APPENDIX E

CULTURAL RESOURCES BACKGROUND

This Page Intentionally Left Blank

E.0 CULTURAL RESOURCES BACKGROUND

E.1 CULTURAL RESOURCES BACKGROUND

A cultural resource study encompassing 10 percent of McGregor Range was undertaken as part of the environmental impact analysis process for this LEIS. Phase I of that survey has been completed; Phase II is near completion (refer to Section 3.9.4.1). Baseline conditions were assessed using the information generated from the Phase I investigations as well as the results of previous investigations.

E.1.1 Prehistory

The McGregor Range area lies within the cultural region known as the Jornada Mogollon (Lehmer, 1948). The prehistoric cultural chronology of the region and of the Tularosa Basin has been previously outlined by a number of authors, most recently by Abbott et al. (1996), which is used as a basis for this discussion. The chronology can be divided into three broad periods: Paleoindian (11,000 to 8,000 years ago), Archaic (8,000 to 1,700 years ago), and Formative (1,700 to 500 years ago).

Overall, prehistoric archaeological resources of southern New Mexico and west Texas are diverse, with many small, general-purpose sites; plant processing sites; rock middens; pueblos; specialized lithic procurement sites; and rock art sites. Prehistoric human burials, which are of particular concern to modern Native Americans and are considered under NAGPRA, also occur.

Paleoindian. The Paleoindian period (11,000 to 8,000 years ago) was characterized by small bands of highly mobile hunter-gatherers who followed herds of large animals such as bison and possibly mammoth. The oldest cultural complex of this period, Clovis, occurred at a time of rich, but declining resources. The beginning of a drying climate reduced and then eliminated many lakes, and some large game animals became extinct.

Paleoindian materials, and those of the late Paleoindian period especially, have been found in the region around Fort Bliss and El Paso (Krone, 1975; Quimby and Brook, 1967). Sites of this period are rare and usually identified solely on the basis of distinctive, highly crafted, fluted projectile points and other tools, often made of high-quality stone. The Fort Bliss cultural resource database lists seven sites on McGregor Range as dating from this period.

Archaic. The Archaic period began 8,000 years ago and continued until about 1,700 years ago. This period may correspond to the transition from a grassland environment to a drier, desert shrub environment. Use of the area by Native Americans during the Archaic period revolved around semi-permanent camps from which groups traveled into the desert, setting up short-term camps to exploit plants and animals (Whalen, 1986). Archaic period sites lack ceramics and therefore commonly consist of chipped stone and groundstone tools and debris. The large number of groundstone artifacts at Archaic sites suggests a growing reliance on plant resources and less use of game throughout this period. In the late Archaic period, there is evidence from the Fresnal rockshelter, near Alamogordo, of domesticated corn and beans from 2,000 and 3,000 years ago (Tagg, 1996).

Definite Archaic sites with diagnostic tools are relatively uncommon on Fort Bliss. The Fort Bliss cultural resource database contains 38 sites on McGregor Range with an Archaic component. However, many of the undated sites consisting only of nondiagnostic stone artifacts may date from this period. A recent survey on Otero Mesa identified 19 percent of the sites as Archaic (Browning et al., 1997). Another 32 percent were undated prehistoric sites, which may or may not be assignable to the Archaic period.

Formative. The Formative period, lasting from about 1,700 years ago to A.D. 1500, can be divided into the Mesilla, Doña Ana, and El Paso phases. The Fort Bliss cultural resource database identifies 348 sites as dating from the Formative period on McGregor Range.

The Mesilla phase represents mobile, perhaps seasonal, use of the Tularosa Basin. Mesilla phase inhabitants practiced agriculture, lived in small huts, and used undecorated ceramics. The Doña Ana phase was a brief transitional period when decorated pottery was first used in the Fort Bliss area. The El Paso phase is marked by more permanent, substantial structures (pueblos), agriculture, and locally produced undecorated ceramics (Whalen, 1981). Over time, and especially during the late Formative period, there was considerable and increasing interaction, such as trade, with Native American groups in northern New Mexico, western Arizona, Texas, and northern Mexico. Evidence from sites dating to the end of the Formative period suggest yet another transition, a general return to a mix of hunting, gathering, and agriculture by smaller groups.

