 N., R. 15 W.,	
sec. 18, all;	640.00
sec. 19, all;	640.00
sec. 30, all.	640.00
T. 41 N., R. 16 W.,	
sec. 2, all;	640.00
sec. 12, E1/2NE1/4, W1/2NW1/4, S1/2;	480.00
sec. 13, E1/2.	320.00
T. 42 N., R. 16 W.,	
sec. 36, lots 1 to 3, inc.	90.71
Comprising 57,662.38 acres in Mohave County	

APPENDIX 5
AVAILABILITY OF LANDS FOR FLUID LEASABLE MINERALS ACTIVITY RELATIVE TO RESOURCE POTENTIAL SHIVWITS RESOURCE AREA

Category	Potential			
	Low	Moderate	High	Total
Category A Areas open to lease subject to standard terms and conditions.	238,500	1,007,000	0	1,245,500
Category B Areas open to lease subject to seasonal restrictions.	142,500	6,500	0	149,000
Category C Areas open to lease subject to no surface occupancy.	76,200	49,800	0	126,000
Category D Areas closed to leasing.	51,000	103,500	0	154,500
Total	508,200	1,166,800	0	* 1,675,000

*The total number of acres used in this table reflects the total number of surface acres in the Shivwits Resource Area including BLM, state, and private. This has been done for comparison purposes only so that a consistent number of total acres may be used in the table without regard to proposed land ownership adjustments. The actual acreage in each category may vary slightly from those shown in this table due to the description of the acreage by legal subdivision.

FLUID MINERAL LEASING CATEGORIES

Category A

Approximately 1,245,500 acres would be open to lease subject to standard lease terms and conditions.

Category B

To protect peregrine falcons during the nesting season, exploration, drilling and other surface-disturbing activities will be allowed only during the period from August 1 through March 1. This limitation does not apply to the maintenance and operation of producing wells. Exceptions to this limitation in any year may be authorized in writing by the authorized officer of the federal surface management agency if it is shown to the satisfaction of the authorized officer that no adverse impacts to peregrine falcon would occur. This limitation applies to approximately 109,100 acres.

In order to protect bighorn sheep, exploration, drilling and other surface-disturbing activities will be allowed only during the period from June 1 through November 30. This limitation does not apply to the maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer of the federal surface management agency if it is shown to the satisfaction of the authorized officer that adverse impacts to the bighorn sheep would not occur. This limitation would apply to approximately 39,900 acres.

APPENDIX 5
AVAILABILITY OF LANDS FOR FLUID LEASABLE MINERALS ACTIVITY RELATIVE TO RESOURCE POTENTIAL SHIVWITS RESOURCE AREA

Category C

In order to protect important scenic values, no surface occupancy or other surface disturbance will be allowed within Kanab Creek or Grama Canyon. Exceptions to this limitation may be specifically authorized in writing by the authorized officer of the federal surface management agency if it is shown to the satisfaction of the authorized officer that the proposed disturbance or occupancy will not substantially impair the visual resources of the area. This limitation would apply to approximately 3,700 acres.

In order to protect important scenic values, no surface occupancy or other surface disturbance will be allowed on slopes in excess of 30 percent along or within the following areas: the north slopes of Mokiac and Seegmiller mountains; Hurricane Cliffs; Diamond Butte; upper and lower Grand Wash Cliffs; Parashant, Andrus, Hidden, and Dansil canyons. Exceptions to this limitation may be specifically authorized in writing by the authorized officer of the federal surface management agency if it is shown to the satisfaction of the authorized officer that the proposed disturbance or occupancy will not impair the visual resources of the area. This limitation would apply to approximately 122,300 acres.

Category D

In order to protect wilderness values, four areas encompassing some 154,500 acres on the Shivwits Resource Area were designated as wilderness by Congress in 1984. These areas were withdrawn from mineral leasing at that time.

APPENDIX 6
CULTURAL RESOURCE MANAGEMENT GUIDELINES
SHIVWITS RESOURCE AREA

Manage For Information Potential

Cultural resources included under this objective are capable of contributing useful scientific, historic, or management information. This information potential is to be protected to the extent needed, by physical or administrative means, until the potential has been realized.

Cultural resources which would be managed for their information potential have one or both of the following characteristics:

1. They are suitable for scientific study using currently available research techniques, including study that would result in their physical alteration.

2. They are suitable for controlled experimental studies which would aid in the management of other cultural properties; studies, for example, that are aimed at understanding the effects of natural or human-caused impacts to cultural properties, effectiveness of protection or monitoring efforts and similar objectives.

Habitation, historic agricultural, resource utilization and socio-cultural site types are known recorded properties in the Resource Area. The existence of prehistoric agricultural site types is not well documented, but they are believed to be in the area. Cultural properties that are found and are not specifically designated to one of the management objectives below would be managed for their information potential. They contain retrievable information that is important to developing an understanding of the cultural history of the Resource Area and surrounding region.

Cultural properties to be managed for their information potential may be studied for one or a combination of the following:

They are suitable for study for satisfying the needs of an academic research proposal.

They are suitable for short or long-term establishment of archaeological field schools.

They are subjects of data recovery designed to mitigate impacts of a competing land use.

They are suitable for monitoring the effects of natural and human-caused impacts to cultural properties.

Such studies must be in accordance with BLM-approved research designs, data recovery plans and recordation standards. Bureau and non-Bureau personnel using cultural resources for this purpose must comply with the provisions of the Archaeological Resources Protection Act of 1979. Uses which will affect National Register-listed or -eligible properties will require consultation in accordance with 36 CFR 800 and applicable Memorandums of Agreement.

APPENDIX 6
CULTURAL RESOURCE MANAGEMENT GUIDELINES
SHIVWITS RESOURCE AREA

The information potential of cultural resources managed under this objective will be protected through monitoring of selected geographical areas or high-value sites, and occasional monitoring of others. Stabilization, fencing, signing, electronic, aerial and ground surveillance as well as public awareness efforts will be employed to achieve this objective.

Manage for Conservation

Cultural resources included under this objective have overriding scientific prehistoric and/or historic importance. Because of their scarcity, a research potential that surpasses the current state of the art, such resources are not considered appropriate subjects of studies that would cause physical alteration. They will be managed to maintain their present condition and protect them from potentially conflicting land or resource uses. The archaeological site known as Little Black Mountain will be managed under the conservation objective.

Advanced methods of data collection and analysis may yield new information that could potentially advance our knowledge of the Archaic to Formative transition. All relatively undisturbed cave or rock shelter sites that may be discovered or acquired in the Resource Area will be managed for conservation, because sites from this period of transition are rare.

Archaeological sites from selected classes of cultural properties representing transition periods may be identified in future activity plans to create a data bank managed under this objective. The purpose is to preserve these sites for future study when analytical techniques are more sophisticated and the research contributions of these resources can be maximized. Management emphasis will be placed on protecting these resources with their cultural material in place. Only non-destructive studies and analysis will be permitted.

The management objectives determined for these cultural properties may be changed from conservation to information potential after determining that their research values can be realized through state-of-the-art methods of data collection and analysis. Such studies would then be subject to the standards and provisions identified under management for information potential.

Cultural properties of this class may be managed under the public values objective if their information potential has reached the point where educational, recreational and other public values would not result in the loss of important scientific values.

Measures to conserve these cultural resources for the future will include high-priority status for monitoring (electronic, aerial and ground) and evaluating access that does not conflict with other resource uses. Stabilization efforts, such as erosion control, will be implemented as needed.

APPENDIX 6
CULTURAL RESOURCE MANAGEMENT GUIDELINES
SHIVWITS RESOURCE AREA

Manage for Public Values

Cultural resources included under this objective are particularly useful for their socio-cultural, educational, recreational or other public values. Their locations will be managed in a manner that gives adequate consideration to these values.

Cultural resources managed for public values generally possess one or both of the following characteristics:

1. Cultural resources perceived by a social and/or cultural group as having attributes that contribute to maintaining the heritage or existence of that group. Locations of traditional cultural or religious importance to Native Americans or Mormons, for example, would be of this kind.

2. They are appropriate for interpretive development as exhibits in place, for supervised participation in scientific or historic studies by members of amateur archaeological societies, and for educational and recreational uses by members of the general public. A cultural resource of this kind that has been identified in the Resource Area is the Little Black Mountain. Other sites will be identified for public value management as studies are completed.

Accessibility, public demand, public sensitivity, cost-effectiveness and feasibility will be considered, among other factors, in managing cultural properties of this kind for educational or recreational use. Management might include signs, self-guided interpretive trails, brochures, supervised archaeological excavation, mapping and other forms of recordation, stabilization, visitor facilities, on-site public tours and long-term group stewardships.

Cultural resources identified by contemporary social and/or cultural groups would take into account the concerns and sensitivities of the groups involved. Information on such resources would be protected from public disclosure to the extent allowed by statute.

Management of cultural resources for public values will be carried out with an awareness of any information potential such resources might possess. Any development of a cultural property for educational or recreational use will be done in such a manner as to safeguard important scientific information and will be subject to the requirements of appropriate laws and regulations.

APPENDIX 6
CULTURAL RESOURCE MANAGEMENT GUIDELINES
SHIVWITS RESOURCE AREA

Activity Plans

Cultural resources in the Resource Management Plan area will be allocated to specific uses in a cultural resource management plan. Activity plans containing detailed management prescriptions for selected cultural properties will be developed after use allocations have been made. Cultural properties to be managed for conservation will receive the highest priority for activity planning.

Classes of Cultural Properties in the Resource Management Plan Area

Habitation (includes):

Prehistoric

Prehistoric Terraces
Villages/Towns
Rock Shelters and Caves
Pueblos
Camps
Pithouses

Agriculture (includes):

Historic

Villages/Towns
Camps
Cabins
Corrals (historic irrigation)
Water Control Devices
Historic Terraces, Dams
Ranching Facilities

Resource Utilization (includes):

Prehistoric

Artifact Scatters
Roasting Pits
Trash Middens
Hearths
Quarries
Ovens
Storage Cists

Historic

Mines
Artifact Scatters

Socio-cultural (includes):

Prehistoric

Rock Art
Community Rooms
Religious
Mortuary
Kivas
Trails

Historic

Inscriptions
Roads and Trails

APPENDIX 7
WATERSHED CONDITION CATEGORIZATION OF GRAZING ALLOTMENTS WITHIN ARIZONA STRIP DISTRICT

SHIVWITS RESOURCE AREA

CATEGORY I

Cedar Wash - 4842
Dripping Spring - 4818
Duncan Tank - 4820
Faught Place - 4807
Home Ranch - 4855
Iverson - 4834
Lambing - 4838
Last Chance - 4815
Little Tank - 4853
Littlefield Community - 4827
Littlefield Free-Use - 4843
Lizard - 4857
Mesquite Community - 4832
Mosby - 4835
Mosby-Nay - 4836
Mule Canyon - 4821
Mustang Spring - 4859
Pa's Pocket - 4848
Pakoon - 4802
Pakoon Spring - 4800
Purgatory - 4831
Sullivan Canyon - 4810
Sunshine - 4863
Tassi - 4851
Toquer Tank - 4861
Whiterock-Soapstone - 4804

CATEGORY II

Beaver Dam - 4828
Blake Pond - 4813
Clay Spring - 4845
Coyote Spring - 4805
Diamond Butte - 4833
Hat Knoll - 4837
Jackson Tank - 4830
Little Wolf - 4814
Lower Hurricane - 4837
Mainstreet(winter) - 4808
Mormon Well - 4844
Mt. Trumbull - 4826
Parashant - 4829
Pat's Pond - 4862
Pocum Tank - 4840
Quail Canyon - 4857
Rosenberry - 4846

CATEGORY IV

Belnap - 4849
Belnap West - 4822
Big Spring Pipeline - 4870
Black Rock - 4841
Cottonwood - 4809
Grassie Mountain - 4825
Hidden Spring - 4803
Imlay - 4817
Ivanpah - 4858
Jump Canyon - 4801
Link Spring - 4819
Mainstreet(summer) - 4808
Mud & Cane - 4850
Penn's Well - 4852
Sullivan Tank - 4816
Wildcat - 4854
Wolfhole Canyon - 4811
Wolfhole Lake - 4823
Wolfhole Mountain - 4839

APPENDIX 8
STATE AND/OR FEDERALLY LISTED SPECIAL STATUS PLANT SPECIES THAT OCCUR OR MAY OCCUR IN THE SHIVWITS RESOURCE AREA

