

**Allotment Assessment and Evaluation Report for
New Mexico Standards and Guidelines for Public Land Health
Cresprin Well (#854) – September 24, 2010**

Permittee		<u>Authorization Number</u> Not currently permitted		
Livestock Use	Preference AUMs	<u>Allotment</u> 00854	<u>Active</u> N/A	<u>Suspended</u> N/A
	Period of Use / Kind of livestock	<u>Allotment</u> Cresprin Well	<u>Number / Kind</u> N/A	<u>Season of Use</u> N/A
	Percent Public Land	AUMs are authorized at 100% public land		
Allotment Profile	Physical Description	<p>Allotment 854 is located approximately 4 miles west of Ribera in San Miguel County, New Mexico. Elevation on this allotment is roughly between 6,600 and 7,300 feet. Landforms on the allotment include; escarpments, arroyos and benches.</p> <p>Four soil types are identified within the BLM lands in this allotment;</p> <p>Tuloso-Rock outcrop-Sombordoro association, steep. These soils consist of stony sandy and stony loams with rooting depths ranging from 8 to 20 inches. Parent materials are primarily derived from sandstone. Average annual precipitation is about 16 inches. Hazards for erosion are slight to moderate. Vegetation is characterized by pinyon, juniper, blue grama, hairy grama, sideoats grama, little bluestem and pinyon ricegrass.</p> <p>Tuloso-Sombordoro-Rock outcrop complex moderately sloping. These soils consist of stony sandy and stony loams with rooting depths ranging from 8 to 20 inches. Parent materials are primarily derived from sandstone. Average annual precipitation is about 16 inches. Hazards for erosion are slight to moderate. Vegetation is characterized by pinyon, juniper, blue grama, hairy grama, sideoats grama, and pinyon ricegrass.</p> <p>Ustorthents-Rock outcrop complex, very steep. This soil is stony with variable depths and texture. Parent materials of sandstone and shale comprise this soil. Average annual precipitation is around 16 inches. Vegetation is characterized by sideoats grama, pinyon, juniper and oak.</p> <p>Vibo-Rock outcrop complex, undulating. These soils consist of sandy loams, with rooting depths over 60 inches. Parent materials of alluvial and eolian material derived from mixed sources comprise these soils. Average annual precipitation ranges between 16 and 20 inches. Hazards for water erosion are moderate to high. Vegetation is characterized by pinyon,</p>		