E.1.2 Historic Native Americans

Since the late 1600s, four Native American groups have lived in or near what is now McGregor Range. These were the Manso, the Suma, the Tigua, and the Mescalero Apache. Later, the Comanche and the Kiowa also traveled through and used the area.

While early accounts are confusing, at least two Native American groups occupied the region at the time of first Spanish contact. These were the Manso and the Suma. The Manso were present in the area around what are today El Paso and Las Cruces. They lived in huts made of branches and practiced a mix of farming and hunting. The Manso quickly joined the Tigua (see below) at missions set up by the Spanish at El Paso. Later, smallpox epidemics and inter-marriage with the Tigua effectively ended Manso culture.

The Suma are thought to have been related to the Jumano, who occupied lands further south along the Rio Grande (Hickerson, 1994). They were hunter-gatherers and farmers. Their fields were along the Rio Grande or near arroyos where runoff provided sufficient moisture for growing crops (Newcomb, 1993). Weakened by Spanish slave raids, drought, and Apache raids, the Suma gradually disappeared.

Between 1680 and 1682, the Tigua Indians were brought to the El Paso area from pueblos in northern New Mexico by Spanish fleeing the Pueblo Revolt. A royal land grant in 1682 set aside lands for the Tigua Indians in what is now the El Paso area. Eight hundred Tigua were settled near the Mission Nuestra Senora de Guadalupe del Paso del Norte. Several years later, the Tigua were moved a short distance to Mission Corpus Christi de la Ysleta del Sur. The conditions of these settlements prompted at least two abortive uprisings in 1681 and 1684 (Gerald, 1974). The reconquest of the Pueblos ended in 1692, and soon there were Spanish settlements along the Rio Grande north of El Paso. The Tigua at Mission Ysleta were moved again, after flooding of the Rio Grande damaged the buildings. A later fire damaged the mission but it was rebuilt and exists today on the Tigua Reservation. The Tigua practiced agriculture along the Rio Grande, but also hunted and gathered in the nearby Hueco Mountains (Gerald, 1974).

The other Native American group present in the region in the 1600s was the Mescalero Apache. The Mescalero lived in the area east of the Rio Grande, from the Sacramento Mountains south into Northern Mexico, and east onto the southern plains. Unlike the sedentary Suma, Jumano, and Tigua, the Mescalero Apache practiced a semi-nomadic life, moving from the mountains to the basins and plains in seasons when edible wild plants and game became available. Early Spanish contact generated a long-lived animosity between the two groups, and Apache raids on Spanish settlements were frequent.

Finally, in 1810 a treaty was signed that promised the Mescalero a sizable portion of land (Thomas, 1974). The peace held until the Texas Revolution, when the Mescalero sided with the rebel Texans.

As a condition of joining the U.S., all lands remained Texan; no lands were taken over by the Federal Government. Thus, any lands set aside for tribes fell under Texas, rather than U.S., jurisdiction. Texas, despite the help the Apache had provided during the rebellion, viewed the Mescalero as a potential problem and refused to set aside land for them. This attitude, the rapid population increase from settlers and military, and establishment of military roads and forts heightened tension among the Mescalero (Opler, 1983). After the Mexican-American war and the Gadsden Purchase, when the U.S. acquired New Mexico and Arizona, the remainder of the Mescalero's traditional lands came under U.S. jurisdiction. Again, the rapid influx of settlers and miners and the establishment of roads and forts soon brought the Mescalero into conflict with the Americans as well. After several years of hostilities, a reservation for the Mescalero was established in the Sacramento Mountains, New Mexico. Title of the lands comprising the reservation was not formally transferred to the Mescalero until 1922 (Opler, 1983).