COMMON NAME	SCIENTIFIC NAME
Utah Coryphantha	Coryphantha missouriensis marstonii
Fickeisen Navajo Cactus	Pediocactus peeblesianus fickeiseniae
Gypsum Cactus	Pediocactus sileri
Slender Evening Primrose	Camissonia exilis
Atwood Catseye	Crypthantha atwoodii
Brady Plains Cactus	Pediocactus bradyi
Devils Claw	Schlerocactus spinosior
Silver Buffalo Berry	Shepherdia argentea
Beath Milkvetch	Astragalus beathii
Striped Flower Milkvetch	Astragalus striatiflorus
Mohave Dalea	Psorothamnus arborescens pubescens
Heerman Wild Buckwheat	Eriogonum heermanii subracemosum
Atwood Wild Buckwheat	Eriogonum thompsonae atwoodii
Desert Rose	Rosa stellata
Welsh's Milkweed	Asclepias welshii
Vagabond Parsnip	Aletes macdougali
Parney Wild Parsley	Lomatium parryi
Narrowleaf Blue Star	Amsonia tomentosa stenophylla
Jones Blue Star	Amsonia jonesii
Hidden Horn Milkweed	Asclepias crytoceras
Hooker Balsam Root	Balsamorhiza hookeri
Silverleaf Sunray	Enceliopsis argophylla
Nodesten Sunray	Enceliopsis nudicalis
Hopi Sunflower	Helianthus anomalus
Longspine Cotton Thorn	Tetradymia axillaris longispina
Blackrock Ground Daisy	Townsendia smithii
Hermit Catseye	Crypthantha capitate
Yellow Beavertail	Opuntia basilaris avrea
Navajo Bridge Cactus	Opuntia nicholii
James Whitlow Wort	Paronychia jamesii
Beaked Milkvetch	Astragalus acutirostris
Barneby Milkvetch	Astragalus barnebyi
King Clover	Trifolium kingii macilentum
Littlefield Nama	Nama pusillum
Three Hearts	Tricarddia watsoni
Hopi Sage	Salvia pachphylla

APPENDIX 8
STATE AND/OR FEDERALLY LISTED SPECIAL STATUS PLANT SPECIES THAT OCCUR OR MAY OCCUR IN THE SHIVWITS RESOURCE AREA

COMMON NAME	SCIENTIFIC NAME
Blue Curls	Trichostema micranthum
Nevada Moonpod	Selinocarpus nevadensis
Least Evening Primrose	Camissonia parvula
Roaring Spring Prickle Poppy	Argemon arizonica
Scarlet Wild Buckwheat	Eriogonum zionis coccineum
Shrub Gilia	Isomopsis frutescens
Juniper Buttercup	Ranunculus juniperinus
Two-leaf Bedstraw	Galium bifolium
Red Alum Root	Heuchera rubescens
King Snapdragon	Antirrhinun hingii
Nevada Blue Grass	Poa nevadensis
Virgin Narrows Spike Moss	Salaginella leucobryoides
Alpine watsonii	Salaginella watsonii
Mt. Trumbull Beardtongue	Penstenion distans

APPENDIX 9
STATE AND/OR FEDERALLY LISTED SPECIAL STATUS ANIMAL SPECIES THAT OCCUR OR MAY OCCUR IN THE SHIVWITS RESOURCE AREA

COMMON NAME	SCIENTIFIC NAME	S-F STATUS
Peregrine Falcon	Falco peregrinus anatum	* SC - FE
Bald Eagle	Haliaeetus leucocephalus	SE- FE
Snowy Egret	Egretta thula	ST - NL
Northern Goshawk	Accipiter gentilis	SC - F2
Mexican Spotted Owl	Strix occidentalis lucida	ST - PT
Belted Kingfisher	Megaceryle alcyon	SC - NL
Southwestern Willow Flycatcher	Empidonax trailii extimus	SE - F2
Western Snowy Plover	Charadrius alexandrius nivosus	SC - F2
White-Faced Ibis	Plegadis chihi	NL - F2
American Bittern	Botaurus lentiginosus	NL - SC
Common Black Hawk	Buteogallus anthracinus	NL - SC
Ferruginous Hawk	Buteo regalis	ST - F2
Merriams Kangaroo Rat	Dipodomys merriami frenatus	NL - F2
Red Bat	Lasiurus borealis	SC - NL
Spotted Bat	Euderma maculatum	SC - F2
California Leaf-Nosed Bat	Macrotus californicus	F2 - SC
Arizona Southwestern Toad	Bufo microscaphus microscaphus	NL - F2
Relict Leopard Frog	Rana onca	F2 - SX
Northern Leopard Frog	Rana pipiens	NL - SC
Desert Tortoise	Xerobates (=Gopherus) agassizii	FT - SC
Chuckwalla	Sauromalus obesus obesus	F2 - NL
Woundfin Minnow	Plagopterus argentissimus	FE - SE
Virgin River Chub	Gila robusta seminuda	FE - SE
Virgin River Spinedace	Lepidomeda mollispinis mollispinis	F2 - SE
Grand Canyon Cave Psuedoscorpion	Archeolarca cavicola	F2 - NL
Grand Wash Springsnail	Pyrgulopsis bacchus	F2 - NL

*SE = State Endangered Species
ST = State Threatened Species
SC = State Candidate Species
NL = Not Listed

SX= State Extinct/Extirpated
FE = Federal Endangered Species
FT = Federal Threatened Species
PT = Federal Proposed Threatened
F2 = Federal Candidate Category 2 Species

APPENDIX 10
DESERT TORTOISE HABITAT CATEGORIZATION

The BLM Desert Tortoise Rangewide Plan, pages 11-12, states the following:

"Desert Tortoise Habitat Areas will be delineated by BLM district managers (with public review) to meet the three category goals. Such categorization of habitats will assist the BLM in attaining the overall tortoise habitat management goal established by the Director. That goal is translated into more specific goals for each habitat category. These category goals will, in turn, be reached by implementing the objectives and related management actions.

"The purpose of the categorization of habitats is to provide for future protection and management of these areas and their associated desert tortoise populations. Differing levels of management, consistent with category goals, will be applied to habitat areas in each category.

"The Bureau is committed to maintaining viable tortoise populations in Category 1 and 2 habitats through implementation of the management actions in the next section. Placing an area of habitat in Category 3 means that these areas are of lower value in sustaining viable populations of tortoise on public lands, and thus can be subjected to lower management intensity specifically for tortoises than habitats in the other categories.

"Note that tortoise density and population trends will often be more useful in evaluating progress within categories than for actual categorization of habitat areas. Usually, the overriding criteria for categorization will be viable population considerations and conflict resolvability. The concept of resolvability includes mitigation; thus, conflicts will be judged resolvable whenever the actions required to resolve them are within BLMs discretion.

" Where schedules permit, areas will be categorized through the RMP. Where schedules do not permit, categorizations will be completed using existing data and will be reconsidered whenever an RMP is prepared or revised. The results will be documented as a part of the approved plan."

The Rangewide Plan instructs each state to prepare an implementation strategy that will provide guidance to the district level. The draft Arizona Implementation Strategy, pages 3-4, states that:

"Habitat areas must be delineated prior to categorization. Each disjunct tortoise population in the Sonoran Desert of Arizona will be considered a separate population occupying its own habitat area. On the Arizona Strip, where tortoise populations are 'patchily continuous,' habitats will be delineated based on localized population density.

"Delineated habitats will be placed into one of three categories, as described in the Bureauwide management plan. Habitat manageability (resolvability of existing issues) and population density will be the principal factors considered in the initial categorization of tortoise habitats. Where such information is available, the other factors described in the Bureauwide plan (population trend, habitat condition and

APPENDIX 10
DESERT TORTOISE HABITAT CATEGORIZATION

trend, and population importance), will also be used in the categorization process. Within Arizona, the following density ranges will guide differentiation between categories:

Category I	51+ tortoises per square mile;
Category II	21 to 50 tortoises per square mile;
Category III	1 to 20 tortoises per square mile;

"Much of Arizona's initial habitat categorizations are based upon data collected from transects and only a few square-mile plots. Only crude estimates of population density, and little information on population trend and habitat condition or trend, can be extrapolated from such data. Dependence upon population density as a major factor in categorizing habitats will lessen as additional data is acquired on habitat quality, population trends, and other factors. At this time, such information can only be acquired through monitoring. Categories of some habitats (and perhaps the numerical descriptions of the categories) will change as better insight into tortoise ecology is acquired. Habitats will be recategorized as new data is acquired (through monitoring or other sources) that indicate they should be recategorized. The recategorization process is not intended to be a corrective mechanism to account for declines in habitat quality; the purpose of this Strategy and the management methods described in it is to prevent significant declines in habitat quality."

DECISION-MAKING PROCESS

The first step in the categorization of tortoise habitat on the Arizona Strip was to examine tortoise population densities, demographics, and trends. The importance of habitat to the maintenance of a viable population was then considered. Finally, the manageability of conflicts was analyzed.

Habitat delineation was based primarily on information gathered on the two desert tortoise study plots on the Arizona Beaver Dam Slope (Hohman and Ohmart, 1980; Duck and Snider, 1988) and from approximately 600 miles of 10-yard-wide tortoise survey transects, the vast majority of which were performed by Sheppard from 1980 through 1982 (Wilhelm, 1975; Sheppard, BLM files; Burge, 1979; Duck, pers. comm.) Information from study plots and transects in Utah and Nevada (Coffeen, pers. comm; Coombs, 1974, 1977; Minden, 1980; Minden and Metzger, 1984; Welker, 1986; Duncan, 1987, Woodbury and Hardy, 1948), and Arizona Strip wildlife observation reports was incorporated.

Tortoise densities of 20 to 60 per sq. mile have been reported on the Beaver Dam Slope in Arizona. Densities on the Utah slope have been declining steadily. Minden estimated between 16 and 60 per sq. mile in 1980, while Welker reported 24 to 44 per sq. mile in 1986. The Beaver Dam Slope is the only area for which we have good density information. Population densities vary considerably on the Slope and these density values can be considered reliable only for the study sites themselves; care must be taken in using the data to estimate densities elsewhere.

Elsewhere the Arizona Strip relied on survey transects as estimators of relative density. By comparing transects which examined the two study plots with other transects we developed a relative density indicator. Habitat delineations were drawn around clusters of transects sharing similar totals. The lines were located along features on 1:24,000-scale maps, using information on soils and vegetation.

APPENDIX 10
DESERT TORTOISE HABITAT CATEGORIZATION

Admittedly, this is a best-guess effort at this time. Future transects will be accomplished to refine some lines. The Arizona Strip contains areas of potential habitat for which we have no data. These areas will also be inventoried and delineated.

Several assumptions were made in order to determine the importance of an area for the maintenance of a viable population. We assume that prior to the arrival of settlers the tortoise population in the area was viable. This population is genetically and morphologically distinct (Buth, 1986; Lamb, 1987.) The Virgin River was a partial barrier to movement, but the entire area from the Pakoon to the Beaver Dam Slopes to the Mormon Mountains (and beyond) was one large, patchily continuous population. Habitat fragmentation as a result of human development (inundation of Lake Mead, construction of I-15, development of Mesquite and Littlefield/Beaver Dam) has effectively split the population into three areas: Pakoon/Gold Butte, Virgin Slopes, and the Beaver Dam/Mormon Mountains.

Despite decreasing densities on adjacent areas in Utah, we have assumed that the Beaver Dam Slopes in Utah and Arizona, along with the neighboring portion of Nevada (Mormon Mountains), is large enough to support a viable population, given proper attention to the protection of that habitat. Utah BLM has proposed to designate the Critical Habitat Area as Category 1.

Desert tortoise habitat in the Pakoon is an extension of the Nevada Gold Butte population. Along the border, transects indicate moderate to high relative densities. This population is important for maintaining the viability of the Gold Butte population. Some exchange may occur between these tortoises and those along the Virgin Slopes.

The Virgin Slopes contain moderate to low tortoise densities. Due to habitat fragmentation from the increase in roads and houses, the main avenue for genetic exchange is being lost. The Virgin Mountains form a barrier to the south and east, while the Virgin River and I-15 create a substantial barrier to the north. The growth of Mesquite and Bunkerville, Nevada, cause this population to become increasingly isolated. Habitat losses on private lands have increased recently.

The impacts on tortoise habitat from increased urbanization and the concomitant human uses (agriculture, road-building, utility corridors, dumps, off-highway vehicles, feral dogs, vandalism, tortoise collecting, vegetation collecting) are the least manageable of all conflicts. Livestock uses and mineral exploration and development create conflicts with tortoise that will be identified and prevented. Livestock use and mineral activity are allowed throughout tortoise habitat, and thus also were not factors. This is not to say that these activities are not factors in tortoise ecology, rather that they were not used as factors to delineate habitat.

The evaluation of relative population density based on study plot and transect information indicated there are four density categories: high, medium, low, and unknown. Those areas identified as high, medium, or low were evaluated for their importance in maintaining a viable population. The final step was an analysis of conflict resolvability.

APPENDIX 10
DESERT TORTOISE HABITAT CATEGORIZATION

The draft categorization of tortoise habitat on the Arizona Strip is shown on Map 13. Categories 1, 2, and 3 follow the formula found in the Rangewide Plan and the Arizona Implementation Strategy.

