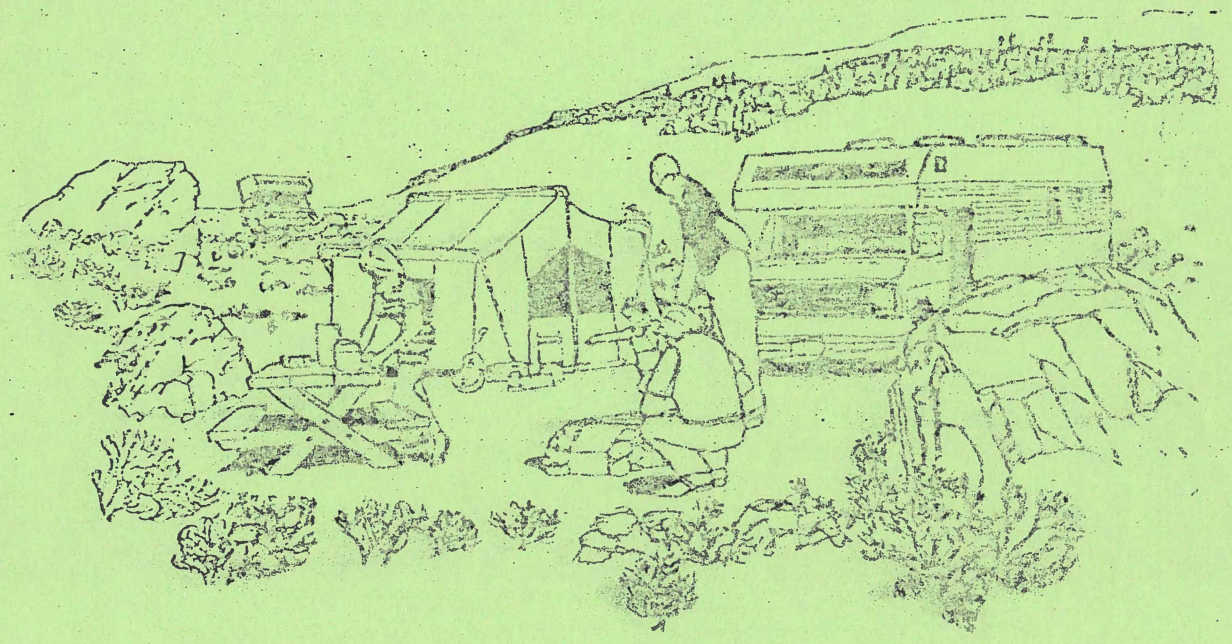
Grand Wash Management Framework Plan
Step II. Summary



Arizona Strip District

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

ABOUT THE AREA

The Grand Wash Planning Unit covers the northwest corner of Arizona which lies west of the Hurricane Fault and north of the Lake Mead National Recreation Area. Utah and Nevada border the area on the north and west.

Major land features include the Hurricane Valley, Mainstreet and Wolfhole Valleys on the northeast; Poverty Mountain and Hidden Canyon near the center and the Parashaunt to the south. Andrus Canyon, Parashaunt Canyon and Whitmore Canyon drain to the southeast from the Parashaunt and Poverty Mountain. The upper and lower Grand Wash Cliffs form the east border of the Pakoon, a large desert basin stretching along the west side of the area. Black Rock Mountain and the Virgin Mountains lie to the north and northwest part of the Planning Unit.

The vegetation varies from a sparse desert shrub type in the Pakoon to a ponderosa pine type on the Parashaunt and Black Rock. Pinyon and juniper make up the major vegetation type but creosote bush covers most of the Pakoon. Blackbrush, big sagebrush and grassland, also, provide large vegetation types.

A few homes are located at ranch headquarters in this area. Several semi-permanent dwellings are located around the Mount Trumbull community. The owners live in these off and on throughout the year. A number of line cabins are located throughout the area. Ranchers stay in the cabins while handling their livestock. Littlefield is the only town located in the area.

Access is fair to good. All roads are unpaved. The Mount Trumbull road is passable nearly all the time. Most other roads may not be passable during the summer rain period and during the winter when snow is deep.

LANDS

CURRENT STATUS

Most of the subject area is in public ownership. Relatively small acreages are in state and private ownership. The major private land areas include the Mount Trumbull community, Whitmore Canyon and the Parashaunt. The private lands around Mount Trumbull resulted from early day homesteads. Private lands in the Parashaunt and Whitmore Canyon came from railroad grants. The State of Arizona received land title through school grants, exchanges and lieu selections.

MANAGEMENT OBJECTIVES

1. MAKE LAND AVAILABLE THAT ARE SUITABLE FOR AGRICULTURE (EST. 5,000 AC) LOCATED IN THE VICINITY OF THE CONFLUENCE OF THE VIRGIN RIVER AND BEAVER DAM WASH, PROVIDING ADEQUATE GROUND WATER CAN BE ASSURED.

These lands are located on a bench above the riparian zone of the Virgin River and Beaver Dam Wash. Adequate water for agriculture use on this land must be determined.

2. PROVIDE AND MAINTAIN TRANSMISSION LINE CORRIDOR ALONG THE EXISTING NAVAJO-McCULLOUGH AND CEDAR WASH-LITTLEFIELD CORRIDORS AND THE PROPOSED CEDAR WASH ALTERNATE, WARNER VALLEY, AND ALLEN-WARNER VALLEY COAL SLURRY LINE CORRIDORS.

