An Intensive Cultural Resources Survey of the Millican Tract, Hays County, Texas

Prepared for
City of San Marcos

Prepared by
Galindo Environmental Consulting, LLC

Texas Antiquities Permit No. 8464

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Abstract

On behalf of the City of San Marcos, Galindo Environmental Consulting, LLC (Galindo Environmental) conducted an intensive cultural resources survey of the Millican Tract in Hays County, Texas. Two 60-foot (ft) (18.3-meter [m]) strips of the parcel abut Palomino Drive and Hays County Road 243 (signed Country Estates Drive), but the majority of the 248.711-acre tract of land is situated about 1,542 ft (470 m) northeast of the intersection of Old Ranch Road 12 and Country Estates Drive. The City of San Marcos proposes acquiring the MIllican Tract using Clean Water State Revolving Funds (CWSRF) through the Texas Water Development Board (TWDB). The parcel would be used for non-point source pollution prevention mitigation. Besides adding barb wire fencing to approximately 3,300 ft (1 kilometer [km]) of the perimeter, no future development is anticipated. Based on the City of San Marcos' status as a political subdivision of the state, compliance with both Section 106 of the National Historic Preservation Act (NHPA) and the Antiquities Code of Texas (ACT) was necessary. All work was conducted under Texas Antiquities Permit No. 8464 with Dr. Mary Jo Galindo serving as Principal Investigator.

The Area of Potential Effects (APE) is defined as the irregularly shaped 248.711-acre tract with a depth of impact of up to 3.28 feet (1 meter). The goal of the survey was to locate all prehistoric and historic archaeological sites in the APE, determine their extent, and evaluate their significance and eligibility for listing on the National Register of Historic Places (NRHP) or for designation as a State Antiquities Landmark (SAL). The background review determined that a portion of the APE (a transmission line easement) had been surveyed in 1981 on behalf of the Lower Colorado River Authority (LCRA), and that prehistoric site 41HY157 was recorded during that survey within the current APE. No sites, districts, or properties listed on the NRHP, SALs, or cemeteries are within the study radius; however, one OTHM and RTHL that commemorates the Lloyd Gideon Johnson House is 1 km south of the APE.

Fieldwork was conducted during June 2018. A total of 104 shovel tests was excavated throughout the APE. Six shovel tests were positive for prehistoric artifacts and historic-age ceramic sherds, but many more lithic artifacts were noted scattered on the surface of the APE, although none was temporally diagnostic. Prehistoric artifacts on the surface were not distributed evenly or continuously across the APE, and one prehistoric feature—a mortar hole was identified. A residence, barns, sheds, foundations, water troughs, and a former cattle dip were recorded as an historic component of site 41HY157.

As a result of the survey, the boundary of site 41HY157 was extended to encompass the APE. Except for six shovel tests with artifacts in the upper 10 cm, the prehistoric component is strictly surficial in nature, with lithic artifacts scattered widely and rarely in any concentrated manner. The prehistoric component also lacks diagnostic artifacts or intact buried features; however, the mortar hole is a surficial prehistoric feature along an intermittent drainage and situated within the LCRA easement. The mortar hole is assessed as a significant feature not commonly documented in the area. It indicates a more sedentary occupation than would otherwise be represented by a lithic scatter alone.

Overall, the historic component of site 41HY157 is relatively more intact; the house was recently occupied by a worker, cattle currently occupy the pastures, and hay bales are in the barn. That said, the 14 features comprising the historic component have lost integrity because the elements are no longer associated with the original farm house and barn. Additionally, the front of the small house has been expanded, obliterating the original façade, adversely affecting its integrity, and impairing its ability to be a representative example of vernacular architecture.

Based on the predominately surficial nature of the prehistoric component of the site, the absence of diagnostic artifacts or intact buried prehistoric features, the lack of integrity of the historic component, and the lack of an association with an historically significant person or event, site 41HY157 is recommended not eligible for listing in the NRHP or for designation as an SAL. The prehistoric mortar hole, however, is assessed as a significant feature, given its rarity, and is recommended for avoidance in the future.