These are preliminary categories that could be redefined as future surveys and monitoring improve our understanding of tortoise populations. An evaluation of tortoise habitat condition and trend was not included here. This evaluation should become one of the highest priorities of tortoise management and the results incorporated as they become available. The Bureau will not downgrade areas based on changes which are a result of permitted activities. Changes will be made only as a result of improved information and not as a means of avoiding conflicts. Information gained from future work such as transects, study plots, and habitat evaluations will continue to provide more information for better habitat management.

CATEGORY I AREAS

Area 1: Beaver Dam Slope, 21,400 acres. This area includes habitat north of the Virgin River between the Paiute-Beaver Dam Wilderness Area and Beaver Dam Wash. Hohman and Ohmart (1978) determined that population densities ranged from 25 to 50 per sq. mile. Duck and Snider (1987) found similar densities. This area is important to maintaining a viable population along the entire Beaver Dam Slopes, including the Critical Habitat Area. When combined with the proposed Utah Category 1 area along the Beaver Dam Slopes a continuous area of 46,600 acres will be designated in Utah and Arizona. This area contains 2 tortoise study plots in Arizona.

This area is bounded on the east by the 3800 ft contour line in the Beaver Dam Mountains. The Paiute-Beaver Dam Wilderness Area provides a high level of protection to tortoise habitat within the wilderness and buffers the east edge of this Category 1 area. The southern boundary of the Category 1 area is the conflict resolvability line drawn around the Virgin River. Private and county lands along the river have been excluded from Category I designation. The west edge is formed by the manageability line drawn around the agricultural and urban development in Beaver Dam Wash. The north boundary is the Arizona-Utah border.

Area 2: Mosby Nay, 17,450 acres. Sheppard and Duck transects indicate that the highest densities in the Pakoon Basin are along the Arizona/Nevada border south of Whitney Ridge. This area is important to maintaining a viable population in the adjacent Gold Butte (Nevada) Crucial Area which has been mentioned as a candidate for Category 1 designation.

The west boundary of the area is the Arizona-Nevada border, the southern boundary is the Lake Mead National Recreation Area, the east boundary is a large north-south ridge (actually its an upthrust block) called the Cockscomb, while the north boundary location runs between concentrations of high and low transect values.

APPENDIX 10
DESERT TORTOISE HABITAT CATEGORIZATION

CATEGORY II AREAS

Area 3: Coon Creek, 33,100 acres. Estimates of tortoise densities are based on transects conducted by Sheppard and Duck and range from 1 to near 50 per square mile. The area has few conflicts and is important to the viability of the Mormon Mountain and Beaver Dam Slopes tortoise populations. The area is adjacent to proposed Category 2 habitat in Utah and Nevada.

The west boundary is the Arizona-Nevada border; the north boundary is the Arizona-Utah border; the east boundary is Beaver Dam Wash; and the south boundary is a conflict-manageability line 1/2 mile north of state land and along I-15.

Area 4: Lower Virgin Slopes, 22,550 acres. Although transects are notoriously poor methods of determining trend, there are significant decreases in the values of transects run by Sheppard in 1980-1982 and Duck in 1986-1988. This population has been effectively separated from other populations in the area by the Virgin River and I-15. The small size may prove to be inadequate to support a viable population, yet there are tortoises in sufficient numbers now to warrant protection. Some gene exchange may occur between tortoises here and those on the Beaver Dam Slopes and in the Gold Butte Crucial Area, although it has been reduced.

Area 5: Tank Wash, 5,700 acres. Fires in the Pakoon Basin have drastically altered the vegetation composition to an (exotic) annual grassland within the past 10 years. This area remains as the best refuge in the Pakoon Basin east of the Mosby Nay Category 1 area. This is a prime candidate for redelineation to include the remaining unburned tortoise habitat.

Area 6: Cedar Wash, 10,350 acres. This area has lower densities than the Beaver Dam Slope, yet is important due to the fact it is adjacent to the slope. Conflicts here are very manageable due to the wilderness designation.

CATEGORY III AREAS

Area 7: Beaver Dam, 3,700 acres. Tortoise densities have declined to near zero due to increasing urban and agricultural development near Beaver Dam, Arizona, and along Beaver Dam Wash. Much of this area is owned privately, and the conflicts are difficult to resolve.

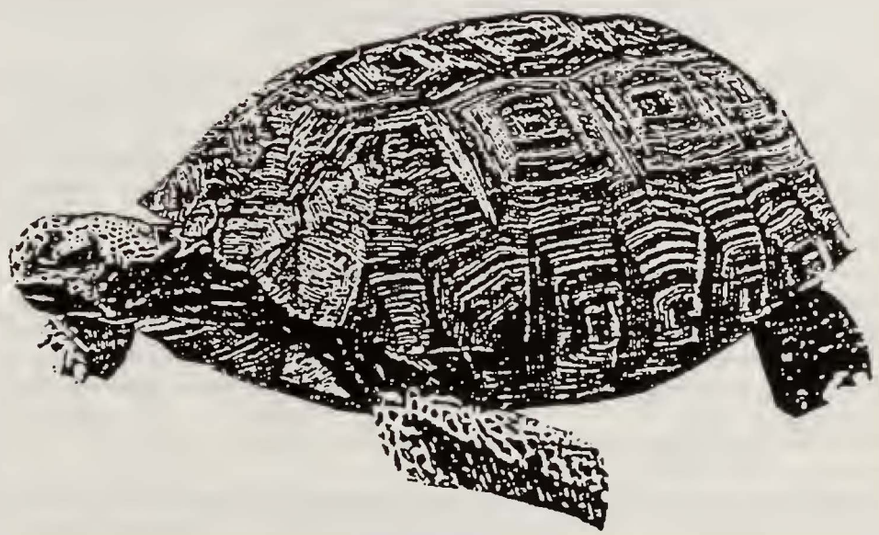
Area 8: Freeway, 3,600 acres. Five small habitat fragments along Interstate 15 that were historically tortoise habitat but have received substantial use by humans.

Area 9: Scenic, 13,400 acres. A large increase in the development of private lands in this area was followed by substantial decreases in densities. Urban development is associated with OHV activity, collecting, vandalism, and other forms of habitat deterioration. Tortoise here have been isolated from the Beaver Dam population by the Virgin River and I-15.

APPENDIX 10
DESERT TORTOISE HABITAT CATEGORIZATION

Area 10: Upper Virgin Slopes, 20,800 acres. Poor denning due to soils and high water flows have kept densities low (5-10/sq. mile.) Some of the area is within the Paiute Wilderness Area which affords a high level of protection.

Area 11: Pakoon, 148,300 acres. A large area of low-to-moderate densities. Fires have substantially reduced the value of the habitat and reduced tortoise population densities. There are very few conflicts in this area because of the remoteness. Livestock grazing and recreation are the only activities in the area (other than fires.)



APPENDIX 10
DESERT TORTOISE HABITAT CATEGORIZATION

DESERT TORTOISE HABITAT CATEGORY AREAS ON THE ARIZONA STRIP DISTRICT

AREA NAME	ACREAGE	POPULATION DENSITY*	POPULATION TREND	CONFLICT RESOLVABILITY	IMPORTANCE TO VIABLE POPULATION	CATEGORY DESIGNATION
BEAVER DAM SLOPE	21,400	20-50	ST/DE	HIGH	HIGH	2
MOSBY-NAY	17,450	20-50	ST/DE	HIGH	HIGH	1
COON CREEK	33,100	1-50	UN	HIGH	HIGH	2
LOWER VIRGIN SLOPE	22,550	20-50	UN	HIGH	LOW	2
TANK WASH	5,700	20-50	UN	MOD	MOD	2
CEDAR WASH	10,350	1-50	UN	HIGH	HIGH	2
BEAVER DAM	3,700	11-20	DE	LOW	LOW	3
FREEWAY	3,600	11-20	DE	LOW	LOW	3
SCENIC	13,400	1-20	DE	LOW	LOW	3
UPPER VIRGIN SLOPE	20,800	1-20	UN	LOW	LOW	3
PAKOON	148,300	0-50	DE	MOD	MOD	3
TOTAL	300,350					

*=Desert Tortoises Per Square Mile
ST=Stable
DE=Decreasing
UN=Unknown

Total Area Category 1 = 38,850 acres
Total Area Category 2 = 71,700 acres
Total Area Categories 1 and 2 = 110,550 acres
Total Area Category 3 = 189,800 acres
Total Area Categories 1, 2 and 3 = 300,350 acres

APPENDIX 11
RECREATIONAL OPPORTUNITY SPECTRUM
SETTING DESCRIPTIONS

ROS CLASSES	PHYSICAL SETTING	SOCIAL SETTING	MANAGERIAL SETTING
Primitive	Area is characterized by essentially unmodified natural environment of fairly large size.	Concentration of users is very low and evidence of other users is minimal.	The area is managed to be essentially free from evidence of human-induced restrictions and controls. Only facilities essential for resource protection are used. No facilities for comfort or convenience are provided. Spacing of groups is informal and dispersed to minimize contacts between groups. Motorized use within the area is not permitted.
Semi-Primitive Non-motorized	Area is characterized by a predominantly unmodified natural environment of moderate to large size.	Concentration of users is low, but often other area users are evident.	On-site controls and restrictions may be present but are subtle. Facilities are provided for the protection of resource values and the safety of users only. Spacing of groups may be formalized to disperse use and limit contacts between groups. Motorized use is not generally permitted unless otherwise designated.
Semi-Primitive Motorized	Same as Semi-Primitive Nonmotorized	Same as Semi-Primitive Nonmotorized	Same as Semi-Primitive Non-motorized; except that motorized use is permitted.
Roaded Natural	Area is characterized by a generally natural environment. Resource modification and utilization practices are evident.	Concentration of users is low to moderate with facilities sometimes provided for group activity. Moderate evidence of the sights and sounds of humans.	On-site controls and restrictions offer a sense of security. Rustic facilities are provided for user convenience as well as for safety and resource protection. Conventional motorized use is provided for in construction standards and design of facilities.
Rural	Area is characterized by a substantially modified natural environment. Resource modification and utilization practices are evident.	Concentration of users is often moderate to high. The sights and sounds of humans are readily evident.	Many facilities are designed for use by large numbers of people. Facilities are often provided for specific activities. Developed sites, roads, and trails, are designed for moderate to high use. Moderate densities are provided far away from developed sites. Facilities for intensive motorized use are available.
Urban	Area is characterized by a highly modified environment, although the background may have natural elements. Vegetation is often exotic and manicured. Soil may be protected by surfacing.	Large numbers of users can be expected. The sights and sounds of humans, on-site, predominate.	Modern facilities are provided for the use and convenience of large groups. Controls and restrictions are obvious and numerous. Facilities for high intensity motor use and parking are present with forms of mass transit often available.

APPENDIX 12
OFF-HIGHWAY VEHICLE DESIGNATIONS

DEFINITION:

1. "Off-highway vehicle" - any motorized vehicle capable of, or designed for, travel on or immediately over land or other natural terrain, excluding: (1) any military, fire, search and rescue, or law enforcement vehicle while being used for emergency purposes; (2) any vehicle use expressly approved by the authorized officer; (3) vehicles in official use; and (4) any combat support vehicle when used in times of national defense emergencies.

2. "Official use" - use by an employee, agent, or designated representative of the federal government or one of its contractors, in the course of carrying out required duties.

3. "Trail" - an unmaintained road, such as a 4-wheel-drive trail, consisting of two parallel tracks.

4. "Open area" - an area where motorized vehicle use is permitted both on-and-off-road.

5. "Closed area" - an area where motorized vehicle use is prohibited. Use of vehicles in closed areas may be approved by the authorized officer for special purposes or legal requirements. Wilderness areas are closed.

6. "Limited to existing and trails" - motorized vehicle use permitted on all roads and trails in the area unless otherwise signed as closed. Motorized vehicle use is not permitted on roads and trails that have been physically closed through reclamation actions. Some off-road travel may be permitted (see Strategies/Guidelines).

7. "Limited to designated roads and trails" - motorized vehicles permitted only on roads or trails that have been identified as open on a district map. Roads and trails not identified as open are closed to all motorized use and will be signed as closed on the ground. Off-road travel is prohibited unless prior approval has been granted by the authorized officer (see Strategies/Guidelines.)

8. "Limited to seasonal use" - motorized vehicle use is regulated by the time of year that specific management prescription apply.

9. "Off-road" - any motorized vehicle use not on an existing road or trail. This refers to cross-country travel.

APPENDIX 12
OFF-HIGHWAY VEHICLE DESIGNATIONS

MANAGEMENT STRATEGIES/GUIDELINES:

A. Limited to existing roads or trails - BLM will not prepare an activity plan/map for these areas. All authorized public land users that hold a permit or license (i.e., grazing permittees, wood permits, hunting license, rights-of-way holders, mining claim, etc.) may drive off-road if required to fulfill requirements of their permit or license. Motorized vehicles must park within 100 yards of an existing road or trail for camping.

