

**Allotment Evaluation (AE)
For
Sebastian Martin GRT (#522)**

Permittee		<u>Authorization Number</u> 3001176		
Livestock Use	Preference AUMs	<u>Allotment</u> 00522	<u>Active</u> 888	<u>Suspended</u> 0
	Period of Use	<u>Allotment</u> Sebastian Martin GRT	<u>Kind</u> 74 Cattle	<u>Season of Use</u> 03/01 – 02/28
	Kind of Livestock	Cow Calf		
	Percent Public Land	AUMs are authorized at 100% public land		
Allotment Profile	Physical Description	<p>Allotment 522 is located just east and south of Velarde, in Rio Arriba County, New Mexico. Elevation on this allotment is roughly 5,800 to 7,400 feet. Landforms on the allotment include plateau, floodplains, mesas, benches and sideslopes.</p> <p>Seven soil types are identified within the BLM land of this allotment. They include:</p> <p>Chita loam, 0 to 5 percent slopes. These soils consist of loams, with rooting depths over 60 inches. Parent material of alluvium and eolian sediments derived from sandstone and igneous rocks comprise these soils. Average annual precipitation in this area ranges from 12 to 14 inches. Vegetation is characterized by western wheat, blue grama, Indian ricegrass, galleta, fourwing saltbush and sagebrush.</p> <p>Dermala-Roced complex, 20 to 50 percent slopes. These soils consist of very gravelly loams, with rooting depths over 60 inches. Parent material of alluvium and colluvium derived for igneous and metamorphic rock comprise these soils. Average annual precipitation in this complex ranges from 12 to 14 inches. Vegetation is characterized by pinyon, juniper, blue grama, galleta, side oatsgrama, and muttongrass.</p>		