The Comanche occupied the area briefly beginning in early 1700; by the mid-1800s they had displaced the Apache and controlled the territory south of the Arkansas River to the Rio Grande settlements (Hofman et al., 1989). The Kiowa made only sporadic forays into the El Paso region during the same time the Comanche were dominant (Hofman et al., 1989).

E.1.3 Euroamerican History

The Fort Bliss region has experienced more than 450 years of Euroamerican settlement and use, including ranching, mining, oil and gas exploration, and military activities. This era is represented on Fort Bliss by both archaeological and architectural resources, beginning with the establishment of the Salt Trail by Spanish explorers in the mid-17th century and extending to 20th century Cold War military architecture.

Spanish Exploration and Settlement. The region that is now New Mexico and west Texas was first visited by Europeans in 1528. Spanish expansion into the northern reaches of New Spain was motivated by mining, ranching, conscription of labor, and missionary activity (Griffen, 1983). The first permanent Spanish settlements in New Mexico date to 1598. Spanish explorers established the Salt Trail through the Tularosa Basin in 1647, as a salt supply route connecting Lake Lucero (now on WSMR) with the Camino Real at El Paso (Bentley, 1991). The Spanish discovered salt deposits within the Tularosa Basin in 1691 and shipped large quantities of salt to the silver mines in Mexico (Bentley, 1991). After Mexican independence, the Mexican government encouraged extensive use of the trail and salt beds (U.S. Army, 1997n), and the resource was used well into the 19th century. A portion of the Salt Trail is now a historical site within Fort Bliss (LA97672).

The Spanish also established a military presence in the Tularosa Basin in 1653, in response to Mescalero raids on Pecos Pueblo and the pueblos of the Tompiros (in what is now New Mexico) from base camps in the Sacramento Mountains (Schroeder, 1973). In 1682, a mission and presidio were established at El Paso del Norte. Repeated Apache raiding during the next century eventually resulted in a concerted effort by the Spanish military to fortify its northern frontier.

Mexico achieved independence from Spain in 1821, and El Paso area settlements were incorporated into the State of Chihuahua. However, no physical evidence of Mexican or Spanish use of grant lands for ranching has been identified on the installation (U.S. Army, 1997n).

Anglo-American Settlement. When the Texas Revolution began in 1835, Texas claimed all Mexican lands east and north of the Rio Grande, including the Fort Bliss area. These lands became part of the

U.S. in 1848, when the Treaty of Guadalupe-Hidalgo fixed the boundary between the U.S. and Mexico at the Rio Grande.

Railroads. The Southern Pacific Railroad reached El Paso from New Mexico in 1881 (U.S. Army, 1997n). Planning for a railroad line from El Paso north through the Tularosa Basin to White Oaks began in 1881, but the first 10 miles of track were not laid until 1888. Construction to Alamogordo was completed in 1898 and homesteaders immediately filed claims on 4,000 acres of public domain land (U.S. Army, 1997n).

A number of small communities, stations, and sidings grew up in association with the railway throughout the basin. These include locations that are now historical sites within McGregor Range: Newman Section Camp (FBH089); Escondida (FBH178); Paxton Siding (FBH179); Desert station and siding (FBH188); Alvarado (FBH 189); and Elwood (FBH286). Turquoise (FBH141) was a large station and siding that later became the primary shipping point on the line for local ranchers (U.S. Army, 1997n).

Mining. Mining in the Jarilla Mountains, just outside McGregor Range, began in the 1870s and, during the next decade, spurred local settlement, railroad use, and water control system development. Mining booms also took place in the Jarilla Mountains beginning in 1905. The town of Oro Grande grew to a population of between 2,000 and 2,500 by 1907 (U.S. Army, 1977n). Oro Grande provided area ranchers, including those on what is now Fort Bliss, with medical care and schools, and served as a supply station (U.S. Army, 1997n).

