

**Allotment Evaluation (AE)  
For  
Petaca (#942)**

Permittee		<u>Authorization Number</u> 3001618		
Livestock Use	Preference AUMs	<u>Allotment</u> 00942	<u>Active</u> 85	<u>Suspended</u> 143
	Period of Use	<u>Allotment</u> Petaca	<u>Kind</u> 132 Cattle 132 Cattle	<u>Season of Use</u> 04/20 – 05/10 10/20 – 10/31
	Kind of Livestock	Cow Calf		
	Percent Public Land	AUMs are authorized at 100% public land on one parcel and 50% on the other		
Allotment Profile	Physical Description	<p>Allotment 942 is located approximately 10 and 13 miles southeast of Tres Piedras, in Taos County, New Mexico, as this allotment contains two parcels.. Elevation on this allotment is roughly 7,300 to 7,700 feet. Landforms on the allotment include uplands.</p> <p>Three soil types are identified within the BLM land of this allotment. They include:</p> <p>Fernando-Hernandez association, nearly level. The soil consists of loam and clay loams, with rooting depths over 60 inches. Parent materials of alluvium derived from mixed sources comprise this soil. Average annual precipitation ranges between 10 and 14 inches. Vegetation is characterized by western wheat, galleta, blue grama, winter fat, fourwing saltbush and sagebrush.</p> <p>Hernandez-Petaca association, gently sloping. The soil consists of loams, with rooting depths over 60 inches. Parent materials of alluvium derived from mixed sources comprise this soil. Average annual precipitation ranges between 10 and 14 inches. Vegetation is characterized by western wheat, needle and thread, galleta, blue grama and sagebrush.</p> <p>Hernandez-Silva association, gently sloping. The soil consists of loams, with rooting depths</p>		

		<p>over 60 inches. Parent materials of alluvium and eolian materials comprise this soil. Average annual precipitation ranges between 10 and 14 inches. Vegetation is characterized by western wheat, needle and thread, galleta, blue grama and sagebrush.</p> <p>Montecito loam, 1 to 15 percent slopes. The soil consists of loams, with rooting depths over 60 inches. Parent materials derived from alluvium basalt comprise this soil. Average annual precipitation ranges between 10 and 14 inches. Vegetation is characterized by pinyon, juniper, blue grama, sideoats grama, snakeweed and sagebrush.</p> <p>Servilleta-Prieta complex, 1 to 5 percent slopes. These soils consist of clay loams, with rooting depths between 10 to 40 inches. Parent materials of mixed material derived from weathered basalt and eolian comprise these soils. Average annual precipitation ranges between 10 and 14 inches. Vegetation is characterized by blue grama, western wheat and sagebrush.</p> <p>Vegetation observed during time of review included blue grama, western wheat, snakeweed, sagebrush galleta, juniper, pinyon, prickly pear, winter fat and rabbitbrush.</p>						
	<p>Land Status Acreage</p>	<table border="1"> <thead> <tr> <th><u>BLM</u></th> <th><u>State</u></th> <th><u>Private</u></th> </tr> </thead> <tbody> <tr> <td>1,560</td> <td>0</td> <td>0</td> </tr> </tbody> </table>	<u>BLM</u>	<u>State</u>	<u>Private</u>	1,560	0	0
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	Management Objectives	The allotment is under a 'Maintain' ('M') management category. 'M' category allotments are managed to maintain current satisfactory ecological condition.						
	Key Forage Species	blue grama, western wheat, needle and thread, galleta, and winter fat						
	Grazing System	Unknown						
Management Evaluation	Actual Use	Actual use has not been submitted for this allotment. Use has been assessed from paid bills and information available within the operator file.						
	Utilization	Due to the Maintain status code and the lack of staff, utilization surveys have not been conducted.						

	<p>Climate</p>	<p>The past water year (Oct. 1, 2006 – Sept. 30, 2007) the temperature and precipitation has been slightly (+1 to +2 degree Fahrenheit and +3 to +6 inches, respectively) above average. This should provide average plant growth.</p> <p>Climate change is a concern not only in New Mexico but globally. “Effects of increasing atmospheric CO<sub>2</sub> levels on plants are predicted to cause dramatic changes in native vegetation. Global climate change may accelerate rates of plant extinction, while ecosystem structure and function may shift. Ecological response to global changes in climate could shift ecosystems (i.e., shrublands replacing grasslands) and have effects, not only to an individual species, but to the ecosystem itself by additions and deletions of vegetation species” (Johnson, H.B., and H.S. Mayeux. 1992. Viewpoint: A view on species additions and deletions and the balance of nature. Journal of Wildlife Management 45:322-333.)</p> <p>We anticipate that our monitoring efforts will help indicate vegetation shifts, allowing for management modifications to address global climate change.</p>
	<p>Trend</p>	<p>No long term trend plots have been established on this allotment. A Rangeland Health Matrix was completed on July 10, 2007. The actual survey forms are available within the allotment file. Below is a summation of the information gathered by the survey. Within the Rangeland Health Attributes are three different categories of indicators. The categories include; Soil and Site Stability, Hydrologic Function and Biotic Integrity. The indicators are relative to a departure from expected based on an Ecological Site Description. Standards for each individual category are met when they are rated Proper Functioning Condition or Functioning at Risk-Upward Trend. Not meeting standards are ratings of; Functioning at Risk-Static, Functioning at Risk-Downward</p>