B. Limited to designated roads or trails - BLM will prepare an activity plan and a map for each area that will identify the specific roads that are open. These plans and maps will be circulated for public review as they are prepared. Specific requests and approval by the authorized officer is required prior to most off-road vehicle use in these areas. Hunters may not use motorized vehicles off the designated roads to retrieve an animal. Vehicle parking must be within 50 feet of the designated roads.

C. All areas classified as "limited to designated roads and trails" will be managed as "limited to existing roads and trails" until a specific activity plan and map are prepared.

D. All off-road vehicle use must be limited to the minimum necessary in order to accomplish the task and to prevent undue or unnecessary degradation to the area.

E. Organized events, timber harvesting, and land treatment projects will be handled on a case-by-case basis.

F. Emergency services and/or law enforcement activities are exceptions to these policies.



APPENDIX 13
VISUAL RESOURCE MANAGEMENT CLASSES

OVERVIEW

The purpose of this appendix is to describe the process by which visual resources are classified and the visual impacts of proposed projects are assessed. Visual resource management is an analytical process that identifies and sets objectives for maintaining scenic values and visual quality. The objectives are used by management, along with other resource values, in determining the best use of public lands. Public lands within the Arizona Strip District have been inventoried and placed into Visual Resource Management classes.

VRM CLASSES

After classification as to scenic quality, visual sensitivity, and distance zones, areas are assigned to one of five management classes. These management classes establish objectives for maintaining or enhancing an area's visual quality. The Visual Resource Management classes are established through the Resource Management Plan process.

A brief summary of objectives for the visual resource management classes are:

Class I: This class is given to lands which have a special designation already in place for the protection of scenic values. Examples are areas which have been designated as wilderness or natural areas. Class I objectives allow for only natural ecological changes.

Class II: Areas that have a high scenic quality and where people are highly sensitive to changes in the scenery are given a Class II rating. Changes to the landform, vegetation or structures should be done very subtly. Proposed changes may be seen, but should not attract attention.

Class III: Scenic quality of lands with this classification may be good to very good, but when combined with other factors of how sensitive people are to changes and viewing distances, the overall class rating wasn't high enough to warrant the objectives of Class II. Management activities which affect the scenery should be designed or restricted so they are not obviously in contrast to the existing landscape.

Class IV: These lands in comparison to others in the region, are fairly mundane, with similar-looking vegetation and little change in landform. People are generally less sensitive to changes here. Proposed projects or management activities may occur here and obviously be in contrast to the landscape. However, mitigation is still required to reasonably reduce any unnecessary degradation of scenic quality.

Class V: This classification is applied to the specific areas where the landscape has been disturbed to the point that rehabilitation is required to bring it up to the surrounding area's class. It is used as an interim classification until objectives of another class can be reached. An example would be the route of a powerline in a Class II area or a landfill site.

APPENDIX 14
LEGAL VEHICULAR ACCESS ACQUISITION
SHIVWITS RESOURCE AREA

Legal access would be required across private and state lands for administrative and public vehicular use on the following roads:

1. Beaver Dam - T. 40 N., R. 15 W., sec. 4, NW1/4NW1/4 - 1/4 mile

2. Littlefield - T. 40 N., R. 15 W., sec. 4, SW1/4SE1/4 - 1/4 mile

3. Virgin River - T. 40 N., R. 15 W., sec. 9, E1/2NW1/4, NE1/4SW1/4 - 3/4 mile

4. Bundyville - T. 35 N., R. 10 W., secs. 26 & 27, S1/2S1/2 - 3 miles

5. Whitmore Point - T. 34 N., R. 10 W., sec. 35 - 1 mile; T. 33 N., R. 10 W., sec. 1 - 1 mile; T. 33 N., R. 9 W., sec. 7 - 1.5 miles

6. Wildcat - T. 33 N., R. 12 W., sec. 21, SE1/4SE1/4; sec. 27; sec. 35, N1/2 - 2.5 miles

7. Penn Valley - T. 32 N., R. 11 W., sec 6, W1/2; sec. 7, NE1/4NW1/4 - 1. 5 miles



APPENDIX 15
FOREST MANAGEMENT CATEGORIES

CATEGORY A

Lands available for intensive management of forest products

Areas where forest management is the primary use and where other resource uses or values occur but are not emphasized.

CATEGORY B

Lands available for restricted management of forest products

Areas where multiple use or other resource values are emphasized but timber harvest occurs.

CATEGORY C

Lands where forest management is for the enhancement of other uses

Areas where forest management activities are specifically for the benefit of other identified resource uses or values.

CATEGORY D

Forest lands not available for management of forest products

Areas where no forest management is planned.

APPENDIX 16
WITHDRAWALS
SHIVWITS RESOURCE AREA

EXISTING WITHDRAWALS/ACRES	ACRES PROPOSED FOR REVOCATION	WITHDRAWALS RETAINED ACRES
Boulder Canyon (4,709)	4,709	0
Hybrid Oak (PLO 3701) (154)	154	0
Virgin River Scenic Area		
-Outside wilderness (5,000)	0	5,000
-Inside wilderness (17,000)	17,000	0
Wilderness (153,728.75)	0	153,728.75
TOTAL (180,831.75)*	21,863	158,968.75

* 17,000 of these acres are double-counted because they are included in two overlapping withdrawals.



APPENDIX 17
MANAGEMENT PRESCRIPTIONS FOR SPECIAL MANAGEMENT AREAS, RESOURCE CONSERVATION AREAS (RCAs), and AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACECs)

SITE OR AREA	VALUES	DESIGNATION	LANDS	LOCATABLE & MINERAL MATERIAL MANAGEMENT	FLUID MINERALS	CULTURAL/ RECREATION	RANGE MAT	ROADS AND ACCESS	FOREST & WOODLAND MAT	OFF-HIGHWAY VEHICLES	OTHER
BEAVER DAM SLOPE	Threatened Species Desert Tortoise	ACEC (20,800 acres)	Acquire non-federal lands as opportunities arise within tortoise habitat. Manage utility corridor to meet needs of applicant and in accordance with BLM's Rangewide Desert Tortoise Plan.	Open to mineral exploration and development Plan of operation required to eliminate impacts to desert tortoise. Close to mineral material disposals	Open to lease subject to the requirements imposed by the OHV closure. Activities may be limited by season as needed to protect habitat of the desert tortoise.		Manage consistent with the Rangewide Desert Tortoise Plan category guidelines, the Endangered Species Act, and revise AMPs to Incorporate Rangewide Plan requirements	Allow only temporary upgrading of existing roads. Allow new roads only on a temporary basis or if positive benefit to desert tortoise. Close and rehabilitate roads not necessary for public access. Reroute existing roads where feasible to improve manageability of tortoise habitat.		Close to Off-Highway Vehicle use (primary roads bisect the closed area).	All activities managed according to guidelines of BLM's Rangewide Desert Tortoise Plan and the draft Arizona Desert Tortoise Implementation Strategy. Increase public awareness through signs, information, and education. Conduct ecological site inventory and appropriate research.

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SITE OR AREA	VALUES	DESIGNATION	LANDS	LOCATABLE & MINERAL MATERIAL MAT	FLUID MINERALS	CULTURAL/ RECREATION	RANGE MAT	ROADS AND ACCESS	FOREST & WOODLAND MAT	OFF-HIGHWAY VEHICLES	OTHER
VIRGIN RIVER CORRIDOR	Riparian Endangered Fish Species (Virgin River Chub, Woundfin Minnow) Scenic Values	ACEC (8,100 acres)	Acquire lands with riparian and high resource value as opportunities arise.	Continue withdrawal from mineral location in Virgin River Gorge Plan of operation required for portion of ACEC between existing withdrawal and Nevada state line. Special mitigation required to minimize impacts to riparian, scenic, and recreation values and avoid impacts to endangered fish species Close to mineral material disposals.	Open to lease In Virgin River Gorge subject to the no occupancy stipulation. Other areas are open to leasing subject to standard terms and conditions.	Study river for wild and scenic values. Write an activity plan to provide a variety of visitor uses in the Virgin River campground and surrounding areas including longer term visitor use, tent and self contained camping, river running, and recreation and wilderness use.	Continue existing rangeland management Monitor condition and trend and adjust management accordingly. In riparian areas plan grazing management to accommodate growth requirements of riparian vegetation species, cottonwood, willow, etc.	Allow only temporary upgrading of existing roads. Allow new roads on a temporary basis only. Upgrade campground loop and access roads to accommodate modern recreational vehicles.	Open to woodland product sales on a case-by-case basis when beneficial to riparian resources. Allow collection of dead-and-down wood for personal campsite use only.	Limit to designated roads and trails. Implement ranger patrol.	Acquire Instream water rights. Emphasize fire control and management. Control exotic wildlife species and feral livestock. Monitor for water quality.

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SITE OR AREA	VALUES	DESIGNATION	LANDS	LOCATABLE & MINERAL MATERIAL MAT	FLUID MINERALS	CULTURAL/ RECREATION	RANGE MAT	ROADS AND ACCESS	FOREST & WOODLAND MAT	OFF-HIGHWAY VEHICLES	OTHER
LITTLE BLACK MOUNTAIN	Cultural	ACEC (200 acres)	Retain in public ownership.	Open to mineral exploration and development. Plan of operation required with special mitigation to avoid impacts to cultural resources. Close to mineral material disposals.		Interpret area for public use.	Fence site for protection	Improve road access, provide a parking area.		Limit to designated roads and trails except in the fenced, closed area.	Implement ranger patrol. Implement site steward patrols.

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SITE OR AREA	VALUES	DESIGNATION	LANDS	LOCATABLE & MINERAL MATERIAL MAT	FLUID MINERALS	CULTURAL/ RECREATION	RANGE MAT	ROADS AND ACCESS	FOREST & WOODLAND MAT	OFF-HIGHWAY VEHICLES	OTHER
FORT PIERCE	Endangered species (Pediocactus sileri Critical Watershed	ACEC (900 acres)	Retain in public ownership.	Open to mineral exploration and development. Plan of operation required with special mitigation to avoid impacts to Pediocactus sileri and critical watershed values Close to mineral material disposals			Maintain existing natural vegetation. Manage to improve vegetation diversity and cover.			Limit to designated roads and trails	Develop a watershed activity plan.

APPENDIX 17
MANAGEMENT PRESCRIPTIONS FOR SPECIAL MANAGEMENT AREAS, RESOURCE CONSERVATION AREAS (RCAs), and AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACECs)

SITE OR AREA	VALUES	DESIGNATION	LANDS	LOCATABLE & MINERAL MATERIAL MAT	FLUID MINERALS	CULTURAL/ RECREATION	RANGE MAT	ROADS AND ACCESS	FOREST & WOODLAND MAT	OFF-HIGHWAY VEHICLES	OTHER
PARASHANT AREA	Wildlife Habitat Livestock Grazing Recreation Watershed	RCA (51,000 acres)	Where feasible place linear R/Ws underground along existing roads.	Allow locatable mineral exploration and development subject to special stipulations attached to plans of operation to maintain and restore unique features and remoteness. These stipulations would be developed to address site-specific needs.	---	Provide a broad spectrum of back-country opportunities with low managerial oversite and regulation. Protect and interpret historical features. Conduct a Class II cultural resource inventory. Protect remote character by limiting number of types of commercial recreation permits if necessary.	No new permanent grazing authorizations. Grazing will be at BLM discretion to provide additional rest on other allotments needing rest due to fire damage, vegetation treatments, or to establish an AMP grazing system. Ensure range improement maintenance.	No new permanent roads or improved access. Maintain existing access roads.	Manage for enhancement of other resource values.	Limit to designated roads and trails.	Investigate possibility of introducing Kaibab squirrel. Manage fire for preplanned enhancement of resource values. Write a coordinated plan integrating management of resource programs. Complete coordinated resource plans for riparian areas. Construct fire and visitor administrative site.

APPENDIX 18
WILD & SCENIC RIVERS
ELIGIBILITY, CLASSIFICATION, AND SUITABILITY

STUDY PROCESS

The wild and scenic river study process has three steps:

1. Determine if the river segment(s) are eligible for Wild and Scenic River designation.

2. Determine the potential classification of the river segment(s) as wild, scenic, recreational, or any combination thereof.

3. Conduct a suitability study/legislative EIS to determine if the river segment(s) is suitable for designation to the Wild and Scenic Rivers System.

Specific study procedures are found in the BLM Manual 8351 and in the final revised U.S. Departments of Agriculture and Interior guidelines found in Federal Register Vol. 7, No. 173, September 7, 1982. The guidance recommends that all three steps be completed during the RMP process. However, if circumstances make this impossible, the study/EIS step may be deferred for up to 5 years. Minimum determinations in an RMP involving a potential wild and scenic river must include decisions on eligibility and classification.

