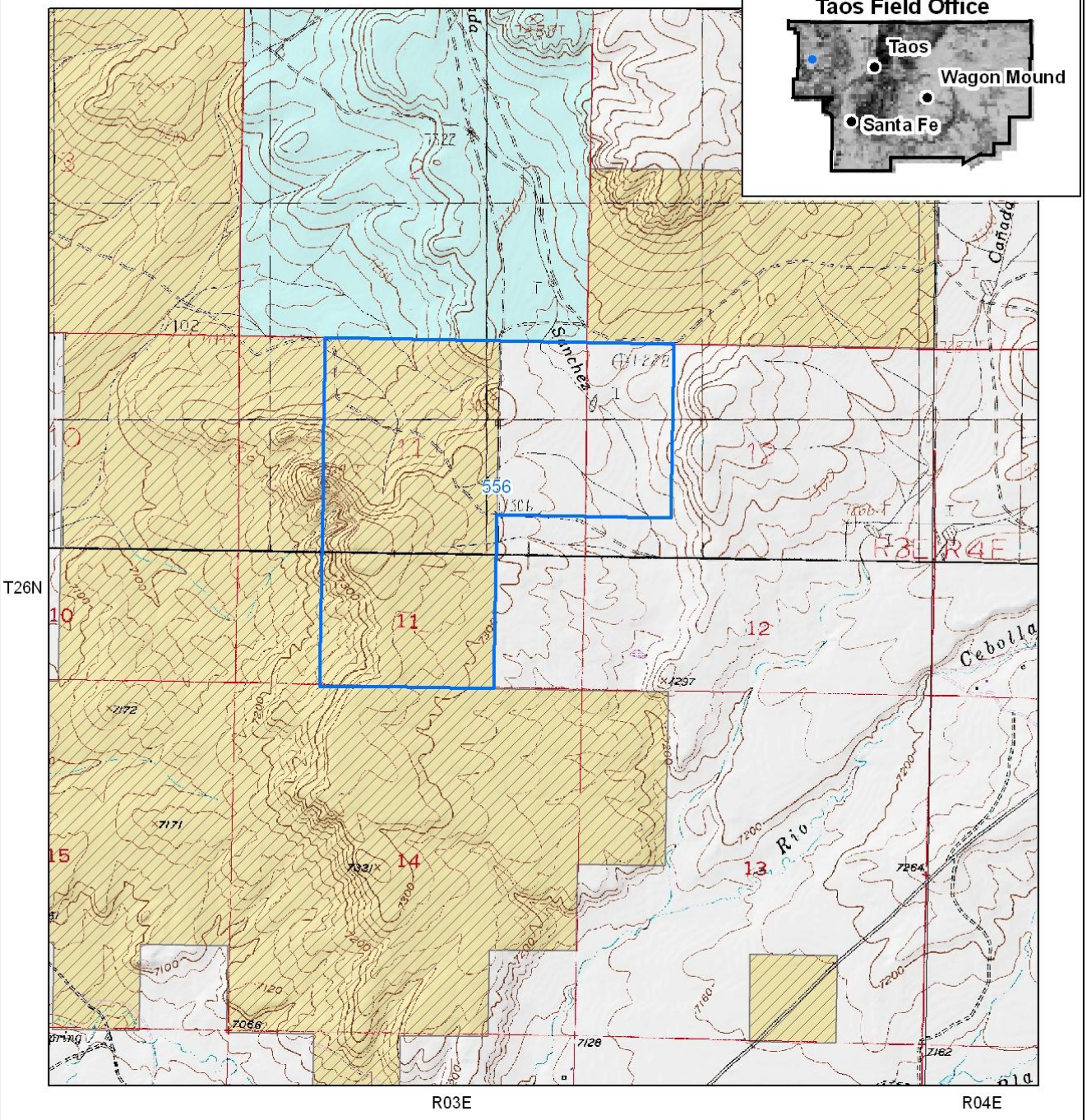
Allotment Evaluation (AE)
For
Canada de Humo (#556)