		<p>Trend and Non Functional.</p> <p><b>North Parcel</b>  Soil and Site Stability  Ten of ten indicators were deemed None to Slight.  Rating: 100%</p> <p>Hydrologic Function  Soil and Site Stability  Ten of ten indicators were deemed None to Slight.  Rating: 100%</p> <p>Biotic Integrity  Nine of nine indicators were deemed None to Slight.  Rating: 100%</p> <p>Overall Rating: 100%</p> <p>Soils were rated at Proper Functioning Condition, Biotic Flora was rated at Proper Functioning Condition and Biotic Fauna was rated at Proper Functioning Condition.</p> <p>Livestock do not appear to be adversely affecting the functionality of this parcel.</p> <p><b>South Parcel</b>  Soil and Site Stability  Five of ten indicators were deemed None to Slight, two Slight to Moderate and three Moderate.  Rating: 84%</p> <p>Hydrologic Function  Four of ten indicators were deemed None to Slight, two Slight to Moderate and four Moderate.  Rating: 80%</p> <p>Biotic Integrity  Three of nine indicators were deemed None to Slight, three Slight to Moderate, two Moderate to Extreme and one Extreme to total.</p>
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		<p>Rating: 71%</p> <p>Overall Rating: 78%</p> <p>Soils were rated at Proper Functioning Condition, Biotic Flora was rated at Functioning at Risk-Downward Trend and Biotic Fauna was rated at Functioning at Risk-Downward Trend.</p> <p>Factors other than livestock have been attributed to not meeting all standards – namely a lack of fire or possibly historic grazing.</p>
	Wildlife	<p>Seasonal home ranges in the allotment include those for elk, deer, pronghorn, mountain lion, black bear, bobcat, fox, coyote, small mammals, bats, raptors, turkey vulture, songbirds, amphibians, and a variety of insects.</p> <p>Elk, pronghorn and deer are grazers, however there is little dietary overlap between deer and cattle. Best management practices (rotational grazing, enhancement of cool season grasses and winterfat, and promotion of a mixed-aged sagebrush community) would ensure that forage production within this area can support both wildlife and livestock on a sustained basis.</p> <p>Critical wildlife areas on the allotment include winter range for elk deer and pronghorn. An important migratory corridor for avian and big-game species also occurs inside the allotment boundaries.</p>
	Threatened and Endangered Species	<p>It is determined that there are no state or federally listed threatened or endangered species likely to be found in the subject allotment. There is no designated critical habitat for any species listed by the USFWS within the allotment.</p>

	<p>Cultural Resources</p>	<p>This allotment has five previously recorded sites. One site consists of a small lithic scatter 25 x 25m that is evenly divided by the north-south fence separating BLM land from USFS property. There is 150+ flakes with a high percentage of bifaces. Numerous Archaic and transitional projectile points found in the area during survey suggest a potential affiliation. This site is NHR Eligible. Another site consists of a scatter of historic trash which is distributed across a 100x 100m area. The last three sites consist of widely dispersed, low density scatters of chipped-stone debitage. They contain about 100 artifacts and include fine-grained basalt noncortical core, an obsidian projectile point, a small dart point, basalt core and biface thinning flakes. These sites probably represent temporary camp sites where fine-grained basalt was reduced and they all are NHR Eligible. Current management practices most likely pose no noticeable adverse affect however continued monitoring is advisable due to the data potential of the five recorded sites.</p>
<p>Conclusions and Recommendations</p>		<p>The North parcel is in good condition, but it should be monitored for the loss of herbaceous vegetation due to sagebrush dominance and encroachment of pinyon and juniper – as numerous recruits are present. The South parcel is already dominated by sagebrush and snakeweed. At the time of the evaluation we only observed sagebrush, snakeweed, prickly pear, and mustard – there were little to no grasses present. It is highly recommended that this parcel is treated in a mosaic pattern then seeded.</p>