Because of the RMP schedule, funding limitations, and coordination requirements involving three BLM districts in three states (Utah, Arizona, and Nevada), the Arizona Strip District has elected to defer the suitability study for the Virgin River. This appendix completes the first two steps of the process for the Virgin River as required by BLM guidance.

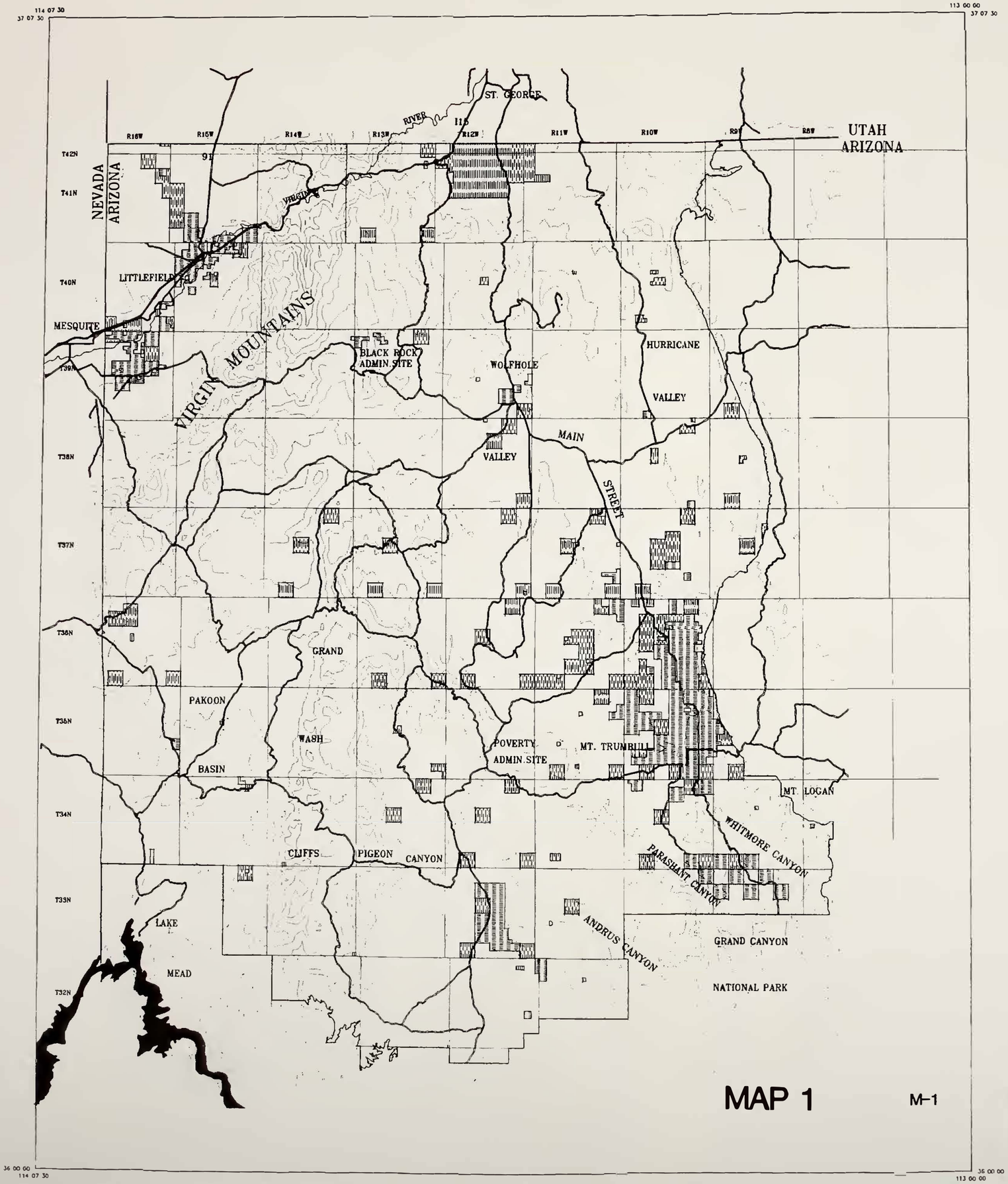
STUDY CRITERIA

To be eligible for inclusion in the national system, a river segment must be free-flowing, and the river and its adjacent land area must possess at least one outstandingly remarkable value. There are no specific requirements regarding the length or flow of an eligible river segment. Length and flow are sufficient if they sustain or complement the outstandingly remarkable values for which the river would be designated. The minimum study corridor includes the river and the adjacent lands to 0.25 mile from river's edges. A wider corridor may be studied if inclusion could facilitate resource management

MAPS

SHIVWITS RESOURCE AREA

SURFACE OWNERSHIP



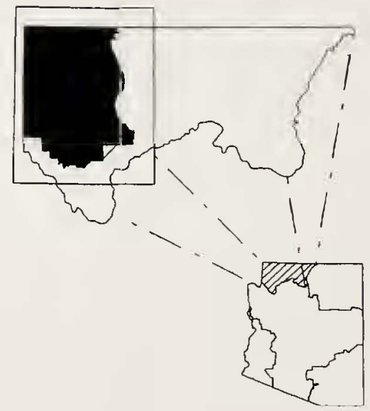
MAP 1 M-1

RESOURCE LEGEND

- *STATE LAND*
- *PRIVATE LAND*
- *PUBLIC LAND*

BASE MAP LEGEND

- *RESOURCE AREA BOUNDARY*
- *PAVED HIGHWAY*
- *PRIMARY UNPAVED ROAD*
- *200 FT. CONTOUR*



SCALE 1:200,000

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

SECTIONED TOWNSHIP

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BASE MAP DATA INPUT FROM USGS 1:24000 AND 1:100000 SCALE TOPOGRAPHIC MAPS

RESOURCE MAP DATA COMPILED BY THE BLM USING USGS TOPOGRAPHIC MAPS FOR CONTROL

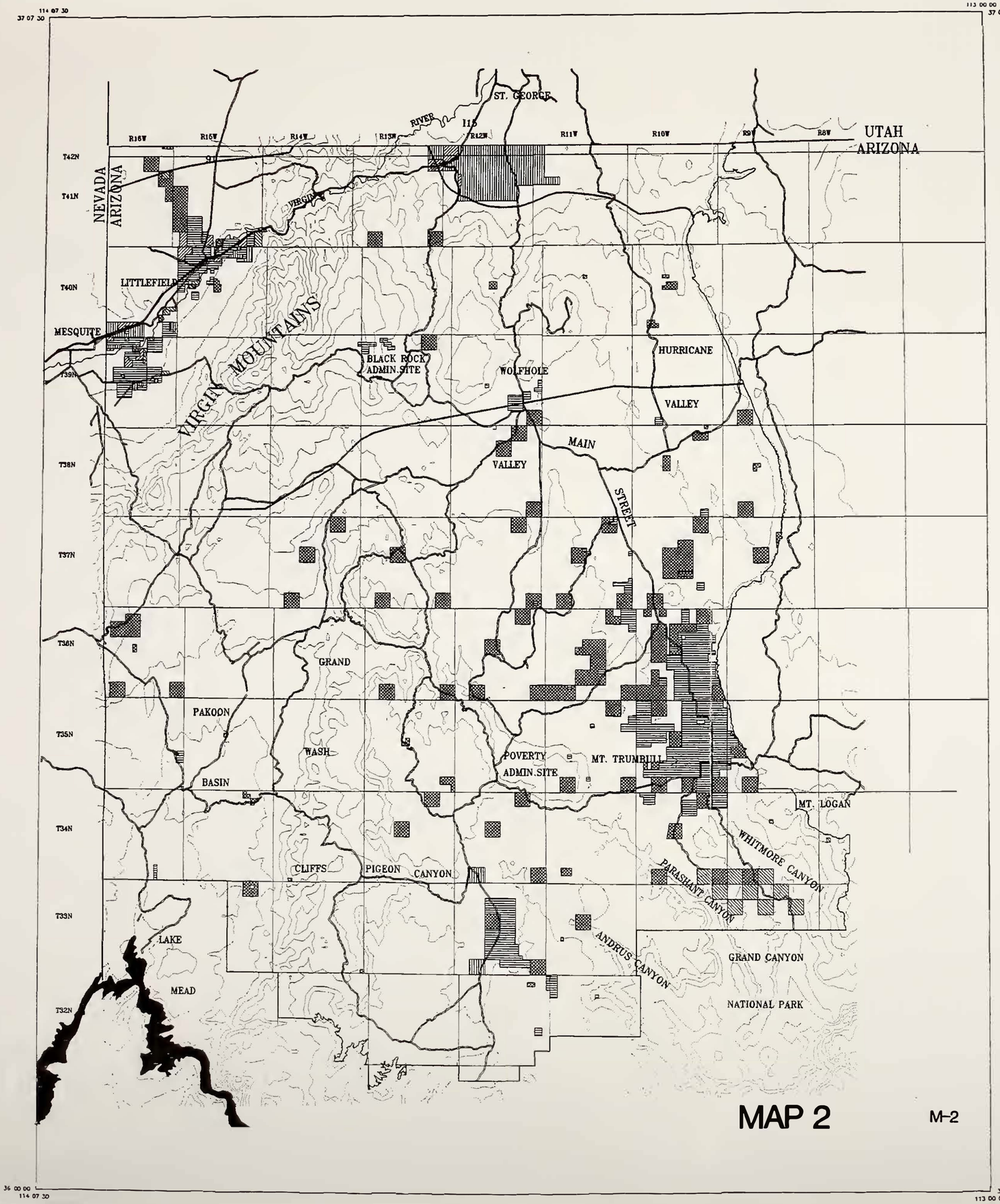
PROJECTION ARIZONA STATE PLANE, WESTERN ZONE (TRANSVERSE MERCATOR)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
ARIZONA STRIP DISTRICT
SHIVWITS RESOURCE AREA

JUNE 1992

SHIVWITS RESOURCE AREA

PROPOSED LAND OWNERSHIP ADJUSTMENTS & UTILITY COORIDORS

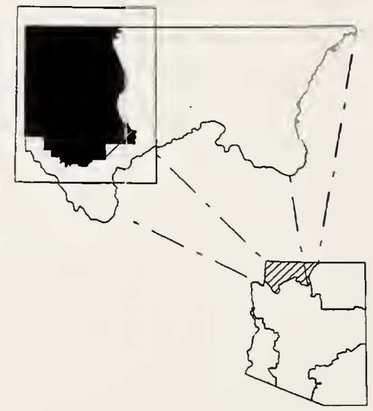


RESOURCE LEGEND

- *BLM ACQUIRE PRIVATE*
- *BLM ACQUIRE STATE*
- *BLM EXCHANGE OR SALE*
- *STATE LAND*
- *PRIVATE LAND*
- *UTILITY CORRIDOR*
- *NO CORRIDOR DESIGNATED*

BASE MAP LEGEND

- *RESOURCE AREA BOUNDARY*
- *PAVED HIGHWAY*
- *PRIMARY UNPAVED ROAD*
- *200 FT. CONTOUR*



SCALE 1:200,000

6	5	4	3	2	1
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UNITED STATES
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ARIZONA STATE OFFICE
ARIZONA STRIP DISTRICT
SHIVWITS RESOURCE AREA

