

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

Environmental Assessment DOI-BLM-NM- A010- 2013- 33 - EA

for Livestock Grazing
on the Following Allotments:

Guadalupe (#00047), Mesa Cortada (#00048),
Ignacio Chavez Grant Community (#00050),
Cerro Salado (#00051), Canon Tapia (#00062)
Canon Del Puente (00067), Agua Salado (#00110),
Cerro Tinaja Community (#25572)

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Table of Contents

Introduction	1
Purpose and Need for the Proposed Action	2
Proposed Action.....	3
Alternatives to the Proposed Action.....	5
Affected Environment	Error! Bookmark not defined.
Recreation	8
Visual Resources.....	9
Cultural Resources	9
Environmental Effects	13
Recreation	13
<i>Direct and Indirect Effects of the Proposed Action</i>	13
<i>Cumulative Effects</i>	13
<i>Direct and Indirect Effects of the No Action Alternative</i>	13
<i>Cumulative Effects</i>	13
Visual Resources.....	14
<i>Direct and Indirect Effects of the Proposed Action</i>	14
<i>Cumulative Effects</i>	14
<i>Direct and Indirect Effects of the No Action Alternative</i>	14
<i>Cumulative Effects</i>	14
Cultural Resources	14
Proposed Mitigation Measures	16
Suggested Monitoring	16
Consultation and Coordination.....	16
References Cited.....	16

Appendices

- I. Summary of Standard Determinations.
- II. Fundamentals of Rangeland Health and Standards and Guidelines
- III. Standard Operating Procedures and Terms and Conditions
- IV. Threatened, Endangered and Sensitive Species potentially within the Affected Environment

Introduction

This environmental assessment (EA) identifies the impacts to public land resources from a proposal to issue new term grazing permits on the following grazing allotments; Guadalupe (#00047), Mesa Cortada (#00048), Ignacio Chavez Grant Community (#00050), Cerro Salado (#00051), Canon Tapia (#00062), Canon Del Puente (00067), Agua Salado (#00110), and Cerro Tinaja Community (#25791). This EA fulfills the Bureau’s responsibility to comply with the National Environmental Policy Act (1969), the Public Rangeland Improvement Act (1978), the Clean Water Act (1972), the National Historic Preservation Act (1966 as amended) and the Endangered Species Act (1973). The Bureau of Land Management’s authority to administer livestock grazing on public land comes from the Taylor Grazing Act (1934) and the Federal Land Policy and Management Act (1976).

This EA will identify impacts of livestock grazing and its effects on non-biotic resources within the project area. The biotic resources have been previously analyzed for potential negative effects from livestock grazing which have led to the development of standards and guidelines for livestock grazing on public lands within the Proposed Statewide Resource Management Plan Amendment/ Final Environmental Impact Statement. Standards of land health are expressions of levels of physical and biological condition or degree of function required for healthy and sustainable lands, and define minimum resource conditions that must be achieved. (USDI 2001, pg S1) This FEIS has determined that as long as the Upland sites standard; the Biotic Communities, including Native, Threatened, Endangered and Special Status Species sites standard; (and) the Riparian Sites standard (if present) are being achieved then there will be beneficial impacts to water quality, riparian and terrestrial wildlife habitat, wildlife, riparian area functions, ecological processes, rangeland productivity and plant cover and diversity. (USDI 2001, pg 2)

The term grazing permits under consideration are for the nine allotments listed below (see general location map).

Table 1: - Current Terms and Conditions for Grazing Use by Allotment

Allotment Name , (Allotment #)	%PL	Pasture	Permitted Livestock Class	Permitted Stocking Rate	Permitted Season of Use	Total Preference AUM’s
Guadalupe (#00047)	61%		Cattle	137	02/01-05/31	330
	61%		Cattle	137	09/01-11/30	250
						580
Mesa Cortada (#00048)	100%	Mesa	Cattle	123	10/15-04/14	736
		Mesa	Horses	3	10/15-04/14	18
	90%	Seccion Arroyo	Cattle	123	04/15-10/14	666
		Seccion	Horses	3	04/15-10/14	16

		Arroyo				1,436
Ignacio Chavez Grant Community (#00050) Operator A	100%		Cattle	120	03/01-02/28	1,440
Operator B	100%		Cattle	31	03/01-02/28	372
						1,812
Cerro Salado (#00051)	98%	Cerro Salado	Cattle	50	09/01-05/31	440
	98%	Ignacio Chavez	Cattle	50	03/01-02/28	588
						1,028
Canon Tapia (#00062)	100%		Cattle	16	03/01-02/28	192
						192
Canon Del Puente (#00067)	45%		Cattle	26	03/01-02/28	140
						140
Agua Salado (#00110)	55%		Cattle	63	03/01-02/28	416
						416
Cerro Tinaja Community (#25572) Operator A	82%		Cattle	14	03/01-02/28	138
			Horses	3	03/01-02/28	30
Operator B	55%		Cattle	11	03/01-02/28	73
						241

*Total Aum's are based on preference. Actual Aum's are rounded up or down to a number that will give an even number of cattle grazing.

Purpose and Need for the Proposed Action

The purpose and need for the proposed action is to provide sustainable livestock grazing that is consistent with the BLM's goal of multiple use on public lands in a manner that will reduce or eliminate any negative impacts to the environment. The permits will be issued with terms and conditions for grazing use that conform to New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management, as developed by the New Mexico Resource Advisory Council (RAC) and approved in 2001. The proposed action will be in accordance with all applicable laws, regulations, and policies including Title 43 CFR 4130.2(a) which states "Grazing permits or leases authorize use on the public lands and other BLM-administered lands that are designated in land use plans as available for livestock grazing."

Proposed Action and Alternatives

Proposed Action

The Bureau of Land Management would re-authorize grazing through the issuance of new permits on the Guadalupe (#00047), Mesa Cortada (#00048), Ignacio Chavez Grant (#00050), Cerro Salado (#00051), Canon Tapia (#00062), Canon Del Puente (00067), Agua Salado (#00110), Cerro Tinaja Community (#25791) Allotments. Grazing activities would be administered through individual permits issued to operators and the allotment would continue to be managed as a whole in terms of total stocking rate and season of use. Eight of the nine allotments have the same Proposed Mandatory Terms and Conditions as those currently implemented while one (Guadalupe #00047) is being proposed for a management change. This change, in the season of use, would be consistent with what is occurring on the ground currently. The proposed Terms and Conditions for proper range management are described in the table below:

Table: 2 - Proposed Terms and Conditions for Grazing Use per Allotment

Allotment Name, (Allotment #)	%PL	Pasture	Permitted Livestock Class	Permitted Stocking Rate	Permitted Season of Use	Total Preference AUM's
Guadalupe (#00047)	60%		Cattle	0-81	03/01-02/28	580 580
Mesa Cortada (#00048)	100%	Mesa	Cattle	0-123	10/15-04/14	736
		Mesa	Horses	0-3	10/15-04/14	18
	90%	Seccion Arroyo	Cattle	0-123	04/15-10/14	666
		Seccion Arroyo	Horses	0-3	04/15-10/14	16 1,436
*IC Grant Community (#00050)						
Operator A	100%	Bottom	Cattle	0-120	11/01-06/30	959
Operator B	100%		Cattle	0-31	11/01-06/30	248
Operator A	100%	*Top	Cattle	0-120	07/01-10/31	485
Operator B	100%		Cattle	0-31	07/01-10/31	125 1,817
*Cerro Salado (#00051)	98%	Bottom	Cattle	0-90	11/01-06/30	706
	100%	*Top	Cattle	0-90	07/01-10/31	360 1,066

Canon Tapia (#00062)	100%		Cattle	0-16	03/01-02/28	192 192
Canon Del Puente (#00067)	45%		Cattle	0-26	03/01-02/28	140 140
Agua Salado (#00110)	55%		Cattle	0-63	03/01-02/28	416 416
Cerro Tinaja Community (#25572)			Cattle	0-14	03/01-02/28	138
Operator A	82%		Horses	0-3	03/01-02/28	30
Operator B	55%		Cattle	0-11	03/01-02/28	73
						241

Total Aum's are based on preference. Actual Aum's are rounded up or down to a number that will give an even number of cattle grazing.

*These allotments contain pastures at higher elevations (Mesa Chivato) that are grazed ephemerally, (when water is available in dirt tanks). Mountain pastures may only be grazed 2 out of every 3 years to reduce the impacts to critical areas. If no water is available in the mountain pastures, livestock will not be allowed to remain on the bottom pastures unless approved by the BLM.

