

Environmental Assessment for the Proposed Center for New Mexico Archaeology (DRAFT)



Prepared for the
Bureau of Land Management: Taos Field Office
U.S. Department of the Interior
and the
Museum of New Mexico

by
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Chapter 1.0 Purpose and Need

1.1 Purpose and Need

This environmental assessment (EA) has been prepared to analyze potential impacts from lease and conveyance of a parcel of Bureau of Land Management (BLM) land. It is being prepared according to the requirements of the National Environmental Policy Act of 1969 (see Section 1.3). The Museum of New Mexico (MNM) has filed an application with BLM under the provisions of the Recreation and Public Purposes Act of 1926, as amended (R&PP Act) (43 USC 869 et seq.). The Act authorizes lease of land for recreational or public purposes to state and local governments. As a subdivision of the government of the State of New Mexico, the MNM qualifies to lease the land.

The land under consideration comprises former Lots 6 (6.06 acres) and 19 (20.75 acres), SE ¼ of the SW ¼ of the SW ¼ of Section 35, Township 17 North, Range 8 East, in Santa Fe County, New Mexico (approximated in Figures 1 and 2). The boundaries of the property are in the process of being surveyed and re-defined by BLM as follows:

- Western Boundary: boundary to remain unchanged from former lots, abutting private land (SHC 480) along the southern 1/3 of the boundary and coinciding with the western 1/16 section line of Section 35 north of private land;
- Northern Boundary: boundary to remain unchanged, coinciding with the southern 1/16 section line of Section 35;
- Eastern Boundary: boundary to be redefined such that existing hike/bike trail is east of the CNMA property;
- Southern Boundary: boundary coincides with southern boundary of Section 35.

The purpose of the lease is to allow the MNM to construct a Center for New Mexico Archaeology as a public purpose under the R&PP Act. A Memorandum of Understanding (MOU) between the MNM and the BLM states that an EA will be conducted under the supervision and guidance of the BLM New Mexico office. Thus, the two entities are cooperating in the process of NEPA compliance.

An EA was conducted previously by BLM for land including parts of Section 35 (BLM 1994); conclusions of that document are incorporated here by reference.

The proposed project is needed to alleviate extreme crowding and lack of adequate space for archaeological administration, research, and collections storage. Current facilities are inadequate to accommodate these functions. Further, land appropriate for the construction of new facilities is lacking within the property already controlled by the MNM.

Specific needs are as follows:

1. to fulfill the mandate of the MNM to care for archaeological collections, which currently include federal collections, in trust for the people of New Mexico in perpetuity,
2. to address critical issues of space and facility quality for the Museum,
3. to enhance the educational mandate of the Museum,
4. to address concerns of Native Americans in New Mexico, and
5. to provide space for future expansion if needed.

1.2 Proposed Action

The proposed undertaking involves the leasing of land to the Musuem of New Mexico for the construction of laboratories, offices, and collections facilities along with required supportive infrastructure for a Center for New Mexico Archaeology (CNMA). The proposed facility will require a well and construction of water detention ponds for planned landscape upkeep. Existing utilities will serve the Center’s needs for electricity and telecommunications. New access roads and parking lots will be constructed to facilitate automobile use by employees and visitors. The land could be patented to the MNM if there is substantial compliance with the Plan of Development.

The schematic Plan of Development and Timetable for Construction are as follows (Figure 3):

Table 1.1 Plan of Development

Development Phase	Description of Planned Components
<i>Phase 1</i>	Infrastructure; Collections Management Facilities; Offices and Laboratories for Office of Archaeological Studies (OAS), <u>approx. 33,846 ft.²</u>
<i>Phase 2</i>	Fabrication shop and studio for exhibit construction; Storage facility for Museum of Fine Arts, <u>approx. 25,554 ft.²</u>
<i>Possible Phase 3</i>	Conservation laboratory; Storage facilities for NM Museum of History and Museum of International Folk Art, <u>approx. 97,200 ft.²</u>

Table 1.2 Timetable for Construction, First Five Years

Timing	Planned Construction
Year 1 Year 2	Acquisition of BLM land; Contract with construction company; initiate construction Continue construction--Phase 1 components
Year 3	Substantial completion of Phase 1; Occupation of facilities by OAS and archaeological research collections; installation of space-saver shelving and cabinets; employment of full-time facilities manager
Year 4	Opening of CNMA; move collections and computer database



Figure 1. Aerial photograph showing location of proposed CNMA. Not to scale.

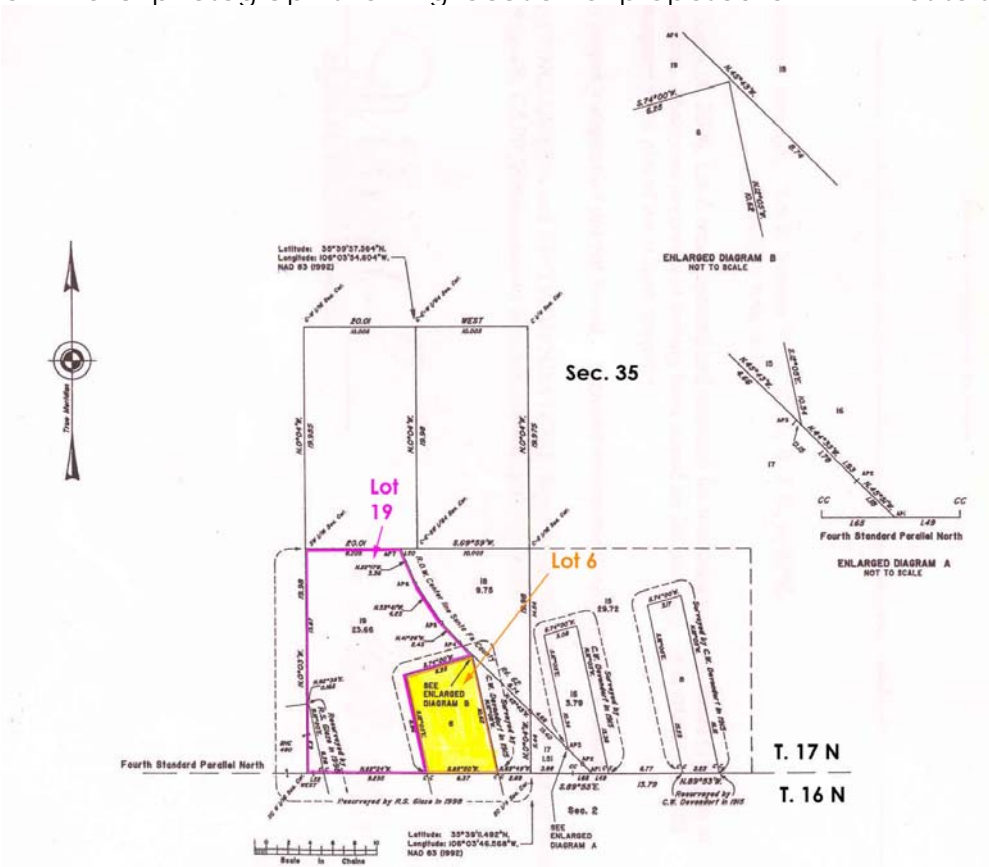
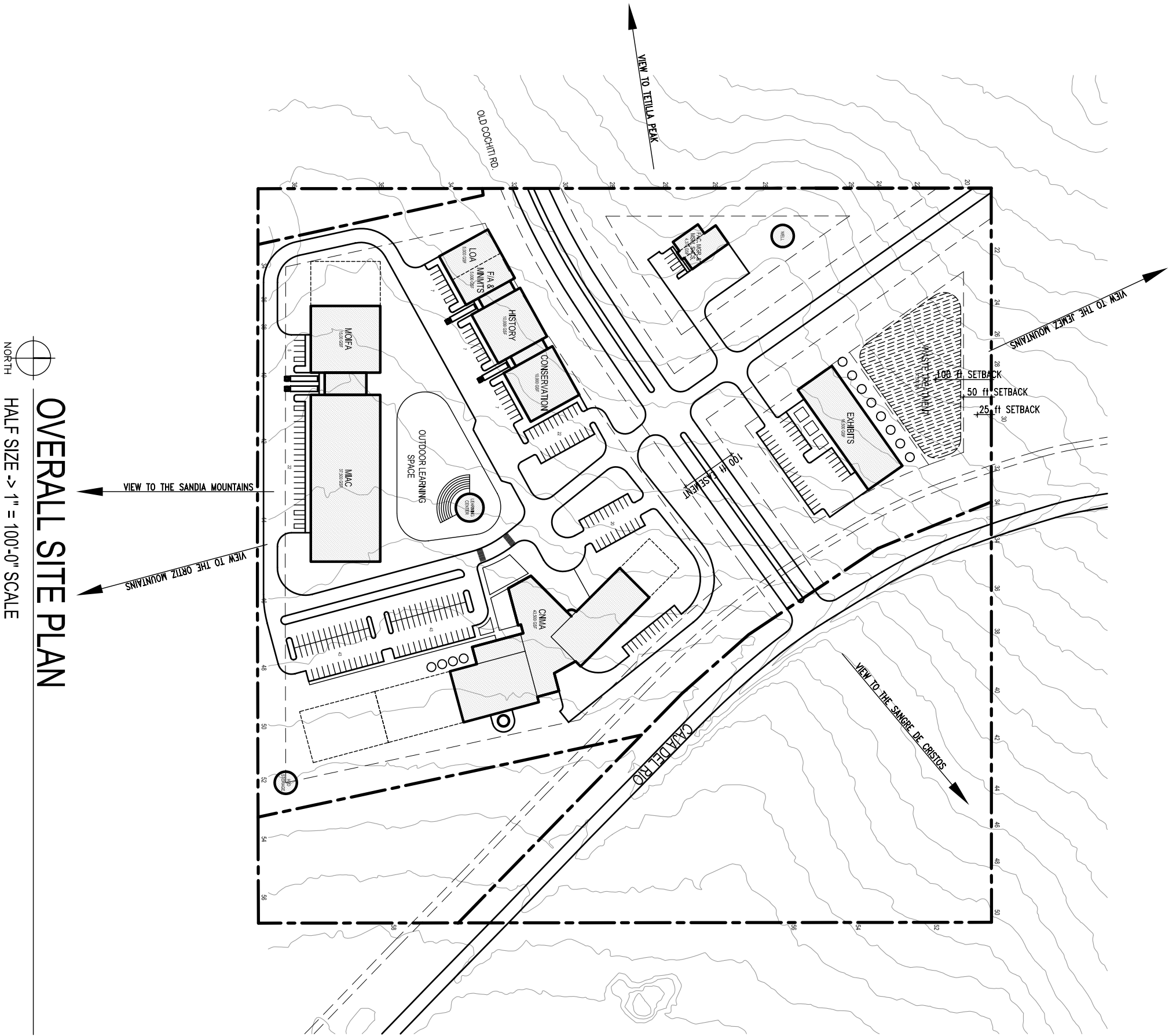


Figure 2. Portion of Surveyor's Plat Showing lots 6 and 19.



