

**Allotment Assessment and Evaluation Report for  
New Mexico Standards and Guidelines for Public Land Health  
Puerto Community (#557) – September 16, 2010**

<b>Permittee</b>		<u>Authorization Number</u> Not currently permitted
<b>Livestock Use</b>	Preference AUMs	<u>Allotment</u> 00557 <u>Active</u> To be determined <u>Suspended</u>
	Period of Use / Kind of livestock	<u>Allotment</u> Puerto Community <u>Number / Kind</u> Cattle <u>Season of Use</u> n/a
	Percent Public Land	AUMs are authorized at 100% public land
<b>Allotment Profile</b>	Physical Description	<p>Allotment 557 is located approximately 3 miles south of El Vado Lake State Park, in Rio Arriba County, New Mexico. Elevation on this allotment is roughly between 6,700 and 7,800 feet. Landforms on the allotment include; arroyos, escarpments, hills, dissected ridges and benches, Chama River Canyon and toe slopes of Gallina Peak. Portions of this allotment are within the Rio Chama Wilderness Study Area, Rio Chama Special Management Area and the Rio Chama Wild and Scenic River designated areas.</p> <p>Six soil types are identified within the BLM lands in this allotment;</p> <p>Berryman-Ruson association, 1 to 8 percent slopes. The soil consists of silt loams, with rooting depths over 60 inches. Parent materials of alluvium derived from limestone and shale comprise this soil. Hazards for erosion are moderate. Average annual precipitation ranges between 14 and 16 inches. Vegetation is characterized by western wheat, squirreltail, blue grama, alkali sacaton and sagebrush.</p> <p>Elpedro silt loam, 1 to 5 percent slopes. This soil consists of silty clay loams, with rooting depths over 60 inches. Parent materials of eolian sediments and alluvium derived from sandstone and shale comprise these soils. Average annual precipitation ranges between 12 and 14 inches. Hazards for erosion are slight to moderate. Vegetation is characterized by western wheat, blue grama, galleta, Indian ricegrass, and sagebrush.</p> <p>Menefee channery loam, 2 to 35 percent slopes. This soil consists of clay loams, with rooting depths between 20 and 40 inches. Parent materials of colluvium derived from shale comprise this soil. Average annual precipitation ranges between 12 and 14 inches. Hazards for erosion are severe. Hazards for erosion are severe. Vegetation is characterized by western wheat, bottlebrush squirreltail, prairie junegrass and</p>

		<p>sagebrush.</p> <p>Sparham clay loam, saline-sodic, 0 to 3 percent slopes. These soils consist of clay loams, with rooting depths over 60 inches. Parent material of alluvium derived from sandstone and shale comprise these soils. Hazards for erosion are slight to moderate. Average annual precipitation in this complex ranges from 12 to 15 inches. Vegetation is characterized by sand dropseed, alkali sacaton and fourwing saltbush.</p> <p>Stout-Kunz sandy loams, 5 to 15% slopes. These soils consist of sandy loams, with rooting depths between 10 to greater than 60 inches. Parent material is comprised of slope alluvium and residuum weathered from sandstone and shale. Average annual precipitation ranges from 16 to 18 inches. Hazards for erosion are slight to moderate. Vegetation is characterized by ponderosa pine, Arizona fescue, mountain muhly, juniper, pinyon, oak , Indian ricegrass, muttgrass and prairie junegrass.</p> <p>Tinaja-Rock outcrop complex, 45 to 75 percent slopes. These soils consist of loam and sandy clay loams, with rooting depths between 0 to over 60 inches. Parent materials of colluvium derived from sandstone comprise these soils. Average annual precipitation ranges between 13 and 16 inches. Hazards for erosion are slight to severe. Vegetation is characterized by pinyon, juniper, blue grama, sideoats grama, muttongrass and mahogany.</p>																						
	Land Status Acreage	<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>5,520</td> <td>640</td> <td>0</td> </tr> </tbody> </table>	<u>BLM</u>	<u>State</u>	<u>Private</u>	5,520	640	0																
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	Management Objectives	The allotment is under an ‘Improve’ (‘I’) management category. ‘I’ category allotments are managed in a manner to help the allotment achieve satisfactory ecological condition.																						
	Key Forage Species	blue grama, western wheatgrass, Arizona fescue, prairie junegrass and Indian ricegrass																						
	Grazing System	n/a – past grazing was 06/01- 09/30																						
<b>Current Conditions / Management</b>	Actual Use	<table border="1"> <thead> <tr> <th><u>AUMs</u></th> <th><u>Year</u></th> </tr> </thead> <tbody> <tr><td>0</td><td>2010</td></tr> <tr><td>0</td><td>2009</td></tr> <tr><td>0</td><td>2008</td></tr> <tr><td>0</td><td>2007</td></tr> <tr><td>0</td><td>2006</td></tr> <tr><td>0</td><td>2005</td></tr> <tr><td>0</td><td>2004</td></tr> <tr><td>0</td><td>2003</td></tr> <tr><td>0</td><td>2002</td></tr> <tr><td>0</td><td>2001</td></tr> </tbody> </table>	<u>AUMs</u>	<u>Year</u>	0	2010	0	2009	0	2008	0	2007	0	2006	0	2005	0	2004	0	2003	0	2002	0	2001
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	Utilization	This allotment was last grazed in 1989.																						
	Climate	The past water year (Oct. 1, 2009 – Sept. 30, 2010) the average temperature has been near average (0 to 1 degrees Fahrenheit above average) and precipitation has been slightly above																						