In accordance with 36 CFR 800.4, Galindo Environmental has made a reasonable and good faith effort to identify archaeological historic properties within the APE. One prehistoric feature of site 41HY157 is evaluated as significant, but otherwise, no properties were identified that meet the criteria for listing in the NRHP, according to 36 CFR 60.4, or for

designation as an SAL, according to 13 TAC 26.12. Galindo Environmental recommends avoidance of the mortar hole, which is situated within the LCRA easement, and that no further cultural resources investigations are necessary within the project APE. If avoidance of the mortar hole is not possible, further archaeological work in consultation with the THC may be necessary. No artifacts were collected during this survey; project records and photographs will be curated at the Center for Archaeological Studies at Texas State University in San Marcos.

Table of Contents

List of Figures

List of Tables

Management Summary

Galindo Environmental conducted an intensive cultural resources survey of the Millican Tract in Hays County, Texas. The APE is a 248.711-acre tract of land with two 60-ft (18.3-m) strips that abut Palomino Drive and Country Estates Drive, but the majority of the parcel is situated about 1,542 ft (470 m) northeast of the intersection of Old Ranch Road 12 and Country Estates Drive. The City of San Marcos proposes acquiring the MIllican Tract using CWSRF through the TWDB. The parcel would be used for non-point source pollution prevention mitigation. Based on the City of San Marcos' status as a political subdivision of the state, the cultural resources survey was conducted in compliance with Section 106 of the NHPA and in compliance with the ACT under Texas Antiquities Permit No. 8464.

Prior to fieldwork, a background review determined that a portion of the APE had been surveyed in 1981 on behalf of the LCRA, and that prehistoric site 41HY157 was recorded during that survey within the current APE. As a result of the current investigation, an historic component was defined and the boundary of site 41HY157 was extended to encompass the APE. Except for six shovel tests with artifacts in the upper 10 cm, the prehistoric component is strictly surficial in nature, and lacks diagnostic artifacts or intact buried features. However, the mortar hole represents a significant feature not commonly documented in the area. It indicates a more sedentary occupation than would otherwise be represented by a lithic scatter alone.

Overall, the historic component of site 41HY157 has lost integrity because the elements are no longer associated with the original farm house and barn. Based on the predominately surficial nature of the prehistoric component of the site, the absence of diagnostic artifacts or intact buried prehistoric features, the lack of integrity of the historic component, and the lack of an association with an historically significant person or event, site 41HY157 is recommended not eligible for listing in the NRHP or for designation as an SAL. The prehistoric mortar hole, however, is assessed as a significant feature, given its rarity, and is recommended for avoidance in the future.

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Introduction

On behalf of the City of San Marcos, Galindo Environmental Consulting, LLC (Galindo Environmental) conducted an intensive cultural resources survey of the Millican Tract in Hays County, Texas. Two 60-foot (ft) (18.3-meter [m]) strips of the parcel abut Palomino Drive and Hays County Road 243 (signed Country Estates Drive), but the majority of the 248.711-acre tract of land is situated about 1,542 ft (470 m) northeast of the intersection of Old Ranch Road 12 and Country Estates Drive. The City of San Marcos proposes acquiring the MIllican Tract using Clean Water State Revolving Funds (CWSRF) through the Texas Water Development Board (TWDB). The parcel would be used for non-point source pollution prevention mitigation. Besides adding barb wire fencing to approximately 3,300 ft (1 km) of the perimeter, no future development is anticipated. Based on the City of San Marcos' status as a political subdivision of the state, compliance with both Section 106 of the National Historic Preservation Act (NHPA) and the Antiquities Code of Texas (ACT) was necessary. All work was conducted under Texas Antiquities Permit No. 8464 with Dr. Mary Jo Galindo serving as Principal Investigator. She was assisted in the field by archaeologists Sheldon Smith and William T. Leake II.