NORTH

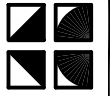
OVERALL SITE PLAN

HALF SIZE -> 1" = 100'-0" SCALE

5.11.2006

CENTER FOR NEW MEXICO ARCHAEOLOGY

Kells + Craig



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1.3 Conformance with Land Use Plan

Lots 6 and 19 are identified for disposal under the Taos Resource Management Plan of 1998 (Plan). One of the means of disposal identified by the Plan is through the Recreation and Public Purposes Act of 1926, as amended (R&PP Act). The R&PP Act authorizes the sale or lease of public lands for recreational and public purposes to State and local governments and to qualified non-profit organizations. As the Museum of New Mexico's Office of Cultural Affairs is a department within the State of New Mexico government, it is qualified to file an application for conveyance of public lands under the R&PP Act.

1.4 Relationship to Statutes, Regulations, and Other Plans

The Museum of New Mexico must obtain a permit from the Office of the State Engineer to drill and operate a well in conjunction with the proposed construction. The well would not require placement of fill in waters of the U.S.; therefore, a Clean Water Act of 1973 (CWA) Section 404 permit would not be required prior to proposed construction.

The proposed action would be required to conform to Section 7 of the Endangered Species Act of 1973, as administered by the U.S. Fish and Wildlife Service (USF&WS). It would also be required to conform to Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), as administered by the New Mexico State Historic Preservation Officer (SHPO). Engineering plans for the proposed well must be approved by the New Mexico Environment Department. BLM authority for this proposed action is through the Federal Land Policy and Management Act of 1976.

In addition, the MNM must obtain a development permit from the County of Santa Fe. Thus, the construction of the proposed facilities must conform with the Santa Fe County Land Development Code.

Chapter 2.0 Alternatives

2.1 No Action Alternative

Under the No Action Alternative, land would not be leased to the MNM by BLM. The proposed construction of museum facilities would not occur, and the five needs outlined in Chapter 1 for the CNMA would not be addressed. No changes would occur to the configuration of Caja del Rio Road. Additional traffic from employees and visitors would not be added to the current traffic load. Lots 6 and 19 would remain un-appropriated public land.

2.2 Preferred Alternative

Under the preferred alternative, the proposed land lease would take place and construction of infrastructure and facilities for archaeological collections and operations would be undertaken. Construction would include a proposed addition of 13,260 ft.2 of offices, labs, and storage areas, along with additional classrooms, a consultation room, and exhibit spaces. The five major needs of the MNM for archaeological collections and activities would be fulfilled wholly, or in part, by the proposed building. Changes would occur in the physical configuration of Caja del Rio Road to accommodate traffic turning into the MNM property. There would be an increase in traffic along Caja del Rio Road from employees and visitors to the CNMA.

3.0 Affected Environment and Environmental Consequences

3.1 Natural Resources

3.1.1 Existing Natural Setting

The parcel under consideration for this EA lies in western Santa Fe County, in an area belonging to the Great Basin geographic province (Lowe and Brown in Brown, ed. 1994:Figure 3), or the Southern Rocky Mountain/Lower Basin and Range provinces, as defined by Dick-Peddie (1993:Figure 1.1). Under either designation, the land is characterized as a high semi-arid desert, with invasive open juniper woodlands (primarily *Juniperus monosperma*) and grasslands typical for this part of Santa Fe County. Much of the area has witnessed widespread human disturbance from grazing, clearing, and alteration of the fire regime (Dick-Peddie 1993:91-92).

The near-surface geology of the Santa Fe area includes primarily Quaternary-age (~2 million years ago-present) sand, silt, and gravel alluvium that make up the Ancha Formation, part of the Santa Fe Group, along with outcrops of Precambrian metamorphic and plutonic rocks from the uplift of the Sangre de Cristo Mountains (Bauer et al. 1995; Kelly 1980:16; Figure 5; Maynard, accessed online 10/20/2005; NMGS 1982; Spiegel and Baldwin 1963:Plate 4;).

Soils on the subject property belong to the Panky Fine Sandy Loam category, and in this area are low-intensity soils (Folks 1975:40). These soils are mostly level, having 0-5% slopes. Permeability is slow, runoff is moderate, and the hazard for erosion is moderate (Folks 1975:40). Effective rooting depth is about 40 inches, and the water holding capacity is estimated at 4-5". Within Santa Fe County, soils of this type are utilized mainly as rangeland and serve as wildlife habitat (Folks 1975:40).

Vegetation in the uplands around the project area is dominated by a piñon-juniper overstory. The area fits within the category of Great Basin Conifer Woodland, as defined by Lowe and Brown (1994:52-7). In their assessment, the piñon-juniper woodland represents what is structurally one of the simplest biological systems in the Southwest (1994:52). This is in part because of a relatively small number of species, but also because there are only a few vertebrate species that are tied specifically to this zone (Brown 1994:56).

3.1.2 Mineral Resources

Existing Conditions

A mineral report was prepared for the land under consideration by Joseph Mirabal of the BLM (2006a and c). The surface geology in the immediate vicinity is characterized by alluvial fans, channel deposits, and Aeolian dunes (Mirabal 2006a:2). The topographic high points, as on the subject property, are generally covered by a thin layer of sheetwash or colluvium (Koning and Hallett 2000). The nearest known mining operations are two scoria quarries approximately five miles west of the project area. Some mining of nearby sand and gravel may have occurred, but is unlikely to be undertaken in the future (Mirabal 2006a:2-3). Mirabal concludes that there is low potential for mineral resources now or in the future on this parcel (2006a:3).

Potential Effects

No Action Alternative/Preferred Alternative

The lack of any recognized mineral resources in the subject area indicates that no impact to potential development of such resources will be felt from either the preferred alternative or the no-action alternative.

3.1.3 Wildlife

Threatened and Endangered Species

Existing Conditions

Potential impacts to threatened and endangered species were evaluated for this EA in a field reconnaissance and through background research. Site reconnaissance and update of threatened and endangered species review was completed on May 13, 2006. The reconnaissance involved a field survey with visual inspection of the full subject property and land immediately adjacent to the west, an area of approximately 30 acres. A rough estimate of abundance, or frequency of species occurrence, was made throughout the subject property. Based on the site reconnaissance, wildlife and vegetation diversity is uniform across the subject property. Migratory birds, resident mammals, and other wildlife may utilize these resources.

For animals, county lists from the New Mexico Department of Game and Fish (Biota Information System, BISON-M), and the United States Fish and Wildlife Service were consulted. Thirty target species, or those species most likely to actually occur within the project limits, were selected from these lists as well as

from information available in the New Mexico Natural Heritage Program databases. These are summarized in Appendix A.

The U. S. Fish and Wildlife Service (USFWS) has direct responsibility for implementing the Endangered Species Act, officially listing species as threatened or endangered and protecting such listed species. The USFWS also lists some species as "species of concern." If some other federal agency has "listed" a species as sensitive or a species of concern, then that agency is specifically identified in this document (e.g., the United States Forest Service (USFS), the Bureau of Land Management (BLM)). The State of New Mexico also lists species as endangered, threatened, or sensitive.

Wildlife species observed during the reconnaissance include turkey vulture (*Cathartes aura*), mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), Western meadowlark (*Sturnella neglecta*), scaled quail (*Callipepla squamata*), canyon towhee (*Pipilo fuscus*), kangaroo rat (*Dipodomys* sp.), possibly Gunnison's prairie dog (*Cynomys gunnisoni*), spotted ground squirrel (*Spermophilus spilosoma*), black-tailed jackrabbit (*Lepus californicus*), and desert cottontail rabbit (*Sylvilagus audubonii*).

No federally listed threatened or endangered species were observed during the field reconnaissance. Possible occurrence of only one sensitive species was noted, the Gunnison's prairie dog (*Cynomys gunnisoni*). Prairie dog mounds were present across a large area of the property, particularly north of Old Cochiti Trail, but no prairie dogs were observed. This is considered untypical of prairie dog behavior, as the animals typically emerge to observe intruders once the most immediate danger to them has passed. The possible abandonment of the observed burrows may be due to disease, but this cannot be confirmed at present. Other rodents and lagomorphs are currently using these burrows, as confirmed by field observations. The Gunnison's prairie dog is not federally listed as threatened or endangered, but the State of New Mexico lists it as "sensitive" (BISON-M, accessed online 5/3/2006). Most large-scale construction projects in Santa Fe have undertaken capture and relocation of prairie dogs to avoid damaging the extant populations. If additional observation indicates that prairie dogs are still active on the property, removal is a mitigative option.

Migratory Birds

The Migratory Bird Treaty Act protects against the "taking" of migratory birds, their nests, and eggs except as permitted. No bird nests were seen during the survey, although the tree canopy and understory are likely to support wildlife and migratory birds.