		<p>average (0 to 3 inches). The winter was wetter (1.5 – 3 inches above normal) and was cooler (2 - 3 degrees Fahrenheit below average). The spring was drier, but cooler (0.75 – 1.5 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 wetter (0 - 1.5 inches above normal) and warmer (2 - 3 degrees above normal) which should provide near normal growth for warm season plants.</p> <p>Global climate change resulting from increasing atmospheric CO<sub>2</sub> 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>Two long term trend plots were established on this allotment in 1983. During the evaluation process, one plot was located. The other plot was located using photos and description of the area, but the angle-iron could not be found. New markers were placed in the most likely location of the old plot.</p> <p>Plot 1 appears to be increasing in sagebrush cover but vegetative understory appears to be the same, based on trend data. Plot 2 appears virtually unchanged from 1990 except for possibly a higher canopy cover for sagebrush and a higher ground cover for litter. Full findings are located in the Taos Field Office in the allotment file, but are summarized in tables attached to this document.</p>
	Riparian	<p>Since the last assessment of this allotment, the BLM has acquired lands within the allotment boundary. This action acquired approximately 3 miles of the Rio Chama – 2 of which are within this allotment boundary. Prior to the acquisition of these lands livestock watered on the river and evidence of historic heavy grazing use is apparent.</p>
	Wildlife	<p>Seasonal home ranges in the allotment include those for deer, elk, bear, bobcat, fox, coyote, small mammals, bats, raptors, turkey vulture, songbirds, and a variety of insects. The allotment is important winter range for both elk and deer.</p> <p>Deer and elk 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	<p>It is determined that there are no 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>Special status species that are likely to be found on the</p>

<p><b>Findings / Rationale for the New Mexico Standards for Public Land Health</b></p>		<p>allotment (seasonally) include bald eagle and ferruginous hawk.</p> <p>A Rangeland Health Evaluation Matrix was completed on September, 16, 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 <math>5(\text{score}) * 10(\text{indicators}) = 50/50 * 100 = 100\%</math> similarity, or what is expected based on an Ecological Site Description.</p> <p>Two matrices were conducted, but they are very similar in their evaluation, so only the slightly lower rated evaluation is found below.</p> <p><b>Soil and Site Stability</b> Four indicators were deemed None to Slight and six were deemed Slight to Moderate. Rating: 88%</p> <p><b>Hydrologic Function</b> Three indicators were deemed None to Slight and seven were deemed Slight to Moderate. Rating: 86%</p> <p><b>Biotic Integrity</b> Six indicators were deemed None to Slight and three were deemed Moderate. Rating: 93%</p> <p><b>Overall Rating: 89%</b></p>
	<p><b>Upland Standard</b></p>	<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>This allotment is meeting the Upland Standard based on the above evaluation and information. Generally, there are no issues with erosion outside of what is expected for this site.</p>