Based on the Terms and Conditions described above in Table 2, new permits would be issued for a period of up to ten years. Additional terms and conditions (appendix III) will be added to the permit to further aid in achieving and/or maintaining the New Mexico Standards and Guidelines for Public Land Health by promoting adaptive management strategies due to seasonal variations in weather and subsequent forage conditions.

Adaptive Management

The BLM in cooperation with the permittees have recognized the need for adaptive management and permittees agree to work with the BLM to adjust stocking rates or season of use in order to reduce grazing intensities and allow for rangeland rest and recovery when deemed necessary by the authorized officer. Adaptive management adjustments will continue to be made until resource conditions are rested and recovered to desired levels.

Alternatives to the Proposed Action

No Action Alternative:

Under this alternative grazing would continue under current management with the same Terms and Conditions as listed in Table 1.

No Grazing Alternative

The no grazing alternative would no longer allow for authorized grazing on BLM lands within the nine allotment boundaries. All applications to graze livestock on the allotments would be denied based on this alternative and permits would not be re-issued. Livestock found on public lands within the allotment would be classified as unauthorized. Maintenance of range improvements would be re-assigned to the BLM's wildlife program in situations where wildlife would receive primary benefits such as from water sources. All other improvements would be removed from public lands. Permittees would receive reasonable compensation for permanent range improvements placed or constructed on public lands covered under the cancelled permits. The planning documents for the Field Office would be amended to show the change in use of the lands within the nine allotments.

The Guadalupe (#00047), Mesa Cortada (#00048), Ignacio Chavez Grant (#00050), Cerro Salado (#00051), Canon Tapia (#00062), Canon Del Puente (00067), Agua Salado (#00110), Cerro Tinaja Community (#25791) Allotments are located a few miles south of San Luis, New Mexico. All of the allotments are located in Sandoval County except for Agua Salado allotment which is in Mckinley County. The average annual precipitation is approximately 8 to 12 inches.

Typically, about half of the annual precipitation falls from July through September, and October through June are the drier months with the exception of January and February which may receive heavy snowfall. Much of the rainfall occurs as convective thunderstorms late in July through September. Snow falls regularly in winter, but it does not remain on the ground very long. Allotment acres both public and private are listed in Table 3 below. The figures below display the general location of the allotments, the land ownership characteristics along with the allotment boundary distinctions.

Table 3: Allotment Summary

Allotment Name	BLM Acres	State Land Acres	Private Land Acres	Total Allotment Acreage	MLRA
Guadalupe	5,836	1,920	1,418	9,174	35&36
Mesa Cortada	11,655	0	477	12,132	36
Ignacio Chavez Grant	17,728	0	0	17,728	35&39

Cerro Salado	10,844	299	315	11,458	35
Canon Tapia	1,544	0	3	1,547	35
Canon Del Puente	484	619	0	1,103	35
Agua Salado	2,762	1,117	0	*5,851	35
Cerro Tinaja Community	1,310	0	949	2,258	35

*Remaining balance are tribal lands

Not Present or Previously Analyzed Elements of the Affected Environment

The Standards and Guidelines for livestock grazing on Bureau of Land Management lands in New Mexico were approved in January 2001. The standards were written to accomplish the four fundamentals of rangeland health. Appendix II, describes the fundamentals of rangeland health, the New Mexico Standards and Guidelines and the health assessment process. The Record of Decision for this analysis has determined that if the NM Standards for Public Land Health and Guidelines for Livestock Grazing Management are being met, then livestock grazing is not affecting the biotic and physical components of an ecosystem.

Table 4. Summary of Standards

Allotment	Standard 1. Upland Sites	Standard 2. Biotic Communities	Standard 3. Riparian Health	Are livestock a contributing factor?
Guadalupe	Meeting the Standard	Meeting the Standard	Meeting the Standard	N/A
Mesa Cortada	Meeting the Standard	Meeting the Standard	N/A	N/A
Ignacio Chavez Grant	Meeting the Standard	Meeting the Standard	N/A	N/A
Cerro Salado	Meeting the Standard	Meeting the Standard	N/A	N/A
Canon Tapia	Meeting the Standard	Meeting the Standard	N/A	N/A
Canon Del Puente	Meeting the Standard	Meeting the Standard	N/A	N/A
Agua Salado	Meeting the Standard	Meeting the Standard	N/A	N/A
Cerro Tinaja Community	Meeting the Standard	Meeting the Standard	N/A	N/A

A summary of the Evaluations and Determinations, by allotment, are located in Appendix I.

Therefore, because the Standards and Guidelines were being achieved for the nine allotments covered under this EA, the following biotic elements of the physical environment do not need to be analyzed further in this document. A summary of the Environmental Consequences from the implementation of the Standards and Guidelines for Livestock Grazing developed by a Resource Advisory Council is included for each element previously analyzed in USDI 2001. The following is a summary of the effects:

Vegetation (Upland and Riparian)

In the long-term, measurable improvement in vegetative cover and composition would be expected due to grazing management practices. Twenty-five riparian areas, which were not properly functioning at the time of the analysis, were expected to improve to properly functioning condition. (USDI 2001, page 4-19)

Soils

There would be overall improvement due to implementation of grazing management guidelines on more acres. On poorer sites with less intensive management there would be little or no change over the long-term in the health of the upland soils except in response to drought or additional moisture. (USDI 2001, page 4-19)

Water

Continued implementation of Best Management Practices (BMPs) to reduce pollution and riparian area management would promote reductions in erosion sediment production from public lands and slowly improve water quality. However, although water quality should improve, it is not expected that any of the water quality-limited stream reaches identified by the state would improve enough to meet state standards. (USDI 2001, page 4-20)

Wildlife, including Special Status Species

Implementing the proposed Standards and Guidelines would benefit wildlife in the short- and long-term in both Upland and Riparian areas. Livestock would be used as a management tool to help restore and maintain sustainable habitats, increase biological diversity and vegetative productivity, and promote proper functioning uplands and riparian areas. The focus of management and application of grazing guidelines would occur on land not meeting the biotic standard, and public land not meeting the upland standard, due to current grazing practices. The greatest benefits to special status species resulting from this alternative would be the improvement of riparian conditions which host many of the 74 special status species. (USDI 2013)

A subsequent analysis has been completed with the Rangeland Health Assessment that identifies the Threatened, Endangered, and Sensitive species that could occur within the nine grazing allotments identified in this EA. Geographic distribution and habitat requirement information for each species was considered with regard to the allotments and habitat within the allotments. No listed endangered or threatened species are known to occur within the allotments. There are 3 federally listed endangered species, 1 threatened species, 3 candidate species and 20 BLM sensitive species shown as being present within Sandoval and Mckinley Counties, of those species, 3 have suitable habitat present and are known or have the potential to exist within these allotments. Appendix IV is a list of wildlife species that potentially occur within the allotments.

Wilderness

Where sites not meeting the standard are included in WAs or WSAs, they would be expected to be a high priority for improved management. (USDI 2001, page 4-25)

The IC Grant Wilderness Study Area (WSA) occurs within portions of the Mesa Cortada and IC Grant allotments, the Chamisa WSA occurs within portions of the Cerro Salado and IC Grant allotments, and the Cabezon WSA falls within a portion of the Guadalupe allotment. Wilderness Study Areas will not be analyzed further in this document because livestock grazing, at appropriate stocking levels is compatible with maintaining wilderness suitability because current grazing operations on the public lands qualify as grandfathered uses. Also, the Rangeland Health Assessments, in these allotments that contain WSA's, determined the Upland and Biotic Communities sites are achieving the standard.

The Canyon Tapia Area of Critical Environmental Concern (ACEC) was designated to protect cultural resources and occurs within portions of the Cerro Salado and Canon Tapia grazing allotments. The effects of grazing within this area will be specifically analyzed in the Cultural Resource portion of the EA because the Protection Plan only provides for Controlling Visitor Use; Consolidating Federal Ownership; Promoting Public Awareness; (and) Cultural Resource Inventory. Furthermore, a small portion of the Cabezon Peak ACEC occurs in the Guadalupe allotment #00047. The ACEC Plan previously analyzed the effects of livestock grazing and determined that "if livestock grazing has impacts to rare plants within the ACEC, grazing systems could be modified." The Rangeland Health Assessment has determined that livestock grazing is achieving the standard for Biotic Communities; therefore grazing is not affecting rare plants within the ACEC and will not be analyzed further.

Additionally, Wild Horses and Burros, Prime and Unique Farmlands, Wild and Scenic Rivers, and National Landscape Conservation Lands will not be analyzed because they are not present within the nine allotments where grazing occurs.