The Area of Potential Effects (APE) is defined as the irregularly shaped 248.711-acre tract (Figure 1) with a depth of impact of up to 3.28 ft (1 meter [m]). The parcel is maximally 6,660 ft (2.1 km) northeast to southwest and 2,100 ft (640 m) northwest to southeast. The intensive cultural resources survey conducted by Galindo Environmental included a background literature and records search, a 100-percent pedestrian survey along transects that were 98.4 feet (ft) (30 m) wide, and shovel testing in accordance with the Archeological Survey Standards for Texas as developed by the Council of Texas Archeologists (CTA) and adopted by the Texas Historical Commission (THC). The goal of the survey was to locate all prehistoric and historic archaeological sites in the APE, determine their extent, and evaluate their significance and eligibility for listing on the National Register of Historic Places (NRHP) or for designation as a State Antiquities Landmark (SAL).

Project Area Description

The APE is situated in southern Hays County about 2.2 miles (3.5 km) northwest of downtown San Marcos and Spring Lake, a natural spring known for prehistoric occupations spanning about 13,500 years (Lohse et al. 2013). An unnamed tributary to Sink Creek enters the APE at its northeastern corner and traverses near the center of the APE in a southwesterly direction. Much of the terrain is sloping and numerous smaller drainages were encountered. The project area consists of ranch land in a semi-rural setting, with large-acreage residences surrounding it to the northeast, northwest, and southwest. Undeveloped land lies to the southeast of the APE.

Environmental Setting

Geology and Soils

The underlying geology of the APE is mapped mainly as Edwards Limestone (Ked), with small areas of Del Rio Clay (Kdg) at the northeastern corner and along the southeastern boundary (Barnes 1974). Edwards Limestone consists of limestone, dolomite, and chert that can be "honeycombed" and cavernous with a thickness of 350 to 400 feet. Del Rio Clay is mostly calcareous and gypsiferous clay that is 40 to 60 feet thick.

The APE soils are mapped as 68 percent Comfort-Rock outcrop complex with 1 to 8 percent slopes, 28 percent Rumple-Comfort association with 1 to 8 percent slopes, and 4 percent Anhalt clay with 1 to 3 percent slopes (Natural Resources Conservation Service-U.S. Department of Agriculture [NRCS-USDA] 2018). Comfort-Rock outcrop complex occurs throughout the APE and consists of shallow, clayey soils and rock outcrops on side slopes as well as on hilltops and ridgetops on uplands in the Edwards Plateau area. The areas of rock outcrop are long, narrow horizontal bands on hill slopes and along small drainages (Batte 1984:21).

Rumple soils are moderately deep, well-drained, and moderately slowly permeable soils that formed in residuum and colluvium derived from limestone. These gently to moderately sloping soils occur on backslopes of low hills on dissected plateaus, and are mapped along the APE's northwestern boundary. Anhalt clay is mapped in the hay field along the

Figure redacted because archaeological site location information is protected by the National Historic Preservation Act of 1966 (as amended), Title III §304 and by the Texas Antiquities Code §191.004, and is not intended for public distribution

Figure 1. General Location Map

southeastern boundary and consists of moderately deep, well-drained, and very slowly permeable soils that formed in residuum over limestone bedrock. Anhalt soils are on nearly level to gently sloping uplands (NRCS-USDA 2018).

Vegetation

The project area is situated along the margin of the Edwards Plateau and the Blackland Prairie regions (Everitt et al. 2002; Kutac and Caran 1994). The Edwards Plateau forms a sharp boundary in floral distribution between the thin-soiled limestone uplands and the wide coastal plains. Upland areas are dominated by a mixed live oak (*Quercus virginiana*) and Ashe juniper (*Juniperus ashei*) woodland interspersed with occasional grassy openings. Other tree species present in low densities throughout these areas include cedar elm (*Ulmus crassifolia*) and Texas oak (*Quercus fusiformis*). Shrub density varies between low to dense in upland areas. Species occurring in low densities include Texas persimmon (*Diospyros texana*), agarita (*Berberis trifoliolata*), and prickly pear (*Opuntia* spp.) with thick, mixed grasses in areas (Van Auken 1988). Originally, the uplands of the Edwards Plateau sustained short grasses and the alluvial valleys had deciduous forests (Black 1989:12). The lower elevation areas along the riparian zone often include a dense understory of acacia (*Acacia* spp.), prickly pear, and other brushy species (Petrides 1988; Simpson 1988).