Potential Effects

No Action Alternative

Under the no-action alternative, no effects to wildlife are expected.

Preferred Alternative

For the preferred alternative, there is a high probability of permanent impact to resident breeding species. Under the preferred alternative, the CNMA building footprint, utilities, and parking will require the clearing and grading of a portion of the subject property. Some removal of the piñon-juniper woodland/grassland community will be required. The result will likely be both temporary and permanent impacts to wildlife from this project. Only one sensitive mammal species, Gunnison's prairie dog, may be extant on the property. Construction would permanently impact prairie dog burrows, and thus would have the potential to impact this sensitive species. The BLM biologist in charge of internal review for T&E species will require that any prairie dogs present on the property be relocated prior to final approval of the lease.

Under the no action alternative, there would be no effects to migratory birds. Under the preferred alternative, there is a slight probability of adverse effects to such species through removal of some juniper trees. To minimize temporary and permanent impacts to migratory species, it is advisable that any such tree(s) be removed outside the bird nesting season (i.e. remove any tree(s) from September through March). Other than this, no impacts are expected to migratory birds. Though some clearing of vegetation will be required, it should be limited to non-breeding season for birds (i.e. remove any tree(s) from September through March). The BLM biologist in charge of internal review for T&E species for this document would require that any construction activities take place outside the breeding season, unless migratory bird inventory were conducted prior to construction. This would be considered a mitigation action.

Based on the results of the biological survey, no other effects to threatened and endangered species are expected for the preferred alternative.

3.1.4 Vegetation

Existing Conditions

The vegetation community can be described as scrub/grassland primarily dominated by Blue grama (*Bouteloua gracilis*), broom snakeweed (*Gutierrezia sarothrae*), cane cholla (*Opuntia imbricata*), Plains prickly pear, (*Opuntia polyacantha*), and banana yucca (*Yucca baccata*), with scattered one-seed juniper (*Juniperus monosperma*). The vegetation pattern on the subject property is consistent with that of the general geographic region. Grasses and herbaceous species dominate and represent approximately 80% of cover. Tree cover and woody shrub species constitute 5%. The balance is bare ground. The effects of aeolian erosion are apparent, as witnessed by the presence of hummocky grassy areas. In addition to wind, effects from historic domestic species grazing and droughty weather conditions are evident.

Several lists were consulted regarding threatened, endangered, and special-status plant species. The Inventory of Rare and Endangered Plants of New Mexico (Sivinski and Lightfoot, 1995:26) was consulted for plants. The New Mexico Rare Plant Technical Council web site was reviewed for more current information. While the latter provides timely information, the 1995 publication includes officially listed state species that the New Mexico Rare Plant Technical Council, based on current information and definitions of rarity, may no longer be considered rare. Of threatened and endangered plants that are known to occur in Santa Fe County, two species were targeted as possibly occurring within the habitat on the subject property. These are Kuenzler's hedgehog cactus (*Echinocereus fendleri kuenzleri*) and Santa Fe cholla (*Opuntia viridiflora*). In addition, Santa Fe cholla is listed by the BLM as a sensitive species (New Mexico Rare Plant Technical Council 2005, accessed online 6/15/2006). Personal communication with biologist James Nellessen suggests that Kuenzler's hedgehog cactus is not present in the County, as it grows at lower elevations, but that the Santa Fe cholla is known to occur at Fort Marcy Park and Pojoaque and could be present in the western part of the County, although it has not been reported (May 15, 2006).

Potential Effects

No Action Alternative/Preferred Alternative

Current observation suggests that threatened or endangered plants are not present. No effects to T&E plants are expected from the no-action alternative or the preferred alternative. In particular, the field reconnaissance did not reveal the presence of Santa Fe cholla within the project area, and the probability of its occurrence is considered moderate to low.

3.1.5 Invasive or Non-Native Plants

Existing Conditions

The State of New Mexico, under the administration of the Department of Agriculture lists certain weed species as being noxious (Appendix B). “Noxious” in this context means plants not native to New Mexico, targeted for management and control that have a negative impact on the economy or environment. Class C-listed weeds are common, widespread species that are fairly well established within the state. Management and suppression of Class C weeds is a local option. Class B weeds are considered fairly common but not yet widespread within certain regions of the state. The objectives for control for Class B weeds are to prevent new infestations, and in areas where they are already abundant to contain these infestations and prevent further spread. Class A weeds have limited distributions within the state. Preventing new infestations and eliminating existing infestations are the priorities for Class A weeds.

Three herbaceous species of invasive plant species were identified within the project property. These include Kochia (*Kochia scoparia*), Western sticktight (*Lappula occidentalis*), and Russian thistle (*Salsola tragus*). These species are well distributed through the subject property and are likely to be germinating readily on this disturbed ground. Thistles of any kind have not yet been identified on the project property, but it would be surprising if no thistles were present, given their ubiquitous occurrence elsewhere in the County. All three identified invasives are considered Class C species, for which suppression is optional.

Potential Effects

No Action Alternative

No changes to the intensity of invasive species would occur under the no-action alternative.

Preferred Alternative

Under the preferred alternative, presence of construction machinery and disturbance of the ground surface would tend to encourage the spread of invasive plant species. The BLM requires that construction machinery on its land undergo pre- and post-construction steam cleaning to minimize the potential spread of invasive species through carrying of seeds or plants on the tires and

undercarriages. This practice would be required for construction of the CNMA as a condition of approval of the lease.

Any management and control of State-listed noxious weeds should take into consideration possible impacts to native plant species and communities. Non-native invasive weeds can and do impact native vegetation and communities. An ecological approach to control and management should be taken at all times. Minimizing disturbance and re-vegetating with native species are two important components of an ecological approach.

3.1.6 Water Quality: Surface and Ground

Existing Conditions

No surface water is present on or near the subject property. An assessment of groundwater availability was conducted during the planning process for the CNMA by Charles de B. Hagerman, Geoecologic Services (Hagerman 2005). This report provides basic data on the nature of groundwater in western Santa Fe County. Sediments of the Santa Fe Group, in particular the Ancha Formation, form the major geologic feature of the area. They rest within the Santa Fe Embayment of the Espanola Basin, part of the Rio Grande Rift. So-called aquifer "zones" exist within these sediments at depths of 340-850' below the surface. Certain physical features of the near-surface geology promote water availability, and many of these are present on or near the subject property. These include a structural lineament passing through the property, a syncline nearby, and a facies change, as mapped by Johnson and Koning (2004, cited in Hagerman 2005:Appendix). Hagerman concludes that sufficient groundwater is present to provide a well with the water needed for domestic use by the CNMA.

Data on groundwater quality in the vicinity are not extensive. Information from the EPA does indicate, however, that two nearby water systems, the Las Campanas system and the Santa Fe West Sector system, have not been cited since 1993 for presence of contaminants (EPA Safe Drinking Water Information System, accessed online 5/9/2006). On the basis of this limited data, it is not expected that contaminants would be present in a well constructed for the CNMA.

Potential Effects

No Action Alternative

Under the no-action alternative, no effects to groundwater are expected.

Preferred Alternative

For the preferred alternative, there is an unquantified probability of drawdown of the existing aquifer from the construction of a well. Long-term, this could result in a depletion of available water for the CNMA. No residential development currently exists in close proximity to the lease property, thus other domestic uses would not be affected by the proposed well. The Municipal Recreation Center, located approximately 0.4 miles north of the proposed project, does not have a well. The Santa Fe Animal Shelter and the Challenge New Mexico riding facility, adjacent to and just north of the project, do rely on wells for their water; there is a slight probability that adding the CNMA well would result in a secondary effect from this project, that is, the depletion of available water for these facilities. In terms of long-range secondary effects, the addition of another well in this area could negatively affect the water table in this part of the County.

Under the preferred alternative, the CNMA would not discharge any materials into the ground that have potential to enter the groundwater. Further, the proposed septic system for the facility is under extremely low risk of breach due to flooding; the area is outside the 500-year floodplain (FEMA 1988) and thus there is an extremely low probability of a water-table rise that would come within the depth of the septic system. In terms of allowed water use, the CNMA lot is 25.3 acres and is located in the Basin hydrologic zone, as classified by Santa Fe County (<http://sfcims.co.santa-fe.state.nm>, accessed online 7/22/2006). Within the Basin zone, one acre-foot of water use is allowed per year for each ten-acre lot. At 25.3 acres, the CNMA would be allowed just over 2.0 acre-feet of water per year (personal communication, Eric Blinman, Office of Archaeological Studies, 7/24/2006). Projected water use for the facility is 2.2 acre-feet per year, which should place it within the existing limitations under the Santa Fe County Land Development Code. Based on this data, it appears there will not be short-term or long-term adverse effects to groundwater under the preferred alternative.

3.1.7 Air Quality

Existing Conditions

Reference to the EPA Greenbook on air quality non-attainment areas within New Mexico shows that Santa Fe County, as a whole, does not fall within a non-attainment area for ozone and five other critical pollutants, as of March 2, 2006 (EPA 2006b, accessed online 5/8/2006). Existing air quality is thus within the acceptable parameters defined by the Environmental Protection Agency (EPA) under its regulatory jurisdiction.

Potential Effects

No Action Alternative

No change to air quality is expected from the no-action alternative.

Preferred Alternative

There will be a short-term effect to air quality under the preferred alternative due to release of pollutants from construction machinery. The proposed construction does not involve a level of intensity or use of machinery that is different from that currently being used in the construction of large-scale developments such as residential subdivisions or commercial developments within the County. Given that these activities are not currently contributing to a level of air pollution that is above the critical levels defined by the EPA, it is not expected that construction of the CNMA would do so. Dust control measures during construction are required under the Santa Fe County Land Development Code, and would be followed during construction under the preferred alternative. Thus, adverse short-term or long-term effects to air quality from building activity are not expected for the preferred alternative.

