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United States Department of the Interior
Bureau of Land Management

Grand Canyon-Parashant National Monument

Environmental Assessment

Tuweep/Tuckup Allotment Grazing Permit Renewal

EA-AZ-130-2005-0021

I. INTRODUCTION

This Environmental Assessment (EA) analyzes the proposed grazing permit renewal for the Tuweep and Tuckup allotments. The action culminates an evaluation conducted on the allotment under the Arizona BLM Standards for Rangeland Health and Guidelines for Grazing Management (S&Gs). In addition, this EA looks at the present allotment management, and determines if current grazing management practices would maintain desirable conditions and continue to allow improvement of public land resources, or if changes in grazing management for this allotment are necessary. This EA is intended to evaluate the findings of the Tuweep assessment as it relates to vegetation conditions and resource values in the allotment. This is done in an effort to balance demands placed on the resources by various authorized uses within the allotment.

Analysis of existing allotment data indicate that species composition and vegetation cover objectives are being met and species frequency are trending upward. The Interdisciplinary Assessment Team (IAT) determined during the assessment process, that resource conditions on the allotment are meeting Standards for Rangeland Health.

A short time before the Tuweep evaluation was initiated, the allotment was transferred to a new operator. However, the Tuckup pasture within the Tuweep allotment was not included in the transfer, and was retained by the previous permittee. Even though Tuckup was detached from Tuweep, it was included in the Standards for Rangeland Health assessment and was evaluated as a pasture of the Tuweep allotment. Tuckup monitoring data can be referenced in the evaluation and this EA by Key Area #5.

Purpose and Need

The purpose and need of this action is to renew the grazing permits associated with the Tuweep (#5220) and Tuckup (#00097) grazing allotments for a period of ten years. The Tuweep and Tuckup grazing allotments are located approximately 50 miles southwest of Fredonia, Arizona, in the northwest portion of Arizona on lands managed by Bureau of Land Management. Tuweep is in the Grand Canyon-Parashant National Monument. Tuckup is outside the monument

boundaries.

Conformance with Land Use Plan

This proposal is found to be in conformance with the Arizona Strip District Resource Management Plan (RMP) dated January 1992, as amended April 1997. The RMP adopted resource specific activity plans from the Vermillion Grazing EIS (April, 1979), including allotment management plans. The Vermillion Grazing EIS proposed that the Tuweep allotment should continue to be managed under the implemented grazing rotation.

Grand Canyon Parashant National Monument

The majority of Tuweep is within the Grand Canyon Parashant National Monument. Designation of the monument does not, in and of itself, require modification of the current grazing practices. The presidential proclamation states that "Laws, regulations, and policies followed by the Bureau of Land Management (BLM) in issuing and administering grazing leases on all lands under its jurisdiction shall continue to apply…". However, Interim Management Guidelines (IM 2002-008, October 11, 2001) have been established to guide management while current planning efforts are under way. These guidelines postpone the implementation of new range improvement projects (fences, pipelines, vegetative treatments) until a new Resource Management Plan (RMP) is completed. Under the Antiquities Act, BLM must protect objects identified in the presidential proclamations that establish national monuments. Therefore, if BLM determines, through the current planning process or otherwise, that any monument objects are harmed by current management, then management (including permit conditions) will be modified accordingly.

Relationships to Statutes, Regulations, or other Plans

This action is in conformance with Arizona's Standards and Guides, which were developed through a collaborative process involving the Arizona Resource Advisory Council and the Bureau of Land Management State Standards and Guidelines team. The Secretary of the Interior approved the Standards and Guidelines in April 1997. The Decision Record, signed by the BLM Arizona State Director (April 1997) provided for full implementation of the Standards and Guides in all Arizona BLM Land Use Plans

Grazing permit renewals are also provided for in 43 CFRs 4100 where the objectives of regulations are"....to promote healthy, sustainable rangeland ecosystems; to accelerate restoration and improvement of public rangelands to properly functioning conditions; to promote the orderly use,....; to establish efficient and effective administration of grazing of public rangelands;....", and as provided for in the Land Use Plans in accordance with multiple-use objectives, requirements and provisions of established laws, regulations and BLM policies incorporating Desired Plant Community (DPC) objectives using the Ecological Site Index approach.

Grazing management practices of the Tuweep and Tuckup allotments are in conformance with Arizona Standards for Rangeland Health and Guidelines for Grazing Administration. These

practices are intended to assist management in meeting the Standards for Rangeland Health.

Renewal of the Tuweep and Tuckup permits conform to the President's National Energy Policy and would not have adverse energy impacts. This action would not deny energy projects, withdraw lands, close roads or in any other way deny or limit access to mineral materials to support energy actions.

Issues raised relating to Standards for Rangeland Health

Identification and discussion of issues for the Tuweep/Tuckup S&G evaluation and this assessment were accomplished by the Rangeland Resources Team (RRT), Interdisciplinary Assessment Team (IAT), and livestock permittee during scoping on March 14, 2001. A field trip to the allotment was also conducted on August 29, 2001. One specific issue brought forward for further analysis in this EA is as follows:

- Small infestations of the noxious weed, scotch thistle (Onopordum acanthium) have been identified in sections 32 and 33 within the Tuweep allotment. Total infestation area is approximately 2 acres in size. Efforts over the past eight years to treat this infestation have not totally eradicated weeds in the area, but have had an impact in reducing the size and plant numbers of the infestation. The ongoing disturbance of the forest restoration project may cause new infestations or expansion of existing weeds.

Other issues recognized during this process but not analyzed further in this EA are listed below.

- Maintenance of old vegetative treatments; White Springs, East Trumbull, North and South Toroweap are treatment areas that are declining in vegetative diversity. Maintenance of the treatments is necessary to restore the vegetative diversity and move toward meeting the watershed and DPC objectives. This issue was acknowledged during the development and planning for the Mt. Trumbull Resource Conservation Area in 1995. The issue and implementation actions to restore vegetative diversity in these areas were further analyzed in Environmental Assessment AZ-010-95-015 and CX-AZ-010-04-0036. For this reason, the issue will not be analyzed further in this document.

- Recreation/camping are impacting vegetative cover; this impact is representative of other recreation sites and trail heads and access points and is necessary. These impacts are not excessive. VRAIP RR-25: "As visitor use increases in the Mt. Trumbull RCA, consider low-intensity development of facilities to better manage user impacts". New trail head facilities have been considered for the Mt. Trumbull Trailhead but the process is still in the planning stages and nothing final has been determined for the area at this time. As with other acceptable impacts, these sites will be watched and reassessed if they appear to be reaching the limits of acceptable change.

- Road drainage causes gullies. More water turn outs are needed on County Road 5 to Mt.

Trumbull; more culverts and water turn-outs to promote better drainage are necessary. The BLM and Mohave County road crews are presently upgrading this road with a cinder and gravel road base and making more water turn-outs and using culverts as needed to remedy the problem.