Ranching. Ranchers began moving into the southern Tularosa Basin and the western Organ Mountains during the late 1860s and early 1870s (U.S. Army, 1992). Although the basin was covered with thick grasses, the lack of surface water seriously affected land use. A series of wet years before 1885 resulted in ranchers overstocking area ranges. When conditions returned to normal, water became a problem. Ranchers turned their focus to developing the water resources, including building stock tanks, drilling wells, and piping water from the Sacramento River and Dog Canyon. Deep-well drilling and the use of windmills were important in the southern basin beginning in the 1880s (U.S. Army, 1992).

In 1886, Oliver M. Lee established a ranch (Lee Well) at the base of the Sacramento Mountains west of Dog Canyon. Lee formed the Sacramento Cattle Company in partnership with several other local ranchers and immediately began working on local water systems. In 1889, owners of the Sacramento Cattle Company began to sell off their holdings and dissolved the company. Lee continued to work some properties and to expand his control of area water. In 1893, Lee established a ranch in Dog Canyon, where he expanded the existing ditches and built several reservoirs. The following year, Lee and his partners began an 11-mile ditch to bring water from the Sacramento River onto the Tularosa Basin floor.

Lee continued to expand his ranching operations, with minor setbacks, throughout the late 1890s and early 1900s. He sold a large parcel of land to the El Paso and Northeastern Railroad for the townsite of Alamogordo. In 1905, he sold his ditch and reservoir rights to the Southwest Smelting and Refining Company, who needed the water for its mining operation in the Jarilla Mountains. The company built a pipeline, still in use today, along Lee's ditches to the town of Oro Grande. By 1916, Lee had an elaborate system extending from the Sacramento Mountains to Oro Grande and across Otero Mesa. He and two partners formed the Sacramento Valley Irrigation Company to encourage farmers to settle the basin. The company attempted to develop the community of Sacramento City (FBH203), an historical site on Fort Bliss, urging investors to buy town lots and turn the basin into farmland. Although the town had a few residents, it never attracted enough to survive and the promised water pipeline was not built (U.S. Army, 1997n). Lee eventually owned or controlled 300,000 acres of Otero County (U.S. Army,

1997n). He died in 1941, but his sons continued to operate ranches in the area until the land was acquired by the military (U.S. Army, 1997n).

Historical ranching sites within Fort Bliss include tanks, wells, reservoirs, camps, homesteads, ranches, and a school. Many of Lee's holdings (pipelines, camps, ranches, reservoirs, tanks, and wells) have been identified as historical sites on Fort Bliss and are components of a rural historic landscape potentially eligible to the National Register. The BLM recently completed a rural historic landscape National Register evaluation for a landscape base on Oliver Lee's historic sphere of influence (Hart, 1997). The potential boundary of the historic landscape encompasses McGregor Range.

Oil and Gas Exploration. Oil exploration ventures began in the area before 1919, following the discovery of Pennsylvanian-series fossils in the Sacramento Mountains and Tularosa Basin, and thick porous sands beneath the basin (U.S. Army, 1997n). Thousands of oil and gas claims were filed and a number of exploration companies were formed. However, the area did not become as rich an oil field as expected, and some individuals lost large sums of money on speculation.

U.S. Military. Military activities in the El Paso area, by the U.S. Government, began in 1846 when the U.S. Army entered the area after defeating the Mexican Army at the Battle of Brazito in the Mesilla Valley. American military expeditions regularly crossed the area in 1848 following the acquisition of the region by the U.S. The Army began active exploration of the Tularosa Basin and Otero Mesa in 1849 (U.S. Army, 1992). Fort Bliss remained a minor post throughout the Spanish-American War era and later fell into disrepair. This changed with the Mexican Revolution in 1910 when the fort became a major horse cavalry post (U.S. Army, 1993b).