It appears that the most desirable way to provide access across public lands for power transmission lines is through designated corridors two miles wide.

3. PROVIDE A PLANNED COMMUNICATIONS SITE ON BLACK ROCK MOUNTAIN TO MEET LOCAL, REGIONAL OR NATIONAL NEEDS.

A BLM radio transmitter is presently located there. Other agencies have expressed a desire to use the site.

4. RESTORE ABOUT 4,800 ACRES UNDER SECRETARIAL ORDER OF APRIL 21, 1923 AND 154 ACRES OF PUBLIC LAND ORDER 3701.

The purpose of these withdrawals was for dam sites along the Virgin River and a vegetative study area. The need for them no longer exists.

5. MITIGATE EFFECTS RESULTING FROM ANNUAL ASSESSMENT WORK ON GYPSUM CLAIMS IN THE UNIT.

More information could be obtained with less surface distrubance by using other forms of assessment work instead of blading with a bulldozer.

6. DETERMINE POTENTIAL GROUND WATER QUALITY AND QUANTITY FOR THE PLANNING UNITL

Water is a scarce resource in the Planning Unit. Information concerning any potential sources is desirable.

MINERALS

CURRENT STATUS

Mining has been a rather insignificant activity in this area. Minerals that have been mined or created prospecting interests include copper, gold, silver, lead, manganese, mica, tungsten, yttrium, uranium, gypsum, limestone, sand, gravel, and oil and gas. Copper provided the greatest mining activity in the past. Miners worked the Grand Gulch and Savanic Copper Mine quite extensively during the 1835-1918 period. Little has been done since.

Probably the greatest potential lies in sand and gravel production as considerable quantities are available.

MANAGEMENT OBJECTIVES

1. CONTINUE TO MAKE ALL AREAS IN THE PLANNING UNIT AVAILABLE TO LEASE AND EXPLORATION FOR OIL AND GAS.

It has been recommended that all areas except the Paiute Primitive Area remain open to oil and gas exploration and leasing.

2. INSURE THAT ALL VALUABLE DEPOSITS OF LOCATABLE MINERALS WITHIN THE PLANNING UNIT REMAIN OPEN FOR LOCATION AND MINING.

It has been recommended that the Paiute Primitive Area be segregated from mineral entry.

3. PROVIDE THE COMMUNITIES IN OR NEAR THE AREA WITH SAND AND GRAVEL NEEDED FOR DEVELOPMENT IN A TIMELY AND ORDERLY MANNER.

An inventory of potential sand and gravel pits along the Virgin River has been recommended. These sites would lie outside the riparian zones.

TIMBER & OTHER

VEGETATIVE PRODUCTS

CURRENT STATUS

Small scattered ponderosa pine stands on the Parashaunt and Black Rock Mountain provide the only but very limited opportunity for a commercial timber production. Juniper stands furnish a number of posts each year for local use. The use is rather insignificant considering the extensive areas covered with juniper trees. There is some opportunity for commercial post cutting operations.

Each year the District issues a number of Christmas Tree Permits to individuals for cutting up to three pinyon trees for personal use. There has been some interest in cutting pinyon trees for commercial Christmas Tree sales. The pinyon supply is quite extensive.

Local people cut some fireplace wood from this area. Again, individuals are allowed free use so long as the wood is cut for their personal use. Dead pinyon trees provide most of the desirable fireplace wood.

More recently, there is quite an interest in obtaining various desert plant species for landscaping purposes. People in the St. George area seem particularily interested in Joshue trees. Also, there appears to be an interest in different cactus species indicated by the transplants being made around the town. The supply seems to be rather limited. Also, the rate of growth for desert plants is quite slow, therefore, it takes some time to replace plants removed from an area.

MANAGEMENT OBJECTIVES

1. IMPLEMENT TIMBER MANAGEMENT PLANS FOR EVEN-AGED, SUSTAINED YIELD MANAGEMENT OF ALL PRODUCTIVE FOREST LANDS IN THE GRAND WASH PLANNING UNIT GEARED TO A MINIMUM 80 YEAR ROTATION.

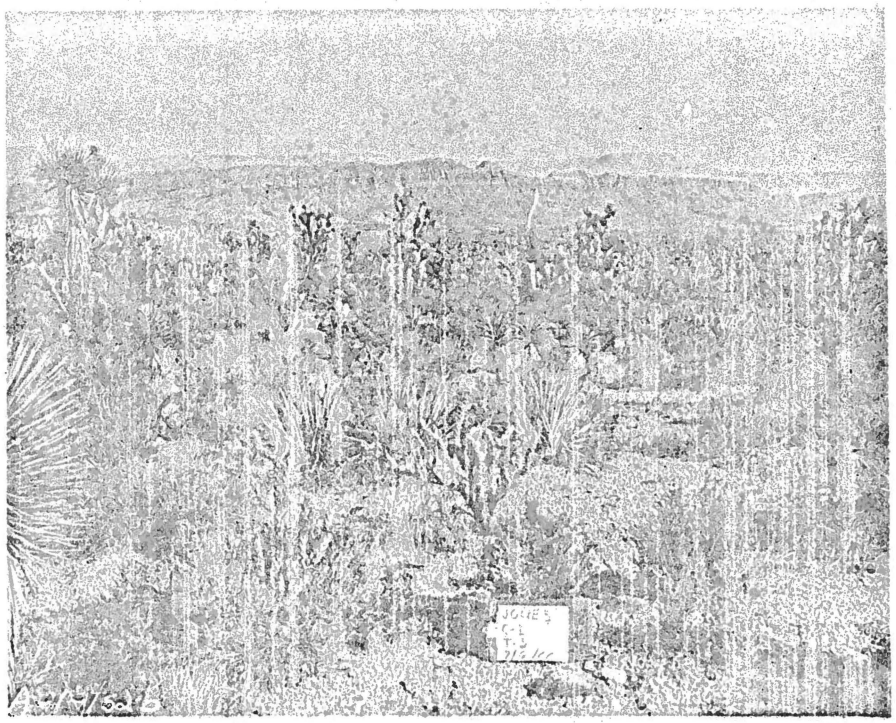
These plans will be oriented towards forest enhancement rather than timber production.