Fauna

With respect to fauna, the project area is situated within the Balconian biotic zone (Blair 1950). Common mammals of this biotic zone include white-tailed deer (*Odocoileus virginianus*), opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), nine-banded armadillo (*Dasypus novemcinctus*), black-tailed jackrabbit (*Lepus californicus*), and deer mouse (*Peromyscus maniculatis*). Less common are the predatory mammals including the bobcat (*Lynx rufus*), coyote (*Canis latrans*), and gray fox (*Urocyon cinereoargenteus*). In addition, bison (*Bison bison*), mountain lion (*Puma concolor*), and black bear (*Ursus americanus*), would have been present prehistorically (Davis and Schmidly 1994).

Bird species composition in the project area is fairly diverse with numerous breeding, migrant, and wintering species present (Kutac and Caran 1994). Common species found in the area include northern cardinal (*Cardinalis cardinalis*), tufted titmouse (*Baeolophus bicolor*), Berwick's wren (*Thryomanes bewickii*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), red-tailed hawk (*Buteo jamaicensis*), wild turkey (*Melagris gallopavio*), and turkey vulture (*Cathartes aura*). In addition to mammals and birds, Blair (1950) lists more than 75 species of amphibians and reptiles within the Balconian Province, which include the ornate box turtle (*Terrapene ornata*), Texas banded gecko (*Coleonyx brevis*), crevice spiny lizard (*Sceloporus poinsettii*), tree lizard (*Urosaurus ornatus*), eastern glass lizard (*Ophisaurus ventralis*), Texas night snake (*Hypsiglena torquata*), blacktail rattlesnake (*Crotalus molossus*), western diamondback rattlesnake (*Crotalus atrox*), northern copperhead (*Agkistrodon contortrix mokasen*), and the checkered garter snake (*Thamnophis marcianus*) (Conant and Collins 1998).

Cultural Setting

Situated in southern Hays County, the project area lies within the Central Texas archaeological region, as defined by Collins (2004). This area is noted by its distinctive environmental conditions, as it is located at the boundary of the moist, humid forests to the east and drier, savannah-like grasslands to the west that greatly influenced cultural development.
The following cultural-historic outline is based on the regional chronologies distilled by Collins (2004), who relied on the foundation laid by Suhm (1960), Prewitt (1981, 1985) and Johnson and Goode (1994). By convention, the cultural sequence is divided into four periods: Paleoindian, Archaic, Late Prehistoric, and Historic. The Archaic period is further subdivided into three subperiods: Early, Middle, and Late.

Paleoindian (13,500 to 8,800 B.P.)

Paleoindian artifacts and sites are not uncommon in Central Texas (Collins 2004), and are fairly rare in the Hays County area, except at Spring Lake. Evidence for prehistoric occupation in and around the San Marcos Springs extends from the Clovis period, approximately 13,500 years ago, up until the arrival of Spanish explorers in the early 1500s (Lohse et al. 2013:19). The period begins as the Pleistocene wanes, providing the earliest evidence of humans in the Central Texas region. Diagnostic artifacts include lanceolate-shaped, fluted projectile points such as Clovis, Folsom, and Plainview varieties. These projectile points were hafted onto wooden spears, launched using atlatls (spear throwers), and used to hunt mammoth, mastodons, bison, camel, and horse (Black 1989). During the Paleoindian period, a hunter-gatherer

adaptation strategy was developed and the harvesting of flora and small game played an increasing role in the Paleoindian diet. Other representative Central Texas Paleoindian sites include Kincaid Rockshelter, Wilson-Leonard, Gault, and St. Mary's Hall (Collins 2004). Late Paleoindian projectile point types from Spring Lake include Angostura, San Patrice, and Wilson (Lohse et al. 2013).

Early Archaic (8800 to 6000 B.P.)

The Early Archaic is defined by unstemmed point types, such as Angostura, and later stemmed varieties such as Early Split Stem, Martindale, and Uvalde (Black 1989; Collins 2004). Site distribution data suggest that Early Archaic populations were concentrated along the eastern and southern margins of Edwards Plateau in areas with more stable water sources (Collins 1995; McKinney 1981). Cemeteries are evident and specialized tools for woodworking, known as Guadalupe and Nueces bifaces, were prevalent during this period (Collins 2004). People continued to hunt deer and other small animals, fish, and gather bulbs and cook them in earth ovens (Collins 2004). This strategy evolved, in part, due to the extinction of megafauna and the changing climate at the beginning of the Holocene (McKinney 1981).