3.2 Land Tenure

The project parcel was classified as suitable for lease or conveyance under the R&PP Act through a Notice of Realty Action (NORA) published in the Federal Register December 21, 1993. The NORA was issued in conjunction with R&PP applications submitted by the County of Santa Fe for construction of administrative facilities and the City of Santa Fe for construction of the Municipal Recreation Complex. This document segregated these lands from operation of the public land laws, including the general mining laws. This segregation remains in effect. Lot 19 was leased to the County of Santa Fe on March 11, 1994 for a term of five years, and was relinquished by the County effective October 14, 1998. Lot 6 was leased to the City of Santa Fe on March 11, 1994; when the lease was renewed in April 2001, Lot 6 was not included in the new lease.

3.3 Land Use

3.3.1 Grazing

Existing Conditions

Lots 6 and 19 have historically been part of the Calabasis Allotment #543 (Allotment), however, under the provisions of the Recreation and Purposes Act of June 14, 1926 (Act), as amended, a Notice of Realty Action (NORA) was published in the Federal Register on December 21, 1993 indicating that lots 6 and lot 19 (formerly lot 3), along with other lands, had been found suitable for disposal under the Act. The permittee was sent a copy of the NORA as required by the Act's provision that a permittee must be given two years notification prior to lease cancellation (Appendix D). Pursuant to issuance of the NORA, the BLM Taos Field Office manager issued a decision to reduce by 516 Animal Unit Months the permittee's grazing preference as to the Allotment. This reduction in AUMS pertained to land within lot 19 but not to land within lot 6. The permittee appealed the decision but the appeal was dismissed. Lots 6 and 19 were later leased to the City and County of Santa under the Act's provisions. The leases are no longer in effect. The Taos Field Office is currently in the process of adjusting the boundary of the Allotment to exclude lots 6 and 19 along with other BLM lands.

Potential Effects

No Action Alternative/Preferred Alternative

The removal of land including the subject area from the Calabasis Grazing Allotment in 1994 has the result that no effects to grazing use will be felt from either the preferred alternative or the no-action alternative.

3.3.2 Rights-of-Way and Other Uses

Existing Conditions

Currently, former Lots 6 and 19 are unappropriated public land, but there are several rights-of-way (ROWs) crossing these parcels. The ROW for Caja del Rio Road was issued in 1994 by the BLM, which included two spur roads to be located west of the main road which would cross Lot 19. These spurs have not been built; however, in anticipation of their construction, the applicant has adjusted the design to accommodate the road alignments (see Figure 3). Whether Old Cochiti Trail or the County spur is ultimately used to access the

facilities, Santa Fe County would require an intersection be constructed at Caja del Rio Road to afford access according to County safety standards; the MNM would therefore apply for a development permit. The other existing ROW within former Lots 6 and 19 is the tertiary water pipeline for the Las Campañas Development. The Old Cochiti Trail, as described below under Cultural Resources, has no specified ROW, but will continue to be used as it is and would be used by the CNMA as an access road for its facilities.

The BLM Office of Cadastral Survey is currently re-lotting former Lots 6 and 19, which will be combined into a single new lot. The eastern boundary of the new lot will become the western boundary of the Caja del Rio ROW. The new acreage of the proposed lease will be 25.3 acres.

No infrastructure for utilities currently exists on the subject property, but several utility lines are accessible and are being used by other developments on Caja del Rio Road. These include gas, electrical, and telephone lines. Connections to these lines would be required under the preferred alternative. As described above, the CNMA would have its own well/water system and septic system on-site.

Potential Effects

No Action Alternative

Under the no-action alternative, there would be no effects to existing ROWs or utility infrastructure and no changes to the current usage in the area.

Preferred Alternative

Under the preferred alternative, after the lot 6 and lot 19 boundary adjustments are approved, the only remaining rights-of-way crossing the lots would be the two spur roads. The lease, if issued, would be subject to the right-of-way for the spur roads and to the right-of-way reservation to BLM for the Cochiti trail. BLM will reserve a 100-foot ROW for the Old Cochiti Trail to maintain the current through-way and preserve existing use by those accessing lands to the west of the project.

3.3.3 Hazardous Materials

Existing Conditions

An environmental site assessment (ESA) was conducted for Lot 19 in late 2005 (Mirabal 2005). An addendum to this document was completed in early 2006 to include Lot 6, which had been added to the lease parcel later (Mirabal 2006b). These two documents indicate that a search of existing databases was made for National Priorities List sites (superfund hazmat sites), CERCLIS sites (from the Comprehensive Environmental Response, Compensation, and Liability Information System), and other potential risks for hazardous materials. The results of the database search for the subject property and for a one-mile radius around the property showed no known potential risks from such materials.

There is a slight potential for certain hazardous materials to be in use as part of the CNMA's normal activities, especially exhibit construction and conservation efforts. The volume of such use is expected to be low and the range of materials very limited.

Potential Effects

No Action Alternative/Preferred Alternative

The lack of known risks for hazardous materials on and near the project area indicates that there should be no effect from either the no-action alternative or the preferred alternative.

3.3.4 Noise

Existing Conditions

Noise studies have not been completed for the area encompassed by the proposed CNMA. The overall level of ambient noise can be qualitatively stated to be relatively low, given the current levels of traffic, development, and types of land use in the surrounding area. Traffic counts for Caja del Rio Road were not present in the database for Santa Fe County; however, engineers from the public works department agreed to obtain traffic counts for a twenty-four hour period from June 5 to June 6, 2006 on the road north of SR 599. These data show a peak in traffic during the hours 4:00-6:00 pm. This time period would correspond with the greatest amount of traffic departing the CNMA on most days, and thus would not qualitatively alter the period of greatest noise along Caja del Rio Road, assuming the small sample cited here is typical of Monday through Saturday traffic. If this limited data can be extrapolated to the morning

hours from 8:00-9:00 am, there may be an increase of approximately 100% in the number of cars coming into the CNMA at office-opening time, but would not alter the hours experiencing the greatest traffic noise before noon.

Potential Effects

No Action Alternative

Under the no-action alternative, there is no expected change in the noise level within the APE of the proposed CNMA.

Preferred Alternative

For the proposed action alternative, there would be a short-term direct effect from increased noise levels during construction. A secondary long-term effect on noise levels will be associated with the increased traffic that will occur as a result of employee and visitor use of the CNMA. There would be an unquantified increase in overall noise levels within approximately one-quarter mile of the CNMA. Due to the lack of current development in the immediate vicinity of the lease, the potential long-term effect from increased traffic noise should not be adverse. This is supported in particular by the fact that no residences, schools, or churches exist within one-half mile of the lease property. Also, given long-term expectations for development of the Santa Fe West Sector overall, the attendant increase in traffic levels and noise is likely to overshadow the smaller-scale noise increase from employee and visitor use of the CNMA.

3.3.5 Recreation

Existing Conditions

Existing recreation near the project property consists of a municipal walking trail that runs south along Caja del Rio Road from the Municipal Recreation Center north of the proposed CNMA and the recreation center itself. The recreation center consists of approximately 970 acres patented to the City of Santa Fe by the BLM in the 1990s. Facilities include a golf course, baseball field, soccer fields, and trails. The trail in question crosses the CNMA parcel along its eastern edge, and was built by the City on land originally leased to the County. There is no officially issued ROW for the trail, but BLM has honored it and intends to continue doing so. The BLM could issue a right-of-way in the future that would not interfere with CNMA construction or operation. The Challenge New Mexico Riding Center just east of the property can also be considered, in part, a recreational facility.

Potential Effects

No Action Alternative

Under the no-action alternative, there would be no effects to the level or type of recreation in and around the project area.

Preferred Alternative

For the preferred alternative, the trail that parallels Caja del Rio Road ROW and crosses the CNMA parcel would not be altered by the proposed construction, and full access through the MNM property would be preserved. Thus, there is likely to be no effect to recreational activities related to this trail or to the Municipal Recreation Center itself.

Construction of the CNMA will have several direct positive effects on recreation and education in Santa Fe County. First, the exhibit space and learning facilities that are planned for later stages of the construction will provide additional opportunities for museum attendance and public education to augment those already present at Museum Hill. This effect will be felt both in the resident community and in the visitor community. Second, provision of adequate storage and retrieval space for the archaeological collections will make them more accessible to local artists, native craftspersons, and researchers. These groups, in turn, can create new works of art, craft commodities, and books that will provide additional recreational and educational opportunities. Given that the arts and cultural industries accounted for about one billion dollars in gross revenue and employed 17.5% of all Santa Fe County workers in 2002 (Mitchell and Reynis 2004:1), the importance of the CNMA as a positive effect on County economy may be relatively high. In addition, a suggested strategy for increasing the value of the arts and cultural industries to the Santa Fe economy is to improve local "brand identity" (Mitchell and Reynis 2004:6), which would be served by making the collections more available to artists and craftspersons.

3.3.6 Visual Resources

Existing Conditions

Visual resources within the project property relate mainly to the open vistas available from within the currently undeveloped land. To the west, there are currently mainly unobstructed views; to the east, north, and south, there are mainly unobstructed views with some urban development visible as mainly low-height building and roads.

Potential Effects

No Action Alternative

No changes to visual resources are expected under the no action alternative.

Preferred Alternative

Any changes to the open vistas are governed by the Santa Fe County Development Code, which determines permissible design elements, construction practices, and acceptable landscaping practices. The CNMA design has incorporated these requirements and will be using low building heights and native xeric landscaping to maintain the existing viewscape.

3.4 Socio-Economic Resources

3.4.1 Economy and Employment

Existing Conditions

Housing development in western Santa Fe County has grown rapidly in recent years, and is projected to continue. Statistical information on existing and projected levels of housing near the proposed project comes from two sources. First is the *Santa Fe County Regional Population and Housing Projections: Annual, 2002-2050* (Pitts 2003). Second is the Santa Fe County Tres Arroyos Planning Area tables (Judy McGowan, personal communication 2006). These sources were used to summarize housing growth for the areas surrounding the project parcel. They suggest that housing development will grow in the western portion of the County by approximately **20.95%** by 2007 and almost **95%** by 2020. The Tres Arroyos development is closest to the project property and has experienced even more rapid growth than western Santa Fe County in general.