	<p>Florita-Rock outcrop complex, 15 to 45 percent slopes. These soils consist of gravelly and sandy loams with rooting depths over 60 inches and sandstone outcrops. Parent material of alluvium and eolian derived from sandstone comprise these soils. Average annual precipitation in this complex ranges from 10 to 12 inches. Vegetation is characterized by pinyon, juniper, sideoats grama, black grama, blue grama, needle and thread and muttongrass.</p> <p>Fruitland sandy loam, 3 to 5 percent slopes. These soils consist of sandy loams, with rooting depths over 60 inches. Parent material of alluvium derived from sandstone comprises this soil. Average annual precipitation in this area ranges from 8 to 10 inches. Vegetation is characterized by western wheat, blue grama, Indian ricegrass, dropseed and galleta.</p> <p>Parida-Palacid very gravelly sandy loams, 10 to 40 percent slopes. These soils consist of very gravelly loams, with rooting depths over 60 inches. Parent material of alluvium and colluvium derived from sedimentary and metamorphic rock comprise these soils. Average annual precipitation in this complex ranges from 10 to 12 inches. Vegetation is characterized by sideoats grama, black grama, blue grama, and galleta.</p> <p>Razito-Fruitland complex, 1 to 5 percent slopes. These soils consist of loams, with rooting depths over 60 inches. Parent material of eolian and alluvium derived from sandstone comprise these soils. Average annual precipitation in this area ranges from 8 to 10 inches. Vegetation is characterized by western wheat, blue grama, Indian ricegrass, dropseed and galleta.</p> <p>Yarts sandy loam, 1 to 4 percent slopes. This soil consists of sandy loams, with rooting depths over 60 inches. Parent material of</p>
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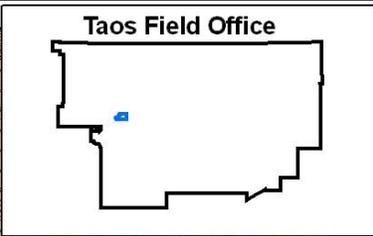
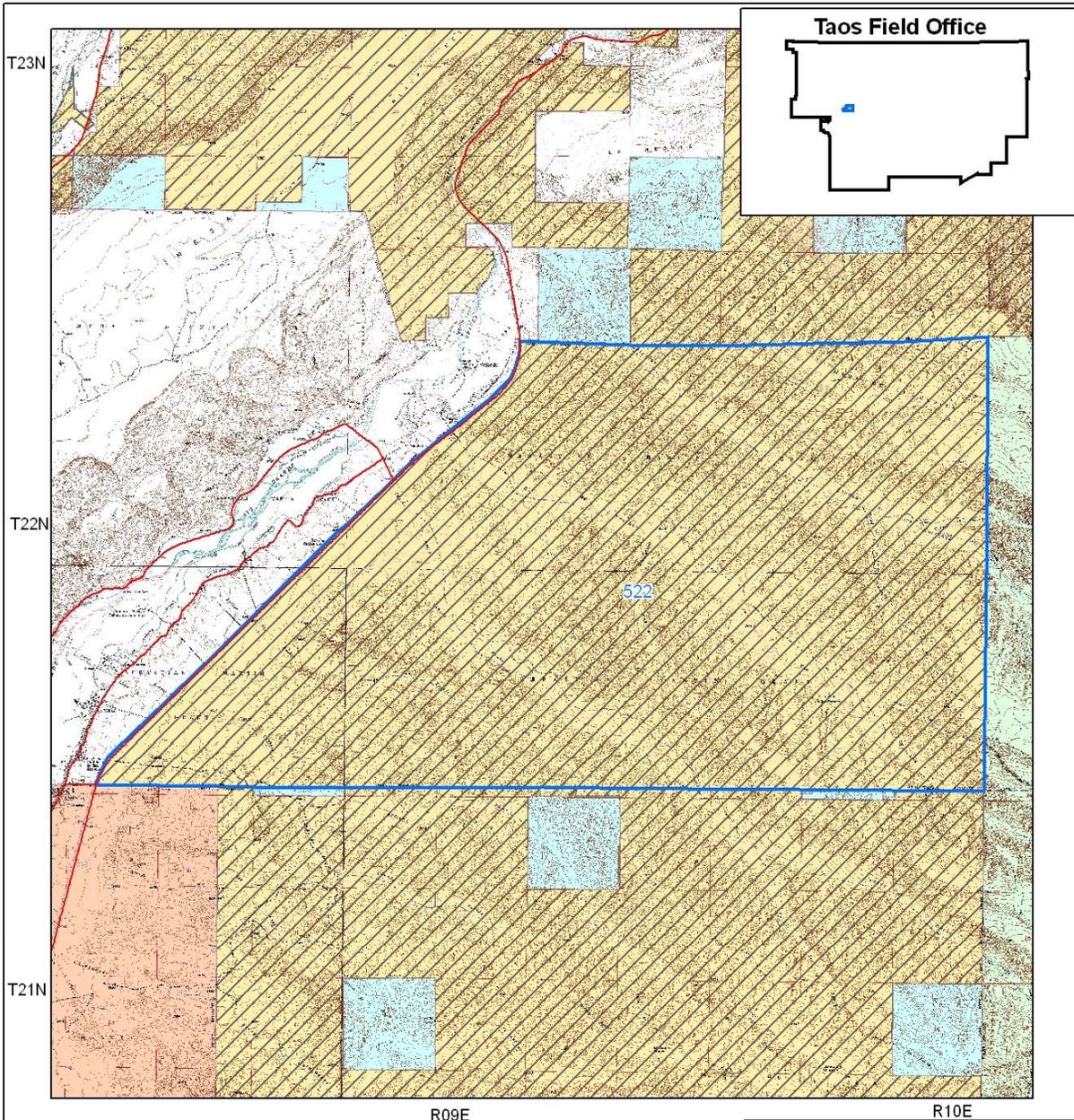
		<p>alluvium derived from sedimentary rocks comprises this soil. Average annual precipitation ranges from 10 to 12 inches. Vegetation is characterized by western wheatgrass, Indian ricegrass, blue grama, galleta, and fourwing saltbush.</p> <p>Vegetation observed during time of review included blue grama, black grama, western wheat, galleta, cholla, sideoats grama, yucca, mahogany, three awn, prickly pear, rabbitbrush, sagebrush, snakeweed, pinyon, and juniper.</p>																						
	Land Status Acreage	<table border="0"> <tr> <td><u>BLM</u></td> <td><u>State</u></td> <td><u>Private</u></td> </tr> <tr> <td>22,738</td> <td>0</td> <td>0</td> </tr> </table>	<u>BLM</u>	<u>State</u>	<u>Private</u>	22,738	0	0																
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	Management Objectives	The allotment is under an 'Improve' ('I') management category. 'I' category allotments are managed in accordance with the Allotment Management Plan to achieve satisfactory ecological condition.																						
	Key Forage Species	blue grama, western wheat, galleta, needle and thread, dropseed and Indian ricegrass																						
	Grazing System	Six pasture deferred rotational grazing																						
Management Evaluation	Actual Use	<table border="0"> <thead> <tr> <th><u>AUMs</u></th> <th><u>Year</u></th> </tr> </thead> <tbody> <tr> <td>325</td> <td>2006</td> </tr> <tr> <td>191</td> <td>2005</td> </tr> <tr> <td>105</td> <td>2004</td> </tr> <tr> <td>Non-use</td> <td>2003</td> </tr> <tr> <td>392</td> <td>2002</td> </tr> <tr> <td>628</td> <td>2001</td> </tr> <tr> <td>876</td> <td>2000</td> </tr> <tr> <td>810</td> <td>1999</td> </tr> <tr> <td>812</td> <td>1998</td> </tr> <tr> <td>736</td> <td>1997</td> </tr> </tbody> </table>	<u>AUMs</u>	<u>Year</u>	325	2006	191	2005	105	2004	Non-use	2003	392	2002	628	2001	876	2000	810	1999	812	1998	736	1997
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	Utilization	Due to the lack of staff utilization surveys have not been conducted.																						
	Climate	<p>The past water year (Oct. 1, 2006 – Sept. 30, 2007) the temperature and precipitation has been slightly (0 to +1 degree Fahrenheit and 0 to +3 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 CO₂ levels on plants are predicted to cause dramatic changes in native vegetation. Global climate change may</p>																						