	<b>Biotic Communities Standard</b>	<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>This allotment is meeting the Biotic Communities Standard based on the above evaluation and information. Generally, vegetation is as expected for the site. Although the standard is being met improvements could be made to increase the amount of forage for future livestock grazing and for wintering wildlife.</p>
	<b>Riparian Standard</b>	<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 has not been determined for this allotment. Before livestock grazing will be again authorized for this allotment this standard will be determined.</p>
	<b>Conclusion</b>	<p>The Riparian Standard has not been determined but the other two standards are being met; therefore no Determination Document is warranted. Continued monitoring, as well as establishing more monitoring sites will help establish future trend. As stated above, the Riparian Standard will be determined before livestock grazing is again authorized on this allotment. Development of water sources (dirt tanks) will help distributed livestock throughout the allotment – since previous watering was occurred on the Rio Chama. This allotment is in the Taos Field Office 2010 Draft Resource Management Plan and Environmental Impact Statement as a “reserve common allotment” which will exclude this allotment from being permitted via an application – but will be used in times when other allotments are unavailable to grazing due to drought, wildfire, vegetation treatments or other occasions.</p>

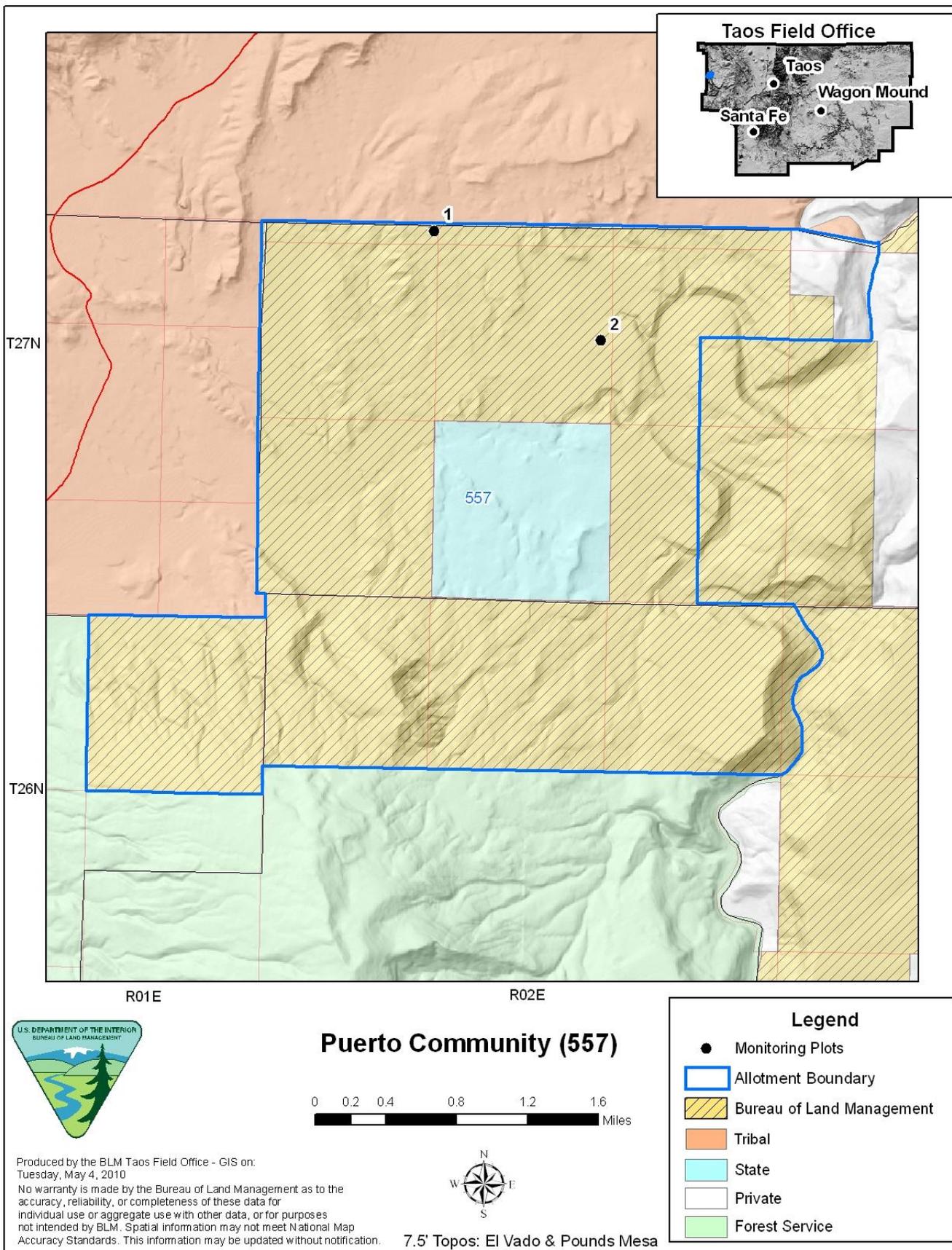
## **Consultation and Coordination**

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

Merrill 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





Plot 1	1983	1990	2010
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<b>Soil Surface</b>	<b>Ground Cover (%)</b>	<b>Ground Cover (%)</b>	<b>Ground Cover (%)</b>
Bare Ground	72	55	42
criptogams	0	0	1
gravel	4	7	6
rock	0	0	2
litter	23	29	42
BOGR – blue grama	1	1	5
ARTR – sagebrush	0	4	1
PSSM – western wheatgrass	0	3	0
GUSA – snakeweed	0	1	0
ELEL – squirreltail	0	0	1