- Riparian values at Nixon Spring; Nixon Spring produces a small riparian area less than 1 acre on the side hill near the top of Mt. Trumbull. This site contains some riparian forb species and upland plants such as upland carex. The majority of water is collected and piped down the mountain for livestock water and culinary use at the BLM administrative site. It was found to be in properly functioning condition by an interdisciplinary team in 2001. The spring source has been fenced since the early 1980's and there are no activities authorized by BLM taking place inside the fenced area.

- Soil erosion and lack herbaceous understory; portions of the allotment are dominated by big sagebrush (*Artemisia tridentata wyomingensis).* The increase in big sagebrush has caused a decline in understory grasses and forbs. This decline in herbaceous material has exposed more ground surface thereby reducing the soil stability. A brush management plan is in place to reduce Wyoming big sagebrush in those communities. Implementing this plan would facilitate attainment of Desired Plant Community (DPC) objectives developed for the area. Previously treated areas have yielded favorable results in increased vegetative cover, understory establishment and vigor, improved soil stability which ultimately enhances rangeland health and wildlife habitat. It was determined that this problem is not attributable to current livestock grazing practices since many of these areas have not been grazed for 10 years or longer.

- Declining mule deer and pronghorn populations; Mule deer populations in the early 1960s in this Game Management Unit (13A) were probably in excess of 2,500 animals. At that time, a variety of predator control measures were in effect to protect livestock that allowed mule deer numbers to build up in excess of the carrying capacity of the habitat. Many of those predator control methods were banned in the late 1960s and early 1970s. Mule deer populations took several precipitous declines, leading the AGFD to restrict hunting in the mid-1980s. Since that time, mule deer numbers have been gradually increasing. Fawn production and survival suggest this is a low productivity area for mule deer.

  Mule deer populations have declined significantly throughout the Inter-mountain West since the 1950's and 60's. Reasons for this decline are not well known or understood. Possible causes include: climate change; increased predators (mountain lions, coyotes); lack of predator control; disease; changes in vegetation (advanced seral stages, decline of forbs and/or browse); loss of nutritional value; changes in plant utilization; over hunting (legal and illegal); elimination of sheep grazing; disruption of natural fire regimes; and habitat loss (fragmentation, alteration).

  "Statewide Evaluation of Pronghorn Habitat in Arizona "showed the overall

habitatquality as poor or mapped as poor or unsuitable and not evaluated. Only one section rated as moderate and approximately 2.5 sections as low quality. The Tuweep Valley pronghorn habitat is not contiguous with other pronghorn habitat and is relatively small in size. No pronghorn have been sighted in this area for many years.

Current Planning Process

The Arizona Strip District Office is currently involved in a planning process that will result in three stand alone RMPs, one for each new National Monument and one for the Arizona Strip outside of the monuments. No grazing changes are currently anticipated for either allotment. However, there may be modifications as a result of the new RMPs. The 10- year grazing permit, in part, states "This permit is subject to (A) modification, suspension or cancellation as required by land plans and applicable law; (B) annual review and to modification of terms and conditions as appropriate; ...". BLM may use these permit conditions to implement any changes required under the new RMPs.

II. PROPOSED ACTION AND ALTERNATIVES

Proposed Action (Renewal of 10 Year Grazing Permit with current terms and conditions of the Tuweep allotment)

The Proposed Action is to renew the grazing permits on the Tuweep and Tuckup allotments for a period of ten years with current terms and conditions. Under this alternative, BLM would:

- Cancel the existing annual permits (Table 2) and reissue term (ten year) grazing permits on the Tuweep and Tuckup allotments as listed in Table 1. Livestock grazing would occur during the season of use, livestock numbers, and AUMs, identified in Table 1. There would be no change to the current active grazing preference on the allotments.

- Consider, through the NEPA process any new range improvements to assist in grazing practices and promote rangeland health.

Table 1 - Proposed Action Ten Year Term Permit Issuance

Allotment Name	Permittee	Permit Number	Livestock			Active AUMs	Public Land (acres)	% Public Land
			No.	Kind	Season of Use			
Tuweep	Canyonlands Grazing Corp.	5220	149 2	Cattle Horses	03/01-02/28 03/01-02/28	1,591 21	38,853	89%
Tuckup	NA	00097	143	Cattle	11/15-05/15	792	12,638	93%

Table 2 – Annual Grazing Permits to be Cancelled								
Allotment Name	**Permittee**	**Permit Number**	**Livestock**			**Active AUMs**	**Public Land (acres)**	**% Public Land**
			No.	**Kind**	**Season of Use**			
Tuweep	Canyonlands Grazing Corp.	5220	149 2	Cattle Horses	03/01-02/28 03/01-02/28	1,591 21	38,83	89%
Tuckup	NA	00097	143	Cattle	11/15-05/15	792	12,638	93%

Alternatives Considered But Rejected For Further Analysis

Alternatives are tiered to the Arizona Strip District RMP (January, 1992) and the Vermillion Grazing EIS (April, 1979) which was adopted into the RMP and are basically the same for this action. The Grazing EIS addressed five alternatives: Full Stocking with Management, Stocking Level by Condition Class, No Vegetation Manipulation, Elimination of Grazing on Public Lands, and Less Intensive Management of Livestock Grazing.

The following three alternatives were considered for this EA but rejected because they were analyzed in the RMP, to which this document is tiered.

- **Full Stocking with Management alterative** would allow stocking at the estimated livestock carrying capacity of the allotment with no reductions for the rest pasture in rest-rotation grazing systems.

- **Stocking Level by Condition Class alternative** would set the stocking level based on the average condition and apparent trend of the allotment.

- **No Grazing Alternative (Elimination of Livestock Grazing on Public Lands).** The decision to authorize livestock grazing in this area and specifically on the Tuweep and Tuckup allotments are documented in the approved land use plan. The absence of new information or other land use plan decisions showing that continued livestock grazing would preclude BLM from meeting or making significant progress toward achieving land health standards renders the existing land use plan authorizing grazing valid. A no grazing alternative or not renewing a grazing permit would not conform to the land use plan. A plan amendment would be required before closing an allotment to livestock grazing.

The Grazing System Description for the Tuweep Allotment

An Allotment Management Plan (AMP) and grazing system for Tuweep was developed in 1983. Some minor revisions to the AMP took place in1992, however the grazing system was retained. The allotment is divided into a summer-fall system which includes the five mountain pastures. The winter-spring system consists of three pastures in Tuweep Valley. The mountain pastures (Ponderosa, Nixon, Sawmill, White Spring, and East Trumbull) are operated as a five-pasture

rest rotation system, while the Tuweep Valley pastures (Lower Kent, Tuweep, and Little Tuweep) are on a three-pasture rest rotation schedule.

The grazing system and pasture rotation were designed to provide spring grazing rest and summer growing season deferment.