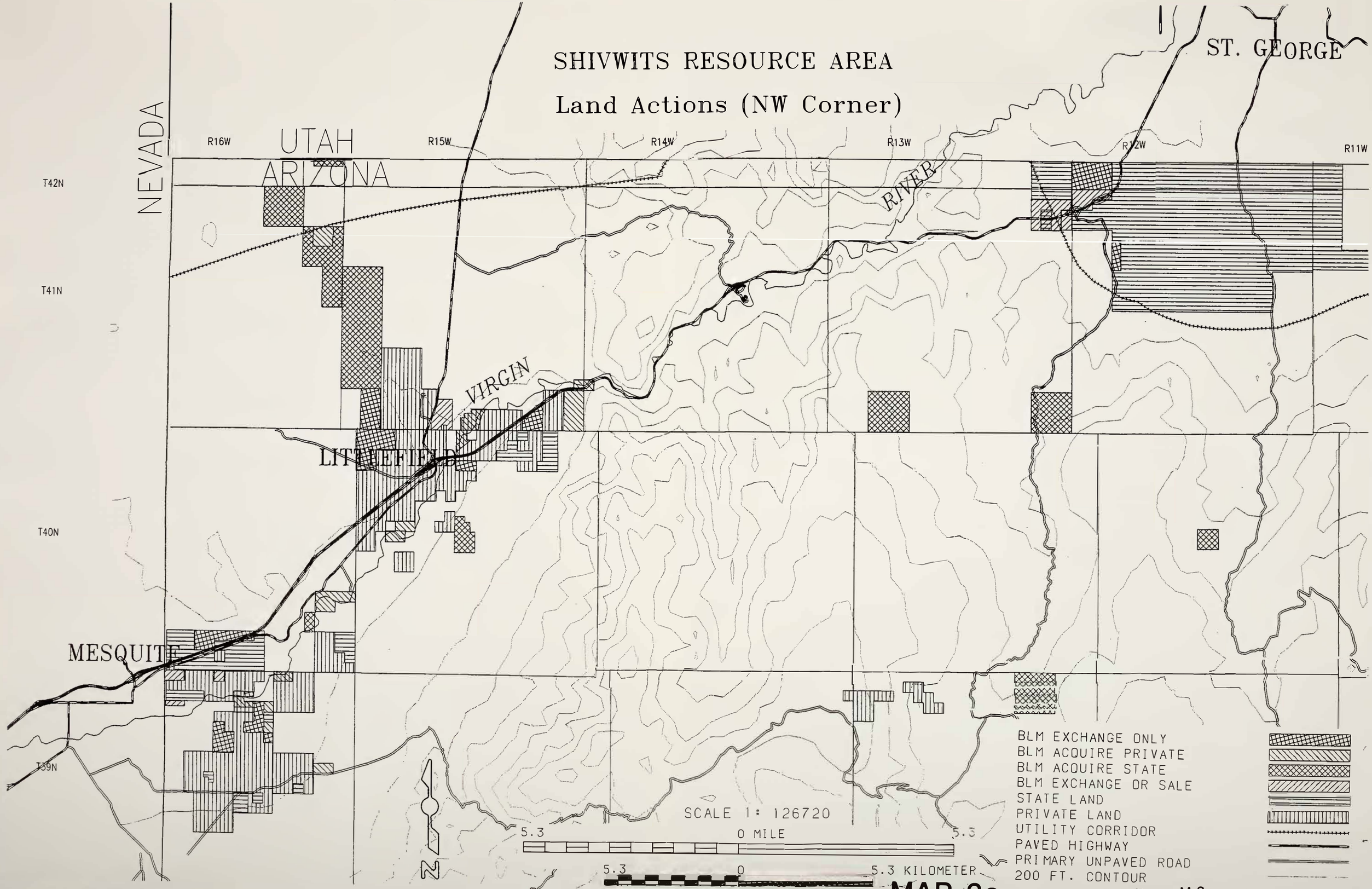
JUNE 1992

MAP 2

M-2

SHIVWITS RESOURCE AREA

Land Actions (NW Corner)



MAP 2a

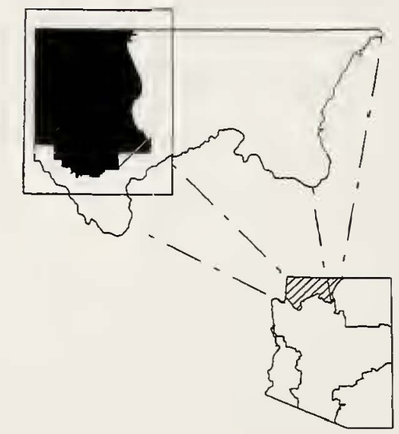
SHIVWITS RESOURCE AREA

FLUID MINERAL LEASING CATEGORIES

FEATURE	CATEGORY	RESTRICTION	ACREAGE
OPEN	A	NONE	1,245,500
PEREGRINE	B	OPEN 8/1-3/1	109,100
BIGHORN	B	OPEN 6/1-11/30	39,900
VISUAL	C	NSO	3,700
VISUAL	C	NSO SLOPE>30%	122,300
WILDERNESS	O	WITHDRAWAL	154,500

BASE MAP LEGEND

- *RESOURCE AREA BOUNDARY*
- *PAVED HIGHWAY*
- *PRIMARY UNPAVED ROAD*
- 200 *FT. CONTOUR*



SCALE 1:200,000

SECTIONED TOWNSHIP

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

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RESOURCE MAP DATA COMPILED BY THE BLM USING USGS TOPOGRAPHIC MAPS FOR CONTROL

PROJECTION ARIZONA STATE PLANE, WESTERN ZONE (TRANSVERSE MERCATOR)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
ARIZONA STRIP DISTRICT
SHIVWITS RESOURCE AREA

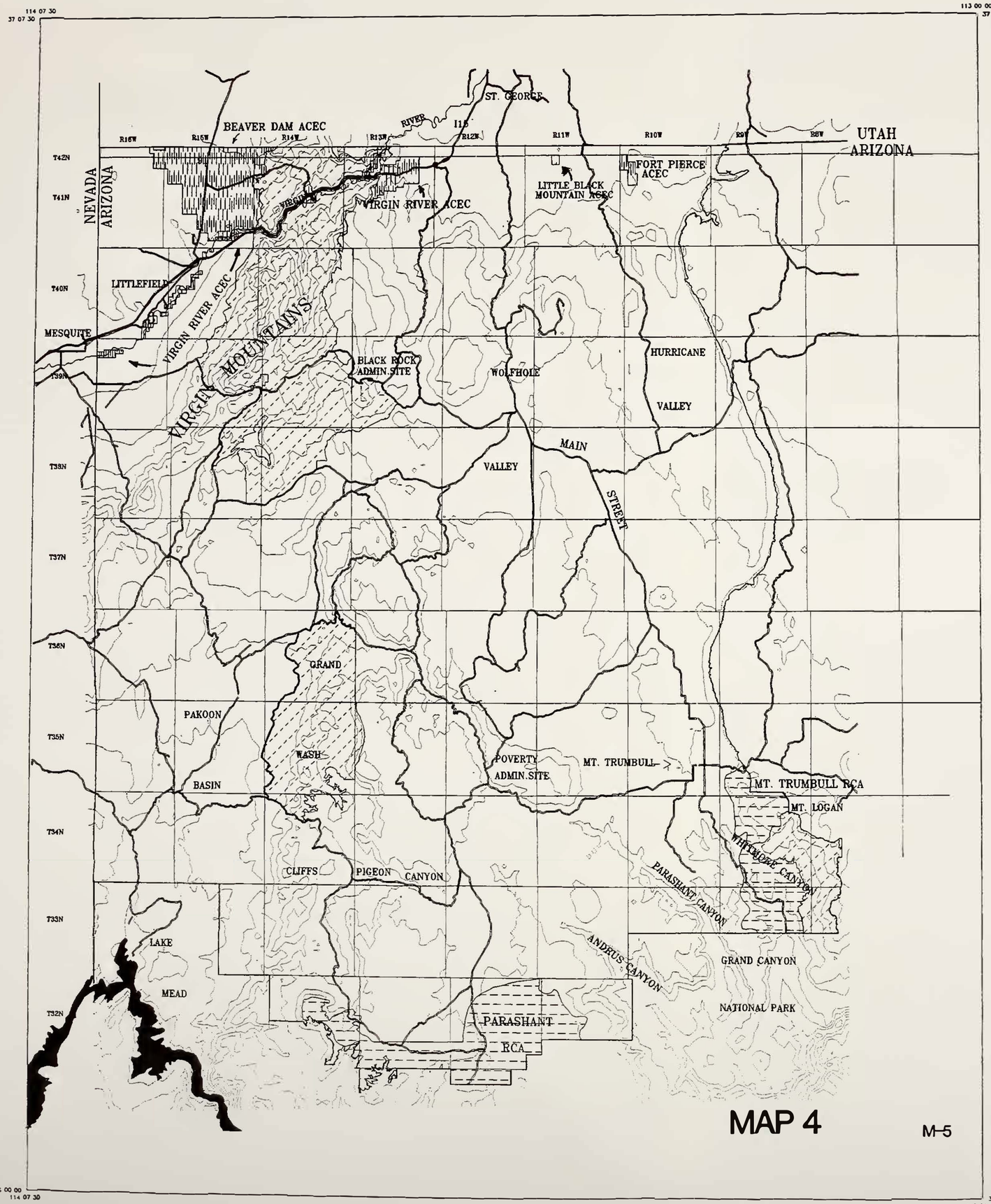
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MAP 3

M-4

SHIVWITS RESOURCE AREA

SPECIAL MANAGEMENT AREAS



MAP 4

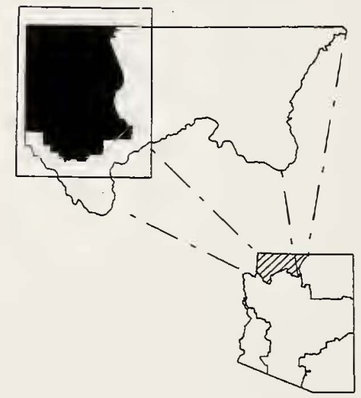
M-5

RESOURCE LEGEND

- *ACEC*
- *WILDERNESS*
- *RCA*

BASE MAP LEGEND

- *RESOURCE AREA BOUNDARY*
- *PAVED HIGHWAY*
- *PRIMARY UNPAVED ROAD*
- *200 FT. CONTOUR*



SCALE 1:200,000

N

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
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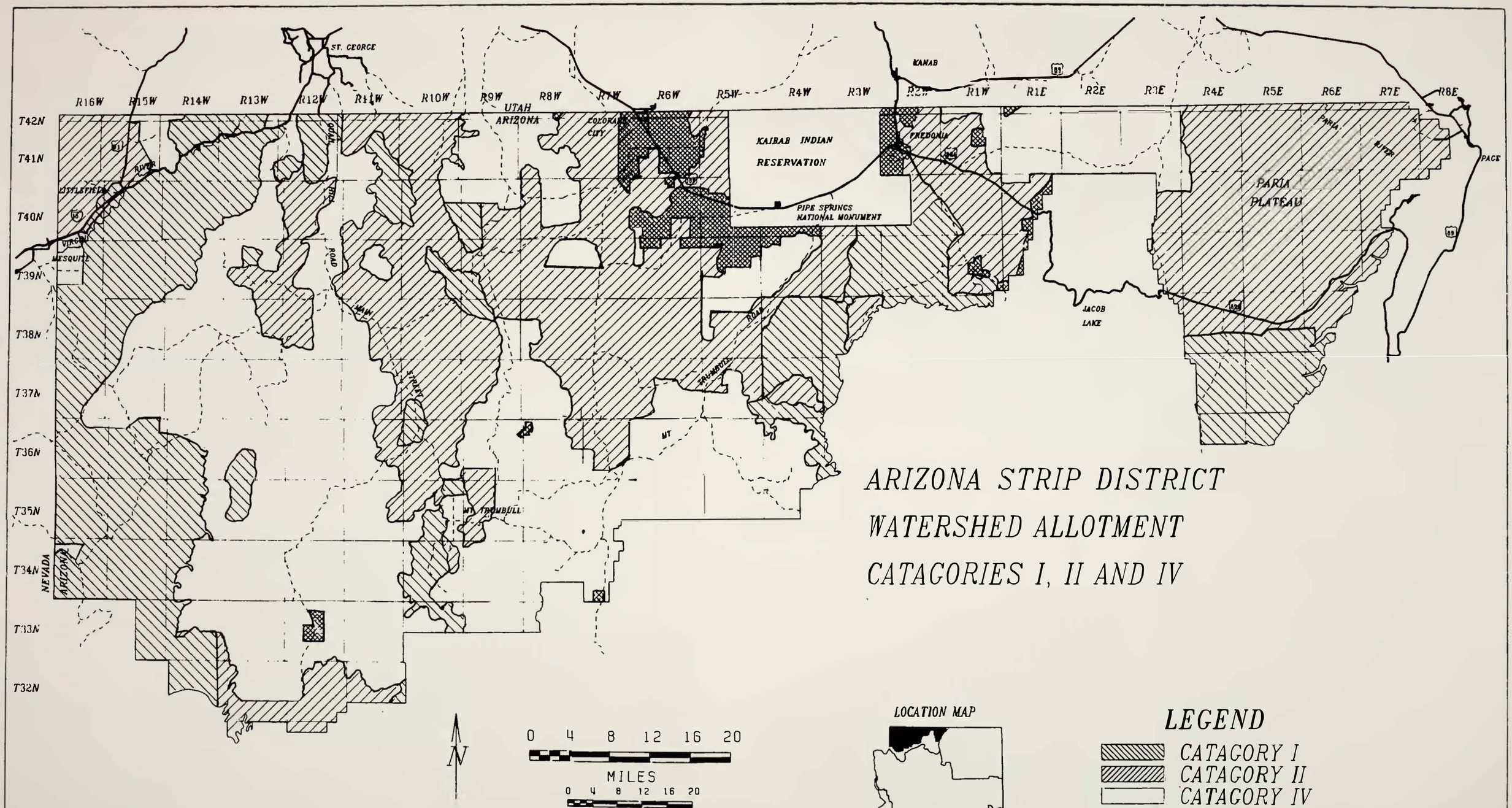
RESOURCE MAP DATA COMPILED BY THE BLM USING USGS TOPOGRAPHIC MAPS FOR CONTROL