Affected Environment

Based on the review of existing baseline data and surveys conducted in preparation of this EA, BLM specialists have identified the following as potentially affected resources that relate to the human environment:

- Recreation
- Visual Resources
- Cultural Resources
- American Indian Uses

Recreation

Canon Tapia attracts many hikers and a few motorbikes throughout the year. These public users enjoy going up the wash or alongside the rim to reach a few cultural sites upstream of the designated parking area. This area includes portions of the Canon Tapia and Cerro Salado allotments.

Cabezon Peak attracts many hikers on the weekend and a few throughout the middle of the week. They enjoy parking within the Guadalupe allotment at the trail head and hiking up the peak from there. Often times, on weekends, they will also camp at the trailhead or near the main road.

The Mesa Chivato attracts many big game hunters during the fall and winter seasons and a few more during the spring. In addition to hunters there are a few backcountry hikers and users groups that frequent the IC Grant WSA and Chamisa WSA. The use occurs more on the top (high elevation) and along the north and east slope of Mesa Chivato. The allotments present in this high use area are: Mesa Cortada, IC Grant, and Cerro Salado.

Visual Resources

Five of the nine allotments contain portions of Class I Visual Resource. These allotments are: Mesa Cortada, IC Grant, Cerro Salado, and Guadalupe. Seven of the nine allotments contain portions of Class II Visual Resource. These allotments are: IC Grant, Cerro Salado, Guadalupe, Canon Tapia, Canon Del Puente, and Cerro Tinaja.

Cultural Resources

Cultural resources within Sandoval County range from Paleoindian residential and special activity sites; through many kinds of Archaic residential and special activity sites; the full range of Ancestral Puebloan sites; colonial Spanish sites; Navajo, Apache and Ute sites; and later Hispanic and Anglo sites, including homesteads. More complete information can be found in A Class II Cultural Resources Inventory of the Southern Portion of the Chaco Planning Unit, McKinley and Sandoval Counties, New Mexico by Alan R. Dulaney and Steven G. Dosh, published in 1981 by the Bureau of Land Management; A Class I and Class II Survey of the Rio Puerco Grazing Area by Cheryl L. Wase, prepared in 1982 and on file at the Rio Puerco Field Office; and Prehistory of the Middle Rio Puerco Valley, Sandoval County, New Mexico edited by Larry L. Baker and Stephen R. Durand, published in 2003 by the Archaeological Society of New Mexico.

Guadalupe Allotment

BLM and Museum of New Mexico ARMS electronic records for the Guadalupe Allotment (#47) were reviewed in September, 2012. The 9,853-acre allotment includes 6,467 acres of public land. These records reflect 6 cultural resources inventories totaling about 16 acres of intensive inventory on the public land in this allotment: 4 inventories for mineral exploration and development; 1 inventory for range management activities; and 1 inventory for a waterline. Sixty-seven sites have been recorded on public land in the allotment: 1 undated lithic scatter; 13 undated structural features or rubble piles; 1 undated hearth; 38 Ancestral Puebloan residential sites; 9 Ancestral Puebloan artifact scatters; 3 Ancestral Puebloan agricultural features; and 1 undated Historic masonry structure.

Cultural resources that are especially vulnerable to the effects of grazing are not particularly likely to be found on public land in the Guadalupe Allotment (#47).

Mesa Cortada Allotment

BLM and Museum of New Mexico ARMS electronic records for the Mesa Cortada Allotment (#48) were reviewed in June, 2012. The 12,132-acre allotment includes 11,655 acres of public land. These records reflect 17 cultural resources inventories totaling about 246 acres of intensive inventory and 1,268 acres of reconnaissance on the public land in this allotment: 12 inventories for mineral exploration and development; 1 inventory for an electrical distribution line; 1 inventory for range management activities; 1 inventory for a prescribed burn; 1 inventory for dam maintenance; and 1 reconnaissance for a grazing environmental impact statement. Ten sites with 11 components have been recorded on public land in the allotment: 3 undated lithic scatters; 1 Paleoindian lithic scatter; 1 Archaic lithic scatter; 3 Ancestral Puebloan residential sites; 1 Ancestral Puebloan hearth; and 2 Navajo residential sites.

Cultural resources that are especially vulnerable to the effects of grazing are not particularly likely to be found on public land in the Mesa Cortada Allotment (#48).

Ignacio Chavez Grant Community Allotment

BLM and Museum of New Mexico ARMS electronic records for the Ignacio Chavez Grant Community Allotment (#50) were reviewed in June, 2012. The 17,728-acre allotment is comprised entirely of public land. These records reflect 27 cultural resources inventories totaling about 439 acres of intensive inventory and 2,431 acres of reconnaissance on the public land in this allotment: 5 inventories for mineral exploration and development; 2 inventories for road improvements; 5 inventories for range management activities; 1 inventory for recreational activities; 3 inventories for prescribed burns; 3 inventories for waterlines; 6 reconnaissance inventories for prescribed burns and fuel treatment; 1 reconnaissance for range management; and 1 reconnaissance for a grazing environmental impact statement. Forty-eight sites with 52 components have been recorded on public land in the allotment: 12 undated lithic scatters; 5 Ancestral Puebloan residential sites; 12 Ancestral Puebloan artifact scatters; 3 Navajo residential sites; 4 Navajo artifact scatters; 1 Navajo corral; 11 Historic artifact scatters; 3 Historic livestock facilities; and 1 early twentieth century residential site.

Cultural resources that are especially vulnerable to the effects of grazing are not particularly likely to be found on public land in the Ignacio Chavez Grant Community Allotment (#50).

Cerro Salado Allotment

BLM and Museum of New Mexico ARMS electronic records for the Cerro Salado Allotment (#51) were reviewed in June, 2012. The 11,458-acre allotment includes 10,844 acres of public land. These records reflect 12 cultural resources inventories totaling about 52 acres of intensive inventory and 1,450 acres of reconnaissance on the public land in this allotment: 2 inventories for mineral exploration and development; 2 inventories for range management activities; 1 inventory for a community waterline; 2 inventories for road construction and maintenance; 2 inventories for general cultural resource management projects; 2 reconnaissance inventories for fuelwood thinning and treatment; and 1 reconnaissance for a grazing environmental impact statement. A total of 169 sites with 174 components have been recorded on public land in the allotment: 1 undated lithic scatter; 9 undated structural features; 1 undated hearth; 75 Ancestral Puebloan residential sites; 29 Ancestral Puebloan artifact scatters; 6 Ancestral Puebloan agricultural features; 3 Ancestral Puebloan hearths; 29 Navajo residential sites; 2 Navajo corrals; 2 Navajo artifact scatters; 3 Historic rock alignments; 8 Historic masonry structures; 2 Historic artifact scatters; 2 Historic livestock facilities or enclosures; 1 Historic logging site; and 1 Historic petroglyph or pictograph.

Cultural resources that are especially vulnerable to the effects of grazing are not particularly likely to be found on public land in the Cerro Salado Allotment (#51).

Cañon Tapia Allotment

BLM and Museum of New Mexico ARMS electronic records for the Cañon Tapia Allotment (#62) were reviewed in September, 2012. The 1,547-acre allotment includes 1,544 acres of public land. These records reflect 5 cultural resources inventories totaling about 44 acres of intensive inventory on the public land in this allotment: 2 inventories for mineral exploration and development; 2 inventories for range management activities; and 1 inventory for a waterline. A total of 112 sites have been recorded on public

land in the allotment: 5 undated artifact scatters; 4 undated structural features or rubble piles; 1 undated hearth; 81 Ancestral Puebloan residential sites; 12 Ancestral Puebloan artifact scatters; 5 Ancestral Puebloan agricultural features; 1 Navajo residential site; 2 Historic livestock facilities; and 1 Historic artifact scatter.

Cultural resources that are especially vulnerable to the effects of grazing are not particularly likely to be found on public land in the Cañon Tapia Allotment (#62).

Cañon del Puente Allotment

BLM and Museum of New Mexico ARMS electronic records for the Cañon del Puente Allotment (#67) were reviewed in July, 2012. The 1,103-acre allotment includes 484 acres of public land. These records reflect that no cultural resources inventories have been performed on the public land in this allotment and that no sites have been recorded on public land in the allotment. Sites recorded in surrounding allotments generally include a variety of prehistoric residential sites and artifact scatters, historic mining sites, and historic livestock facilities.

Cultural resources that are especially vulnerable to the effects of grazing are not particularly likely to be found on public land in the Canon del Puente Allotment (#67).