Middle Archaic (6000 to 4000 B.P.)

Characteristic Middle Archaic projectile points include Bell, Andice, Taylor, Nolan, and Travis, with multi-use bifacial knives becoming more common (Black 1989). Bison were hunted intensively at the start of the Middle Archaic but, as the climate became drier, a reliance on arid species of plants, such as sotol, became common. The end of the Middle Archaic may have been the most xeric conditions ever in Central Texas (Collins 2004). This climatic change may have triggered a technological change as Nolan and Travis points, with thick and narrow blades, first appeared in the archeological record during the Middle Archaic (Collins 2004). Representative sites of the Texas Middle Archaic include the Landslide, Wounded Eye, Gibson, and Panther Springs (Collins 2004).

Late Archaic (4000 to 1200 B.P.)

The Late Archaic period began with very xeric conditions that gradually became more mesic (Collins 2004). Characteristic dart point types include Bulverde, Pedernales, Marshall, and Marcos (Collins 2004). Increasingly complex and sedentary cultural manifestations first appeared in the Late Archaic, and sites of the period are very common and include burned rock middens, open campsites, and lithic procurement sites. Population increases are evidenced by large cemeteries and grave goods. Also, trade and exchange networks between cultures appear to have increased in complexity as evidenced by exotic goods in sites and cemeteries (Black 1989). Representative sites of the Central Texas Late Archaic include the Anthon and Loeve Fox sites (Collins 2004). A fourth subperiod of the Archaic has been proposed, based on evidence from sites such as 41WM1126, the Siren Site in Georgetown (Carpenter et al. 2013). Projectile points associated with the Transitional Archaic (1270–650 B.P. [Lohse et al. 2013]) include Darl, Scallorn, and Edwards, which all represent smaller dart points, signaling a change in technology.

Late Prehistoric (1200 to 260 B.P.)

By the end of the Archaic, the bow and arrow technologies were introduced, as indicated by the increasingly smaller size of projectile points. The Late Prehistoric period dates from 1250 to 260 B.P. (Collins 2004). Characteristic artifacts include small arrowpoints such as Perdiz and Scallorn as well as a variety of specific use tools. The Austin and Toyah intervals of the Late Prehistoric, originally recognized by Suhm (1960) and Jelks (1962), remain accepted divisions for the period.

Characteristic arrow points of the Austin interval include Scallorn and Edwards (Collins 2004; Turner and Hester 1999). By the Toyah interval, plain ware ceramics appeared, indicating possible influence in the Central Texas region from ceramic producing cultures to the east and north (Pertulla et al. 1995). Contrary to bog pollen data (Collins et al. 1993), data from Hall's Cave in Kerr County indicate that the climate of Central Texas began to dry around 1000 B.P. (Toomey et al. 1993). This drying trend may have resulted in a change in vegetation that made central and South Texas more conducive to bison migration into the area. Bison remains in archeological sites in the region are common after 750 B.P. (Dillehay 1974; Huebner 1991).

Most Toyah sites have the distinctive Perdiz arrow point type, Leon Plain ceramics, and some sites also have bison processing tool kits. Increasing complexity in subsistence patterns and very high prehistoric populations are postulated for

the Late Prehistoric period (Black 1989; Collins 2004). Representative sites of the Central Texas Late Prehistoric include the Kyle, Smith, and Currie sites (Collins 2004).