The Tres Arroyos Planning Area encloses land roughly bounded by SR 599 on the east and south, by the Santa Fe Northwest Community Planning Area on the north and west, and by the Municipal Recreation Center (just north of the CNMA parcel) on the west, thus it is immediately adjacent to the project area (Santa Fe County 2004 [Draft]). This area is zoned for mixed-use development, including residential and non-residential use. Projected growth of residential development in this area is over **300%** by 2020, making it one of the fastest growing areas of Santa Fe. Additional indicators of overall development are the Municipal

Recreation Center, the Santa Fe Animal Shelter, and the Challenge New Mexico riding facility, all just north and east of the proposed CNMA. The overall picture is one of significant rise in density in the next 15 years. The traffic counts cited in Section 3.2.4 would be expected to rise rather dramatically in the next few years as well, just a further indicator of increased development.

Current statistics on employment in western Santa Fe County were derived from Pitts (2003) and Santa Fe County Tres Arroyos Planning Area tables (Judy McGowan, personal communication 2006) for this summary. Concurrent with the expected development in western Santa Fe County, jobs are projected to increase. Jobs in the Western Rural Planning Area, under a scenario of "most likely" growth, are expected to quadruple by 2020 (Pitts 2006:6).

The job-to-labor force ratio for the Tres Arroyos area was 4.5% in the 2000 census and is projected to be 42.01% in 2020. This ratio represents the number of employable persons seeking jobs relative to the number of jobs available. Thus, the overall growth of the labor force in the area just east of the CNMA parcel would be matched by a growth in the number of jobs available at a rate of slightly more than 40%, if the model for "most likely" development is correct. This is in part because projected construction for Tres Arroyos and for the western portion of the County in general is projected to include commercial development.

In addition, the construction jobs generated by the development itself will continue to contribute to the Santa Fe economy, following a trend that has operated since the 1990s.

Potential Effects

No Action Alternative

The BLM parcel under study is land for which an application for recreation and public uses is allowable (R&PP), and thus is not eligible for residential development. Under the no-action alternative, there would be no change to development potential. Also under the no-action alternative, projected employment availability in the Caja del Rio Road area would not change.

Preferred Alternative

Under the preferred alternative, there would be no change to ongoing housing construction, and there would be more mixed-use build-out along Caja del Rio Road as a result of CNMA construction. One negative effect would thus be decreased open space under the proposed alternative. There is some potential for the CNMA to exert a positive indirect effect to residential property values in the vicinity through its presence as a cultural and educational institution.

Under the preferred alternative, there would be a slight potential for increase in the number of available permanent jobs at the CNMA, as well as a temporary increase in construction jobs during the building of the facilities. The majority of staff positions would remain with employees who do not reside in the immediate area of Tres Arroyos or western Santa Fe County in general. There would, however, be no direct or indirect negative effect on the type or level of employment under the preferred alternative. Long-term effects on employment from construction of the CNMA may be positive, as subsequent phases add more facilities and increase staffing needs.

3.4.2 Demographics and Environmental Justice

Existing Conditions

Year 2000 census data for the Tres Arroyos Planning area show an overall population of 541, with 39% identifying themselves as Hispanic and 61% non-Hispanic (Judy McGowan, personal communication 2006). Additional ethnic identities were as follows;

- Asian: 1%;
- Native American: 1%;
- Two or more "races": 3.5%.

The age breakdown for the Tres Arroyos population shows

- Adults 18-64 yrs.: 69%;
- Adults 65yrs. and up: 8%;
- Children under 18: 23%.

Potential Effects

No Action Alternative

The no-action alternative is not expected to have any effect on minority, child, or elderly populations near the project area.

Preferred Alternative

Direct and indirect effects from construction under the preferred alternative are not expected to have greater negative impacts on minority populations or disadvantaged age groups, given the ethnic and age breakdowns derived from the 2000 census. Given that construction jobs in Santa Fe County are filled

disproportionally by minorities, there is potential for a positive effect on minority employment from the preferred alternative. There is a slight potential for positive indirect effects on minorities in New Mexico derived from the improved capacity to care for archaeological collections that relate in large part to Native American and historic Hispano cultures.

3.5 Cultural Resources

Existing Conditions

Section 106 consultation, carried out in tandem with NEPA requirements, was conducted for BLM land that includes the current project area in 1993-94 (Reed 1993). At that time, no cultural resources were identified within the CNMA parcel that required additional archaeological work or further consultation. New review of the project area has revealed an archaeological site that had been previously unknown, and staff of the Museum of New Mexico provided professional recording and evaluation of that site to RedVine and the BLM. At the time of writing this document, the BLM is in correspondence with OAS to determine the significance of the site. Details of the original survey and the new site are presented below.

An area of 2520 acres, including the project parcel, was surveyed by archaeologists from the Office of Contract Archaeology of the University of New Mexico (Reed 1993). One hundred percent pedestrian survey was undertaken to locate and evaluate cultural materials. Overall, six archaeological sites were recorded, along with 95 isolated occurrences of artifacts. No sites were identified at that time on the subject property; one isolated occurrence consisting of two unidentified potsherds was plotted within the area that is now Lot 19. None of the six sites was identified as eligible for the National Register of Historic Places (NRHP), and the isolated occurrences, by definition, are also not eligible.

Recent fieldwork carried out to update the threatened and endangered species review for the property revealed an archaeological site that had not been recorded previously. The extreme drought conditions of the previous winter and spring ensured that local grasses had remained dormant and this increased the surface visibility, which may have allowed the site to be recognized. This site is a diffuse scatter of chipped stone artifacts covering an area of at least 130 x 60 meters. Archaeologists of the Office of Archaeological Studies, MNM, were able to define the surface limits of artifacts and to predict that subsurface cultural deposits may be present. The current status of the site with regard to the NRHP is evaluated as "eligible". It is the NRHP eligibility of the site that will guide decisions on how to handle the site and evaluation of impacts to it from the proposed project. Consultation between the BLM and the SHPO is currently ongoing to determine what course of action is most appropriate for this site.

A possible historic trail or road, the Old Cochiti Trail, passes through the lease parcel under analysis. It is currently utilized by motor vehicles that pass through the CNMA parcel en route to leased lands to the west. At least one informant, Matthew Baca, who utilizes the land west of the project parcel, has indicated the road is thought to be extremely old. Baca believes the trail was used in historic times and possibly before. Current information on Old Cochiti Trail is inconclusive, but historic maps dating between 1877 and the 1880s clearly delineate several roads in the vicinity of the project, several of which could represent the alignment of this road.

Potential Effects

No Action Alternative

Under the no-action alternative, there are no expected effects to cultural resources on the subject property.

Preferred Alternative

Under the preferred alternative, there should be no effect to the isolated occurrence of pottery recorded by OCA archaeologists in 1993 (Reed 1993), as these items are considered ineligible for the NRHP. The recently recorded archaeological site has the potential to be affected directly by building construction under the preferred alternative. Architectural designs for Phase 1 of the CNMA have not been finalized and are considered flexible. Adjustment of the design may be an option to be discussed by BLM and the SHPO in order to avoid physical disturbance to the site. Consultation is ongoing, so final decisions concerning the status of the site and options for avoiding adverse effects have not yet been made. Old Cochiti Trail is currently used by motor traffic, configured as a two-track dirt road. The lease agreement between BLM and MNM stipulates that this ROW must remain accessible to the lessee and other traffic. Under the preferred alternative, the road would be used as the main entry and access road for the CNMA and its alignment will not be altered under the current design. Native American consultation for the CNMA property was included in the original EA research, and did not indicate any potential concerns for the area enclosed by the proposed lease (Paul Williams, BLM Taos Office, personal communication 2006).

3.6 Negative Declaration: Critical Elements Not Relevant to Defined Alternatives

The following critical elements for environmental assessment are not present or are not relevant to the subject property, and have not received any further analysis for this document:

- wild and scenic rivers;
- Native American religious concerns;
- floodplains;
- wetlands/riparian zones;
- ACECs or SMAs;
- wilderness or WSA;
- prime or unique farmlands.

3.7 Cumulative and Secondary Effects

Secondary effects from the proposed construction of the CNMA can be defined as those that occur indirectly as a result of specific changes to the environment under the various alternatives analyzed. Cumulative effects are not immediate, but occur over time incrementally, including past, present, and foreseeable future effects.

3.7.1 “No Action” Alternative

Under this alternative, no cumulative or secondary effects are expected.

3.7.2 Proposed Action

Under the proposed action, possible secondary effects are:

- increased visitorship to Santa Fe in association with the public facilities of the CNMA;
- increased traffic/noise on Caja del Rio Road as visitorship increases and five-year construction plan is realized;
- increased presence of wildlife due to planned xeric landscaping and enhancement of vegetative regime on the property;

The potential for increased visitorship in association with construction of the CNMA facilities would have an unquantified effect on the economic development of Santa Fe and Santa Fe County, but the effect can be projected to be beneficial. This increased visitorship, however, in association with increased staff as the five-year construction plan is realized, would also have the secondary effect of increasing traffic and thus noise along Caja del Rio Road. The full extent of this secondary effect cannot be analyzed currently, but as noted in Section 3.3.4, the overall increase in noise from the proposed CNMA may be obscured by the larger noise increases projected from overall development in western Santa Fe County in the next ten to 15 years. Finally, the installation and gradual maturation of landscape plantings on the CNMA campus may be expected to have the secondary effect of increasing visitation by wildlife that utilize the types of xeric vegetation that will be present. This

secondary effect will to some degree offset the loss of wildlife habitat and native plants that would occur due to construction.