Agua Salado Allotment

BLM and Museum of New Mexico ARMS electronic records for the Agua Salado Allotment (#110) were reviewed in July, 2012. The 5,851-acre allotment includes 2,762 acres of public land. These records reflect 3 cultural resources inventories totaling about 33 acres of intensive inventory on the public land in this allotment: 1 inventory for mineral exploration and development; 1 inventory for helicopter landing zones; and 1 inventory for range management activities. Sixty-three sites with 64 components have been recorded on public land in the allotment: 2 undated artifact scatters; 1 undated structural feature; 61 Ancestral Puebloan residential sites; and 1 Navajo residential site. These sites were recorded by an unreported reconnaissance by Eastern New Mexico University.

Cultural resources that are especially vulnerable to the effects of grazing are not particularly likely to be found on public land in the Agua Salado Allotment (#110).

Cerro Tinaja Community Allotment

BLM and Museum of New Mexico ARMS electronic records for the Cerro Tinaja Community Allotment (#25572) were reviewed in September, 2012. The 2,258-acre allotment includes 1,310 acres of public land. These records reflect 1 cultural resources inventory totaling about 640 acres of reconnaissance on the public land in this allotment for a grazing environmental impact statement. Forty-seven sites with 46 components have been recorded on public land in the allotment: 1 Archaic lithic scatter; 21 Ancestral Puebloan residential sites; 14 Ancestral Puebloan artifact scatters; 7 Navajo residential sites; 1 Historic livestock facility; 1 Historic mining site; and 1 Historic structure.

Cultural resources that are especially vulnerable to the effects of grazing are not particularly likely to be found on public land in the Cerro Tinaja Community Allotment (#25572).

American Indian Uses

Guadalupe Allotment

There is no specific information about American Indian uses of the public land in the Guadalupe Allotment. It is within the traditional use area claimed by Zia Pueblo, Jemez Pueblo, and the Navajo Nation (Torreon Chapter, To'hajiilee Chapter).

Mesa Cortada Allotment

There is no specific information about American Indian uses of the public land in the Mesa Cortada Allotment. It is within the traditional use area claimed by the Navajo Nation (Torreon Chapter, To'hajiilee Chapter, Whitehorse Lake Chapter).

Ignacio Chavez Grant Community Allotment

There is no specific information about American Indian uses of the public land in the Ignacio Chavez Grant Community Allotment. It is within the traditional use area claimed by Jemez Pueblo, Zia Pueblo, and the Navajo Nation (To'hajiilee Chapter, Torreon Chapter, Whitehorse Lake Chapter).

Cerro Salado Allotment

There is no specific information about American Indian uses of the public land in the Cerro Salado Allotment. It is within the traditional use area claimed by the Navajo Nation (To'hajiilee Chapter, Torreon Chapter, Whitehorse Lake Chapter).

Cañon Tapia Allotment

There is no specific information about American Indian uses of the public land in the Cañon Tapia Allotment. It is within the traditional use area claimed by the Navajo Nation (To'hajiilee Chapter, Torreon Chapter).

Cañon del Puente Allotment

There is no specific information about American Indian uses of the public land in the Cañon del Puente Allotment. It is within the traditional use area claimed by the Navajo Nation (To'hajiilee Chapter, Torreon Chapter).

Agua Salado Allotment

There is no specific information about American Indian uses of the public land in the Agua Salado Allotment. It is within the traditional use area claimed by Laguna Pueblo and the Navajo Nation (To'hajiilee Chapter).

Cerro Tinaja Community Allotment

There is no specific information about American Indian uses of the public land in the Cerro Tinaja Community Allotment. It is within the traditional use area claimed by the Navajo Nation (To'hajiilee Chapter, Torreon Chapter).

Environmental Effects

Recreation

Direct and Indirect Effects of the Proposed Action

The effects of the proposed action on recreation would be a potential for livestock and scat along trails, trailheads/parking lots, and roadways. This would be minimal in the high use areas of Cabezon peak and Canyon Tapia due to the ruggedness and/or limitations of livestock to readily access those areas. Furthermore, Mesa Chivato is only seasonally grazed so any adverse effects from livestock grazing on recreation would be minimal and short lived. Range improvements such as dirt tanks and troughs help increase the number and distribution of wildlife which will have a positive effect on recreation.

Cumulative Effects

The cumulative effects of the proposed action would be three allotments that surround the Cabezon Peak recreation area, three allotments that surround the Canyon Tapia recreation area, and three allotments that make up the Mesa Chivato recreation area.

Direct and Indirect Effects of the No Action Alternative

The effects of the No Action Alternative would be the same as the Proposed Action Alternative.

Cumulative Effects

The cumulative effects of the No Action Alternative would be the same as the Proposed Action Alternative.

Direct and Indirect Impacts of the No Grazing Alternative

Under the No Grazing Alternative, whatever minimal impacts created by livestock scating within Recreation Areas would be eliminated. However, the construction of exclosures on public land boundaries may intersect existing trails or limited roadways minimally interrupting some recreational activities.

Cumulative Effects

No cumulative effects on recreation uses would be anticipated under the No Grazing Alternative.

Visual Resources

Direct and Indirect Effects of the Proposed Action

The effects of livestock grazing on visual resources would be relatively small and only occur in certain areas at certain times of the year. These effects would most likely be associated with the presence of livestock congregated along roadways, livestock sign and a lack of vegetation in sacrifice areas like trails and water sources. Because the negative effects of livestock grazing on visual resources occurs spatially and temporally, it is irrelevant which Class of Viewshed they occur in.

Cumulative Effects

The cumulative effects from the proposed action on visual resources covered in this EA are five grazing allotments that occur within the Class I viewshed and seven that occur within the Class II viewshed.

Direct and Indirect Effects of the No Action Alternative

The same effects to visual resources would occur as the proposed action alternative.

Cumulative Effects

The same cumulative effects to visual resources would occur as the proposed action alternative.

Direct and Indirect Effects of the No Grazing Alternative

The effects on Visual Resources of the No Grazing Alternative would be the elimination of the minimal impacts livestock that spatially and temporally congregate near Class I and Class II viewshed. Because the effect livestock has on the viewshed, cumulative effects are not anticipated with the No Grazing Alternative.

Cultural Resources

Direct and Indirect Effects of the Proposed Action

The direct and indirect effects to the cultural resources expected in these allotments, including traditional cultural properties, of limited numbers of domestic livestock grazing on public rangelands are expected to be slight. Direct impacts to sites such as site disturbance could result from the construction of grazing-related improvements such as fences and watering systems. These projects, which would require additional NEPA compliance, would also create indirect impacts if they concentrated livestock or vehicular traffic in sensitive areas. These impacts would be mitigated by following the practices listed in Appendix III.

Cumulative Effects

Long-term impacts from continued livestock grazing would consist of some trampling of artifacts and features, and perhaps some increased surface erosion from ground disturbance.

Direct and Indirect Effects of the No Action Alternative

Under the No Action Alternative, the effects to cultural resources, including traditional cultural properties are expected to be the same as those for the Proposed Action.

Cumulative Effects

The same effects to cultural resources would be anticipated as a result of the No Action Alternative.

Direct and Indirect Effects of the No Grazing Alternative

Under the No Grazing Alternative, whatever slight impacts to cultural resources now result from limited numbers of domestic livestock grazing on public rangelands would be eliminated. However, activities associated with constructing livestock enclosure fences on fixed public land boundaries could disturb cultural resources. The cattle and game trails and roads that often develop along fence lines could further disturb cultural resources.

Cumulative Effects

No cumulative effects to cultural resources would be anticipated as a result of the No Grazing Alternative.

American Indian Uses

Direct and Indirect Effects of the Proposed Action

No direct impacts to American Indian uses resulting from continued grazing in these allotments have been identified. However, any proposals for grazing-related development such as fence lines, spring developments, etc. or other proposals with the potential to affect traditional cultural practices would be closely coordinated with the affected tribes (see Appendix III).

Cumulative Effects

No cumulative effects to American Indian uses would be anticipated under the Proposed Action.

Direct and Indirect Effects of the No Action Alternative

Under the No Action Alternative, the effects to American Indian uses are expected to be the same as those for the Proposed Action.

Cumulative Effects

No cumulative effects to American Indian uses would be anticipated under the No Action Alternative.

Direct and Indirect Effects of the No Grazing Alternative

Under the No Grazing alternative, no impacts to American Indian uses are anticipated, except where enclosure fences are constructed, which could present physical barriers on traditional pilgrimage routes.

Cumulative Effects

No cumulative effects to American Indian uses would be anticipated under the No Grazing Alternative.