Tuckup has been a part of the Tuweep AMP as a winter/spring use pasture. Tuckup would continue with the same season of use, but operate independently of Tuweep under a separate allotment number.

Grazing Preference and Current Use on the Allotments

Tuweep

Livestock Numbers	Season of Use	% Federal	Active AUMs
149 Cattle	03/01 to 02/28	89%	1,591
2 Horses	03/01 to 02/28	89%	21
		Total	1,612

Tuckup

Livestock Numbers	Season of Use	% Federal	Active AUMs
143 Cattle	11/15 to 05/15	93%	792

Terms and Conditions of Grazing Permit

Grazing would be in accordance with the grazing preference, livestock numbers, and season of use specified on the grazing permit. Billing for grazing use would be based on the actual use report which is due on or before March 15 each year. Livestock may be moved 15 days before or after scheduled move dates.

Desired Plant Community (DPC)

This EA also incorporates by reference the "Implementation of Standards for Rangeland Health and Guidelines for Grazing Administration, Tuweep Allotment S&G Assessment" (2002)[1]. The Tuweep Allotment Assessment lists and evaluates achievement of the allotments DPC objectives summarized below. These objectives are expressed in species composition by weight and percent vegetation cover.

Desired Plant Community (DPC) Key Area #1 (Clay Loam Upland 10-14" pz)

- Maintain the shrub/browse composition between 30-60 percent through 2030.
- Maintain the grass composition between 30-55 percent through 2030.

[1]Tuweep Allotment S&G Assessment, available at the Bureau of Land Management, Arizona Strip Field Office, 345 E. Riverside Drive, St. George, Utah 84790.

- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 7-13 percent through 2030.

Desired Plant Community (DPC) Key Area #2 (Clay Loam Upland 10-14" pz)

- Maintain the shrub/browse composition between 30-60 percent through 2030.
- Maintain the grass composition between 30-55 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 3-8 percent through 2030.

Desired Plant Community (DPC) Key Area #3 (Cinder Upland 12-16" pz)

- Maintain the shrub/browse composition between 25-45 percent through 2030.
- Maintain the grass composition between 40-65 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 5-11 percent through 2030.

Desired Plant Community (DPC) Key Area #5 (Loamy Upland 10-14" pz)

- Maintain the shrub/browse composition between 20-35 percent through 2030.
- Maintain the grass composition between 50-70 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 2-7 percent through 2030.

Desired Plant Community (DPC) Key Area #6 (Clay Loam Upland 10-14" pz)

- Maintain the shrub/browse composition between 20-35 percent through 2030.
- Maintain the grass composition between 40-65 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 2-7 percent through 2030.

Desired Plant Community (DPC) Key Area #7 (Clayey Upland 10-14" pz)

- Maintain the shrub/browse composition between 20-40 percent through 2030.
- Maintain the grass composition between 40-65 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 3-10 percent through 2030.

Desired Plant Community (DPC) Key Area #8 (Basalt Upland 10-14" pz)

- Maintain the shrub/browse composition between 35-65 percent through 2030.
- Maintain the grass composition between 30-60 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 2-7 percent through 2030.

Desired Plant Community (DPC) Key Area #9 (Loamy Upland 10-14" pz)

- Maintain the shrub/browse composition between 20-40 percent through 2030.

- Maintain the grass composition between 45-70 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 3-9 percent through 2030.

Desired Plant Community (DPC) Key Area #10 (Clay Loam Upland 10-14" pz)

- Maintain the shrub/browse composition between 25-55 percent through 2030.
- Maintain the grass composition between 30-65 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 2-7 percent through 2030.

Desired Plant Community (DPC) Key Area #12 (Clay Loam Upland 10-14" pz)

- Maintain the shrub/browse composition between 25-60 percent through 2030.
- Maintain the grass composition between 30-65 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 2-6 percent through 2030.

Desired Plant Community (DPC) Key Area #13 (Loamy Terrace 17-20" pz)

- Maintain the trees/shrub/browse composition between 50-70 percent through 2030.
- Maintain the grass composition between 20-45 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 2-7 percent through 2030.

Desired Plant Community (DPC) Key Area #14 (Loamy Upland 10-14" pz)

- Maintain the shrub/browse composition between 25-40 percent through 2030.
- Maintain the grass composition between 50-70 percent through 2030.
- Maintain the forb composition between 0-10 percent through 2030.
- Maintain basal vegetation cover between 5-13 percent through 2030.

Desired Plant Community (DPC) Key Area #15 (Loamy Terrace 17-20" pz)

- Maintain the trees/shrub/browse composition between 50-70 percent through 2030.
- Maintain the grass composition between 20-45 percent through 2030.
- Maintain the forb composition between 1-10 percent through 2030.
- Maintain basal vegetation cover between 3-9 percent through 2030.

Monitoring

The goals of monitoring would be to determine if the fundamentals or conditions of Rangeland Health are being met within the allotment area under 43 CFR 4180. These conditions of Rangeland Health are:

(a) Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and land form and maintain or improve water-quality, water quantity, and timing and duration of flow.

(b) Ecological processes, including the hydrologic cycle, nutrient cycle, and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.

(c) Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving, established BLM management objectives such as meeting wildlife needs.

(d) Habitats are, or are making significant progress toward being restored or maintained for Federal threatened and endangered species, Federal Proposed, Category 1 and 2 Federal candidate and other special status species.

To monitor rangeland health conditions, key areas as defined in the *Monitoring* "Planning for Monitoring", "TR 4400-1", (1984) would be used. The key area would be used as an indicator area to reflect the effect of on the ground management on the site they represent. Each key area would be established based on a Range Site/Ecological Site (developed by the Natural Resource Conservation Service, (NRCS)) with a specific Potential Natural Community (PNC) and specific physical site characteristics. Knowing the PNC of the area, and using the ecological site descriptions as a guide, DPC objectives can be developed. The DPC then becomes the objectives by which management actions would be measured.

Dry Weight Rank (DWR) method of data collection would be used to monitor species composition. In addition, Pace Frequency and Step-Point studies would be used at each key area to detect changes of individual species and vegetative cover, which indicates a trend and status of basal and foliar cover. Pace Frequency, Step-Point and DWR would be completed on each key area every 3-6 years. DWR and Pace Frequency study methods are described in *Sampling Vegetation Attributes*, "Interagency Technical Reference 1734-4" (1996).

Livestock use on forage plants would be determined by conducting grazing utilization studies using the Grazed-Class Method as described in the *Utilization Studies and Residual Measurements* "Interagency Technical Reference 1734-3" (1996). Utilization studies would be completed annually in each grazing unit by BLM prior to and/or after livestock have been removed from the pasture. Study data would be compiled each year. Other information to be collected and compiled is precipitation, actual use, etc. All monitoring data would be used to evaluate current management and assist BLM in making management decisions that helps achieve vegetation objectives on the allotment.

Analysis of existing allotment data suggests DPC objectives are being met. It was determined by

the Interdisciplinary Assessment Team (IAT) during the assessment process, that resource conditions on the allotment are meeting Standards for Rangeland Health.