During World War I, Fort Bliss served as an enlistment post, mobilization point, and site of several training schools. The 1920s saw Fort Bliss become home to missions to patrol the border with Mexico. During the 1930s, the Civilian Conservation Corps (CCC) worked from their camp at Fort Bliss on water control and erosion prevention systems across the Tularosa Basin (U.S. Army, 1997n).

During World War II, Fort Bliss served as a troop reception center. The last remaining U.S. horse cavalry unit was disbanded at Fort Bliss in 1943, and the fort became the national center for anti-aircraft artillery (U.S. Army, 1993b). Fort Bliss adminstered World War II prisoner of war camps at Sunland Park and Logan Heights.

Fort Bliss grew quickly as the need for large parcels of training land became evident. The Doña Ana Range–North Training Areas and the Texas Training Areas (now the South Training Areas) were acquired during this period. In 1940, the Army leased more than 421,000 acres in Otero County, New Mexico, now part of the Doña Ana Range–North Training Areas, for an anti-aircraft training range (U.S. Army, 1997n). Seventy-five percent of the land was public domain, 20 percent was state-owned, and 5 percent was rancher-owned. The DoD approved purchase of the land after the co-use lease with area ranchers ran out in 1946 (U.S. Army, 1997n).

During the early Cold War era, Fort Bliss provided research facilities for the U.S. strategic missile program and was designated the nation's Army Air Defense Center in 1957 (U.S. Army, 1993b). The post played an important role in the development of the American missile program, including the V-2 rocket development headed by Werner von Braun and the Anti-aircraft Artillery Replacement Training Center. In 1948, the 1st Guided Missile Regiment (later Brigade) was created at Fort Bliss to participate in missile launchings at WSMR. The Anti-aircraft Artillery and Guided Missile Center was activated at Fort Bliss in 1946 to train units (U.S. Army, 1993b).

In 1950, the Army formed the Army Anti-aircraft Command (ARAACOM) and reactivated the Anti-aircraft Artillery Replacement Training Center (AAARTC) at Fort Bliss to train anti-aircraft Nike-Ajax missile batteries and to train soldiers for assignments in atomic weapons, heavy anti-aircraft artillery guns, computers and radar (U.S. Army, 1993b). The Nike Air Defense missile system training program for North Atlantic Treaty Organization (NATO) allies began at Fort Bliss in 1956.

Planning for the McGregor Guided Missile Range, an anti-aircraft artillery firing range, began in 1948. Proposed lands covered 374,000 acres in Otero County. In 1949, the Army and most area landholders agreed to a 5-year exclusive-use lease on the range (U.S. Army, 1997n). Part of the range, the McGregor South Firing Corridor, was expanded in 1950. In 1952, expansion was proposed to meet training needs for the Nike missile program at WSMR. Plans were also made to purchase McGregor Range lands when the leases ran out in 1954. Over the next 2 years, the range was gradually extended, and by 1954, all remaining privately owned land within the original lease had been purchased. Lands on Otero Mesa were purchased from local ranchers beginning in 1956 to provide additional space for missile testing and training.

Prior to 1957, the Army acquired patented land and the BLM exchanged state and federal public domain land in Otero County to be used as McGregor Range. On August 21, 1957, public land was withdrawn in Otero County for use as a missile range for 10 years with provisions for a subsequent 10 years at the Army's request (PLO 1470).

Military defense strategy changed in the 1960s, as analysts began to push for a defense based on a strong offense (Bonhert et al., 1996) using surface-to-air missiles. Fort Bliss soon worked on these missiles. The Basic Combat Training Center was established at Fort Bliss in 1965 to meet the needs of the Vietnam War. Anti-aircraft artillery air defense battalions were also trained at Fort Bliss. Training began on the Redeye missile, the first portable, shoulder-fired air defense weapon, in 1967 (Bonhert et al., 1996). The U.S. Army Air Defense School provided training in Nike-Hercules, Hawk, Chaparral, and Safeguard missile systems (Bonhert et al., 1996).