Proposed Mitigation Measures

The Operating Procedures and Terms and Conditions in Appendix II serve as appropriate mitigation and are referenced in the proposed action. No additional mitigation is proposed based on this environmental analysis. Items in Appendix III would be included as part of the term grazing permit for the proper management of livestock on the public lands within the nine allotments

Suggested Monitoring

Rangeland monitoring data would continue to be gathered for the allotments. Data would be used to determine if livestock management practices are in conformance with the Guidelines and achieving the Standards for Rangeland Health as well as other multiple use objectives for the allotment. Monitoring studies may include cover, key forage plant method for utilization, ecological condition, weed detection and identification, repeat photography, and professional observations. If a future monitoring assessment results in a determination other than “Meeting the Standard” for the Standards for Rangeland Health, the grazing permit would be reissued subject to revised terms and conditions. Baseline data collection may be conducted associated with future watershed assessments.

Prior to authorizing annual grazing use, monitoring may be conducted to determine forage availability, grazing use areas and range readiness. Following the grazing period, monitoring may be conducted to determine overall utilization levels and grazing use patterns.

Consultation and Coordination

The Pueblo of Jemez, the Jicarilla Apache Nation, Pueblo of Laguna and the Navajo Nation (Torreon Chapter, To'hajiilee Chapter, Whitehorse Lake Chapter), the Navajo Traditional Cultural Program, and the Navajo Nation Historic Preservation Department were consulted with on for this environmental assessment.

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Appendix I

Summary of Evaluations and Determinations by Allotment

Guadalupe Allotment

Standard #1: Upland Sites

Conclusion: Meeting the Standard

The data at all four trend plots shows that cover is adequate to ensure soil stabilization, and appropriate permeability rates within the ecological site. Soil/site stability, and Biotic Integrity are productive and in a sustainable condition within the allotment. Indications are that soil loss or degradation is not occurring at this time. Although rills and gullies were absent, some water flow patterns and pedestals were present in the slight to moderate category. The ESD for GTP-1 and GTP-2 describes the Historical Climax Plant Community (HCPC) as “A grass-shrub mixture with scattered juniper and pinyon trees characterizes the plant community on these sites. Forbs are most prominent in spring and summer months of adequate soil moisture.” These two sites monitoring site reflects these conditions as described. The monitoring at GTP-3 and 5 also reflect conditions as described within the ESDs. However, the reduction in frequency of primary grammanoid species at all four key areas is a result of past historical grazing pressure and drought throughout the western United States which resulted in a decrease of primary grasses, mainly cool season species. The presence of the native secondary grass species within the allotment indicates that the allotment appears to be functioning within the parameters as described within the ecological site descriptions. Overall the soils are productive, stable and in a sustainable condition within the capability of the ecological sites.

Standard #2: Biotic Communities, Native, Threatened, Endangered, and Special Status Species

Conclusion: Meeting the Standard

The current vegetative composition of native species within the allotment is appropriate for the range site and is conducive to allow a hydrologic cycle and energy flow that will support a productive and a diverse native biotic community. Though the frequency of desirable native primary grammanoid species is less than what is recommended in the ESD the presence of both primary and secondary species within the allotment is an indicator that the overall ecological condition within the community is functioning within the parameters of the ESD's. There are no threatened and or endangered species within the allotment at this time. (See wildlife report).

Standard 3: Riparian Sites

On the northern boundary of the Guadalupe Allotment is the Guadalupe community ephemeral wash. This riparian area is intermittent with moisture based on spring runoff and summer thunderstorms. The wash was found to be in proper functioning condition by an interdisciplinary team in summer 2012. There was the presence of tamarisk (salt cedar) within the wash but evidence of treatment was also present. Livestock use within the wash was found to be minimal due to its geological features which made access to the wash formidable to livestock.

Mesa Cortada Allotment

Standard #1: Upland Sites

Conclusion: Meeting the Standard

The data at all four trend plots shows that cover is adequate to ensure soil stabilization, and appropriate permeability rates within the ecological site. Although rills and gullies were absent, some water flow patterns and pedestals were present. Slight wind-scouring was also observed, resulting in litter movement. These indicators of erosion are likely due to natural soil movement due to the sand content within the makeup of the soil matter. The ESD describes the Historical Climax Plant Community (HCPC) as “a grassland site with scattered shrubs throughout the site. Forbs are conspicuous when in the bloom but otherwise comprise a minor component.” The monitoring site reflects these conditions as described. However, the reduction in frequency of primary grammanoid species is a result of past historical grazing pressure and drought throughout the western United States which resulted in a decrease of primary grasses, mainly cool season species. The presence of the native secondary grass species within the allotment indicates that the allotment appears to be functioning within the parameters as described within the ecological site descriptions. Overall the soils are productive, stable and in a sustainable condition within the capability of the ecological site.

Standard #2: Biotic Communities, Native, Threatened, Endangered, and Special Status Species.

Conclusion: Meeting the Standard

The current vegetative composition of native species within the allotment is appropriate for the range site and is conducive to allow a hydrologic cycle and energy flow that will support a productive and a diverse native biotic community. Though the frequency of desirable native primary grammanoid species is less than what is recommended in the ESD the presence of both primary and secondary species within the allotment is an indicator that the overall ecological condition within the community is functioning within the parameters of the Ecological Site Descriptions. There are no threatened and or endangered species within the allotment at this time.

Ignacio Chavez Grant Allotment

Standard #1: Upland Sites

Conclusion: Meeting the Standard

The data at all five trend plots indicate that cover is adequate to ensure soil stabilization, and appropriate permeability rates within the ecological site. There is little to no rill or gulley formations at any of the key ecological areas. There is trace of an old (now closed) two track road at ICGTP-5 that is naturally re-vegetating itself but has little effect on the desired vegetative condition. At ICGTP-5 there was a recent fuel treatment to reduce woody ladder fuels and to aid in the re-establishment of the natural fire regime for a Ponderosa ecosystem. The result of the treatment is an increase the understory of the herbaceous component. Perennial, native grasses are very effective at holding soil cover due to their basal area and their fine, fibrous root systems. These grasses contribute organic matter directly into the soil and help build stable soil aggregates. In addition the plant and litter cover that are provided offer armor against wind erosion, increase infiltration, and decrease runoff. The ESD for ICGTP-1-describes the Historical Climax Plant Community (HCPC) as “A grass-shrub mixture with scattered juniper and pinyon trees characterizes the plant community on this site” and at ICGTP-2 as “Grasses cover is variable ranging from fairly uniform to patchy with large bare areas present “ The monitoring sites reflects these conditions as described. The other three key areas are in Ponderosa ecosystems and reflect stable

conditions as described within the ESDs. The presence of the native primary species within the allotment and the sub-dominance of the secondary grasses indicate that the allotment appears to be functioning within the parameters as described within the Ecological Site Descriptions. Overall the soils are productive, stable and in a sustainable condition within the capability of the ecological site.

Standard #2: Biotic Communities, Native, Threatened, Endangered, and Special Status Species
Conclusion: Meeting the Standard

The current vegetative composition of native species within the allotment is appropriate for the range site and is conducive to allow a hydrologic cycle and energy flow that will support a productive and a diverse native biotic community. Though the frequency of desirable native primary grammanoid species is less than what is recommended in the ESDs the presence of the species within the allotment is an indicator that the overall ecological condition within the community is functioning within the parameters as described within the Ecological Site Descriptions. There are no threatened and or endangered species within the allotment at this time.

Cerro Salado Allotment

Standard #1: Upland Sites
Conclusion: Meeting the Standard

The data at all three trend plots shows that cover is adequate to ensure soil stabilization, and appropriate permeability rates within the ecological site. The ESD for TP-1 and 2 describes the Historical Climax Plant Community (HCPC) as *“The historic plant community is dominated by alkali sacaton and western wheatgrass. Other important grasses that appear on this site include galleta, blue grama, and bottlebrush squirreltail. Fourwing saltbush and winterfat are the dominant shrubs. Rabbitbrush and broom snakeweed may also be sparsely scattered across the site.”* The monitoring sites reflects the conditions as described within the ESD. The ESD further states that *“Grass cover is uniform with few large bare connected areas present. Shrubs are scattered with canopy cover averaging five percent or less. Evidence of erosion such as pedestalling of grasses, rills and gullies are infrequent.”* The presence of preferred grass species within the allotment along with the absence of rill/gulley or pedestalling of plants indicates that the allotment appears to functioning within the parameters as described within the Ecological Site Descriptions. Overall the soils are productive, stable and in a sustainable condition within the capability of the ecological site.

Standard #2: Biotic Communities, Native, Threatened, Endangered, and Special Status Species
Conclusion: Meeting the Standard

The current vegetative composition of native species within the allotment is appropriate for the range site and is conducive to allow a hydrologic cycle and energy flow that will support a productive and a diverse native biotic community. Though the frequency of desirable native primary grammanoid species is less than what is recommended in the ESD at CSTP-4 the presence of the primary species within the allotment and the monitoring plot along with the presence of secondary grass species is an indicator that the allotment appears to be functioning within the parameters as described within the Ecological Site Descriptions.