Allotment compliance would be conducted annually on the allotment. Compliance monitoring assures terms and conditions of the permit and any other subsequent requirements attached to range improvement permits (Cooperative Agreements and Section 4) are being met.

Based on analyses of the allotment's monitoring data and supporting documentation contained in the Tuweep S&G Assessment Report (2002), resource conditions on the allotment are making significant progress toward meeting the applicable standards for rangeland health.

III. AFFECTED ENVIRONMENT

The Tuweep and Tuckup grazing allotments are located 50 miles southwest of Fredonia, Arizona, in the northwest portion of Arizona on lands managed by the BLM. The allotments are within the boundaries of T. 35 and 36 N., R. 6, 7, 8, and 9 W., east of Bundyville. Elevations range from 8,030' on the top of Mt. Trumbull to 5,020' at the lower end of Tuweep Valley.

The affected environment is tiered to the Arizona Strip District RMP (January 31, 1992), Affected Environment pages III-1 to III-58, and pages 2-1 to 2-56 of the Vermillion Grazing EIS (April, 1979) which was adopted into the RMP and are essentially the same for this action. Chapter 2 of the Vermillion Grazing EIS describes the environmental components likely to be impacted by the proposed action. Environmental components discussed in the EIS that might affect or be affected by the proposal are: Climate, Vegetation, Threatened and Endangered Plant Species, Riparian Vegetation, Soils, Water Resources, Animals (wildlife), Cultural Resources, Visual Resources, and Land Uses including livestock grazing and recreation.

This EA also incorporates by reference the "Implementation of Standards for Rangeland Health and Guidelines for Grazing Administration, Tuweep Allotment S&G Assessment" (2002)[2]. This S&G Assessment describes the resources and issues applicable to the allotment area. See the Tuweep Allotment S&G Assessment Appendix for other resource data and associated information.

The following critical elements of the human environment or resources are not present in the allotment or would not be affected by the proposed action or alternatives.

- Air Quality
- Native American Religious Concerns
- Water Quality, Drinking or Ground
- Wild & Scenic Rivers

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[2] Tuweep Allotment S&G Assessment, available at the Bureau of Land Management, Arizona Strip Field Office, 345 E. Riverside Drive, St. George, Utah 84790.

- Wetlands/Riparian Areas
- Areas of Critical Environmental Concern (ACECs)
- Wild Horses and Burros
- Minerals
- Hazardous Materials

Climate

The Tuweep Allotment falls within two precipitation zones. The higher elevations on Mt. Trumbull and on the west half of the allotment are in the 18-20" ppt. zone and are most represented by the Nixon Flats rain gauge. Approximately 14 percent (2.66") comes in the fall, 33 percent (6.08") comes in the winter, 21 percent (3.85") comes in the spring and 32 percent (5.95") comes in the summer.

The east half of the allotment in Tuweep Valley and Tuckup Point falls in the 12.5" ppt. zone and most represented by the Tuweep rain gauge. Approximately 12 percent (1.44") comes in the fall, 30 percent (3.76") comes in the winter, 21 percent (2.61") comes in the spring and 38 percent (4.70") comes in the summer.

Fall precipitation has been above normal in 1991, 1992, 1993 &1998 and below normal all the other years since 1988. The above average years were in 1993-94, and 1995 thru 1998. Winter precipitation has been above normal from 1991-1995 and below normal all the other years since 1988. The spring precipitation has been above normal only from 1992, 1995, and 1999 then below the rest of the years. Summer precipitation was above normal every year except 1990, 1992 and 1999, then below normal all the other years. The annual precipitation trend is above normal in 1991-92, 94-95, & 1998-99, with below normal precipitation all the other years since 1988.

Vegetation

The principal vegetative subtypes[3] within the allotments are pinyon-juniper woodlands, sagebrush, ponderosa pine, and grassland.

- The pinyon-juniper subtype includes pinyon, juniper, sagebrush, cliffrose, turbinella oak, banana yucca, blue grama, squirrel tail and various annual/perennial forbs.
- Associated species in the sagebrush subtype are big sagebrush, ephedra, cliffrose, fourwing saltbush, snakeweed, blue grama, squirrel tail, galleta, and a mixture of forbs.
- The ponderosa pine woodland type consists of ponderosa pine, gambel's oak, pinyon pine, Utah juniper, locust, big sagebrush, blue grama, Arizona fescue, seeded wheatgrass, mutton grass and various forbs.
- The grassland subtype is characterized by scattered big sagebrush, snake weed, banana

[3] Vermillion Grazing Environmental Impact Statement

yucca, blue grama, black grama, sand dropseed, galleta, squirrel tail, indian ricegrass, and associated forbs.

Within these vegetative subtypes are six dominant ecological sites[4] that are part of the Major Land Resource Units, as defined by the NRCS.

Water Sources

Tuweep allotment contains:

- 9 fenced reservoirs
- 4 unfenced reservoirs
- 3 developed springs
- 5 wildlife catchments

Tuckup allotment contains:

- 4 unfenced reservoirs
- 2 livestock catchments
- 1 wildlife catchment

Threatened and Endangered (T&E) Species

The Threatened and Endangered (T/E) species that may occur within or adjacent to the Tuweep and Tuckup Allotments are as follows.

- Bald eagle (*Haliaeetus leucocephalu*)
- Mexican spotted owls (*Strix occidentalis lucida*)
- California condor (*Gymnogyps californianus*)

The bald eagle and California condor may occasionally fly over the area. An experimental non-essential population (as defined under section 10J of the Endangered Species Act) of California condors was established on the Vermillion Cliffs in 1996. These birds may eventually forage on carrion within the allotment but have not yet been observed doing so. No Mexican spotted owls (MSO) have ever been documented in the Mt. Trumbull area or on this allotment. Current thinking among members of the Colorado Plateau Working Group for Mexican spotted owls is that ponderosa pine forests are no longer considered as suitable habitat for MSO. Therefore, these allotments are no longer considered to include any habitat for MSO and there is no suitable habitat for the species within 20 miles. There are no riparian areas that would provide habitat for the southwestern willow flycatcher (*Empidonax trailii extimus*).

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[4] An ecological site is a distinctive kind of land that differs from other kinds in its ability to produce a characteristic plant community. Each ecological site is a product of all environmental factors responsible for its development. Each site is capable of producing and supporting a plant community typified by an association of species that differs from other ecological sites in species kind, proportion and total production.

BLM Sensitive and State Species of Concern

Ferruginous (*Buteo regalis*) and Swainson's (*Buteo swainsoni*) hawks are known to forage over grassland habitat similar to that found on the allotment, though specific sightings have not been recorded for the species. Black-crowned night Heron (*Nysticorax nycticorax hoactli*) and snowy egrets (*Egretta thula brewsteri*) have occasionally been observed using stock tanks in the area, but have not been recorded on the allotment. A variety of sensitive bat species have been captured on neighboring allotments including Townsend's big-eared (*Corynorhinus townsendii*), spotted bats (*Euderma maculatum*), small-footed myotis (*Myotis ciliolabrum*), fringed myotis (*Myotis thysanodes*), and big free-tailed bats (*Nyctinomops macrotis*).