2. INTENSIVELY MANAGE THE 555,000 ACRES OF PINYON-JUNIPER WOODLANDS WITHIN THE PLANNING UNIT FOR THE PRODUCTION AND HARVEST OF MINOR FOREST PRODUCTS.

Coordinate the issuing of permits for firewood, posts, and Christmas trees with planned vegetative treatments such as pinyon-juniper chainings and prescribed burnings.

3. PLACE THE 164,126 ACRES OF DESERT VEGETATION UNDER INTENSIVE MANAGEMENT.

This will provide for limited sales of desert vegetation in high density areas while providing protection from the unauthorized removal of the vegetation.



WATERSHED

CURRENT STATUS

The watersheds in this arid climate present many management problems. A majority of the soils are quite light and easily eroded. At best a sparse vegetation cover grows on most watersheds. Once the cover is reduced or removed the soils are no longer protected. Wind and water forces then readily move the soil.

One problem is that some grassland areas have gradually converted to sagebrush and sagebrush to pinyon-juniper stands. These tap-rooted species do not hold the soil in place as well as the fibrous rooted grass species. One of the causes for the conversion to shrubs and trees is attributed to fire control. Before fires were controlled the periodic burns prevented sagebrush and pinyon-juniper invasion into the grasslands. Of course, livestock grazing probably accelerated this process by grazing the grasses thus reducing competition for the sagebrush and pinyon-juniper.

In other areas overgrazing has killed the perennial plants thus exposing the soil to erosion. Annual plants have moved into some of these areas but do not provide a dependable cover.

There is potential for improving watershed cover through livestock management and through vegetative manipulation.

MANAGEMENT OBJECTIVES

1. OVER A 15-YEAR PERIOD STABILIZE THOSE PORTIONS OF THE WATERSHED WHICH HAVE BEEN IDENTIFIED AS HAVING MODERATE TO SEVERE EROSION PROBLEMS.

This is to be accomplished through hydrologic surveys, intensive management of livestock to improve vegetative cover, vegetative treatments such as detention dams and spreader dikes.

2. AVOID DEVELOPMENT OR ACCELERATION OF EROSION OF PUBLIC LANDS FROM SURFACE DISTURBING ACTIVITIES BY THE BUREAU OR PUBLIC LAND USERS.

This is to ensure that construction practices such as road maintenance, pipeline installation and other such activities are done in a manner so as not to increase erosion within the Planning Unit.

3. DETERMINE AREAS WITH NEED FOR ADDITIONAL WATER CATCHMENTS TO ACHIEVE BETTER LIVESTOCK AND WILDLIFE DISTRIBUTION.

This is actually a support to the range and wildlife activities, but will also improve the watershed by reducing the concentration of animals around existing waters.

4. IMPROVE WATER QUALITY AND REDUCE EROSION AROUND SPRINGS THROUGHOUT THE PLANNING UNIT BY 1982.

It is recommended that where wet meadow areas around springs are being trampled and compacted by animals, the area be fenced to provide protection for non-game species and stabilize the area. Part of the water will be piped outside to provide for livestock and big game animals.

5. STABILIZE WATER YIELD OF SPRINGS WITHIN THE PLANNING UNIT BY 1982.

This recommendation would be handled similar to #4 above. Where trampling is compacting the soils around the spring source and restricting the flow of water, the source should be protected by fencing.

6. CONDUCT AND MAINTAIN A COMPREHENSIVE INVENTORY OF ALL WATER RESOURCES IN THE PLANNING UNIT ASSOCIATED WITH PUBLIC LANDS, INCLUDING QUANTITY AND QUALITY OF BOTH SURFACE AND GROUND WATERS.

This objective is similar to Lands #6 and will be handled the same.

WILDLIFE

CURRENT STATUS

Mule deer are the most important big game species in this area. The numbers are down from the 1950's and the early 1960's. Reproduction seems to be down. Two factors appear to be primarily responsible for keeping the numbers down. (1) Little succulent forage grows during the normally dry May-June period. This corresponds to the all important need for succulent forage by does nursing young fawns. It may be that there is high fawn mortality during this dry period. (2) Coyote numbers are very high in this area. It seems that fawns not receiving adequate milk and limited green forage would be weak and thus become an easy prey to predators.

There certainly is potential for improving mule deer habitat by providing more succulent spring-early summer forage through pinyon-juniper clearing projects.

A few desert Bighorn Sheep inhabit the steep canyon areas south and west of Snap Point. Very little is known about the numbers and the range of the animals. Prior to livestock grazing sheep ranged throughout the rough canyon area.

An attempt to plant wild turkeys in the Parashaunt area failed. The reasons for the failure are not known, but may have been inadequate food supply, poor nesting cover or too few turkeys may have been planted.