PROJECTION: ARIZONA STATE PLANE, WESTERN ZONE (TRANSVERSE MERCATOR)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ARIZONA STATE OFFICE
ARIZONA STRIP DISTRICT
SHIVWITS RESOURCE AREA

JUNE 1992

ARIZONA STRIP DISTRICT
WATERSHED ALLOTMENT
CATAGORIES I, II AND IV



0 4 8 12 16 20
MILES
0 4 8 12 16 20
KILOMETERS

DISTRICT BOUNDARY
PAVED HIGHWAY
PRIMARY UNPAVED ROAD

LOCATION MAP

STATE OF ARIZONA

LEGEND

- CATAGORY I
- CATAGORY II
- CATAGORY IV
- UNCLASSIFIED

MAP 5

M-6

BUREAU OF LAND MANAGEMENT
U.S. DEPARTMENT OF THE INTERIOR
ST. GEORGE, UTAH
MAP PRODUCED BY:
Cartographic Output System

SHIVWITS RESOURCE AREA

PEREGRINE FALCON HABITAT

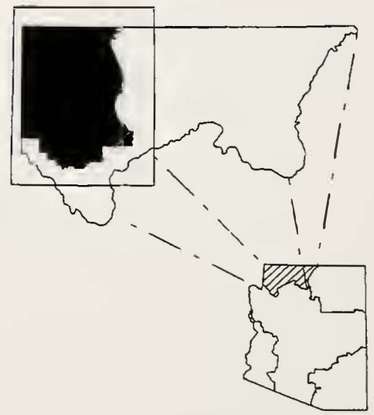
RESOURCE LEGEND

- *SUPERIOR*
- *ACCEPTABLE*
- *MARGINAL*

(MAP DATA FROM ELLIS, 1979)

BASE MAP LEGEND

- *RESOURCE AREA BOUNDARY*
- *PAVED HIGHWAY*
- *PRIMARY UNPAVED ROAD*
- 200 *FT. CONTOUR*



SCALE 1:200,000

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

SECTIONED TOWNSHIP

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SHIVWITS RESOURCE AREA

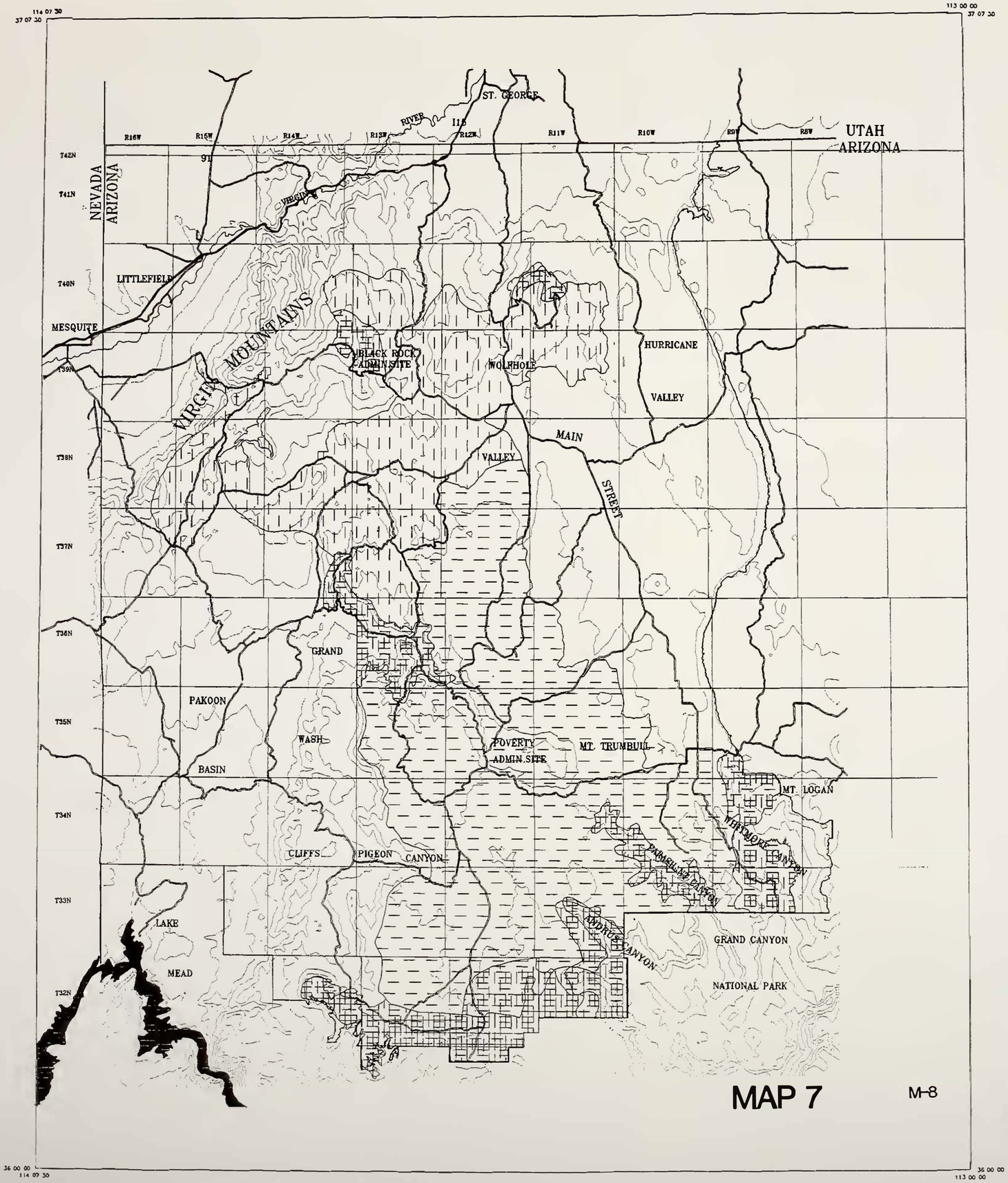
JUNE 1992

MAP 6

M-7

SHIVWITS RESOURCE AREA

WOODLAND HARVEST AREAS



MAP 7

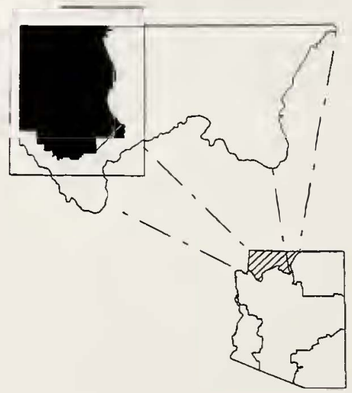
M-8

RESOURCE LEGEND

- *PERSONAL HARVEST AREA*
- *PERSONAL/COMMERCIAL AREA*
- *CLOSED*
- *SPECIAL APPROVAL ONLY*

BASE MAP LEGEND

- *RESOURCE AREA BOUNDARY*
- *PAVED HIGHWAY*
- *PRIMARY UNPAVED ROAD*
- 200 *FT. CONTOUR*



SCALE 1:200,000

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
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SECTIONED TOWNSHIP

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ARIZONA STATE OFFICE
ARIZONA STRIP DISTRICT
SHIVWITS RESOURCE AREA

JUNE 1992

R14W R13W R12W R11W R10W R9W R8W

T40N

T39N

T38N

T37N

T36N

T35N

T34N

T33N

T32N

BLACK ROCK MOUNTAIN

WOLF HOLE

MAIN STREET

MT. TRUMBULL

GRAND WASH CLIFFS

PARASHANT

ARIZONA STRIP DISTRICT
PONDEROSA PINE AREAS

PONDEROSA PINE AREA
WILDERNESS
PRIMARY UNPAVED ROAD

N

1 0 1 2 3 4 5 6 7 8
MILES

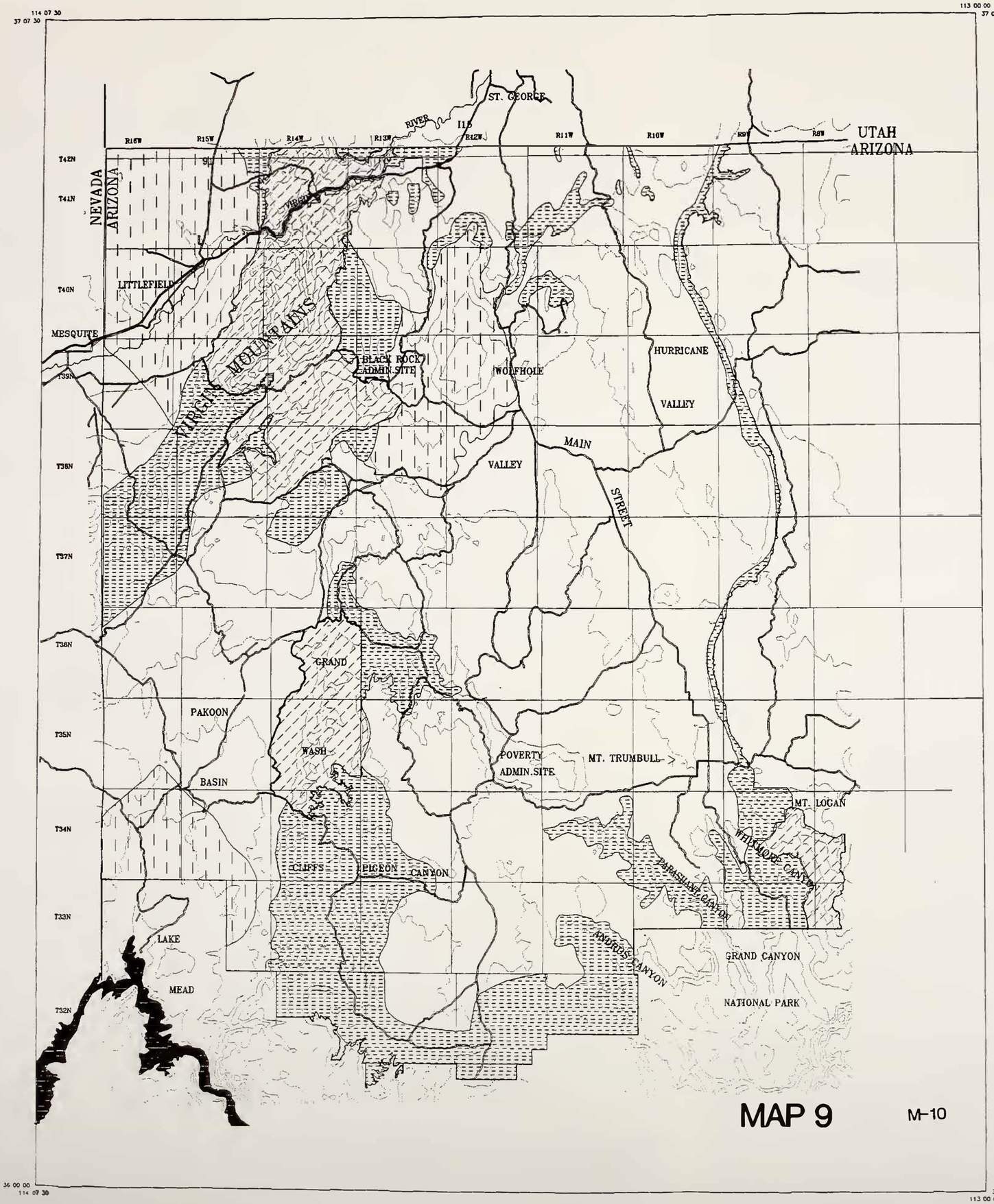
LOCATION MAP

BUREAU OF LAND MANAGEMENT
U.S. DEPARTMENT OF THE INTERIOR
ST. GEORGE, UTAH
MAP PRODUCED BY:
Cartographic Output System

MAP 8

SHIVWITS RESOURCE AREA

VISUAL RESOURCE MANAGEMENT GUIDELINES



MAP 9

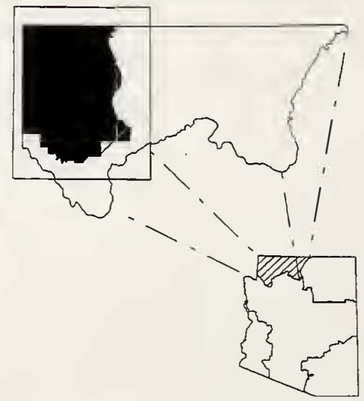
M-10

RESOURCE LEGEND

- *CLASS 1*
- *CLASS 2*
- *CLASS 3*
- *CLASS 4*

BASE MAP LEGEND

- *RESOURCE AREA BOUNDARY*
- *PAVED HIGHWAY*
- *PRIMARY UNPAVED ROAD*
- 200 *FT. CONTOUR*



SCALE 1:200,000

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
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SECTIONED TOWNSHIP