Historic (after A.D. 1630)

During the period of European contact and settlement in Texas, the general Hays County area was inhabited by several aboriginal groups including the Tonkawa, Lipan Apache, Comanche, Jumano, Catqueza, and Karankawa (Cecil and Greene 2016; Foster 1995; Newcomb 2002). The first Europeans into the region were probably Spanish explorers and missionaries (Cecil and Greene 2016; Foster 1995). Governor Domingo Terán de los Ríos expedition crossed through the southern part of Hays County in 1691–1692 (Cecil and Greene 2016; Foster 1995). In 1709, the expedition of Espinosa-Olivares-Aguirre passed through and explored parts of the San Marcos River (Cecil and Greene 2016; Foster 1995). Captain Domingo Ramón's expedition crossed through the southern portion of Hays County in 1716 headed to establish missions in northeastern Texas (Foster 1995). In 1721–1722 an expedition by Governor Marqués de San Miguel de Aquayo's passed near San Marcos to establish a presidio and fortify previously established missions in northeast Texas (Foster 1995). In 1755–1756, the San Xavier Mission and San Francisco Xavier Presidio were temporarily established in San Marcos (Cecil and Greene 2016; Chipman 1992). A permanent Spanish settlement was attempted in 1807 along the San Marcos River, but was abandoned in 1811 after bouts of flooding and frequent attacks from Comanche and Tonkawa Indians (Cecil and Greene 2016).

After Mexico gained independence from Spain, the newly formed country used land grants to encourage settlement in the sparsely populated northern regions of Mexico. During the 1830s, Mexican grants were issued in Hays County to Juan Martín Veramendi (1831), Juan Vicente Campos (1832), Thomas Jefferson Chambers (1834), and Thomas G. McGehee (1835) (Cecil and Greene 2016). During the Republic of Texas period, the state legislature established Hays County in 1848 from portions of the Travis County territory with San Marcos as the county seat (Cecil and Greene 2016). The county derived its name from John Coffee Hays who led a company of Texas Rangers (Cecil and Greene 2016; Richardson 1981). The construction of a stage line and sawmill (1848), several cotton gins, grist mills, a shingle mill, and a beef packery (1850–1885) assisted in encouraging settlement into the area (Cecil and Greene 2016). The population of Hays County rapidly grew; to accommodate the growing population a church (1847), several schools (1849–1860), and the Johnson Institute (1852) were formed (Cecil and Greene 2016).

By the 1880–1900s the area began to recover from the Civil War and Reconstruction aided by improved transportation, growth in the cattle industry, and migration of people from other states and countries (Cecil and Greene 2016). The construction of the Hays County rail line that connected San Marcos to Austin in 1880, and subsequently to San Antonio, boosted the population growth. The county's economy and population went relatively unchanged during the first half of the twentieth century. The county remained predominantly agricultural (about 90 percent) in economic focus until the mid-1960s (Cecil and Greene 2016). From the 1960s until the present, educational and established training facilities like Texas State University and Gary Job Training Center became more prominent and economically productive (Cecil and Greene 2016).

Historic Context of Millican Tract

The current APE is comprised of 248.711 acres of a 1,476.13-acre land grant to Thomas H. W. Forsith (Forsyth or Forsythe) that was patented on March 12, 1849. Forsith received one-third of a league (8.3 labores) by virtue of his residence in Texas when independence was declared. His survey notes indicate that his grant included 3 labores of arable land and 5.3 of pasture. There is no apparent record of Forsith selling the property, and it is not clear how or when W.M. and Mattie G. Rogers became the owners of the property, but Horace C. Storey bought 912.75 acres in three transactions with the Rogers between 1891 and 1899 (Hays County Deed Records [BCDR] 27:219-221, 27:405-406, 38:245-247).

Horace C. Storey (1858-1938) and S. Eudora Storey (1859-1934) were married in 1878 and appear on the 1880 U.S. Census for Hays County with two boarders. The 1900 U.S. Census for Hays County lists the couple along with their four sons (ages 6-14), two daughters (ages 2 and 4), and two African-American servants, Walter and Lucy Langdon. Horace was born in Texas, but his parents were from Arkansas and Georgia, while Eudora had been born in Mississippi and her parents were from Alabama and Kentucky. Neither the 1900 nor the 1910 census indicate what road the family resided

along, although the Storey family continues to be listed in 1910 among some of the same families as in the 1900 census, suggesting they resided in the same place. By the 1920 U.S. Census for Hays County, the Storey family is living on Belvin Street, which is about 1 km south of the APE, and Horace's occupation is a stockman on his own ranch. By 1930, the couple was living in Cotulla, according to the U.S. Census for La Salle County.