Canon Tapia Allotment

Standard #1: Upland Sites

Conclusion: Meeting the Standard

The data at the trend plot shows that cover is adequate to ensure soil stabilization, and appropriate permeability rates within the ecological site. The ESD for CTTP-1 describes the Historical Climax Plant Community (HCPC) as “*Changes in composition to the historic plant community may occur in response to continuous heavy grazing. This is typified by a decrease in cool-season grasses such as New Mexico feathergrass, followed by a decrease in the more palatable warm-season grasses.*” The site reflects these conditions as described. However, the reduction in frequency of primary grammanoid species such as New Mexico feathergrass and sideoats gramma is a cumulative result of current, past, historical grazing pressure and drought throughout the western United States which resulted in a decrease of primary grasses, mainly cool season species. The presence of the native secondary grass species within the allotment along with the absence of rill/gulley or pedestalling of plants indicates that the allotment appears to functioning within the parameters as described within the Ecological Site Description. The Overall the soils are productive, stable and in a sustainable condition within the capability of the ecological site.

Standard #2: Biotic Communities, Native, Threatened, Endangered, and Special Status Species

Conclusion: Meeting the Standard

Vegetative composition of native species within the allotment is appropriate for the range site and is conducive to allow a hydrologic cycle and energy flow that will support a productive and a diverse native biotic community throughout a majority of the allotment. Though the frequency of desirable native primary grammanoid species is less than what is recommended in the ESD the presence of both primary and secondary native grass species within the allotment as well as appropriate litter content and bare ground are all indicators that the overall ecological condition within the community is appropriate to support a proper functioning hydrologic cycle, nutrient cycle and energy flow. There are no known threatened and or endangered species within the allotment at this time.

Canon Del Puente Allotment

Standard #1: Upland Sites

Conclusion: Meeting the Standard

The data at the trend plot shows that cover is adequate to ensure soil stabilization, and appropriate permeability rates within the ecological site. The ESD for TP-1 describes the Ecological Dynamics of the site as “*Grass and litter cover is evenly distributed with few large bare areas present. Shrubs are a minor component averaging six percent or less canopy cover. Evidence of erosion is minimal.*” Conditions at LRTP-1 reflect these conditions as described. Monitoring data at the trend plot shows a reduction in frequency of primary grammanoid species, Primary grass species were observed within the allotment but did occur within the transects but at a reduced frequency as recommended by the ESDs. The reduction of these cool season grasses is a direct result of historical livestock grazing and drought throughout the western United States. The presence of both primary and secondary grass species within the allotment and with the absence of rill/gulley or pedestalling of plants along with appropriate litter content to shield/protect the soils all indicates that the allotment appears to be functioning within the parameters as described within the Ecological Site Descriptions. Overall the soils are productive, stable and in a sustainable condition within the capability of the ecological site.

Standard #2: Biotic Communities, Native, Threatened, Endangered, and Special Status Species
Conclusion: Meeting the Standard

Vegetative composition of native species within the allotment is appropriate for the range site and is conducive to allow a hydrologic cycle and energy flow that will support a productive and a diverse native biotic community. The frequency of desirable native primary grammanoid species is what is recommended in the ESD, the presence of both primary and secondary native grass species within the allotment as well as appropriate litter content and bare ground are an indicators that the overall ecological condition within the community is appropriate to support a proper functioning hydrologic cycle, nutrient cycle and energy flow. There are no known threatened and or endangered species within the allotment at this time.

Agua Salado Allotment:

Standard #1: Upland Sites
Conclusion: Meeting the Standard

The data at the trend plot shows that cover is adequate to ensure soil stabilization, and appropriate permeability rates within the ecological site. The ESD for ASTP-1 describes the Historical Climax Plant Community (HCPC) as *“Changes in composition to the historic plant community may occur in response to continuous heavy grazing. This is typified by a decrease in cool-season grasses such as New Mexico feathergrass, followed by a decrease in the more palatable warm-season grasses.”* The site reflects these conditions as described. However, the reduction in frequency of primary grammanoid species such as New Mexico feathergrass and sideoats gramma is a cumulative result of current, past, historical grazing pressure and drought throughout the western United States which resulted in a decrease of primary grasses, mainly cool season species. The ESD for TP-2 describes the Ecological Dynamics of the site as *“Grass and litter cover is evenly distributed with few large bare areas present. Shrubs are a minor component averaging six percent or less canopy cover. Evidence of erosion is minimal.”* Conditions at BTP-2 reflect these conditions as described. Monitoring data at trend plot 2 shows a reduction in frequency of primary grammanoid species, primarily western wheatgrass and vine mesquite. Primary grass species were observed within the monitoring area but did not occur in the monitoring plot. The presence of the native secondary grass species within the allotment along with the absence of rill/gulley or pedestalling of plants indicates that the allotment appears to functioning within the parameters as described within the Ecological Site Description. The Overall the soils are productive, stable and in a sustainable condition within the capability of the ecological site.

Standard #2: Biotic Communities, Native, Threatened, Endangered, and Special Status Species.
Conclusion: Meeting the Standard

Vegetative composition of native species within the allotment is appropriate for the range site and is conducive to allow a hydrologic cycle and energy flow that will support a productive and a diverse native biotic community throughout a majority of the allotment. Though the frequency of desirable native primary grammanoid species is less than what is recommended in the ESD the presence of both primary and secondary native grass species within the allotment as well as appropriate litter content and bare ground are all indicators that the overall ecological condition within the community is appropriate to support a proper functioning hydrologic cycle, nutrient cycle and energy flow. There are no known threatened and or endangered species within the allotment at this time.

Cerro Tinaja Community Allotment:

Standard #1: Upland Sites

Conclusion: Meeting the Standard

The data at the trend plot shows that cover is adequate to ensure soil stabilization, and appropriate permeability rates within the ecological site. The ESD for TP-1 describes the Ecological Dynamics of the site as “*Grass and litter cover is evenly distributed with few large bare areas present. Shrubs are a minor component averaging six percent or less canopy cover. Evidence of erosion is minimal.*” Conditions at LRTP-1 reflect these conditions as described. Monitoring data at the trend plot shows a reduction in frequency of primary grammanoid species, Primary grass species were observed within the allotment but did occur within the transects but at a reduced frequency as recommended by the ESDs. The reduction of these cool season grasses is a direct result of historical livestock grazing and drought throughout the western United States. The presence of both primary and secondary grass species within the allotment and with the absence of rill/gulley or pedestalling of plants along with appropriate litter content to shield/protect the soils all indicates that the allotment appears to be functioning within the parameters as described within the Ecological Site Descriptions. Overall the soils are productive, stable and in a sustainable condition within the capability of the ecological site.

Standard #2: Biotic Communities, Native, Threatened, Endangered, and Special Status Species.

Conclusion: Meeting the Standard

Vegetative composition of native species within the allotment is appropriate for the range site and is conducive to allow a hydrologic cycle and energy flow that will support a productive and a diverse native biotic community. The frequency of desirable native primary grammanoid species is what is recommended in the ESD, the presence of both primary and secondary native grass species within the allotment as well as appropriate litter content and bare ground are an indicators that the overall ecological condition within the community is appropriate to support a proper functioning hydrologic cycle, nutrient cycle and energy flow. There are no known threatened and or endangered species within the allotment at this time.

APPENDIX II

Fundamentals of Rangeland Health and Standards and Guidelines

The Standards and Guidelines for livestock grazing on Bureau of Land Management lands in New Mexico were approved in January 2001. The standards were written to accomplish the four fundamentals of rangeland health.

The fundamentals of rangeland health are basic components of healthy rangelands. The four fundamentals of rangeland health, as identified in 43 CFR 4180.1 are:

- Watersheds are in, or are making significant progress toward, properly functioning condition. Ecological processes are maintained, or there is significant progress toward their attainment. Water quality complies with, or is making significant progress toward achieving, state standards.
- Habitats of protected species are maintained or are making significant progress toward being restored.