No other, federally listed T&E species are known to occur in the area covered by this EA.

Wildlife

The Mt. Trumbull/Mt. Logan areas within the Tuweep and Tuckup allotments support a population of mule deer. Introduced populations of Merriam's turkey and Kaibab squirrel are also present at higher elevations on the Tuweep allotment. The allotment includes limited pronghorn habitat, mainly in the very north reaches of Tuweep Valley. AGFD's (1996) "Statewide Evaluation of Pronghorn Habitat in Arizona "showed the overall habitat quality as poor or mapped as poor or unsuitable and not evaluated. Only one section rated as moderate and approximately 2.5 sections as low quality. The Tuweep Valley pronghorn habitat is not contiguous with other pronghorn habitat and is relatively small in size. No pronghorn have been sighted in this area for many years.

Nongame wildlife found on the allotments are typical of the area, including mountain lions, bobcats, coyotes, a variety of small mammals, grassland birds, raptors, and reptiles. The allotment supports an abundant and diverse bird fauna, due in part to more mesic conditions in the ponderosa pine/oak woodland habitats. All waters within this arid region are considered important for wildlife.

Soils

The only soils monitoring data for this area is the Phase 1 Watershed Conservation and Development Inventory of 1971-1973 (See Field Office Files 7300). It was based upon a general soils map and thus ended up as broad interpretations and averages over large areas. Other more specific and detailed soils information is as follows:

Soil Map Units , SSA 625

11 Curhollow-Prieta complex, 4 to 20 percent slopes, (fan terraces, hills), limestone, basalt; Basalt Upland, 10" to 14" ppt

12 Godding gravelly loam, 3 to 40 percent slopes, (hills, fan terraces), basalt, pyroclastics; Loamy Upland (PJ-Woodland), 18" to 30" ppt

20 Jocity silty clay loam, 1 to 4 percent slopes, (stream terraces), mixed alluvium; Silty Upland, 7" to 11" ppt

22 Kinan gravelly loam, 1 to 15 percent slopes, (fan terrace), limestone; Loamy Upland, 7" to 11" ppt

23 Kinan-Hatknoll-Grieta comples, 1 to 5 percent slopes, (fan terraces), limestone, basalt, sandstone; Kinan and Grieta=Loamy Upland, 7" to 11" ppt; Hatknoll=Clay Loam Upland, 7" to 11" ppt

26 Lava Flows, basalt; No Ecosite

27 Lozinta extremely gravelly loam, 1 to 15 percent slopes, (fan terraces), scoriaceous basalt and pyroclastics; Cinder Upland (PJ-Woodland), 14" to 18" ppt

28 Lozinta extremely gravelly loam, 15 to 45 percent slopes, (cinder cones), scoriaceous basalt and pyroclastics; Cinder Hills (PJ-Woodland), 14" to 18" ppt

29 Manikan silty clay loam, 1 to 4 percent slopes, (stream terraces), sandstone, shale; Clayey Upland, 10" to 14" ppt

31 Mellenthin-Barx complex, 1 to 15 percent slopes, (hills, fan terraces), limestone, sandstone; Mellenthin=Shallow Loamy, 10" to 14" ppt; Barx=Loamy Upland, 10" to 14" ppt

33 Mellenthin very gravelly loam, 1 to 25 percent slopes, (hills), limestone; Shallow Loamy, 10" to 14" ppt

34 Mellenthin very gravelly loam, 30 to 50 percent slopes, (hills), limestone; Limestone Breaks, 10" to 14" ppt

39 Milok gravelly loam, 1 to 15 percent slopes, (fan terraces), limestone; Loamy Upland, 10" to 14" ppt

40 Moab loam, 1 to 5 percent slopes, (fan terraces), limestone; Loamy Upland, 10" to 14" ppt

41 Moab-Mellenthin complex, 1 to 20 percent slopes, (fan terraces, hills), limestone; Moab= Loamy Upland, 10" to 14" ppt; Mellenthin=Shallow Loamy, 10" to 14" ppt

48 Poley cobbly silty clay loam, 1 to 5 percent slopes, complex, 1 to 15 percent slopes; Showlow= Clay Loam Upland,14" to 18"; Section= Loamy Upland, 14" to 18"

49 Poley-Moab complex, 1 to 10 percent slopes, (fan terraces), basalt, pyroclastics; Poley=Clay Loam Upland, 10" to 14" ppt; Moab=Loamy Upland, 10" to 14" ppt

53 Royosa-Tonalea complex, 1 to 15 percent slopes, (plateau dunes), sandstone; Sandy Upland (moderately deep) PJ-Woodland, 14" to 18" ppt

57 Showlow-Section; Clay Loam Upland, 10" to14"

58 Showlow-Thimble complex, 1 to 15 percent slopes, (hills, fan terraces), basalt, pyroclastics; Showlow=Clay Loam Upland (PJ-Woodland), 14" to 18" ppt; Thimble=Basalt Upland (Woodland), 14" to 18" ppt

59 Showlow very cobbly clay loam, 1 to 15 percent slopes; Clay Loam Upland, 14" to 18"

60 Showlow very cobbly silty clay loam, 15 to 35 percent slopes; Clay Loam Upland, 14" to 18"

61 Sponiker gravelly loam, 1 to 15 percent slopes; Loamy Upland, 18" to 30?"

63 Torriorthents-RO complex, 30 to 70 percent slopes; Breaks, 10" to 14"

66 Whiskey silt loam, 1 to 4 percent slopes; Loamy Upland, 14" to 18"

69 Wutoma-Lozinta complex, 15 to 50 percent slopes, (cinder cones), scoriaceous basalt,

pyroclastics; Cinder Hills (PJ-Woodland), 14" to 18" ppt
72 Yumtheska very gravelly loam, 4 to 20 percent slopes; Shallow Loamy, 14" to 18"
73 Yumtheska very gravelly loam, 30 to 50 percent slopes; Limestone Hills, 14" to 18"

Lithology

The west half of the Tuweep allotment consists of basalt capped mountains and hills. The side slopes are Shinarump conglomerate over Moenkopi mudstones or just mudstones. The valley floodplains are clayey alluvium. The east half of the allotment, which includes Tuckup, is basalt flows over Kaibab limestone. Tuweep valley is alluvial deposits of silty and gravelly soils.

Cultural/Historical

Prehistoric and Historical sites exist throughout the allotment.