<b>Top Canopy Cover</b>	<b>Canopy Cover (%)</b>	<b>Canopy Cover (%)</b>	<b>Canopy Cover (%)</b>
PSSM – western wheatgrass			3
SPCO – globemallow			0
BOGR – blue grama			9
Unknown annual forb			0
ARTR – sagebrush			32
HYRI – pingue			0
PLJA – galleta			0
GUSA - snakeweed			0
ELEL – squirreltail			1
ACHY – Indian ricegrass			0
Eriogonum			0
Astragalus			0
OPPO – prickly pear			0
JUMO - juniper			1
<b>Species Composition</b>	<b>Composition (%)</b>	<b>Composition (%)</b>	<b>Composition (%)</b>
PSSM – western wheatgrass	49	43	6
SPCO – globemallow	11	3	0
BOGR – blue grama	9	12	19
Unknown annual forb	2	0	0
ARTR – sagebrush	8	8	67
HYRI – pingue	7	4	0
PLJA – galleta	7	11	0
GUSA - snakeweed	1	5	0
ELEL – squirreltail	1	0	7
ACHY – Indian ricegrass	2	2	0
Eriogonum	1	2	0
Astragalus	2	0	0
OPPO – prickly pear	0	1	0
JUMO - juniper	0	0	1

83 and '90 are frequency data

<b>Plot 2</b>	<b>1983</b>	<b>1990</b>	<b>2010</b>
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<b>Soil Surface</b>	Ground Cover (%)	Ground Cover (%)	Ground Cover (%)
Bare Ground	46	68	49
criptogams	0	0	3
gravel	2	0	2
rock	0	0	0
litter	37	12	29
BOGR – blue grama	13	11	15
AGCR – crested wheatgrass	1	3	2
PLJA – galleta	1	0	0
GUSA – snakeweed	0	3	0
ARTR - sagebrush	0	2	1
Eriogonum	0	1	0
<b>Top Canopy Cover</b>	Canopy Cover (%)	Canopy Cover (%)	Canopy Cover (%)
BOGR – blue grama			21
ARTR – sagebrush			6
AGCR – crested wheatgrass			16
GUSA – snakeweed			1
OPPO – prickly pear			0
Aster sp.			0
PLJA – galleta			0
Unknown perennial forb			0
Unknown annual forb			0
SPCO – globemallow			0
PSSM – western wheatgrass			0
Eriogonum			0
HECO – needle and thread			2
ELEL - squirreltail			0
<b>Species Composition</b>	Composition (%)	Composition (%)	Composition (%)
BOGR – blue grama	36	51	48
ARTR – sagebrush	15	6	15
AGCR – crested wheatgrass	34	22	31
GUSA – snakeweed	6	11	1
OPPO – prickly pear	2	0	0
Aster sp.	2	0	0
PLJA – galleta	2	4	0
Unknown perennial forb	1	0	0
Unknown annual forb	0	0	0
SPCO – globemallow	1	1	0
PSSM – western wheatgrass	0	2	0
Eriogonum	0	4	0
HECO – needle and thread	0	0	4
ELEL - squirreltail	0	0	1

83 and '90 are frequency data