Toward the end of the Cold War, during the 1980s, the Patriot missile system, used during the Persian Gulf War, came online and the Stinger missile replaced the Redeye (Bonhert et al., 1996). Schools at Fort Bliss continued to provide training on a range of air defense weapons including the Patriot, Stinger, and Hawk.

E.1.4 Archaeological Resources

Archaeological investigations in the El Paso area began in the 1920s. During the period of the 1920s to 1940s, several museum-sponsored projects were undertaken at pueblos and caves of the region (e.g. Cosgrove, 1947). Shortly after World War II, the La Cueva rockshelter, a pueblo, and a pithouse village site were excavated. No major archaeological work was undertaken in the 1950s, although local amateur archaeologists continued exploring the area.

During the 1960s and 1970s a substantial amount of the archaeological work was undertaken by the El Paso Archaeological Society (EPAS). This work consisted of excavations and surveys within Fort Bliss, including McGregor Range. EPAS excavated portions of a number of pueblo sites, including Escondido pueblo in the northern part of McGregor Range. Much of the work before 1980 is not thoroughly documented by today's standards and provides less information than is usually required for National Register evaluations. Later work by professional archaeologists provided a foundation for understanding cultural resources on Fort Bliss. Much of this work was centered in the training areas of South Fort Bliss and Doña Ana Range–North Training Areas.

Surveys on McGregor Range resulted in relatively reliable estimates of the density of archaeological cultural resources in different portions of Fort Bliss. These are summarized in Table E-1.

Table E-1. Summary of Selected Archaeological Resource Inventories on McGregor Range

Archaeological Survey (date)	*Survey Acreage*	*Number of Archaeological Sites Recorded*	*Archaeological Site Density (sites per acre)*
Beckes et al., 1977	138,000*	300*	.002
U.S. Army, 1993a	9,000	69	.008
U.S. Army, 1995g	15,526	157	.006
O' Leary et al., 1997; U.S. Army, 1997j	57,820	678	.01
Browning et al., 1997	12,430	68	.005

* This includes only the systematic survey results: nonsystematic survey of various areas located another 114 sites.

The McGregor Range was the subject of a large cultural resource inventory project in the mid 1970s by the University of Texas (Austin). This study was done in support of an EIS then being prepared. Six areas encompassing 138,000 acres, or 34 percent of the range, were identified as high-priority survey areas; 300 sites were found. Another 114 sites were found in additional areas that were spot surveyed for cultural resources (Beckes et al., 1977). Sites from these surveys ranged from isolated hearths to large village sites.

A cultural resource inventory of the area, for a proposed airstrip facility near Oro Grande, was undertaken in 1979. A total of 9,000 acres was examined and resulted in the documentation of 69 prehistoric sites (U.S. Army, 1993c). Of these sites, 27 did not contain enough information to provide dates, with the remaining 42 dating from the Formative period.

In 1992, 50 locations (.39 square miles and .05 square miles in size, totaling 10,191 acres) were surveyed for potential locations of air defense unit exercise areas (U.S. Army, 1995g). In addition, 5,335 acres were surveyed as potential locations for other training needs. A total of 157 sites were located during these surveys. Of these, 6 are historic, with the remaining 151 prehistoric.