		juniper, blue grama, sideoats grama, little bluestem, pinyon ricegrass and Indian ricegrass.																						
	Land Status Acreage	<u>BLM</u> <u>State</u> <u>Private</u> 320 0 0																						
	Management Objectives	The allotment is under a 'Custodial' ('C') management category. 'C' category allotments have evidence of a "not apparent" to "upward" long term trend, have no significant resource conflicts and have a low potential for improvement in vegetative production.																						
	Key Forage Species	blue grama, hairy grama, sideoats grama																						
	Grazing System	Vacant																						
Current Conditions / Management	Actual Use	Actual use was not submitted, below is the billed AUMs. <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;"><u>AUMs</u></th> <th style="text-align: center;"><u>Year</u></th> </tr> </thead> <tbody> <tr><td style="text-align: center;">vacant</td><td style="text-align: center;">2010</td></tr> <tr><td style="text-align: center;">vacant</td><td style="text-align: center;">2009</td></tr> <tr><td style="text-align: center;">vacant</td><td style="text-align: center;">2008</td></tr> <tr><td style="text-align: center;">41</td><td style="text-align: center;">2007</td></tr> <tr><td style="text-align: center;">41</td><td style="text-align: center;">2006</td></tr> <tr><td style="text-align: center;">43</td><td style="text-align: center;">2005</td></tr> <tr><td style="text-align: center;">43</td><td style="text-align: center;">2004</td></tr> <tr><td style="text-align: center;">43</td><td style="text-align: center;">2003</td></tr> <tr><td style="text-align: center;">43</td><td style="text-align: center;">2002</td></tr> <tr><td style="text-align: center;">43</td><td style="text-align: center;">2001</td></tr> </tbody> </table>	<u>AUMs</u>	<u>Year</u>	vacant	2010	vacant	2009	vacant	2008	41	2007	41	2006	43	2005	43	2004	43	2003	43	2002	43	2001
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	Utilization	This allotment has been vacant for the past 3 years.																						
	Climate	<p>The past water year (Oct. 1, 2009 – Sept. 30, 2010) the average temperature has been near average (0 to 1 degrees Fahrenheit below average) and precipitation has been below average (0 to 3 inches). The winter precipitation was near average (0 – 1.5 inches above normal) and was cooler (3 - 4 degrees Fahrenheit below average). The spring was drier, but cooler (0 – 0.75 inches below normal and 0 - 1 degrees Fahrenheit below average, respectively) This should provide for near normal plant growth for cool season plants. The summer was below normal (0 – 1.5 inches below normal) and warmer (1 - 2 degrees above normal) which should provide near normal growth for warm season plants.</p> <p>Global climate change resulting from increasing atmospheric CO₂ levels may accelerate rates of plant extinction and result in shifts in ecosystem structure (species diversity) and function. We anticipate that our monitoring efforts will track vegetation shifts allowing for management modifications to address local range impacts resulting from global climate change.</p>																						
	Trend	<p>No long term trend plots had been established. During the evaluation process a plot was established. Full findings are located in the Taos Field Office in the allotment file, but are summarized below.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Plot 1</td> <td style="text-align: center;">2010</td> </tr> <tr> <td style="text-align: center;">Soil Surface</td> <td style="text-align: center;">Ground Cover (%)</td> </tr> </table>	Plot 1	2010	Soil Surface	Ground Cover (%)																		
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	Riparian	There are no riparian areas within this allotment.																																
	Wildlife	<p>Seasonal home ranges in the allotment include those for deer, elk, bear, cougar, bobcat, fox, coyote, small mammals, bats, raptors, turkey vulture, songbirds, and a variety of insects.</p> <p>Deer are grazers; however there is little dietary overlap between deer and cattle. Best management practices would ensure that forage production within this area can support both wildlife and livestock on a sustained basis.</p>																																
	Threatened and Endangered Species	It is determined that there are no federally listed threatened or endangered or special status 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.																																
Findings / Rationale for the New Mexico Standards for Public Land Health		<p>A Rangeland Health Evaluation Matrix was completed on September 24, 2010. This evaluation matrix is from Technical Reference 1734-6 “Interpreting Indicators of Rangeland Health.” The actual matrix forms are available within the allotment file. Below is a summation of the information gathered by the on site evaluation. Within the Rangeland Health Attributes are three different categories of indicators. The categories include; Soil and Site Stability, Hydrologic Function and Biotic Integrity. The percent of indicator score was created by multiplying an assigned value for departure from site descriptions/reference areas by the number of indicators at the level. Departure scores are categorized as: none to slight = 5, slight to moderate = 4, moderate = 3, moderate to extreme = 2 and extreme = 1. For example, if all indicators under Soil/Site Stability were rated none to slight (best condition), the equation would be</p> $5(\text{score}) * 10 \text{ indicators} = 50 / 50 * 100 = 100\% \text{ similarity, or what is expected based on an Ecological Site Description.}$																																

		<p>Soil and Site Stability Three indicators were deemed None to Slight, three were deemed Slight to Moderate and four were deemed Moderate. Rating: 78%</p> <p>Hydrologic Function Two indicators were deemed None to Slight, three were deemed Slight to Moderate and five were deemed Moderate. Rating: 76%</p> <p>Biotic Integrity Four indicators were deemed None to Slight, two were deemed Slight to Moderate and three were deemed Moderate. Rating: 82%</p> <p>Overall Rating: 78%</p>
	Upland Standard	<p><i>Upland ecological sites are in 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 provides protection on a given site to minimize erosion and assist in meeting State and Tribal water quality standards.</i></p> <p>It was determined that this allotment is not meeting the Upland Standard based on the above evaluation and information. Soils are exhibiting indicators of erosion and vegetation changes to an increase in tree and shrub species removing grasses are contributing problems as well.</p>
	Biotic Communities Standard	<p><i>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 site and species.</i></p> <p>It was determined that this allotment is not meeting the Biotic Communities Standard based on the above evaluation and information. It was determined that the hydrologic cycle may not be functioning as expected because of the erosion and the increase of evapotranspiration due to vegetation changes.</p>
	Riparian Standard	<p><i>Riparian areas are in a productive, properly functioning and sustainable condition, within the capability of that site.</i></p> <p>The Riparian Standard does not apply due to the lack of riparian areas within this allotment.</p>
	Conclusion	<p>The Upland and Biotic Communities Standards are not being met; therefore a Determination Document is warranted. It has been determined that the causal factors are not related to livestock grazing. Continued monitoring, as well as establishing more monitoring sites will help establish future trend.</p>

Consultation and Coordination

This Assessment and Evaluation Report has been sent or given to the affected permittee(s) / lessee(s), the interested publics and the following interdisciplinary team members for input and review:

Merril Dicks – Archeologist

Scott Draney – Department of Game and Fish

Greg Gustina – Fish Biologist

Pam Herrera-Olivas – Wildlife Biologist

Tami Torres – Outdoor Recreation Planner

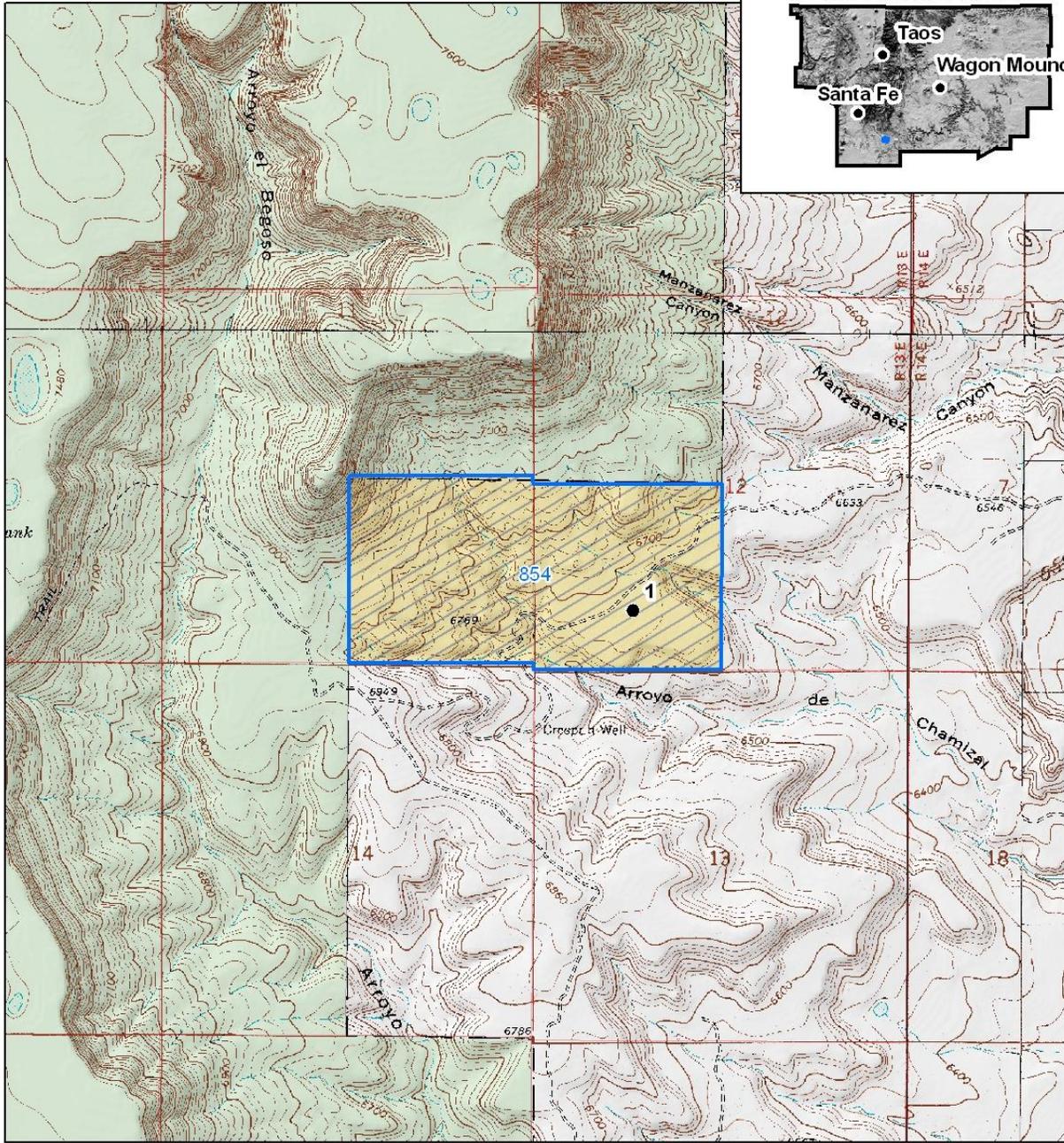
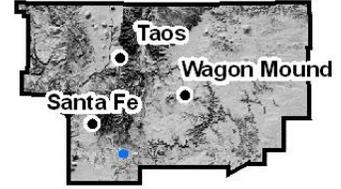
Derek Trauntvein – Rangeland Management Specialist

Paul Williams – Archeologist

Valerie Williams – Wildlife Biologist

This document was prepared by: Jacob Young – Rangeland Management Specialist

Taos Field Office



T13N

R13E

R14E



Crespin Well (854)



Legend

- Monitoring Plots
- Allotment Boundary
- ▨ Bureau of Land Management
- Forest Service
- Private

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7.5' Topos; Laguna Ortiz