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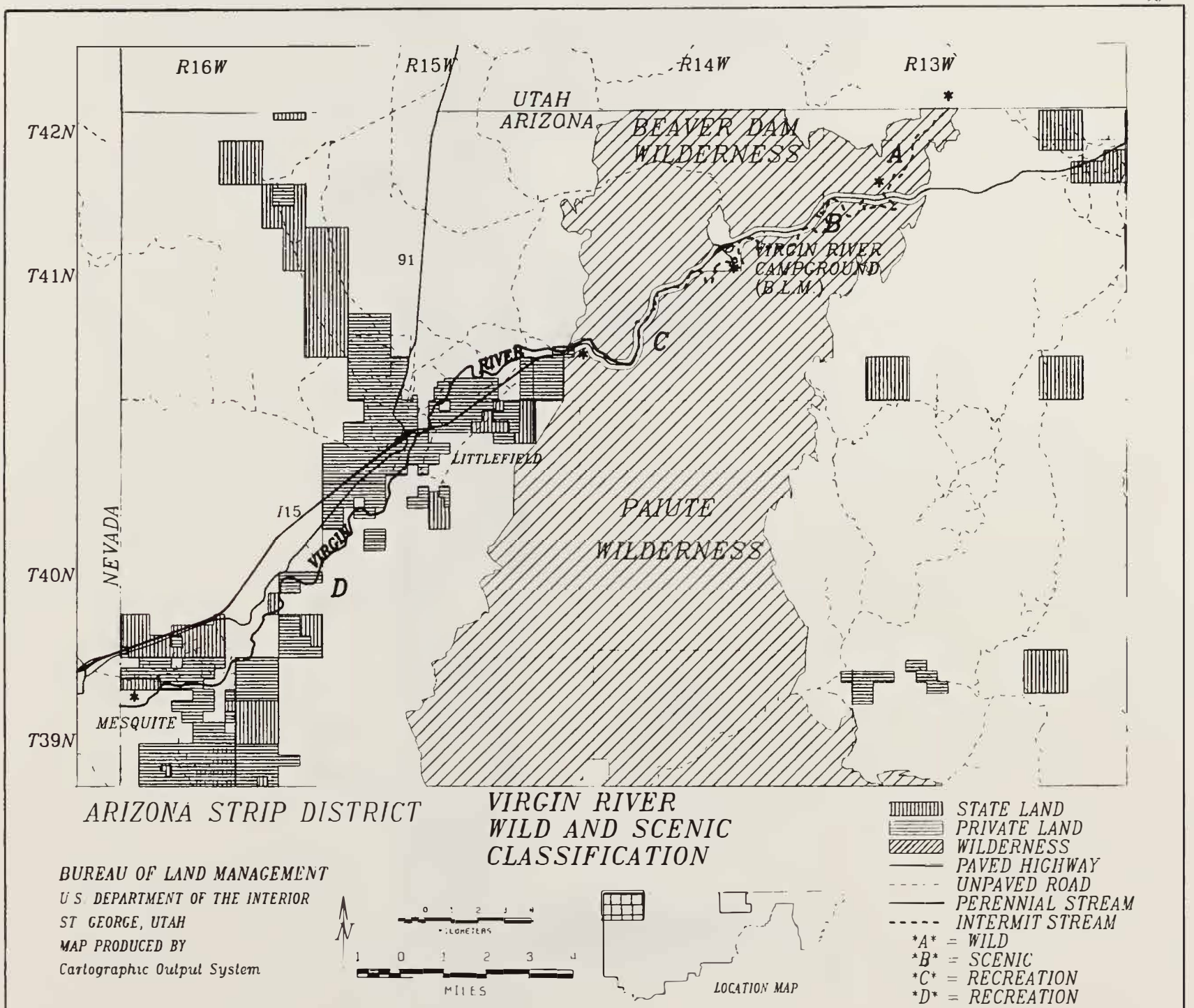
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ARIZONA STATE OFFICE
ARIZONA STRIP DISTRICT
SHIVWITS RESOURCE AREA

JUNE 1992



ARIZONA STRIP DISTRICT

VIRGIN RIVER WILD AND SCENIC CLASSIFICATION

BUREAU OF LAND MANAGEMENT
U.S. DEPARTMENT OF THE INTERIOR
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MAP PRODUCED BY
Cartographic Output System

MAP 10

SHIVWITS RESOURCE AREA

OFF - HIGHWAY

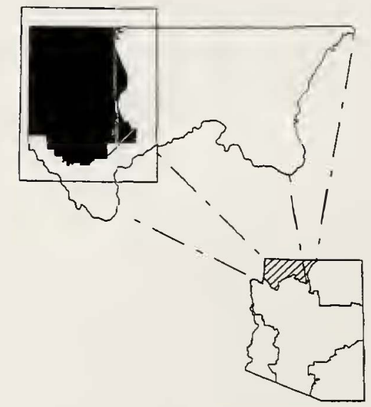
VEHICLE DESIGNATIONS

RESOURCE LEGEND

- *LIMITED TO EXISTING ROADS & TRAILS*
- *WILDERNESS (CLOSED)*
- *CLOSED*
- *LIMITED TO DESIGNATED ROADS & TRAILS*
- *OHV EVENTS*

BASE MAP LEGEND

- *RESOURCE AREA BOUNDARY*
- *PAVED HIGHWAY*
- *PRIMARY UNPAVED ROAD*
- 200 *FT. CONTOUR*



SCALE 1:200,000

6	5	4	3	2	1
7	8	9	10	11	12
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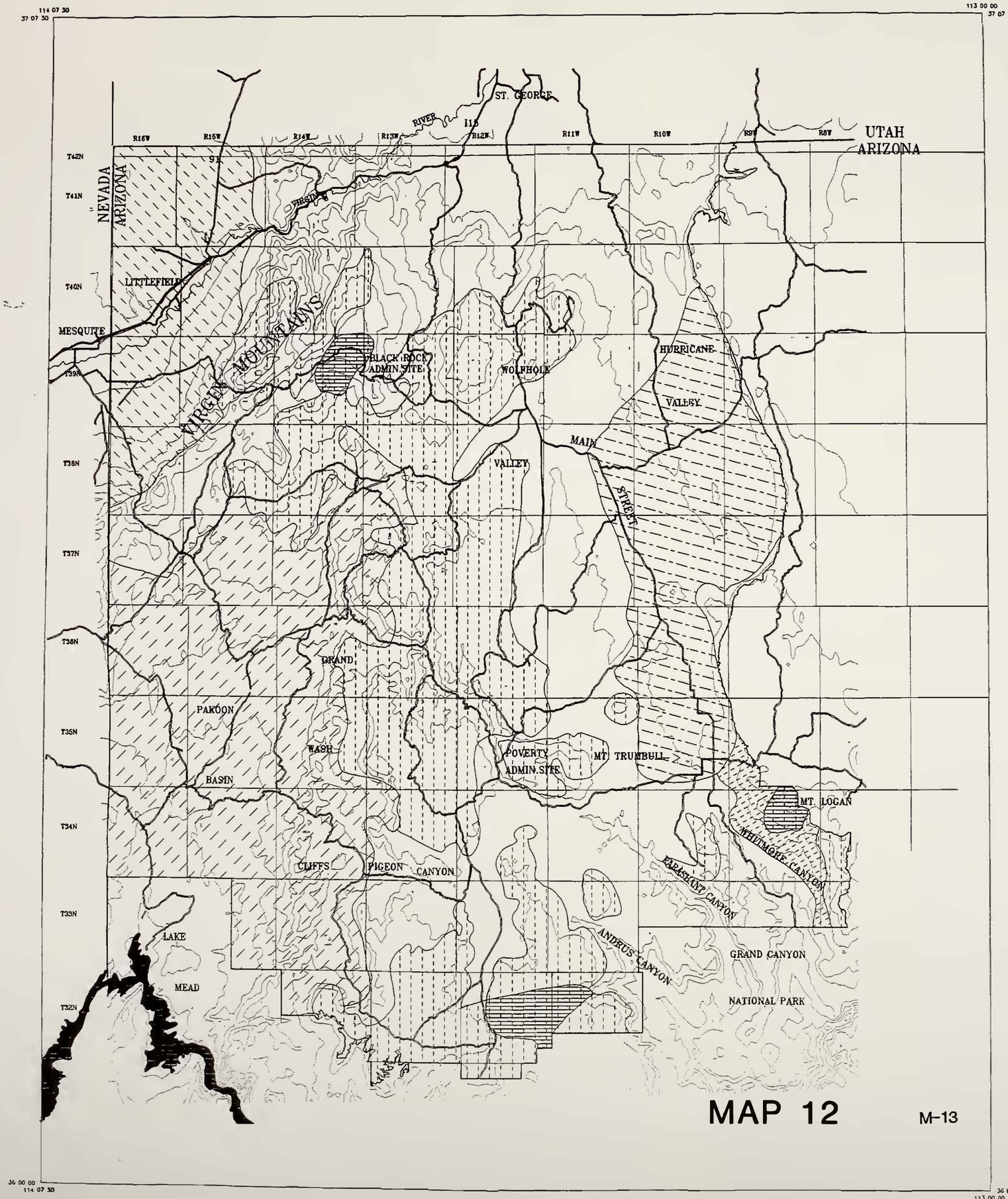
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MAP 11

M-12

SHIVWITS RESOURCE AREA

FIRE MANAGEMENT ZONES



MAP 12

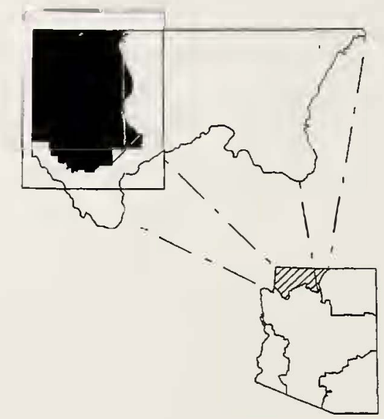
M-13

RESOURCE LEGEND

- *RL1*1 GRASSLAND*
- *RL1*2 BRUSH*
- *RL1*3 PINYON-JUNIPER*
- *RL1*4 PONDEROSA PINE*
- *RL2*1 GRASSLAND*
- *RL2*2 BRUSH*
- *RL2*3 PINYON-JUNIPER*

BASE MAP LEGEND

- *RESOURCE AREA BOUNDARY*
- *PAVED HIGHWAY*
- *PRIMARY UNPAVED ROAD*
- *200 FT. CONTOUR*



SCALE 1:200,000

6	5	4	3	2	1
7	8	9	10	11	12
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SHIVWITS RESOURCE AREA

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SHIVWITS RESOURCE AREA

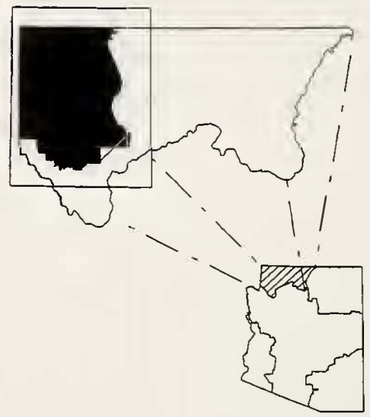
DESERT TORTOISE
HABITAT CATEGORIES

RESOURCE LEGEND

- *CATEGORY 1 HABITAT*
- *CATEGORY 2 HABITAT*
- *CATEGORY 3 HABITAT*

BASE MAP LEGEND

- *RESOURCE AREA BOUNDARY*
- *PAVED HIGHWAY*
- *PRIMARY UNPAVED ROAD*
- 200 *FT. CONTOUR*



SCALE 1:200,000

6	5	4	3	2	1
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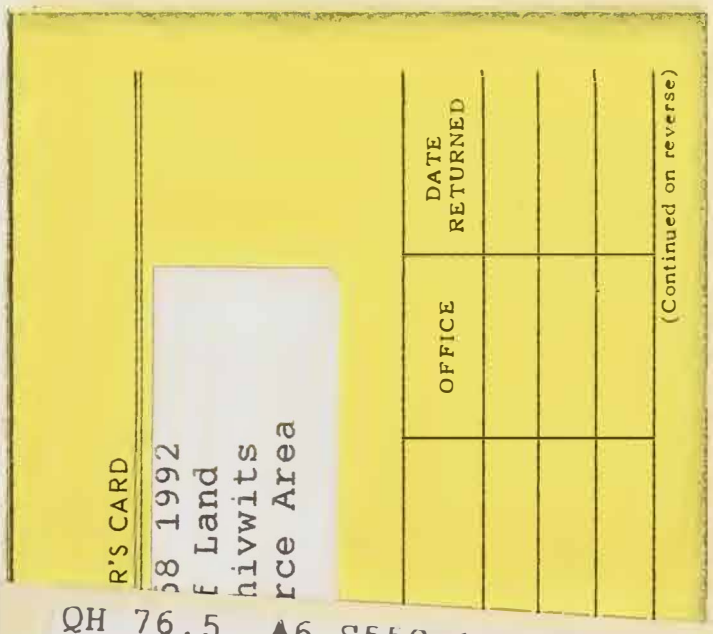
MAP 13

M-14

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