Visual Resources

The 1992 RMP classified Visual Resource Management Classes (VRM) in areas of and approximate to the Tuweep and Tuckup allotments. The Mt. Trumbull Wilderness Area is VRM Class I. Tuweep Valley is in a VRM Class II. Class I and II represent lands with the highest visual resource values when compared to others in the region. Lands west, north, and east of Mt. Trumbull are VRM Class III. Class III lands have moderate visual resource values when compared to others in the region.

Livestock Grazing

The Tuweep Allotment (#5220) is comprised of 38,853 acres of federal BLM land and 2,799 acres of state land. The total number of active AUMs on the allotment is 1,612. The season of use is 03/01 to 02/28.

Tuckup Allotment (#00097) consists of 12,638 acres of federal BLM land and 639 acres of Arizona state land. The total active AUM's on the allotment is 852. Season of use is established from 11/15 to 05/15.

In 2002, the Tuweep allotment with the exception of the Tuckup pasture was transferred to a new operator. The Tuckup pasture was retained by the previous operator and would continue active use on the allotment during the winter/spring season. The new permittee elected to take non-use on parts of the allotment during this time of transition. Since 2002, only winter grazing has occurred on the allotment. The Lower Kent, Tuweep, and Little Tuweep pastures received grazing during the winters of 2003 through 2005. The mountain pastures (Ponderosa, Nixon, Sawmill, East Trumbull and White Spring) have been in non-use since the fall of 2002. These pastures would continue to be in non-use until after restoration treatments are completed. Under current grazing regulations, the permittee may continue for a period of up to 10 years non-use status on the allotment for conservation purposes. Any proposed long-term plans to alter the

current terms and conditions of the Tuweep allotment and associated grazing permit would be analyzed in the Arizona Strip RMP planning process.

Recreation Resources

Both the Tuweep and Tuckup Allotments are considered to have recreation values for their geology, scenic view sheds, wilderness, and remoteness and solitude. General recreation activity in this area consists of recreational OHV use, driving for pleasure, sightseeing, horseback riding, hiking, camping and hunting.

The area in these allotments has been designated as: Closed (Wilderness) "Limited to Designated Roads & Trails" and "Limited to Existing Roads & Trails".

Two designated or developed recreational trails are found in this allotment, the Temple Trail and the Mt. Trumbull Hiking Trail. The Temple Trail originates in Nixon Flat and travels to the Temple in St. George, Utah. The Mt. Trumbull Hiking Trail starts at Nixon Flat and runs through the Mt. Trumbull wilderness to the peak of Mt. Trumbull. The Dominguez-Escalante Party is presumed to have come through to the north of this allotment, although the party's route is shown on the Arizona Strip's Visitor Map as a historic trail, the exact route is not known and no trail markers are found on the ground in this area.

Two designated recreation/cultural historic sites are located in this allotment and are close together at Nixon Flat: The prehistoric Uinkaret Pueblo, and a Historical Sawmill site which produced timbers for the construction of the St. George L.D.S. Temple in the late 1800's.

Wilderness

The Mt. Trumbull and Mt. Logan Wilderness Areas are located on parts of the Tuweep allotment. The Mt. Trumbull Wilderness is entirely within the Tuweep allotment boundaries. The Tuckup allotment is exclusively outside of these wilderness areas. This wilderness contains the slopes and summit of Mt. Trumbull, involving an elevation change of nearly 3,000 feet. This area has basalt ledges, pinyon-juniper woodlands, stands of ponderosa pines and groves of Gambel oak. These vegetation communities are habitat for mule deer, wild turkey, and Kaibab squirrel.

Adjacent to Mt. Trumbull and to the south, there is the Mt. Logan Wilderness. Approximately 200 acres of this wilderness is on the Tuweep allotment. Mt. Logan Wilderness and portions of the Unikaret Mountains are areas of recent volcanic origin. This area includes basalt ledges, ponderosa pine forests, piyon-juniper woodlands, and a colorful, natural eroded amphitheater known as Hell's Hole. Like Mt. Trumbull, it provides habitat for deer, turkey, Kaibab squirrels, and various non-game and avian species.

The following resources are not present in the allotment and are therefore not affected by the proposed action or alternatives:

- Wild & Scenic Rivers
- Wetlands/Riparian Areas
- Areas of Critical Environmental Concern (ACECs)
- Wild Horses and Burros
- Minerals
- Hazardous Materials

Noxious Weeds

Small infestations of the noxious weed, scotch thistle (Onopordum acanthium) have been identified in section 33 within the Tuweep allotment. Total infestation area is approximately 2 acres in size. Efforts over the past eight years to treat this infestation have not totally eradicated weeds in the area, but have had an impact in reducing the size and plant numbers of the infestation. The ongoing disturbance of the forest restoration project may cause new infestations or expansion of existing weeds.

Socio/Economic

Economic revenue generated from the Arizona Strip is mainly ranching with a few gypsum/selenite mines and uranium operations. Nearby communities are supported by tourism (including outdoor recreation), construction and light industry. The social aspect involves remote, unpopulated settings with moderate to high opportunities for solitude.

IV. ENVIRONMENTAL IMPACTS

The following critical elements of the human environment are not affected by the proposed action or alternatives or are not present:

- Air Quality
- Native American Religious Concerns
- Water Quality, Drinking or Ground

Only impacts that may result from implementing the proposed action or alternatives are described in this EA. If an ecological component is not discussed, it should be assumed that the resource specialists have considered effects to the component and found the proposed action or alternatives would have minimal or no effects. General effects from projects similar to the proposed action alternative are also described in the documents to which this plan is tiered.

This document incorporates by reference the Tuweep Allotment S&G Assessment (2002), which provides a complete discussion, analysis and summaries of the range resources and associated issues. Also, see the Tuweep S&G Assessment Appendix for specific resource data and other associated information.

Climate

Implementing the Proposed Action would have no effect on the climate. The Proposed Action would allow affected resources to respond to the climate with improvement to these resources, as mentioned below in the vegetation section.

Drought

In response to drought conditions, BLM may modify the terms and conditions of the grazing permits (ie. number of cattle, turn out dates, removal dates, etc.) temporarily or on a more long-term basis. Most modifications are accomplished on a cooperative basis with the livestock permittee. However, if a permittee disagrees with BLM's assessment of the resource conditions or the necessary modifications, BLM may nevertheless issue a Full Force and Effect Grazing Decision to protect resources.

Vegetation

Grazing impacts on vegetation under the Proposed Action are mitigated by timing of use, duration of grazing, adjusting of stocking rates, and conformance with Standards and Guidelines for Grazing Management. The Proposed Action would have an established grazing rotation designed to allow each pasture a different season of rest during growing cycles, let cool and warm season grasses and browse to elongate their apical buds, build vigor and achieve seed ripe.

The allotments' major vegetation component consists mainly of pinyon-juniper woodlands with an associated understory of sagebrush, cliffrose, desert holly, blue grama, squirrel tail, sand dropseed, and a variety of forbs.