Standards for public land health are expressions of the level of physical and biological condition or degrees of function required for healthy and sustainable lands, and define minimum resource conditions that must be achieved. The New Mexico Standards are:

- Upland Sites Standard:* Upland ecological sites are in a productive and sustainable condition within the capability of the site. Upland soils are stabilized and exhibit infiltration and permeability rates that are appropriate for the soil type, climate and landform. The kind, amount, and/or pattern of vegetation provide protection on a given site to minimize erosion and assist in meeting State and Tribal water quality standards.
- Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard:* Ecological processes such as hydrologic cycle, nutrient cycle, and energy flow support productive and diverse native biotic communities, including special status, threatened, and endangered species appropriate to the site and species. Desired plant community goals maintain and conserve productive and diverse populations of plants and animals, which sustain ecological functions and processes.
- Riparian Sites Standard:* Riparian areas are in a productive, properly functioning, and sustainable condition, within the capability of that site. Adequate vegetation of diverse age and composition is present that will withstand high stream flow, capture sediment, provide for groundwater recharge, provide habitat and assist in meeting State and Tribal water quality standards.

Guidelines are practices, methods or techniques determined to be appropriate to ensure that standards can be met or that significant progress can be made toward meeting those standards.

Assessments of rangeland health interpret the degree to which the integrity of the soil, biotic (vegetative), and hydrologic processes of rangeland ecosystems are sustained. An interdisciplinary team (ID team) conducts a field assessment(s) to examine the current soil site stability, biotic integrity, and hydrologic function attributes that are present on the allotment. Seventeen individual factors (indicators) are assessed

to rate the soil, biotic and hydrologic attributes. These indicators are examined and assigned one of five condition categories based upon the degree of departure from the range site description. The possible degrees of departure range from “none to slight” to “extreme”.

A range site is a distinctive kind of rangeland which in the absence of abnormal disturbance and physical site deterioration has the potential to support a native plant community typified by an association of species capable of occupying the site. The Soil Conservation Service (now Natural Resource Conservation Service) developed range site descriptions based on relic areas and historical knowledge. A range site description identifies the soil characteristics, potential natural plant community, and potential cover by species, potential annual production, and other pertinent information for each site.

The interdisciplinary rangeland health assessment is used to determine if the site (watershed, allotment or pasture) meets the New Mexico standards and the fundamentals of rangeland health. The final determination of whether a site does or does not meet the New Mexico standards and fundamentals of rangeland health is based on 1) the degree of departure from the range site description for the soil site stability, biotic integrity, and hydrologic function attributes; 2) how well the site meets the definition of a fundamentally healthy site, as identified in 43 CFR 4180.1 and; 3) other information such as monitoring data. If an allotment, or a portion of the allotment, is determined to be in a condition that does not meet the New Mexico standards and /or the fundamentals of rangeland health, the causal factor(s) is identified. If current livestock management is determined to be a causal factor, the authorized officer is required to take appropriate management action, no later than the start of the next grazing year, to make significant progress towards achieving the fundamentals of rangeland health and New Mexico standards (43 CFR 4180.1 and 4180.1(c)).

APPENDIX III

Standard Operating Procedures & Additional Terms and Conditions

Standard Operating Procedures

These provide mitigating measures to decrease or eliminate potential environmental impacts. The following list includes some of the more important mitigating measures for managing livestock grazing on BLM lands administered by the Rio Puerco Field Office.

1. The BLM will continue to identify and inventory riparian areas. As these areas are inventoried, appropriate measures will be implemented to allow them to attain properly functioning condition. The BLM's Cooperative Agreements and standard stipulations will apply to any range improvement affecting riparian areas.
2. Before placing range improvements on BLM lands, the BLM will consult with the New Mexico Department of Game and Fish, and the U.S. Fish and Wildlife Service where special-status species are a concern.
3. The BLM will provide wildlife escape devices for installation by the permittee on new and existing livestock drinking troughs.
4. The BLM may modify existing fences located on or bordering BLM land to allow for easier wildlife movement.
5. The BLM will continue to identify and document cultural resources. Where vulnerable properties are found, appropriate mitigation will be completed. For every new range improvement project proposed, site-specific environmental analyses will be completed, including National Historic Preservation Act (NHPA) compliance before project development. NHPA procedures require full consideration of cultural resources, usually consisting of Class III inventory and avoidance of all Category 2 sites.
6. The BLM will continue to consult with Pueblo and Tribal governments regarding traditional American Indian cultural properties and uses.
7. All new range improvements will be built to BLM standards and stipulations.
8. Maintenance will be assigned by Administrative Decision in accordance with BLM policy when new Cooperative Agreements cannot be developed, or existing Cooperative Agreements cannot be amended, to provide maintenance of range improvements.
9. The BLM will identify and inventory sagebrush draws and piñon-juniper woodland areas where treatment is needed to reduce the crown canopy. As these areas are inventoried, appropriate measures will be implemented to allow them to enhance the long-term functioning conditions. The BLM's Cooperative Agreements and standard stipulations will apply to any range improvement.
10. Flexibility and deviations in livestock numbers, areas of use and periods of use may be determined on a seasonal or annual basis where such deviations are warranted. Authorization of deviation would not prevent attainment of shared goals, the multiple-use objectives and the standards for grazing

administration. Such deviations will require an application and written authorization from the authorized officer prior to grazing use.

11. If a future assessment results in a determination that changes are necessary for achieving the Standards and conforming to the Guidelines, the permit would be reissued subject to revised terms and conditions

Additional Terms and Conditions Incorporated into the Term Grazing Permit

Livestock grazing permits and leases contain terms and conditions to ensure conformance with Title 43 of the Code of Federal Regulations (CFR), Part 4100, while providing for the achievement of management and resource condition objectives for the BLM lands. Compliance with 43 CFR 4100 is a requirement for grazing on BLM-administered public lands.

1. Supplemental feeding shall be defined as providing cattle a small amount of high protein feed (containing at least 15-30% protein and provided at a rate of no more than 3 lbs./day/head) to assist cattle in the metabolism of dry forage. To use and place supplemental feed on BLM lands, the grazing permittee must make a written request for authorization from the BLM. Requests must state the type of supplemental feed, the amounts to be provided, the duration of placement, and the reasons for providing such feed on BLM lands. Current Rio Puerco Field Office policy states that any supplemental feed placed on BLM land will be certified as weed free. Enforcement of this policy is pending the New Mexico Department of Agriculture's establishment of a weed-free certification program for feeds and supplemental forage. Maintenance feeding of livestock with access to public lands is prohibited. Maintenance feeding shall be defined as providing livestock with feed to assist in meeting their basic caloric needs, provided at a rate of more than 3 lbs./day/head.
2. Mineral supplement, including salt, will not be placed within ¼ mile of water.
3. The Terms and Conditions specified in Cooperative Agreements for rangeland improvements will be followed. Failure to maintain any improvement (fence, dirt tank, cattleguard) listed on your Form 4120.8 Assignment of Range Improvements that is deemed to be dilapidated or in an otherwise unusable condition will result in a 25% reduction until the range improvement in question is repaired to BLM standards. This does not include abandoned projects or those that have served their purpose, i.e. brush treatments and silt dams/traps. You will be given 30 days to maintain the range improvement in question before a reduction is imposed. The 25% reduction will be assessed per improvement and will not exceed 75% in any given grazing fee year.
4. Fenced wildlife waters including spring developments, catchments and pipeline drinkers are excluded from use by livestock.
5. Weed Prevention Schedule for Rio Puerco Field Office (RPFO)
 - When working in areas with noxious weeds, take reasonable measures to avoid spread of noxious weeds including: avoid driving through weed patches; equipment and vehicles should be cleaned before moving off site.
 - Seeding work will use species specified by the RPFO. All seed will be certified weed free.

- The area will be monitored to determine the success of the re-vegetation. The monitoring of the re-vegetation will continue until successful.
 - Supplemental feed will be certified weed free. Any permit allowing livestock on the site should have a stipulation that weed free feed be used. Require that all pack and saddle stock in Wilderness Study Areas, Areas of Critical Environmental Concern, Recreation Areas or sensitive areas use only certified weed free feed. Encourage the use of weed free feed in all areas.
 - In allotments with infestations and weed free areas, control timing of animal movement to prevent movement from infested sites to non-infested sites after seed set. Avoid grazing any vegetative treatment site (brush control, sagebrush shaving, seeded sites or prescribed burn sites) until vegetation is well established.
6. Drought – If the Authorized Officer determines that your allotment is being affected by drought and stubble height monitoring, per pasture, at the end of the grazing period reflects heavy grazing intensity (>50% utilization) according to the General Grazing Intensity Guide (Holechek and Galt 2000), then the stocking rate will automatically reduce 25% in year 1 and 25% every “drought year” thereafter as long as stubble heights continue to reflect heavy grazing intensities. This reduction will not exceed 75% for extended periods of drought and will not affect the term grazing permit or lease. If a reduction is mandated in the middle of the grazing period, refunds will be issued. Other factors will be taken into consideration such as: poor distribution, range improvement maintenance, base water.
7. Maintenance feeding – Feeding any supplement, especially alfalfa or grass hay without prior authorization will result in a 25% automatic reduction of the annual authorization. This will only affect the annual authorization unless there are remnants of feeding or evidence to suggest this is a repeat offense. If it has been deemed that this is a repeat offense or re-occurring problem, your term grazing permit will be permanently reduced for the term of the permit. Refunds will not be authorized for annual reductions due to maintenance feeding.