In support of the proposed McGregor Range land withdrawal renewal, a cultural resource inventory of McGregor Range was initiated in 1995. The inventory was to cover a 10 percent random, stratified sample (based on six topographic zones) of the lands on McGregor Range (Table E-2) (U.S. Army, 1996s). The inventory area did not include the USFS co-use lands in the extreme northern portion of the range. Each sampling unit covered 1.38 square miles. The sample portion of Phase I of the inventory, completed in 1997, covered over 44,000 acres, or 6.5 percent of McGregor Range (O' Leary et al., 1997). Another 13,341 acres surveyed at this time included a complete inventory of the Otero Mesa escarpment (U.S. Army, 1997j). Phase II of the inventory, begun in 1997, surveyed over 22,000 acres, or 3.5 percent of McGregor Range. The goal of both phases of the survey project was to develop archaeological and management information, based on the landscape, or topography, of McGregor Range and to provide a standard, consistent method for defining a site and its eligibility. The sample inventories included the recording of all surface materials from prehistoric artifacts to Cold War debris. In addition to identifying prehistoric archaeological sites, the sample survey emphasized historic architecture, historic archaeology, and the identification of Apache, Spanish, and Mexican-related sites.

Table E-2. Sampling Coverage of the McGregor Range Cultural Resource Surveys

Landform Zone	*Acres on McGregor Range*	*Percentage of Total McGregor Area*	*Acres Surveyed in Phase I (6.5 percent)*	*Acres Surveyed in Phase II (3.5 percent)*
Zone 1: Nearly flat tableland	101,313	15.1%	6,672	3,459
Zone 2: Nearly flat with shallow concave depressions, floodplains, playas and wide waterways	125,776	18.8%	8,402	4,201
Zone 3: Gently sloping outwash plains, relic lake beds, and coppice dunes	150,981	22.6%	10,131	4,942
Zone 4: Sloping alluvial fans, pediments, and terraces adjacent to the hills, mesa and mountains	75,861	11.3%	4,942	2,595
Zone 5: Moderately sloping areas, bedrock plateaus, rock outcrops and pediment slopes	97,853	14.6%	6,425	3,336
Zone 6: Extremely hilly to mountainous areas	116,880	17.5%	7,907	3,707
McGregor Range Total	*668,664 acres*	*100%*	*44,479 acres*	*22,240 acres*

Note: *Does not equal total McGregor Range area because it does not include military and USFS co-use lands in northern McGregor Range.
Source: U.S. Army, 1996s.

The nonsample survey of the Otero escarpment was specifically tasked with the discovery and documentation of rockshelters, although all other cultural resources encountered were also documented.

In all, 678 sites were identified during Phase I investigations: 535 during the sample survey and 143 during the Otero escarpment survey, including 33 rockshelters. Of the remaining 645 sites, 81 were historic (30 related to ranching and 50 related to military activities) and 1 was an Apache-related site; no Spanish or Mexican sites were identified. The remaining 563 sites date to the prehistoric period. Out of the 678 sites, 28 were recommended as eligible to the NRHP; 57 were recommended as not eligible; and the NRHP status of the remaining 593 sites remain unevaluated. Data from Phase II investigations is unavailable at this time.

An archaeological survey was undertaken to identify, document, inventory, and evaluate prehistoric and historic archaeological remains in two potential locations for a new tactical target complex located 11 to 18 miles southeast of Oro Grande, New Mexico. The survey area included a total of approximately 12,430 acres (Browning et al., 1997). Sixty-eight archaeological sites were documented during this project: 22 on Otero Mesa and 46 in the Tularosa Basin. The sites represent prehistoric and historic activities spanning 10,000 years of human occupation in the Tularosa Basin.

E.1.5 Architectural Resources

Architectural inventories have been completed as part of two recent comprehensive cultural resource surveys; DOE's study of historic ranching and mining sites (U.S. Army, 1997n) and Phase I of the McGregor Range Survey (O'Leary et al., 1997). These two investigations assessed the architectural

significance of various scattered, standing structures. Fort Bliss is planning specific architectural inventories for McGregor Range Camp as funds become available.