Vegetation issues identified on the Tuweep and Tuckup allotments were the maintenance of past vegetation treatments, presence of noxious weeds in section33, invasion of sagebrush and locust in open parks, and vegetation diversity in section 29. For a complete analysis and discussion of these issues refer to the Tuweep Allotment S&G Assessment pages 12, 13, 16, 48, and 49.

Monitoring data (1982 to 2001) on the Tuweep and Tuckup allotments indicate that two key areas are in an upward trend, seven are static, and four in down trend of frequency. Utilization has been below allowable levels. These data reflect and suggest that current management coupled with precipitation would allow objectives for the vegetation components to be met on the allotment. These vegetation components constitute the ecological sites upon which DPC objectives are based. Key areas are established on ecological sites and monitored to determine the species composition, the frequency of plant species, and the vegetative ground cover. Pace frequency summaries for each pasture are shown below.

<u>Key Area #1, Nixon Pasture - Clay Loam Upland 14-18" pz</u>

- Key Species index increased in frequency from 38 to 88.

- Live Vegetative Cover is 10 percent
- Based on frequency data trend is **up.**

Key Area #2, Craig Pasture - Clay loam Upland 10-14" pz

- Key Species index decreased in frequency from 63 to 58.
- Live Vegetative Cover is 5 percent
- Based on frequency data trend is **static.**

Key Area #3, White Springs - Cinder Upland 12-16" pz

- Key Species index decreased in frequency from 73 to 25.
- Live Vegetative Cover is 8.5 percent
- Based on frequency data trend is **down.**

Key Area #5, Tuckup Pasture - Loamy Upland 10-14" pz

- Key Species index decreased in frequency from 85 to 82.
- Live Vegetative Cover is 4.5 percent
- Based on frequency data trend is **static.**

Key Area #6, Little Tuweep - Clay Loam Upland 10-14" pz

- Key Species index decreased in frequency from 65 to 50.
- Live Vegetative Cover is 4.5 percent.
- Based on frequency data trend is **down.**

Key Area #7, Tuweep - Clayey Upland 10-14" pz

- Key Species index increased in frequency from 57 to 82.
- Live Vegetative Cover is 6.5 percent.
- Based on frequency data trend is **up.**

Key Area #8, Tuweep - Basalt Upland 10-14" pz

- Key Species index increased in frequency from 51 to 59.
- Live Vegetative Cover is 4.5 percent.
- Based on frequency data trend is **static.**

Key Area #9, Little Tuweep - Loamy Upland 10-14" pz

- Key Species index increased in frequency from 105 to 107.
- Live Vegetative Cover is 6 percent.
- Based on frequency data trend is **static.**

Key Area #10, East Trumbull - Clay Loam Upland Gravelly 10-14" pz

- Key Species index decreased in frequency from 78 to 53.
- Live Vegetative Cover is 4 percent.
- Based on frequency data trend is **down.**

Key Area #12, East Trumbull - Clay Loam Upland Gravelly 10-14" pz

- Key Species index decreased in frequency from 63 to 30.
- Live Vegetative Cover is 3.5 percent.
- Based on frequency data trend is **down.**

Key Area #13, Ponderosa - Loamy Terrace 17-20" pz

- Key Species index increased in frequency from 16 to 25.
- Live Vegetative Cover is 2.5 percent.
- Based on frequency data trend is **static.**

Key Area #14, Tuckup - Shallow Loamy 10-14" pz

- Key Species index increased in frequency from 105 to 110.
- Live Vegetative Cover is 8.5 percent.
- Based on frequency data trend is **static.**

Key Area #15, Ponderosa - Loamy Terrace 17-20" pz

- Key Species index increased in frequency from 25 to 26.
- Live Vegetative Cover is 5.5 percent.
- Based on frequency data trend is **static.**

Key Areas 3, 6, 11, & 12 are primarily old vegetative treatment areas (chainings, railings) that have since invaded and encroached back into a dense sagebrush or pinyon-juniper vegetation type. These areas have not received the needed maintenance or additional treatments to keep them in good condition. Invading woody species have crowded out the desirable grasses, shrubs and browse species that were present, thus showing a decrease or downward trend in key species.

Utilization data from 1985-2000 has been compiled for this evaluation. The Key Species Grazed Class method was used to collect the data. Utilization is read at or around the designated key area for each pasture.

During the evaluation period, average utilization across all pastures for cool season grasses were 31 percent, ranging between 11 percent and 57 percent. For the warm season grasses the average was 29 percent, ranging from 7 percent to 53 percent. The browse averaged 46 percent and all browse species ranged from 35 percent to 60 percent. Presently no species have been over utilized during this evaluation period.

Threatened and Endangered (T&E) Species

The Proposed Action would not impact any listed threatened or endangered species nor would the Proposed Action have an impact on an occasional fly over by the bald eagle or California condor. Neither of these species has been documented or observed on or near these allotments.

BLM Sensitive Species

The Proposed Action would have no substantial impact on BLM sensitive and state species of concern. These species include the avian species, Ferruginous hawk, Black-crowned Night Heron, and snowy egret and sensitive bat species such as Townsend's big eared, spotted bats, small-footed myotis, fringed myotis and big free-tailed bats.

Wildlife

The Proposed Action would have no substantial impacts on big game (mule deer and pronghorn) or the other nongame wildlife found on the allotment. The area north of Tuweep Valley provides habitat for a herd of pronghorn antelope (*Antilocarpa Americana*). Pronghorn, however, have not been observed in the Tuweep allotment for many years. The Tuweep and Tuckup allotments are not considered suitable habitat for pronghorn due to the abundance of sagebrush and juniper trees. It is unlikely that pronghorn occur on either allotment.

Mule deer (Odocoileus hemionus) occur in limited numbers on the allotment. However, the area is not considered prime mule deer habitat. The area is included within Game Management Unit (GMU) 13A.

Migratory Birds

Executive Order 13186 requires BLM and other federal agencies to work with the U.S. Fish and Wildlife Service to improve protection for migratory birds. Implementation of the Proposed Action is not likely to adversely affect any species of migratory bird known or suspected to occur on the allotments. No take of any such species is anticipated.

Soil

Attributes making up the soil resource should remain stable or improve thru implementation of the Proposed Action and enforcement of the Arizona Standards and Guides process for permitted livestock grazing within the Tuweep and Tuckup grazing allotments. Grazing rotations associated with the Proposed Action would allow for seasonal plant rest resulting in increased vigor and allowing ground litter and cover to increase, thus protecting the soil. Utilization levels are within that allowable and current trends are up.

Cultural Resources

There would be no substantial impact to cultural or historical sites as a result of renewing these grazing permits under the Proposed Action. Cultural resources project file AZ BLM 010-2001-48 contains documentation of compliance with Section 106 of the National Historic Preservation Act. Great efforts are made to avoid these sites during allotment project implementation. Further, archaeological inventories are completed prior to all project initiation.

Visual Resources

No additional adverse impacts on visual resources have been identified.