Permittee		Authorization Number 3001021		
Livestock Use	Preference AUMs	Allotment 00556	Active 45	Suspended 0
	Period of Use	Allotment Canada de Humo	Kind 10 Cattle	Season of Use 05/01 - 10/31
	Kind of Livestock	Cow/Calf		
	Percent Public Land	AUMs are authorized at 81% public land		
Allotment Profile	Physical Description	Allotment 556 is located approximately 5 miles west of Cebolla, in Rio Arriba County, New Mexico. Elevation on this allotment is roughly between 7,200 and 7,400 feet. Landforms on the allotment include; uplands, draws, rock outcrops and hills Two soil types are identified within the federal lands in this allotment. They include: Calendar gravelly loam, 5 to 35 percent slopes. The soil consists of loams, with rooting depths around 40 inches. Parent materials of alluvium from shale comprise this soil. Average annual precipitation ranges between 14 and 17 inches. Vegetation is characterized by pinyon, juniper, oak, junegrass, muttongrass and sagebrush. Teromote-Ruson association, 1 to 8 percent slopes. These soils consist of loam and clay loams, with rooting depths between over 60 inches. Parent materials of alluvium derived from shale comprise these soils. Average annual precipitation ranges between 14 and 17 inches. Vegetation is characterized by blue grama, western wheat, galleta, Indian ricegrass, needleandthread, squirreltail and sagebrush.		
	Land Status Acreage	BLM 320	State 0	Private 160
	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, prairie junegrass, bottlebrush squirreltail, Indian ricegrass, galleta, needleandthread and muttongrass		
	Grazing System	Grazing between private and federal lands		
Management Evaluation	Actual Use	Actual use has not been reported and figures below were determined from paid bill reports.		

		AUMs **Year** 45 2007 45 2006 45 2005 45 2004 0 2003 0 2002 0 2001 0 2000 0 1999 0 1998
	Utilization	Due to the lack of staff utilization studies have not been conducted. During the assessment visit it was determined that the allotment was either receiving slight to moderate amounts of utilization.
	Climate	The past water year (Oct. 1, 2007 – Sept. 30, 2008) the average temperature has been nearly average (-1 to 0 degrees Fahrenheit below average) and precipitation has been nearly average (0 to 1 inches above average). This should provide average plant growth on cool season and warm season plants. During the past 10 years (1998-2007) the temperature has been at or above average and precipitation has been fluctuating annually, but it is important to note that between 2000 and 2004 the 12 month running average was below the annual average. (Based on the Northern Mountains Climate Division, New Mexico from the Western Regional Climate Center.) Climate change is a concern not only in New Mexico but globally. "Effects of increasing atmospheric CO_2 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.) We anticipate that our monitoring efforts will help indicate vegetation shifts, allowing for management modifications to address global climate change.
	Trend	One long term trend plot has been established on this allotment, but due to lack of staffing it has not been read since 1989. A Rangeland Health Matrix was completed on September 23, 2008. 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 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 5(score)*10indicators=50/50*100 = 100% similarity, or what is 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. Soil and Site Stability One indicator was deemed None to Slight, two were deemed Slight to Moderate, three were deemed Moderate and four were deemed Moderate to Extreme. Rating: 60% Hydrologic Function One indicator was deemed None to Slight, two were deemed Slight to Moderate, three were deemed Moderate and four were deemed Moderate to Extreme. Rating: 60% Biotic Integrity One indicator was deemed None to Slight, two were deemed Slight to Moderate, two were deemed Moderate and two were deemed Moderate to Extreme. Rating: 68% Overall Rating: 63% Soils were rated at Functioning at Risk-Downward Trend, Biotic Flora was rated at Functioning at Risk-Static and Biotic Fauna was rated at Functioning at Risk-Downward Trend. Current livestock does not appear to be adversely affecting this allotment. The standards are rated at Functioning at Risk-Downward Trend because of the increasing dominance of sagebrush and apparent decrease of graminoid species as well as erosion problems due to vegetation changes.
	Riparian	This allotment does not contain any riparian areas.
	Wildlife	Seasonal home ranges in the allotment include those for elk, deer, mountain lion, black bear, bobcat, fox, coyote, small mammals, bats, raptors, turkey vulture, songbirds, and a variety of insects.

		Elk and deer are grazers/browsers; however there is little dietary overlap between deer and cattle. Best management practices i.e. rotational grazing would ensure that forage production within this area can support both wildlife and livestock on a sustained basis.
	Threatened and Endangered Species	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.
Conclusions and Recommendations		The vegetation appears to be in fair condition with poor diversity. Some selective thinning of juniper and pinyon though out the allotment to increase structure diversity. Also, the past vegetation treatments and crested wheatgrass seedings have caused nearly a monoculture of crested wheat. This in turn has increased bare ground and water-flow patterns as well as increased erosion. It is recommended that this area be treated to restore native grasses. It is recommended that grazing be renewed for another 10 years without any changes to the permit.



Canada de Humo (556)

0 0.125 0.25 0.5 0.75 1 Miles

N W E S

Legend

- Allotment Boundary
- Bureau of Land Management
- State
- Private

7.5' Topos: Alire & Las Nutrias

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