Possible cumulative effects include the following:

- greater density of development and decreased open space as five-year construction plan is realized;
- increased traffic density;
- increased water use due to increased visitorship and more construction as five-year plan is completed;
- increased runoff into adjacent drainages as site is developed;
- increased home and property values due to proximity of CNMA amenities.

The development projections for western Santa Fe County, as seen in Section 3.6.1, indicate that over the next 15 years, residential and commercial density in the Tres Arroyos Planning Area will increase. The cumulative effect of finalizing the five-year construction plan for the proposed CNMA would be an overall increase in the size of the area experiencing higher development density than would be the case without the building of the CNMA. There would, of course, also be an overall decrease in open space. Mitigating this effect to some degree would be the fact that increased building density on the CNMA campus would occur gradually if the five-year construction plan is completed. The ultimate density, if all proposed building occurs, would not exceed the allowed non-residential density under the Santa Fe County Development Code.

As the five-year construction plan is completed, numbers of staff presumably will increase, resulting in a cumulative increase in traffic density and noise along Caja del Rio Road. Although full statistics are not available, if projected staff reaches the 100 persons expected by the end of the five-year period, the density of traffic during normal rush hours could be expected to double. The increase in visitorship that is expected as the public exhibit spaces are made available would have a cumulative effect on traffic as well as a secondary effect, as mentioned above, as repeat visits would be expected to increase traffic to a level greater than would be expected from the increase in first-time visitors alone.

Runoff from the CNMA site would be expected to increase as construction over more ground surface occurs. This could result in increased siltation into adjacent drainages to the north and south, as well as increased pollution from automobile fluids that could leak onto pavements. Siltation and pollution will be mitigated partially by water harvesting that will take place in order to provide water for planned landscaping. At least 50% and up to 80% of rainwater falling on the site will be detained for on-site use. An unknown, but probably small, amount of silt and polluted water will exit the site and be either absorbed through adjacent ground surfaces or move into the arroyos that are nearby.

More difficult to project is the exact increase in water use that could occur at the CNMA as the five-year plan is completed and more staff are housed on the proposed facility. The MNM would continue to be required to adhere to water use requirements of the Santa Fe Development Code if the five-year plan is completed; thus, the cumulative effects of potential water use increase will be subject to ongoing regulation.

Projections of water use for western Santa Fe County are not precise, and quantification of increased water use for the proposed CNMA has not been completed. There are, however, some projections of effects from other well operation within the County that can be compared qualitatively with probable effects from the CNMA well. Most significant are the projected cumulative effects of operating the Buckman supplemental well field in the northern part of Santa Fe County, approximately six miles northwest of the CNMA site. The modeling for this project suggested that cumulative impact to stream flow at the Rio Pojoaque from full operation of all 13 wells in the second projected time period, 2007-2060, for the project would be approximately 1 acre foot/year (AFY) more than would occur under the no action alternative (Tetra Tech, Inc. 2003:55). Similarly, the projected impact to Tesuque Creek under the model used by Tetra Tech is estimated at seven AFY more than would occur under no action (Tetra Tech, Inc. 2003:55). Anticipated draw-down of groundwater is also modeled through 2060, with no adverse effects projected (Tetra Tech, Inc. 2003:55 and Table 3-10). By comparison with this large-scale well project, the anticipated cumulative effects of the proposed CNMA well should be quite small and probably negligible.

An alternative model has been developed recently by Intera, Inc. (accessed online November 15, 2006). This model was created to project optimum locations for wells to be used for combined County and City use, while considering aquifer availability, known groundwater contamination, effects to streams and aquifers, and other factors. The four well locations proposed under the Intera model are all outside BLM property. The projected effects over a use-life of 40 years for the two wells nearest to the CNMA site (~5.5 miles north-northeast) are negligible to stream flow and groundwater depth (Intera, Inc. accessed online November 15, 2006). If this model is substantially correct, then the projected cumulative effects from operation of the proposed CNMA well and expanded water use through the known five-year construction plan should be much smaller, and probably would be negligible.

Finally, there is a potential cumulative effect that may be considered beneficial to the environment and the community. As part of planned growth in western Santa Fe County, the construction of the proposed CNMA could have an incremental effect on home and property values in the vicinity. The construction of the CNMA as an amenity for the community is likely to add to the value of developed and non-developed land along Caja del Rio Road.

4.0 Mitigation and Monitoring of Potential Adverse Effects

4.1 Wildlife and Vegetation

Several mitigative actions can be taken to avoid or minimize adverse effects to Gunnison's prairie dog, migratory birds, or from the presence of invasive plant species. The BLM retains oversight of certain aspects of land use as conditions of the lease to the MNM; thus, some mitigation actions are required by that agency, as indicated in the preceding chapter. These actions include:

- capture and relocation of any Gunnison's prairie dogs that may be present on the property;
- compliance with BLM requirements for cleaning construction equipment pre- and post-construction to avoid transplantation of invasive plants;
- performance of all ground-disturbing activity outside the migratory bird nesting season, or completion of professional migratory bird survey on property to confirm that nesting birds are not present if construction is to take place during nesting season.

4.2 Cultural Resources

Initial construction in Phase 1 of the preferred alternative would impact the archaeological site in the southeastern part of the property negatively; it is therefore recommended that archaeological testing take place prior to beginning facility construction to determine the nature and extent of data present. The MNM has already committed to performing this work using archaeologists from the OAS. Construction related to later phases of the design plan for the CNMA have the potential to affect this site more intensively; should the later phases of construction actually be undertaken at some point in the future, the MNM will have an obligation to mitigate for additional adverse effects that cannot be fully defined for this document. When and if additional building is undertaken, MNM is committed to defining the adverse effects and to performing additional archaeological investigations to mitigate for physical impacts to the site.

4.3 Mitigation and Monitoring Under BLM Direction

Under R&PP leases, the BLM would have certain controls over the use of CNMA land after the proposed lease. Stipulations that keep the land within the requirements of the BLM for its own environmental practices would be put into place. The management of invasive weedy plant species, survey and removal of prairie dogs, and protection of migratory birds are all areas that would remain within the purview of BLM after approval of the proposed lease. To facilitate coordination between BLM and the lessee, a pre-construction meeting between

these parties and including the construction contractor would take place. Such a meeting would provide for "milestones" or goals that can be established to measure and verify the maintenance of environmental practices. Best Management Practices as defined by BLM will be required of the contractor, including practices to minimize erosion and to control fugitive dust.

5.0 Consultation and Coordination

As part of the initial scoping effort for this EA, a mailer was created by the BLM to send to agencies and individuals considered to be stakeholders or potential stakeholders in the proposed action. This activity was designed to obtain detailed comments on the action alternatives and to provide a gauge of whether additional public meetings would be needed to address stakeholder concerns. The mailer was sent out on April 28, 2006 (Appendix C). Detailed written comments were received only from Santa Fe County. Concerns voiced by the County included

- the possibility of contributing to sprawl if the CNMA campus were opened to public exhibition,
- the high priority for continuing to keep the trail along Caja del Rio Road open,
- the need to address ambient nighttime light, and
- the lack of current information on traffic impacts.

Table 5.1 below lists the agencies and organizations consulted for this EA, in addition to any consultation and coordination that was conducted for the 1993 EA covering the subject property. Given that no responses were received from other stakeholders, this draft document will be placed on file for public review following internal review by the BLM, accompanied by a public announcement of its availability. The draft EA will be mailed directly to several individuals and to Santa Fe County, who have expressed an interest in the project.

Table 5.1 Agencies and Organizations Consulted

Las Campañas Subdivision	Department of Cultural Affairs, Historic Preservation Division
Las Campañas Owners' Assoc.	New Mexico Archaeological Council
The Club at Las Campañas	Museum of New Mexico
Animal Shelter and Humane Society	Public Utilities of New Mexico
Santa Fe County Land Use Dept.	New Mexico Department of Transportation
Santa Fe County Public Works Dept.	Marty Sanchez Golf Links
New Mexico Game and Fish	Santa Fe Municipal Airport
New Mexico Energy, Minerals and Natural Resources Dept.	Parks and Recreation Division
Puesta del Sol Neighborhood Association	West Santa Fe Neighborhood Association
Cottonwood Village Neighborhood Association	

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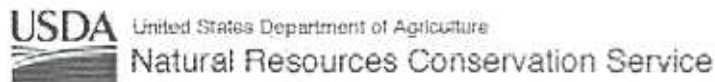
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APPENDIX A: LIST OF POTENTIAL THREATENED AND ENDANGERED SPECIES POSSIBLY OCCURRING ON SUBJECT PROPERTY