APPENDIX IV

Threatened, Endangered and Sensitive Species potentially within the Affected Environment

Species	Status	Habitat	Potential to Occur within the Allotment	Potential Impacts	Species Justification
Loggerhead shrike (<i>Lanius ludovicianus</i>)	BLMS	Occurs in most upland habitats. Prefers areas with some scrub for nesting.	High	High- destruction of grasslands by heavy grazing could lead to loss of prey base.	Analysis is required. See below for species discussion.
Black-footed ferret (<i>Mustela nigripes</i>)	FE	Suitable habitat consists of b-t prairie dog colonies (>80 ac) or Gunnison's p d colonies (>200 ac). Presumed extirpated from NM.	None – species is presumed extirpated from NM and no large prairie dog colonies present in the allotment analysis area	None – Presumed extirpated from NM	Species does not occur in analysis area. No further analysis required
Spotted bat (<i>Euderma maculatum</i>)	BLMS	Habitats include riparian, p-j woodlands, and ponderosa pine. Roost sites include crevices in cliffs or under loose rocks.	Low – this species could potentially occur within suitable habitats in the RPFO.	None – grazing unlikely to be harmful to this species	No Effect – grazing will not affect habitat. No further analysis required
Western small-footed myotis (<i>Myotis ciliolabrum melanorhinus</i>)	BLMS	Found in woodlands, forests, and desert communities. Known to roost in caves, abandoned buildings, under rocks, in crevices and under pine bark.	Low – This species may occur in buildings in the vicinity of the analysis allotments.	None – Low; Grazing unlikely to be harmful to this species.	No Effect – grazing will not affect habitat. No further analysis required
Long-eared myotis (<i>Myotis evotis</i>)	BLMS	Uses p-j woodlands, and coniferous forests. Roosts in caves and buildings generally above 6,700 feet.	Low – this species may occur in buildings in the analysis allotment	None – low; grazing unlikely to be harmful to this species	No Effect – grazing will not affect habitat. No further analysis required

Species	Status	Habitat	Potential to Occur within the Allotment	Potential Impacts	Species Justification
Occult little brown bat (<i>Myotis lucifugus occultus</i>)	BLMS	Uses riparian habitats associated with perm water sources. Roost in man-made structures, caves, tunnels, and hollow trees including p-j, and ponderosa pine and mixed conifer forests.	Low – this species could occur within suitable habitats throughout the analysis allotments	None- Low; grazing unlikely to be harmful to this species	No Effect – grazing will not affect habitat. No further analysis required
Fringed myotis (<i>Myotis thysanodes thysanodes</i>)	BLMS,	Occurs in mid-elevation habitats included desert scrub, grasslands, and oak/pj. Roosts in caves, mines and buildings.	Low – this species could occur within suitable habitats throughout the analysis allotment	None –low; grazing unlikely to be harmful to this species	No Effect – grazing will not affect habitat. No further analysis required
Long-legged myotis (<i>Myotis volans interior</i>)	BLMS	Habitat usually ponderosa pine and higher elevations	Low – preferred habitats are not present within these allotments	None - low grazing unlikely to be harmful to this species	No Effect – grazing will not affect habitat. No further analysis required
Yuma myotis (<i>Myotis yumanensis</i>)	BLMS	Uncommon seasonal visitor to desert, grassland, woodland, and riparian areas from 4,000 – 7,000 ft. Roost in buildings, caves and crevices.	Low – this species could occur within suitable habitats throughout the analysis allotments	None – low grazing unlikely to be harmful to this species	No Effect – grazing will not affect habitat. No further analysis required
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	BLMS	Summer resident; prefers coniferous and mixed woods. Can also be found in p-j woodlands, and desert communities. Roosts on rocky cliffs, caves, rock fissures, bridges and buildings	Low – this species could occur within suitable habitats throughout the analysis allotments	None – low grazing unlikely to be harmful to this species	No Effect – grazing will not affect habitat. No further analysis required

Species	Status	Habitat	Potential to Occur within the Allotment	Potential Impacts	Species Justification
Ferruginous hawk (<i>Buteo regalis</i>)	BLMS	Rare to uncommon transient and winter migrant. Nest sites include trees, ledges, large rock outcrops and low cliffs in sage brush valleys and rolling grasslands	Moderate – this species could occur within suitable habitats throughout the analysis allotments.	Low – moderate; loss of prey base in heavily grazed areas.	Analysis is required. See below for species discussion.
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	FT	Found in canyons, mixed conifer forests, pine-oak woodlands and riparian areas	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
SW willow flycatcher (<i>Empidonax traillii extimus</i>)	FE	Nesting habitat includes shrubs and trees in willow thickets, shrubby mountain meadows, and deciduous woodlands along streams and lakes	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	FC	Open woodlands, streamside willow and alder grooves.	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Whooping crane (<i>Grus americana</i>)	F-Exp Non-Ess	Breed in marshes and uses surrounding habitat.	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Gunnison's prairie dog (<i>Cynomys gunnisoni</i>)	FC	Occurs in the four corners area of Arizona, New Mexico, Colorado, and Utah.	None – the allotment areas is outside of the species range	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required

Species	Status	Habitat	Potential to Occur within the Allotment	Potential Impacts	Species Justification
NM meadow jumping mouse (<i>Zapus hudsonius luteus</i>)	FC	Inhabits narrow grass-forb-willow streamside riparian habitat along permanent waterways and wet meadows in river floodplains	None - Suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Goat peak pika (<i>Ochotona princeps nigrescens</i>)	BLMS	Species confined to Jemez Mtns on patches of large talus slopes in alpine zones above 9,000 ft.	None – the allotment areas is outside of the species range	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
White-faced ibis (<i>Plegadis chihi</i>)	BLMS	Inhabits shoreline and marsh habitats that border open water, desert riparian; deciduous woodland marsh and grasslands.	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Northern goshawk (<i>Accipiter gentilis</i>)	BLMS	Prefer closed canopy coniferous forests. Found in ponderosa pine, mixed conifer and spruce-fir forests. Nests are located in large trees.	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Harlequin duck (<i>Histrionicus histrionicus</i>)	BLMS	Prefers undisturbed, low gradient mountain streams with dense shrubby vegetation	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Pale Townsend's big-eared bat (<i>Corynorhinus (Plecotus) townsendii pallescens</i>)	BLMS	Occurs widely throughout all habitats.	Moderate – this species could occur within suitable habitats throughout the analysis allotment	None – low grazing unlikely to be harmful to this species	No Effect – grazing will not affect habitat. No further analysis required

Species	Status	Habitat	Potential to Occur within the Allotment	Potential Impacts	Species Justification
Burrowing owl (<i>Athene cunicularia hypugaea</i>)	BLMS	Typically nest in abandoned burrows of prairie dogs, ground squirrels, foxes, and badgers in grassland, open shrubland and woodland communities	High. Suitable habitat exists within the analysis allotment	Low- moderate; loss of prey base in heavily grazed areas; loss of nesting habitat to prairie dog control	Analysis is required. See below for species discussion.
Rio Grande silvery minnow (<i>Hybognathus amarus</i>)	FE	The Rio Grande silvery minnow is found in the middle Rio Grande, from Cochiti Dam to the headwaters of Elephant Butte Reservoir.	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Rio Grande cutthroat trout (<i>Oncorhynchus clarki virginalis</i>)	FC	Encompasses all waters presently capable of supporting trout in the Rio Grande drainage	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Fathead chub (<i>Platygobio gracilis</i>)	BLMS	Rio Grande River	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Zuni bluehead sucker (<i>Catostomus discobolus yarrowi</i>)	FC	Native to headwater streams of the Little Colorado River in east-central Arizona and west-central New Mexico	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required
Jemez Mountains salamander (<i>Plethodon neomexicanus</i>)	FP	Occurs in mixed conifer habitat with abundant rotted logs and surface rocks.	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required

Species	Status	Habitat	Potential to Occur within the Allotment	Potential Impacts	Species Justification
Zuni fleabane (<i>Erigeron rhizomatus</i>)	FT	Grows in selenium-rich red or gray detrital clay soils exclusively in the Sawtooth Mountains in Catron County, NM.	None – suitable habitat is not present	None – no habitat	Key habitat or species does not occur in analysis area. No further analysis required

