Actions that take place on the land may result in impacts that require mitigation by the agency managing the land. For Army-managed withdrawn and fee-owned land, the Fort Bliss ICRMP, (U.S. Army 1997b) sets forth a series of proposed SOPs that comply with AR 200-4 and NHPA. When the NEPA process for the ICRMP is complete, these SOPs will have been reviewed and accepted by the New Mexico SHPO, and they will streamline Army compliance with historic preservation laws. By following the SOPs on McGregor Range, the Army will not need to have SHPO or ACHP review every undertaking prior to its implementation, as they will be developed in strict compliance with AR 200-4, the NRHP, and other applicable laws and regulations. The ICRMP provides for review of the SOPs by Fort Bliss, the SHPO, or the ACHP at any time. In addition, the SOPs include procedures for considering the concerns of the public. The titles of the SOPs are:

- **SOP #1A** *Archeological Site, Landscape, Native American, and Cultural Properties Clearance for Large-scale Operations and/or Exercises.*

- **SOP #1B** *Archeological Site, Landscape, Native American, and Cultural Properties Clearance ("Form 88 Review") for Training, Firing Impact, and Maneuver Areas.*

- **SOP #1C** *Archeological Site, Landscape, Native American, and Cultural Properties Clearance ("Dig Permits") for Areas NOT Located in Training, Firing Impact, or Maneuver Areas.*

- **SOP #2A** *National Historic Preservation Act Section 106 Compliance for Historic Structures, Landscapes, and Other Aboveground Properties.*

- **SOP #2B** *National Historic Preservation Act Section 106 Compliance for Historic Structures, Landscapes, and Other Aboveground Properties.*

- **SOP #3** *Archeological Survey Standards.*

- **SOP #4** *Identification of Historic Structures, Landscapes, and Other Aboveground Properties That Meet the Criteria of Eligibility for Inclusion in the National Register of Historic Places (the Register).*

- **SOP #5** *Reporting Damage to Historic Properties Buildings, Sites, Landscapes, Districts, Objects, etc.*

- **SOP #6** *Accidental Discovery of Archeological Properties.*

- **SOP #7** *National Historic Preservation Act Section 106 Compliance for Construction Modifications.*

- **SOP #8** *Mobilization and/or Military Training in Anticipation of Immediate Deployment.*

- **SOP #9** *Public Involvement in the Fort Bliss Cultural Resources Management Program.*

- **SOP #10** *Annual Report on the Status of Those Portions of This Integrated Cultural Resources Management Plan to which the National Historic Preservation Act Applies.*

Exceptions to following the SOPs and, instead, consulting with ACHP according to the procedures described in 36 CFR Part 800.5(e) are "if (1) Fort Bliss determines not to use the standard mitigation

measures, (2) the SHPO withdraws from consultation, (3) the undertaking has known public opposition, (4) the undertaking will adversely affect a National Historic Landmark, (5) the undertaking may affect a facility containing human remains, or (6) the SHPO objects in writing within 30 calendar days after receipt of a notice from Fort Bliss that it will proceed with the Standard Mitigation Measures…."

The Standard Mitigation Measures are a basic set of mitigation priorities for architectural landscapes, summarized as follows:

1. Fort Bliss and the SHPO shall develop a written agreement that establishes recordation measures and provides for the salvage, storage, and reuse of significant architectural or landscape furnishings that may otherwise be demolished. The ACHP will not be a party to this agreement.

2. Fort Bliss shall ensure that the historic property is recorded prior to its demolition or alteration in accordance with a recordation plan developed in consultation with the SHPO. At a minimum this plan will establish methods and standards for recordation and designate the appropriate archives for the deposit of this material. Fort Bliss and the SHPO may mutually agree to waive the recordation requirement if the affected historic property will be repaired in substantial, although not complete, conformance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (rev.1992).

Although the ICRMP provides procedures to mitigate impacts to cultural resources, the focus of Fort Bliss cultural resource management, and thus of McGregor Range will be to avoid directly affecting cultural resources whenever possible. Procedures may include monitoring undertakings and developing alternatives. If cultural resources must be affected, then the effects are to be minimized, and adverse effects mitigated.