Common Name	Scientific Name	Habitat I.D. in APE	Species Resident in APE	Habitat Use in Santa Fe County	Species Resident in Santa Fe County	Federal Status	State Status	Other Status
BIRDS								
Sparrow, Baird's	<i>Ammodramus bairdii</i>	None Identified	None Observed	Spring/Fall	Transient	Species of Concern	Threatened	Imperiled in NM (S2)
Hawk, Ferruginous	<i>Buteo regalis</i>	Confirmed	None Observed	Summer/Fall	Rare/Uncommon (Galisteo, NM)	NA	NA	Imperiled-Heritage NM
Plover, Mountain	<i>Charadrius montanus</i>	None Identified	None Observed	Rare Spring/Summer	Short Grass Steppe	Species of Concern	Sensitive taxa (informal)	Imperiled-Heritage NM
Vireo, Gray	<i>Vireo vicinior</i>	Confirmed	None Observed	Transient Spring/Summer/Fall	No	Sensitive	Threatened	Rare-Heritage NM
MAMMALS								
Prairie Dog, Gunnison's	<i>Cynomys gunnisoni</i>	Confirmed	Confirmed	Confirmed	Confirmed	NA	Sensitive taxa (informal)	Imperiled (S2)-Heritage NM
Gopher, Pocket, Yellow-faced	<i>Cratogeomys castanops</i>	Confirmed	Probable	Confirmed	Confirmed	NA	Sensitive taxa (informal)	Imperiled (S2)-Heritage NM
Fox, Red	<i>Vulpes vulpes</i>	Confirmed	None Observed	Confirmed	Confirmed	NA	Sensitive taxa (informal)	Rare or Uncommon in NM (S3)
Ringtail	<i>Bassariscus astutus</i>	Confirmed	None Observed	Confirmed	Confirmed	Sensitive	Sensitive taxa (informal)	Apparently Secure in NM (S4)
Ferret, Black-footed	<i>Mustela nigripes</i>	Confirmed	None Observed	Confirmed	Extirpated	Endangered	Sensitive taxa (informal)	Very Rare/Critically Imperiled (G1)
Skunk, Spotted, Western	<i>Spilogale gracilis</i>	Confirmed	None Observed	Confirmed	Confirmed	NA	Sensitive taxa (informal)	Apparently Secure in NM (S4)
PLANTS								
Santa Fe cholla	<i>Opuntia viridiflora</i>	Confirmed	None Observed	Confirmed	Confirmed	Species of Concern	Endangered	Critically Imperiled (S1)
Kuenzler's hedgehog cactus	<i>Echinocereus fenderi</i> var. <i>kuenzleri</i>	Confirmed	None Observed	Confirmed	Confirmed	Endangered	Endangered	Critically Imperiled (S1)

APPENDIX B: LIST OF PLANTS CLASSED AS NOXIOUS WEEDS IN NEW MEXICO



 Invasive and Noxious Weeds

New Mexico State-listed Noxious Weeds

35 records returned

Noxious weeds that are synonyms are indented beneath the current PLANTS accepted name.

Office of the Director/Secretary, 1998. New Mexico Noxious Weed List. New Mexico Department of Agriculture.

Symbol	Scientific Name	Noxious Common Name	State Weed Status †	U.S. Nativity*
ACRE3	<i>Acroptilon repens</i> (L.) DC.	Russian knapweed	CBW	I
AECY	<i>Aegilops cylindrica</i> Host	jointed goatgrass	CCW	I
ALMA12	<i>Alhagi maurorum</i> Medik.			I
ALPS3	<i>Alhagi pseudalhagi</i> (Bleb.) Desv. ex B. Keller & Schaparenko	camelthorn	CAW	
ASFI2	<i>Asphodelus fistulosus</i> L.	onionweed	CAW	I
CADR	<i>Cardaria draba</i> (L.) Desv.	hoary cress	CAW	I
CANU4	<i>Carduus nutans</i> L.	musk thistle	CBW	I
CECA2	<i>Centaurea calcitrapa</i> L.	purple starthistle	CAW	I
CEDI3	<i>Centaurea diffusa</i> Lam.	diffuse knapweed	CAW	I
CEME2	<i>Centaurea melitensis</i> L.	Malta starthistle	CBW	I
CESO3	<i>Centaurea solstitialis</i> L.	yellow starthistle	CAW	I
CESTM	<i>Centaurea stoebe</i> L. ssp. <i>micranthos</i> (Gugler) Hayck			I
CEMA4	<i>Centaurea maculosa</i> auct. non Lam. [misapplied]	spotted knapweed	CAW	
CIAR4	<i>Cirsium arvense</i> (L.) Scop.	Canada thistle	CAW	I
CIVU	<i>Cirsium vulgare</i> (Savi) Ten.	bull thistle	CBW	I
COMA2	<i>Conium maculatum</i> L.	poison hemlock	CBW	I
COAR4	<i>Convolvulus arvensis</i> L.	field bindweed	CCW	I
DIFU2	<i>Dipsacus fullonum</i> L.	teasel	CBW	I
DRAR7	<i>Drymaria arenarioides</i> Humb. & Bonpl. ex J.A. Schultes [excluded]	alfombrilla	CAW	XU
ELAN	<i>Elaeagnus angustifolia</i> L.	Russian olive	CCW	I
EUES	<i>Euphorbia esula</i> L.	leafy spurge	CAW	I
HAGL	<i>Halogeton glomeratus</i> (Bleb.) C.A. Mey.	halogeton	CBW	I
HYVE3	<i>Hydrilla verticillata</i> (L. f.) Royle	hydrilla	CAW	I
HYNI	<i>Hyoscyamus niger</i> L.	black henbane	CAW	I
ISTI	<i>Isatis tinctoria</i> L.	dyer's woad	CAW	I
LELA2	<i>Lepidium latifolium</i> L.	perennial pepperweed	CAW	I
LIDAD	<i>Linaria dalmatica</i> (L.) P. Mill. ssp. <i>dalmatica</i>			I
LIGED	<i>Linaria genistifolia</i> (L.) P. Mill. ssp. <i>dalmatica</i> (L.) Maire & Petitm.	Dalmatian toadflax	CAW	

LIVU2	<i>Linaria vulgaris</i> P. Mill.	yellow toadflax	CAW	I
LYSA2	<i>Lythrum salicaria</i> L.	purple loosestrife	CAW	I
MYSP2	<i>Myriophyllum spicatum</i> L.	Eurasian watermilfoil	CAW	I
ONAC	<i>Onopordum acanthium</i> L.	Scotch thistle	CAW	I
PEHA	<i>Peganum harmala</i> L.	African rue	CBW	I
TAMAR2	<i>Tamarix</i> L.	saltcedar	CCW	
ULPU	<i>Ulmus pumila</i> L.	Siberian elm	CCW	I

+Code Weed Status

CAW	Class A noxious weed
CBW	Class B noxious weed
CCW	Class C noxious weed

***Code U.S. Nativity**

I	Introduced
XU	Cultivated, or not in the U.S.

Additional information about noxious plants in this state can be found at:

- [NM-Weed Information and Identification](#)
- [New Mexico Cooperative Extension Service](#)
- [New Mexico Department of Agriculture](#)
- [New Mexico Harmful Plant Act](#)
- [New Mexico Seed Law](#)
- [Southwest Exotic Plant Information Clearinghouse](#)

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APPENDIX C: PUBLIC MAILER SOLICITING COMMENTS FROM STAKEHOLDERS
United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Taos Field Office
226 Cruz Alta Road
Taos, New Mexico 87571

www.nm.blm.gov

IN REPLY REFER
TO:

#NMNM109924

April 28, 2006

Dear Stakeholder:

The Bureau of Land Management (BLM) and the Museum of New Mexico (MNM) are sending this letter to persons and entities having an interest in a proposed lease of BLM land just south of the Santa Fe Animal Shelter and Humane Society off Caja del Rio Road. Under the terms of the proposed lease, the land to be transferred would be developed for a new Center for New Mexico Archaeology. The proposed undertaking involves construction of offices, laboratories, and storage buildings for archaeological collections that legally require the care of the State of New Mexico on behalf of its citizens. Infrastructure for the Center will also be constructed, including access roads, parking lots, and a well to supply the building needs. The BLM wishes to seek public comment on the proposed action to assist in determining the potential impacts of the lease for this development. The results of this public involvement effort will be incorporated into the environmental assessment (EA) currently being conducted by a private consulting firm, RedVine Consultants, Inc. of Santa Fe. Some details of the proposed action are provided below. A map showing the location of the proposed

lease is appended to this letter. BLM encourages you to provide your comments so that they can be considered for the EA.

The proposed Center for New Mexico Archaeology is needed to remedy severe shortages of storage space and adequate administrative and research facilities for the MNM. Current facilities are inadequate to comply with the MNM's ethical and legal responsibilities for the cultural legacy of New Mexicans, including Native American tribes, Euroamericans, and all other ethnic groups residing in the state. The existing facilities will reach their maximum capacity within the next five years or less. The proposed construction will take place over a period of years, with most of the new structures completed in a five-year time frame.

An EA has been completed for BLM property that includes the current parcel to be leased, but must be updated through development of a new EA document to accommodate changes to the potential impacts that this particular parcel may experience. In addition, cultural resource studies have been carried out on BLM property to identify and evaluate archaeological sites and other cultural resources that could be affected by actions of the BLM. No archaeological sites or other historic properties are known on the parcel in question, and no additional cultural resource investigation is planned at this time.

According to the requirements of the National Environmental Policy Act of 1969, as amended (NEPA), public comments must be received within 30 days of notification. Please provide your comments in writing, or by e-mail, by May 31, 2006. **Comments should be addressed to:**

RedVine Consultants, Inc.
21 Aster Way
Santa Fe, NM 87508

Comments may also be provided by e-mail at the following address:

rprocter@msn.com

BLM appreciates your participation in the public portion of the NEPA process. All comments will be considered in the environmental analysis that is being conducted for the EA. Thank you for your interest and assistance.

Sincerely,

Rebecca Procter, on behalf of BLM

enc

**APPENDIX D: LETTER TO PERMITTEE NOTIFYING OF NORA TO EXCLUDE LOTS 6 AND
19 FROM GRAZING**



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

TAOS RESOURCE AREA OFFICE
224 CRUZ ALTA ROAD
TAOS, NEW MEXICO 87571



IN REPLY REFER TO:

4160.3 (018)
GR #1010

NOTICE OF AREA MANAGER'S FINAL DECISION

MAR 11 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Antonio J. Baca, Sr. Estate
c/o Antonio J. Baca, Jr.
222 Delgado Street
Santa Fe, NM 87501

Dear Mr. Baca:

The Taos Resource Management Plan (RMP, Oct, 1988) and Record of Decision (ROD July, 1988) identified the management prescriptions and decisions for general guidance of the management actions on public lands in the Taos Resource Area, Albuquerque District, Bureau of Land Management (BLM). Management actions must conform with the Taos RMP which provides a comprehensive framework of general management direction.

One of the issue decisions described in the Taos RMP/ROD designates a disposal zone within the Calabasas (#543) grazing allotment where land ownership adjustments would occur. The BLM Director responded by Decision dated June 7, 1988 to your November 9, 1987 protest of the Proposed Taos RMP. The Director's decision affirmed the Proposed Taos RMP and completed the Department of the Interior's administrative review of your Taos RMP protest.