Livestock Grazing

Under the Proposed Action the forage preference would remain active and livestock grazing would continue. The permittees would continue to have the opportunity to take non-use on all or portions of the allotments if approved by BLM and carried out in accordance with current grazing policy.

Recreation Resources

Recreation in the area is primarily composed of driving for pleasure, recreational OHV use, horseback riding, hiking, backpacking, camping, hunting, photography and nature study. No impact to recreation is expected from the Proposed Action.

Cumulative Impacts

Cumulative Impacts are tiered to the Arizona Strip RMP (1992), Environmental Consequences pages IV-36 to IV-38, and to chapter 3 of the Vermillion Grazing EIS (1980) which was adopted into the RMP. Unavoidable Adverse Impacts, Relationship between Local Short-term Uses of Man's Environment, Maintenance and Enhancement of Long-term Productivity, and the Irreversible and Irretrievable Commitments of Resources were discussed.

Cumulative impacts occur when additional management facilities are added to those already present. Grazing plans set specific objectives in the plan area and include rangeland improvements that are designed to maintain or improve wildlife habitat, watershed, and overall resource conditions, thus improving ecosystem health.

Past, present, and reasonably foreseeable actions within the analysis area would continue to influence range resources, naturalness, aesthetics, watershed conditions and trends. The impact of land treatments targeting woody species, voluntary livestock reductions during dry periods and implementation of a grazing system have improved range conditions. The net result has been greater species diversity, improved plant vigor, and increased ground cover from grasses and forbs. No cumulative impacts are predicted to the range resource as a result of the Proposed Action.

Residual Impacts

Residual Impacts are tiered to the Arizona Strip RMP (1992), Irreversible and Irretrievable Commitments of Resources page 7-1 of the Vermillion Grazing EIS (1979) which was adopted into the RMP. Though the Proposed Action does not propose any new fences, it does allow for the existence of present fence lines, which do create some restrictions of free passage, but do not

prevent or prohibit passage of mule deer or pronghorn. However, should pronghorn expand their present range to include upper Tuweep Valley, and to better ensure free movement of game species, future fence repairs or replacements would meet bureau wide specifications for pronghorn. Other forms of wildlife using the area are not restricted by existing fences.

There are no residual impacts as a result of the Proposed Action to the vegetative resource. Future maintenance of existing vegetation treatments would likely take and would not affect additional acres beyond that done previously. Residual impacts from maintenance activities would be improved watershed conditions, wildlife habitat, and rangeland resources over time.

Monitoring

The monitoring addressed in the proposed action (pages 10-11) is sufficient to identify changes in vegetation as a result of livestock grazing activities. In addition to those methods described, there are efforts in place to inventory for noxious weed establishment, as well as monitor treated areas for treatment effectiveness. BLM weed specialist (LD Walker) has the lead on monitoring and treating noxious weeds on the Arizona Strip. He has provided training in identification and treatment as well as ways to reduce the spread of weeds to BLM employees and permittees.

Annual allotment compliance would be included in monitoring conducted on the allotment. Compliance monitoring would assure terms and conditions of the permit are being met. Compliance checks would also monitor any special conditions or mitigation included in Cooperative Agreements, Section 4 Permits, or other grazing regulations.

Mitigation

When noxious weeds are located, various methods are used for their control depending on the size of the infestation and growth stage of the plants. The methods include but are not limited to:

Physical or mechanical
Biological
Chemical or Cultural

If vegetative monitoring indicates current livestock grazing practices are causing non-attainment of resource objectives, BLM would modify the terms and conditions of the grazing permits (i.e. number of cattle, turn out dates, removal dates, etc.) temporarily or on a more long-term basis. Most modifications are accomplished on a cooperative basis with the livestock permittees. However, if a permittee disagrees with BLM's assessment of the resource conditions or the necessary modifications, BLM may nevertheless issue a Full Force and Effect Grazing Decision to protect resources.

V. CONSULTATION AND COORDINATION

This EA was prepared by the Bureau of Land Management, Arizona Strip Field Office, 345 E. Riverside Drive, St. George, UT 84790. Phone (435) 688-3200. Public involvement for the

Tuweep/Tuckup S&G evaluation began on March 14, 2001. An assessment field trip to the allotment was held on August 29, 2001. The Interdisciplinary Assessment Team (IAT) was assisted by the Rangeland Resources Team (RRT) appointed by the Arizona Resource Advisory Council. A draft evaluation was sent out for public review and comment to 37 Individuals, Groups and Agencies. Comments from Individuals, Groups and Agencies that were received were incorporated in to the Final Tuweep evaluation report. This EA reflects those comments.

Interdisciplinary Assessment Team (IAT)

Linda Price.....Project Coordinator
Whit Bunting....Range/Grazing
John Herron.....Archaeologist
Robert Smith....Soils, Watershed
Kevin Schoppmann....Range/Grazing
Michelle Bailey.....Wilderness/Recreation
Mike Small.....Wildlife Biologist
John Sims.....Field Supervisor,
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Internal Reviewers:

Gloria Benson, Native American Coordinator
Tom Folks, Recreation
Laurie Ford, Lands/Realty/Minerals
Michael Herder, Wildlife
John Herron, Cultural
Lee Hughes, T/E Plants
Ray Klein, GCPNM Supervisory Ranger
Linda Price, S&G Coordinator
Bob Sandberg, Range
Richard Spotts, Environmental Coordinator
Ron Wadsworth, Supervisory Law Enforcement
L.D. Walker, Noxious Weeds Coordinator
Dennis Curtis, GCPNM Manger

Reviewed by Arizona Strip District Office Planning and Environmental Coordinator (P&EC)

MARCH 20, 2006

Richard Spotts,
Planning and Environmental Coordinator

Date

FINDING OF NO SIGNIFICANT ENVIRONMENTAL IMPACT

The Environmental Assessment AZ-130-2005-0021, hereby incorporated by reference, analyzed a livestock grazing permit renewal action conducted under the Arizona BLM Standards for Rangeland Health and Guidelines for Grazing Management (S&Gs) where an intensive allotment evaluation was conducted with public and other agency involvement throughout the process. Analysis of existing study data indicates that overall Ecological Condition trends are static or up and pace frequency trends are improving on the allotment. The resource conditions on the allotment are meeting Standards for Rangeland Health. Issues were analyzed and it was determined that current management is not a factor in preventing attainment of Standards.

The Environmental Assessment reaffirmed the allotment's current grazing practices, and determines that the present grazing management program would continue to allow improvement to the health of public land resources, such as soil, water, vegetation, wildlife habitat, and wildlife and other resource values.

Based on the analysis of Environmental Assessment AZ-130-2005-0021, I have determined that the renewal of the Tuweep and Tuckup Livestock Grazing Permits with current terms and conditions will not have a significant effect on the human environment. Therefore, an environmental impact statement will not be prepared.

Dennis Curtis — 3/20/06

Manager,
Grand Canyon-Parashant National Monument

Date