		<p>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>
	Trend	<p>Three long term trend plots have been established on this allotment, but they have not been read since 1991 due to the lack of staff. A Rangeland Health Matrix was completed on July 26, 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 Trend and Non Functional.</p> <p>Soil and Site Stability Eight of ten indicators were deemed None to Slight, while two were deemed Slight to Moderate. Rating: 96%</p> <p>Site 2 rating: 92%</p>

		<p>Hydrologic Function Seven of ten indicators were deemed None to Slight, while three were deemed Slight to Moderate. Rating: 94%</p> <p>Site 2 rating: 92%</p> <p>Biotic Integrity Six of nine indicators were deemed None to Slight and three were deemed Slight to Moderate. Rating: 93%</p> <p>Site 2 rating: 91%</p> <p>Overall Rating: 94% Site 2 overall rating: 92%</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. (See conclusions and recommendations)</p> <p>All standards are being met. Livestock do not appear to be affecting this allotment.</p>
	Riparian	<p>Within the allotment is the Rio Truchas, which contains intermittent surface water and a strong riparian vegetation component including willow and cottonwood. Photo points have been established and monitored, demonstrating improvement in the vegetation in concert with grazing strategies. The Taos Field Office Riparian and Aquatic Habitat Management Plan calls for this area to be managed for recovery of Southwestern willow flycatcher habitat. The riparian area was assessed as Proper Functioning Condition in 2003.</p>
	Wildlife	<p>Seasonal home ranges in the allotment include those for elk, deer, mountain lion, black bear, bobcat, fox, coyote, small mammals, bats, raptors, turkey vulture,</p>

		<p>songbirds, amphibians, and a variety of insects.</p> <p>Elk and deer are grazers, however there is little dietary overlap between deer and cattle. Best management practices (rotational grazing; enhancement of cool season grasses, mahogany, fourwing saltbush and Indian ricegrass; 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>
	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>
	Cultural Resources	<p>The nearest site to the allotment is within a half mile away but still is part of the Sebastian Martin Grant. The site consists of a fairly sparse scatter of chipped stone flakes over a large area on a terrace above a spring in the Rio de Truchas. Lithic material was dominated by obsidian and basalt with lesser amounts of white quartzite and chert. A single small obsidian projectile point was found, and one formal mano of sandstone. With the spring close by this was probably an excellent hunting location and not far from the prehistoric pueblos in the San Juan/Velarde area. Current management practices pose no noticeable adverse affect to the archaeological remains documented within the sample area. No further action is deemed necessary other then periodic monitoring.</p>
Conclusions and Recommendations		<p>The allotment is in good condition, but it appears that there are areas in which the pinyon and juniper have encroached and are starting to affect the functionality of those sites. It is recommended that actions be implemented to ensure proper functioning of this area. In the Rio Truchas basin there is an area that salt cedar is beginning to invade. It</p>

		<p>is recommended that treatments be done now when the trees are still young and cover only a small area, increasing success in controlling this invasive tree. The permittee is interested in potentially putting in a water improvement in the northeast corner of the allotment up on Mesa de la Cejita and repairing the fence on the southern boundary in the east corner.</p>
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Sebastian Martin GRT (522)



Legend

-  Allotment Boundary
-  Bureau of Land Management
-  Forest Service
-  Private
-  State
-  Tribal

Produced by the BLM Taos Field Office - GIS on:
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7.5' Topos: Chimayo, Lyden, San Juan Pueblo, Trampas, Truchas, & Velarde