The Management Framework Plan (MFP)/ROD of Sept. 27, 1979, which also designated public lands for disposal, provided the management guidance for the New Mexico State Director's Decision dated July 2, 1986 that approved the proposed Louis Menyhert Land Exchange. The Interior Board of Land Appeals affirmed the State Director's decision on August 15, 1988.

Three tables are attached that describe realty decisions which have caused a decrease in public land acreage in the Calabasas allotment. These decisions are in conformance with the aforementioned land use planning documents. Also included, are the associated preference adjustment and the documentation used to determine the adjustment in AUMs.

Therefore, my final decision is as follows:

In accordance with the 43 Code of Federal Regulations (CFR) 4110.4-2, a decrease of 2758.57 acres shall result in a partial grazing preference cancellation of 516 Animal Unit Months (AUMs). This final grazing decision shall be placed into full force and effect, in accordance with 43 CFR 4160.3(c). Consistent with this is the following guidance provided in BLM manual Handbook H-4110-1.42 D:

A decision is placed into full force and effect under 43 CFR 4160.3 anytime after the final decision on the land disposal or other action. If the 2-year prior notification is required, the period begins on the date the 2-year notice is served on the party involved. The decision becomes effective after the 2-year

notification period expires, unless a waiver is provided by the permittee or lessee.

Due to the reduction in acreage, it is necessary to implement this decision full force and effect to prevent degradation to vegetation by over obligating the remaining acreage in the Calabasas grazing allotment.

The grazing preference authorization for the Calabasas (#543) allotment shall be adjusted from 1706 AUMs Active, to 1190 AUMs Active. The grazing preference authorization for the Calabasas (#543) allotment shall be adjusted from 1706 AUMs Active to 1190 AUMs Active.

The grazing permit schedule shall change from:

288 Cattle, 03/01 - 02/28, 49% Public Land
2 Horses, 03/01 - 02/28, 49% Public Land
1706 AUMs Active Preference, 0 AUMs Suspended

To:

213 Cattle, 03/01 - 02/28, 46% Public Land
2 Horses, 03/01 - 02/28, 46% Public Land
1190 AUMs Active Preference, 0 AUMs Suspended

The effective date for this decision shall be upon receipt.

I find it important to note that your five year average of active use for the period of 1989 - 1993 as indicated on the annual bills is 1259 AUMs. The reduction in grazing preference therefore represents only a 5% decrease from the 5-year average.

You may appeal the final decision, which is placed in full force and effect, for the purpose of a hearing before an Administrative Law Judge by filing an appeal in writing within 30 days following the receipt of this final decision with the Area Manager of the Taos Resource Area as provided for in 43 CFR 4.470 and 43 CFR 4160.4. The appeal should state clearly and concisely why you think the decision is in error. All grounds of error not stated will be considered waived, and no such waived ground of error may be presented at the hearing unless ordered or permitted by the Administrative Law Judge (43 CFR 4.470).

At your request, Wayne Yonemoto or Rich Maggio will set appointment with you so that the final decision can be detail. If you have questions, please contact Wayne o:

P 239 280 632

Sincerely,
WMI Chav.



Receipt for Certified Mail

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TURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to:

Antonio J. Baca, Sr. Estate
c/o Antonio J. Baca, Jr.
222 Delgado Street
Santa Fe, NM 87501

5. Signature (Addressee)

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

4a. Article Number

P 239 280 632

4b. Service Type

- Registered Insured
- Certified COD
- Express Mail Return Receipt for Merchandise

7. Date of Delivery

8. Addressee's Address (Only if request and fee is paid)

RECEIVED MAR 16 1994
Yolan



POSTAL RETURN RECEIPT

TABLE I

SUMMARY OF REALTY DECISIONS WITHIN THE CALABASAS ALLOTMENT, #543

Land Ownership Adjustment	Decision Date	2 Yr. Expiration Date	Decrease in Acres	Decrease In AUMs
Louis Menyhert Patent	9/8/88	NORA dated 8/7/85*	280	51
King Brothers Ranch Patent	12/9/92 2/19/93	1/31/94	800	150
Recreation & Public Purpose Lease to the City and County of Santa Fe	3/11/94	1/31/94	1638.57	307
Recreation & Public Purpose Lease to Santa Fe County (Agua Fria Landfill)	3/28/68 2/17/83	1/31/94	40	8
TOTALS			2758.57	516

* IBLA Decision dated August 15, 1988

TABLE II
LEGAL DESCRIPTIONS OF THE 2758.57 ACREAGE DECREASE WITHIN THE
CALABASAS (#543) ALLOTMENT BY REALTY DECISION

Louis Menyhert Land Exchange Patent

T.17N., R.8E., N.M.P.M.	<u>Acres</u>
Section 24: E 1/2 NE 1/4, NE 1/4 SE 1/4, S 1/2 S 1/2	280

King Brothers Ranch Land Exchange Patent

T.17N., R.8E., N.M.P.M.	<u>Acres</u>
Section 23: W 1/2 NE 1/4, W 1/2	400
Section 26: Lots 1 to 12, inclusive	400
Lots 21 to 44, inclusive	
Lots 53 to 76, inclusive	
Lots 85 to 108, inclusive	
Lots 117 to 134, inclusive	
Lots 135 to 140, inclusive	
Lots 149 to 154, inclusive	
Lots 155 to 164, inclusive	
Lots 165 to 172, inclusive	
Lots 181 to 188, inclusive	
Lots 189 to 196, inclusive	
Lots 197 to 204, inclusive	
Lots 221 to 224, inclusive	

TOTAL 800

Recreation and Public Purpose Lease to the City and County of Santa Fe

T.17N., R.8E., N.M.P.M.	<u>Acres</u>
Section 22: All	640
Section 26: Lots 13 to 20, inclusive	240
Lots 45 to 52, inclusive	
Lots 77 to 84, inclusive	
Lots 109 to 116, inclusive	
Lots 141 to 148, inclusive	
Lots 173 to 180, inclusive	
Lots 205 to 220, inclusive	
Lots 225 to 256, inclusive	
Section 27: N 1/2	320
Section 35: Lots 1 to 5, inclusive,	438.57
E 1/2 NE 1/4 NE 1/4, W 1/2 NW 1/4 NE 1/4,	
S 1/2 NE 1/4, E 1/2 NW 1/4, NE 1/4 SW 1/4,	
NW 1/4 SE 1/4	

TOTAL 1638.57

Santa Fe County Recreation and Public Purpose Lease (Agua Fria Landfill)

T.17N., R.8E., N.M.P.M.	<u>Acres</u>
Section 35: W 1/2 NE 1/4 NE 1/4,	40
E 1/2 NW 1/4 NE 1/4	

TABLE III
LEGAL DESCRIPTION AND ANIMAL UNIT MONTHS (AUMs) OF ADJUSTMENT

A summary of the total decrease of 2758.57 acres and the resulting partial grazing preference cancellation of 516 AUMs within the Calabasas (#543) allotment is described below. According to the grazing casefile documentation and records, the following acres have the indicated Animal Unit Months (AUMs). The AUMs computations are also described below.

<u>Legal Description</u>	<u>Acres</u>	<u>Ac/AUM</u>	<u>AUMs</u>
T.17N., R.8E., N.M.P.M.			
Section 22: All	640 ¹	5.33	120 ⁵
Section 23: W 1/2 NE 1/4, W 1/2	400 ²	5.33	75 ⁵
Section 24: E 1/2 NE 1/4, NE 1/4 SE 1/4, S 1/2 S 1/2	280 ³	5.49	51 ⁶
Section 26: Lots 1 to 256, inclusive	240 ⁴ 400 ² (640)	5.33 5.33	45 ⁵ 75 ⁵
Section 27: N 1/2	320 ¹	5.33	60 ⁵
Section 35: Lots 1 to 5, inclusive, NE 1/4, E 1/2 NW 1/4, NE 1/4 SW 1/4, NW 1/4 SE 1/4	438.57 ¹ 40 ⁴ (478.57)	5.33 5.33	82 ⁵ 8 ⁵
TOTAL	2758.57		516

¹ Recreation and public purpose lease to the City and County of Santa Fe. (Total - 1638.57 acres).

² King Brothers Ranch land exchange patents. (Total - 800 acres).

³ Louis Menyhert land exchange patent. (Total - 280 acres).

⁴ Recreation and public purpose lease to Santa Fe County, Agua Fria landfill. (Total - 40 acres).

⁵ The Bureau forms titled "Carrying Capacity Determinations", dated 6/24/44 and 3/18/53, record the grazing capacity as 10 cattle yearlong (CYL) per 640 acres (Ac) which is equivalent to 120 AUMs (10 CYL x 12 AUMs/1 CYL = 120 AUMs) per 640 acres or 5.33 Ac/AUM (640 acres ÷ 120 AUMs = 5.33 Ac/AUM).
The indicated AUMs value = Acreage Number ÷ 5.33 Ac/AUM.

⁶ According to the Bureau's grazing permit authorization, dated May 9, 1955, the Max Vigil allotment grazing preference of 102 AUMs was transferred to Mr. Antonio J. Eaca, Sr. for inclusion in the Calabasas (#543) allotment. The public land within the Max Vigil allotment totals 560 Ac (T.17N., R.8E., Section 24: S 1/2, NE 1/4, E 1/2 NW 1/4).
The Ac/AUM figure of 5.49 Ac/AUM is determined by:

$$560 \text{ Ac} \div 102 \text{ AUMs} = 5.49 \text{ Ac/AUM.}$$

The value of 51 AUMs for the 280 Ac (Menyhert land exchange patent) is determined by:

$$280 \text{ Ac (Menyhert patent)} \div 5.49 \text{ Ac/AUM} = 51 \text{ AUMs.}$$