Quail and cottontail rabbits found throughout most of the area provide the major small game hunting. Numbers in both species are quite cyclic but the highest numbers seem to follow springs when abundant annual forage is produced. Generally, these species receive limited hunting pressure.

Mourning doves and band-tailed pigeons are other game species present in this area but are not as important.

The Hurricane Valley has been identified as having suitable habitat for antelope. Antelope once inhabited this area. Conditions have probably improved with the development of livestock waters.

Numerous other animals, birds and reptiles are found in this area. Information about these other species is limited.

MANAGEMENT
OBJECTIVES

1. IMPROVE AND EXPAND UPLAND AND SMALL GAME HABITAT WITHIN THE PLANNING UNIT.

This is to be accomplished mainly through fencing and improving water sources to make both cover and water available.

2. PROTECT ALL SIGNIFICANT WET MEADOW AND RIPARIAN HABITATS SUCH AS SULLIVAN SPRING, GATES MULLEN,CANE SPRING, ATKIN SPRINGS, AND THE VIRGIN RIVER TO ENSURE THEY ARE NOT DAMAGED OR DESTORYED.

It is proposed to fence wet meadow areas to protect them from trampling by large animals. Part of the water would be piped away from the source to provide livestock and wildlife water. If necessary, livestock would be removed from the riparian zone along the Virgin River.

3. IMPROVE EXISTING AND DEVELOP ADDITIONAL WATER FOWL AND SHORE BIRD HABITAT THROUGHOUT THE PLANNING UNIT BY 1987.

This includes fencing portions of those reservoirs which hold water at least 80% of the time to protect shoreline vegetation and determining the feasibility of developing Poison Patch, Rock Crossing and Wolfhole Lake for waterfowl if the necessary private lands can be acquired.

4. INCREASE WOUNDFIN AND ROUNDTAIL CHUB POPULATIONS WHICH WILL RESULT IN REMOVAL FROM ENDANGERED OR POTENTIALLY ENDANGERED STATUS AND INCREASE SPINEDACE POPULATIONS TO A NATURAL SELF-SUSTAINING LEVEL.

   IMPROVE AND MAINTAIN 39.6 MILES OF AQUATIC AND RIPARIAN HABITAT THROUGH INTENSIVE MANAGEMENT AND RE-EVALUATION OF EXISTING MANAGEMENT BY 1988.

This includes acquisition of state and private lands and retaining public lands indentified as critical acquatic habitat, and developing a Habitat Management Plan for the area

5. FORMULATE PREDATOR HABITAT MANAGEMENT GUIDELINES THROUGH THE COLLECTION OF INFORMATION RELATIVE TO BUREAU PROGRAMS.

This involves establishing a predator data accumulation system.

6. IMPROVE RAPTOR HABITAT AND MONITOR RAPTOR POPULATIONS THROUGHOUT THE GRAND WASH PLANNING UNIT.

This includes studies, the protection of nest sites during the nesting season, solving any electrocution problems on power poles, and protecting their habitat from alteration.

7. INTRODUCE SAGE GROUSE, SCALED QUAIL, MERRIAMS TURKEY, CHUKAR PARTRIDGE AND KAIBAB SQUIRRELS INTO THE GRAND WASH PLANNING UNIT UNDER THE APPROPRIATE HMP.

These species would add variety to the wildlife on the Planning Unit and increase hunting opportunities.

8. INVENTORY WILDLIFE HABITATS AS REQUIRED IN BLM MANUAL 6602 ON THE ENTIRE PLANNING UNIT BY 1982.

This will provide the Arizona Strip District with information to more effectively manage the resources within the Grand Wash Planning Unit.

9. DETERMINE THE EFFECT OF VARIOUS LIVESTOCK GRAZING SYSTEMS ON WILDLIFE POPULATIONS.

This would be accomplished by establishing study plots in the different vegetative types within the Planning Unit to compare non-grazed areas with areas grazed by livestock

10. PROTECT AND IMPROVE DESERT TORTOISE HABITAT TO SUPPORT 15 TO 25 TORTOISE PER SQUARE MILE BY THE YEAR 2028.

It is recommended that Tortoise habitat in the Pakoon and Beaver Dam Slope be designated as limited to Off-Road Vehicle use. Also, recommended is locating livestock waters no closer than one mile from tortoise concentration areas, providing spring rest from livestock grazing in pastures containing tortoise concentration areas, or by fencing those washes containing concentrations of tortoises.

11. RESTORE DESERT BIGHORN SHEEP POPULATIONS TO THEIR HISTORICAL RANGE.

This could involve removing or reducing livestock grazing on the Virgin Mountains. It would also require fence modifications to allow the sheep access to water and free passage throughout their habitat.

12. DEVELOP HMP's FOR ALL WILDLIFE HABITAT AREAS IN THE PLANNING UNIT BY 1988.

These habitat Management Plans will provide guidance in managing the Planning Unit to improve wildlife habitat.

13. REINTRODUCE PRONGHORN ANTELOPE INTO THE PLANNING UNIT BY 1982.

At one time, antelope existed in Hurricane Valley. To reintroduce them would require allocating approximately 900 animal unit months (AUMs) of forage to them. At least part of this would be deducted from the amount of livestock forage being used in the area. Fences would also be modified to allow antelope access to waters and free passage throughout their habitat.

14. IMPROVE AND MAINTAIN MULE DEER HABITAT TO SUSTAIN A POPULATION OF 6,000 ANIMALS BY 1990.

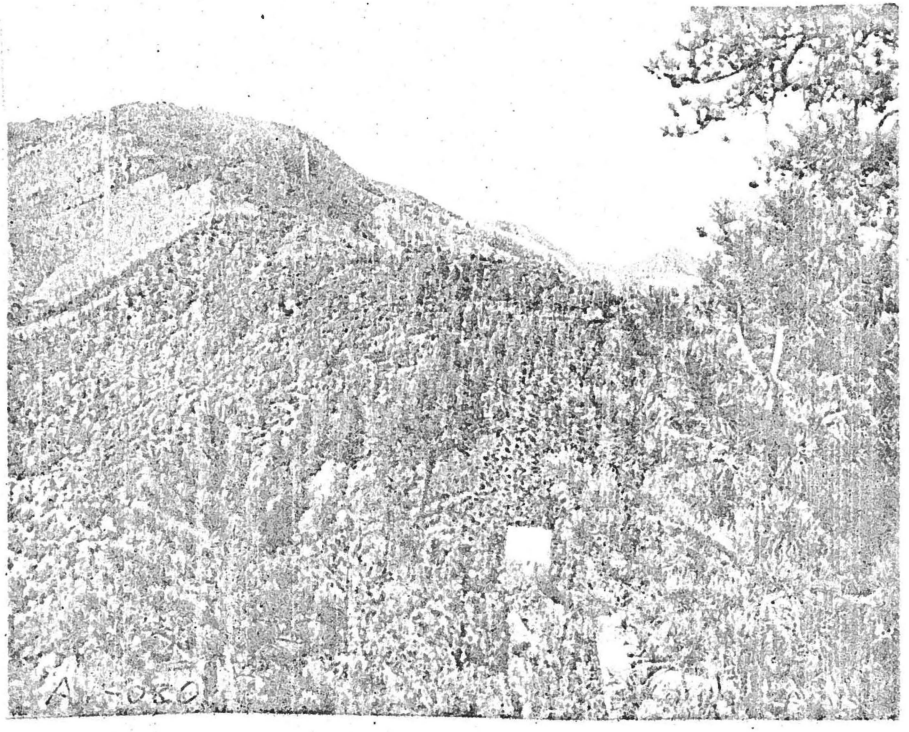
This involves limiting livestock utilization on the more desirable forage plants to 50%, allocating 13,446 AUM's of forage to Mule Deer and developing water for wildlife use.

15. STABILIZE UNSATISFACTORY OR DECLINING WILDLIFE HABITATS THROUGH MANAGEMENT PROGRAMS AND COORDINATION WITH OTHER RESOURCE ACTIVITIES.

This includes many of the proposals already discussed.

16. PROVIDE WILDLIFE SAFE ACCESS AND YEAR-ROUND WATER AVAILABILITY TO ALL LIVESTOCK WATER FACILITIES BY 1981.

This involves installing floats or escape ramps in water tanks and troughs, fencing exclosures around wildlife waters to provide escape cover and modifying fences around waters to allow wildlife access.



LIVESTOCK FORAGE

CURRENT STATUS

Livestock grazing continues to be the most extensive single use in the Planning Unit. Some 60 ranchers graze approximately 9,600 cattle, either all or part of each year in the area. The livestock graze all accessible areas serviced by livestock water.

Until recently most grazing use was unsupervised and somewhat uncontrolled.

BLM recently developed several Allotment Management Plans in cooperation with the range users in this area. A grazing system designed to meet forage plant life requirements is an itegral part of each allotment plan. Already the range forage responses to management seem quite favorable.

Most allotments have plenty of room for livestock forage improvements through increased forage production and improved forage quality. Livestock management can be applied to all areas whereas vegetative manipulation through land treatment practices can be applied to limited areas. Practices that have proven successful include pinyon-juniper clearing, sagebrush control and blackbrush removal.

A number of wild burros range in the lower Pakoon Area. The numbers seem to be rapidly increasing. The burros may create some problems because their range extends into the range of the Desert Bighorn.

MANAGEMENT OBJECTIVES

1. PROVIDE 106,088 AUM's OF LIVESTOCK FORAGE ON A SUSTAINED YIELD BASIS BY 1995 ON THE 1,394,595 ACRES OF PUBLIC LAND IN THE GRAND WASH PLANNING UNIT.

This is 15,000 AUM's more than is currently being produced. It would be accomplished through implimenting allotment management plans and ensuring that existing plans are meeting resource improvement goals, allocating livestock forage in accordance with the grazing capacity of each allotment based on 50% use of the most desirable forage plants in the allotment, and conducting vegetative improvement projects on approximately 128,000 acres of low forage producing lands.

2. MAINTAIN AND/OR INCREASE LIVESTOCK FORAGE CONDITION AND RANGE CONDITION ON PUBLIC LANDS BY THE YEAR 1995.

This would be accomplished through essentially the same means as #1 above.

3. ALLOW GRAZING ONLY IN THOSE AREAS OF THE PLANNING UNIT THAT ARE DETERMINED TO BE SUITABLE FOR DOMESTIC LIVESTOCK RELATIVE TO THE CLASS OF LIVESTOCK.

This involves conducting suitability studies throughout the Planning Unit using such criteria as steepness of slope, distance from water and pounds of forage produced per acre to determine what areas are not suitable for livestock grazing. Livestock would be removed from those areas found unsuitable.

4. EQUALIZE DISTRIBUTION OF DOMESTIC LIVESTOCK GRAZING ON ALL ALLOTMENTS BY 1995.

This would be carried out through the distribution of mineral block and water developments to keep livestock from congregating at specific sites.

5. MANAGE THE PAKOON HERD MANAGEMENT AREA TO MAINTAIN THE FERAL BURRO POPULATION AT A LEVEL WHICH WOULD PREVENT DESTRUCTION TO THE HABITAT, AND ALLOW THE BURROS CONTINUED USE OF THE TASSI ALLOTMENT.

An intentory of present burro numbers and habitat needs is necessary before a specific number of burros to manage for can be set.

RECREATION

CURRENT STATUS

In terms of recreation, this Planning Unit is largely undeveloped. There are no established sites or developed usage facilities. Access to much of the Planning Unit is by dirt road suitable for pickup travel. It is not impossible to travel around the Planning Unit in an automobile, but it is inadvisable.

It is an area of extreme variety. Topography ranges from the flat deserts of the Pakoon and the flat grasslands of Hurricane Valley to the steep slopes of the Virgin Mountains and the immense faults of the Hurricane Cliffs. Vegetation ranges from desert shrubs and cactus in the Pakoon to white fir-ponderosa pine in the Virgin-Black Rock Mountain area. In some places this variation takes place in a relatively short distance.

The remoteness of the Planning Unit is its chief recreational attribute. It is an undeveloped area where few people go.

MANAGEMENT OBJECTIVES

1. INCREASE VISITOR USE TO THE PLANNING UNIT BY 25% BY 1982.

To accomplish this, it is recommended that the Mainstreet Valley, Quail Hill, Poverty Mountain, Black Rock Mountain and Lime Kiln roads be upgraded and maintained as graveled, year-round access roads and road signs be installed.

2. MANAGE THE RESOURCE AREA TO MAXIMIZE SCENIC QUALITY.

This would include cleaning up debris along roadways, revegetating disturbed sites, ensure that construction projects blend with the existing environment, clean up old chaining.

3. DEVELOP A RELIABLE VISITOR USE DATA BASE FOR THE ENTIRE PLANNING UNIT.

This would be accomplished by installing traffic counters, visitor registers, observation check sheets and interviewing visitors.

4. PROVIDE A COMPREHENSIVE SAFETY AND INTERPRETIVE PROGRAM IN THE PLANNING UNIT TO EXPLAIN VARIOUS RESOURCES AND LAND MANAGEMENT ACTIVITIES TO THE PUBLIC.

It is recommended that a signing program and brochures be prepared to inform visitors of possible hazards in the area as well as geologic features, historic aspects, archaeological displays, management programs, vegetative types and wildlife in the Planning Unit.

5. ENHANCE THE RECREATIONAL USE OF THE BLACK ROCK MOUNTAIN RECREATION MANAGEMENT AREA THROUGH EXPANSION AND IMPLEMENTATION OF THE APPROVED RECREATION MANAGEMENT PLAN FOR THE PLANNING UNIT BY 1984.

This includes closing the Paiute Primitive Area to Off-road vehicle use and mining activity, managing the Virgin River Gorge to protect its scenic quality, developing a riding and hiking trail system through the Virgin Mountains, developing minimum camping facilities on Black Rock Mountain and designating the Paiute Primitive Area and the Virgin Canyon as an environmental study area.

6. ENHANCE OPPORTUNITIES TO HUNT AND/OR OBSERVE SIX SPECIES OF WILDLIFE WITHIN THE PLANNING UNIT BY 1986.

The recommendation is to introduce Chucker Partridge, wild turkey, antelope, the Kaibab squirrel, the Desert Bighorn Sheep and Sage Grouse into the Planning Unit.

7. IDENTIFY HAZARDOUS WATER SUPPLIES IN HEAVILY USED RECREATION AREAS.

This involves a chemical and bacteriological analysis of water sources covered under public water reserves.



8. PRESERVE THE PRIMITIVE CHARACTERISTICS OF THE FOLLOWING AREAS WHICH POSSESS "CLASS A" PRIMITIVE VALUES: NORTH AND SOUTH SANUP, DANSIL, LAST CHANCE, PARASHAUNT, AND HELL'S HOLE.

This includes restricting off-road vehicles to existing roads and insuring that any construction projects needed are compatible with the existing environment.

9. ENHANCE THE RECREATION EXPERIENCE OF VISITORS TO THE RESOURCE AREA THROUGH VEGETATIVE MANAGEMENT.

This includes designating firewood collection and post cutting sites, managing the Ponderosa Pine on Black Rock to enhance recreational use, improving the visual aspects of old chainings and ensuring that any proposed chainings are in harmony with the surrounding landscape, and fencing wet areas around springs to protect them.

10. ENHANCE THE RECREATIONAL USE OF THE PAIUTE PRIMITIVE AREA THROUGH EXPANSION AND IMPLEMENTATION OF THE APPROVED RECREATIONAL MANAGEMENT PLAN FOR THE AREA.

This includes withdrawing the Paiute Primitive Area from mineral entry and leasing and closing it to off-road vehicles and developing a fire management plan for the area.

11. INITIATE AN ENVIRONMENTAL EDUCATION PROGRAM FOR THE PLANNING UNIT.

This involves designating 80 acres of public land in the lower Beaver Dam Wash as an Environmental Study Area and acquiring an additional 40 acres of adjacent private land to incorporate with it.

12. PROVIDE OPPORTUNITIES FOR RESPONSIBLE OFF-ROAD VEHICLE (ORV) ACTIVITIES WITHIN THE PLANNING UNIT.

This includes designating areas as either open, closed or limited to ORV use, preparing an off-road vehicle management plan to manage use in these areas, and providing information as to where each area is located.

13. ENSURE THAT THE DESIGN OF PROPOSED ACTIVITIES WILL NOT CONFLICT WITH THE VISUAL RESOURCES FOR THE AREA IN WHICH THEY ARE PLANNED, AS DETERMINED BY THE VISUAL RESOURCE MANAGEMENT SYSTEM.

Proposed projects would be analyzed by a visual resource contrast rating system to ensure they would not conflict with the scenic quality of the area around them.

SUPPORT ACTIVITIES PROTECTION

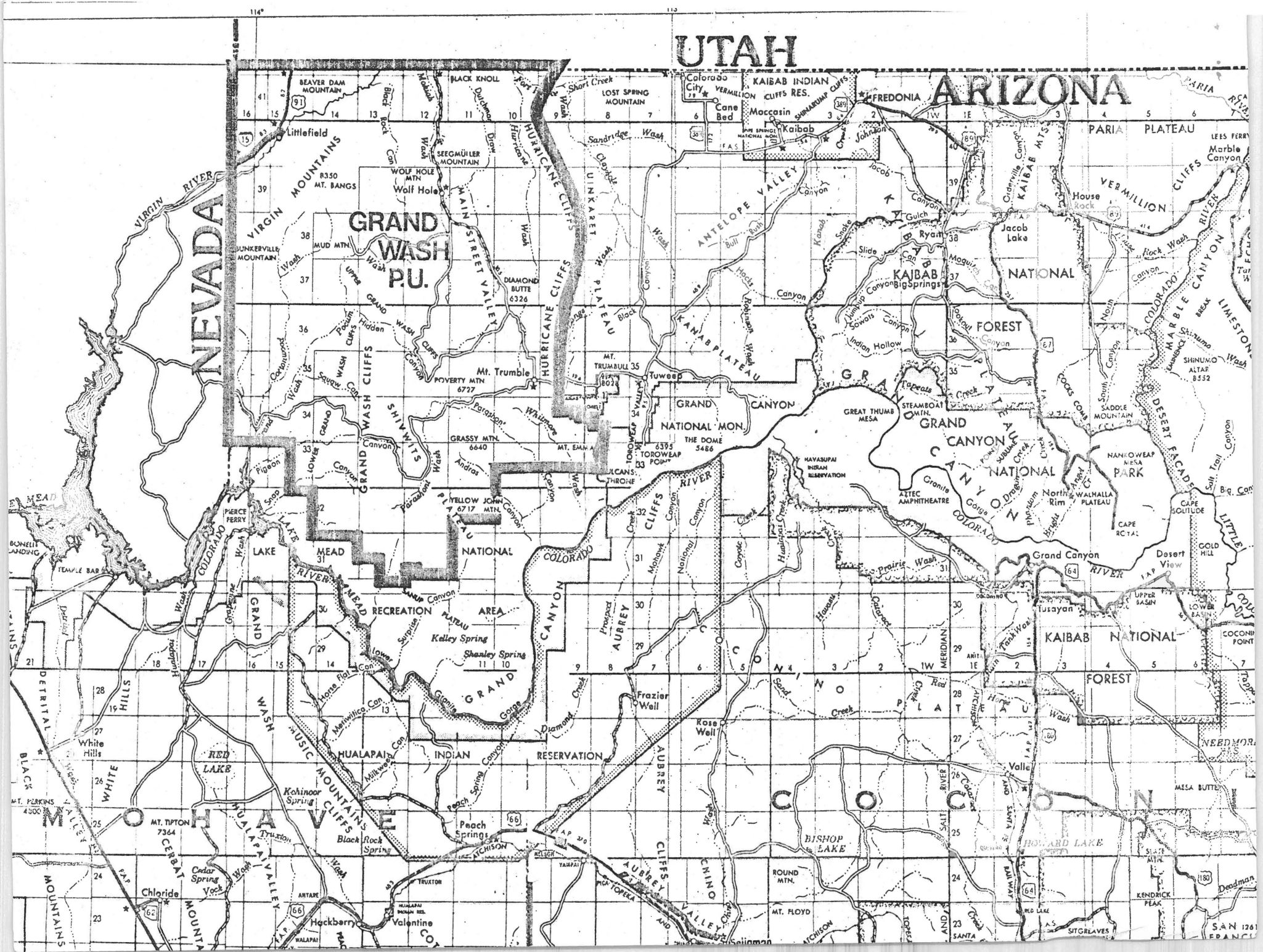
MANAGEMENT
OBJECTIVES

1. PROVIDE ADEQUATE ROADS AND FACILITIES FOR THE FIRE MANAGEMENT PROGRAM WITHIN THE PLANNING UNIT.

This includes upgrading the communications site on Black Rock Mountain, providing living quarters for a fire crew and helicopter crew on Black Rock Mountain, constructing a fenced heliport on Black Rock Mountain, realigning and upgrading the Quail Hill and Black Rock roads, acquiring legal access on BLM roads and signing roads in the Planning unit.

2. REDUCE FIRE SUPPRESSION EXPENDITURES TO A LEVEL CONSISTENT WITH RESOURCE DAMAGE AS PROPORTIONED TO THE RESOURCE VALUE AND WITHIN THE TOLERANCE OF MANAGEMENT OBJECTIVES.

This would be carried out by preparing and implementing fire management plans and conducting fire impact analysis over the Planning Unit.


UTAH
ARIZONA
NEVADA
GRAND WASH P.U.
GRAND CANYON NATIONAL PARK
GRAND CANYON NATIONAL MON.
LAKE MEAD NATIONAL RECREATION AREA
HUALAPAI INDIAN RESERVATION
KAIBAB NATIONAL FOREST
KAIBAB INDIAN RESERVATION
HAVASUPAI INDIAN RESERVATION
VIRGIN MOUNTAINS
VIRGIN RIVER
HURRICANE CLIFFS
GRAND WASH CLIFFS
SHIVWITS PLATEAU
ANTELOPE VALLEY
KANAB PLATEAU
KAIBAB PLATEAU
PARIA PLATEAU
VERMILION CLIFFS
MARBLE CANYON
COCONINO PLATEAU
COLORADO RIVER
MUSIC MOUNTAINS
HUALAPAI VALLEY
MOHAVE VALLEY
AUBREY CLIFFS
DETRITAL VALLEY
BLACK MOUNTAINS
WHITE HILLS
COCONINO
MOHAVE
Littlefield
Beaver Dam Mountain
Black Knoll
Colorado City
Cane Bed
Moccasin
Kaibab
Fredonia
Lost Spring Mountain
Short Creek
Sandrock Wash
Wolf Hole
Wolf Hole Mtn
Seegmiller Mountain
Mt. Bangs
Bunkerville Mountain
Mud Mtn
Diamond Butte 6326
Mt. Trumbull
Mt. Trumble
Poverty Mtn 6727
Tuweep
Grassy Mtn. 6640
The Dome 5486
Toroweap Point
Vulcans Throne
Yellow John Mtn 6717
Pierce Ferry
Temple Bar
Bonelli Landing
Lake Mead
Frazier Well
Kelly Spring
Shanley Spring
Horse Flat Con
Meriwhitica Can
Kohinoor Spring
Black Rock Spring
Peach Springs
Truxton
Valentine
Hackberry
Chloride
Cedar Spring
White Hills
Red Lake
Mt. Tipton 7364
Mt. Perkins 4300
Round Mtn.
Mt. Floyd
Bishop Lake
Howard Lake
Ryan
Jacob Lake
House Rock
Marble Canyon
Lees Ferry
Kaibab
Big Springs
Tusayan
Grand Canyon
Desert View
Cape Solitude
Cape Royal
Great Thumb Mesa
Steamboat Mtn.
Saddle Mountain
Nankoweap Mesa
Walhalla Plateau
Aztec Amphitheatre
Point Sublime
North Rim
Phantom Ranch
Bright Angel Creek
Nankoweap Creek
Saddle Mountain
Shinumo Altar 8552
Shinumo Wash
Cocks Comb
Tapeats Creek
Jumpup Canyon
Sowats Canyon
Indian Hollow
Lookout
Moquith Canyon
Slide Canyon
Gulch
Snake Gulch
Bull Ruin
Hack Canyon
Robinson Canyon
Kanab Creek
Johnson Canyon
Jacob Canyon
Orderville Canyon
Kaibab Mts
Vermilion Cliffs
Paria River
Colorado River
Grand Canyon
Prairie Wash
Coyote Wash
Monarch Canyon
National Canyon
Cataract Canyon
Havasu Canyon
Prospect Canyon
Aubrey Cliffs
Diamond Creek
Granite Gorge
Surprise Canyon
Lower Granite Gorge
Pumpkin Spring
Hualapai Wash
Detrital Wash
Music Mountains
Cerbat Mountains
Milkweed Can
Peach Spring Canyon
Truxton Wash
Cedar Spring Wash
Sandy Creek
Red Lake
Hopi Buttes
Navajo Reservation
Kendrick Peak
Sitgreaves
Deadman
Santa Fe
Atchison
Topeka
Yampai
Valle
Tusayan
Coconino Point
Gold Hill
Little Colorado River
Desert Facade
Salt Trail Canyon
Big Canyon
Mesa Butte
Needmore
Hackberry
Valentine
Truxton
Peach Springs
Kingman
Seligman
Chloride
Dolan Springs
Meadview
Pierce Ferry
Lake Mead
Temple Bar
Bonelli Landing
Grand Canyon
Desert View
Cape Solitude
Cape Royal
Gold Hill
Tusayan
Valle
Williams
Flagstaff
Winslow
Holbrook
Show Low
Springerville
Eagar
St. Johns
Page
Kanab
Fredonia
Colorado City
Hurricane
St. George
Littlefield
Mesquite
Las Vegas
Boulder City
Henderson
Overton
Logandale
Moapa
Glendale
Alamo
Pioche
Caliente
Panaca
Meadow Valley Wash
Muddy River
Virgin River
Lake Mead
Lake Mohave
Colorado River
Grand Canyon
Kaibab Plateau
Coconino Plateau
Shivwits Plateau
Uinkaret Plateau
Hurricane Cliffs
Grand Wash Cliffs
Virgin Mountains
Black Mountains
Detrital Valley
Hualapai Valley
Mohave Valley
Aubrey Cliffs
Music Mountains
Cerbat Mountains
White Hills
Grand Wash
Hualapai Wash
Detrital Wash
Milkweed Can
Peach Spring Canyon
Truxton Wash
Cedar Spring Wash
Sandy Creek
Red Lake
Hopi Buttes
Navajo Reservation
Kendrick Peak
Sitgreaves
Deadman
Santa Fe
Atchison
Topeka
Yampai
Valle
Tusayan
Coconino Point
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