In 1916, H.C. and S. Eudora Storey entered into a deed of trust with J. E. Pritchett (HCDR 8:278-281). Apparent default of the agreement by the Storeys resulted in a judgement and order of sale in 1926. Deed records indicate that the next owner, John W. Morgan, was the highest bidder at a Sheriff's sale. The order of sale against H.C. and Eudora Storey was issued in May 1926, and John W. and Cedonia Morgan bought the 1,470-acre H.C. Storey Ranch (including 912.75 acres of the T.H.W. Forsythe survey) for $17,225 (HCDR 91:436-440).

The Morgans appear on the 1940 U.S. Census of Hays County living along Wimberley Road (Ranch Road 12) with a 30-year-old son and a 15-year-old niece. John W. Morgan's occupation is the manager of a stock ranch, while his son is a laborer on the stock ranch. The Morgans had been in the same house since at least 1935, according to the census. In fact, the 1930 U.S. Census for Hays County lists the Morgan family next to the same neighbors as the 1940 census, indicating that they probably occupied the former H.C. Storey Ranch soon after purchasing it.

After John W. and Cedonia Morgan, the chain of title is broken until 1959 when John W. and Naomi Hughson sold 691.54 acres, including the APE, to Hanno and Dorothy Guenther for $28,000 cash, a $50,000 15-year note, and 601.93 acres in Williamson County (HCDR 179:362-366). Joe B. and Foy H. Millican of East Baton Rouge Parish, Louisiana, then purchased 282.94 acres of the property from Hanno and Dorothy Guenther in 1975 (HCDR 171:478-483). By this point, the Guenthers had already subdivided much of the property into large-acreage homesites and dedicated more than 32 acres of existing roads (1974), providing public access to the subdivision (HCDR 266:463-464). Today these roads are known as Country Estates Drive, Palomino Drive, Mustang Lane, Shetland Drive, Clydesdale Drive, Triple Crown Run, and Derby Court.

According to the former owner of the APE Joe B. Millican, his home—which along with the original barn is adjacent to the southeast of the APE—was built in the 1870s and he restored it in the 1970s with the help of an architect. The barn associated with the house has been enlarged several times, as had been the house (Joe B. Millican personal communication 2018). Within the APE, a small house and all of the various sheds, foundations, and troughs between it and the main house were already in place when Millican bought the 282.94-acre ranch. Thus, the Millican Tract has been associated with at least two owners during the nineteenth century and six owners during the twentieth century (Table 1).

Table 1. Previous owners of the Millican Tract

Owner	Dates
Thomas H. W. Forsith	1849-?
W.M. and Mattie G. Rogers	?-1891
H.C. and Eudora Storey	1891-c. 1920
John W. Cedonia Morgan	1926-1940+
John W. and Naomi Hughson	?-1959
Hanno and Dorothy Guenther	1959-1975
Joe B. and Foy H. Millican	1975-2016

It could not be determined who owned the property in the 1870s when the Millican home was originally constructed. The Storey family probably lived there as early as 1899 when the 512.75-acre tract was purchased. By 1920 they are living on Belvin Street, about 1 km south of the APE. The Morgan family occupied the APE between 1926 and at least 1940. Based on this limited chain of title and census data research, the small house and all of the various barns, sheds, foundations, and troughs that are within the APE were constructed sometime between 1899 and 1975, by members of either the Storey, Morgan, Hughson, or Guenther families.

Methods

Background Review

Prior to initiating fieldwork, Galindo Environmental conducted a cultural resources background literature and records search of the APE. This research included reviewing the San Marcos North U.S. Geological Survey 7.5-minute topographic quadrangle map at the Texas Archeological Research Laboratory (TARL) at the University of Texas, and searching the Texas Archeological Sites Atlas online restricted database for any cultural resources recorded within a 0.62-mile (1-km) radius of the APE. In addition to identifying recorded archaeological sites and previously conducted cultural resources surveys, the review sought information on the following types of cultural resources: sites, districts, and properties listed on the NRHP, SALs, Official State of Texas Historical Markers (OTHM), Recorded Texas Historic Landmarks (RTHL), and cemeteries. Historic aerial photography and topographic maps were also reviewed.

Field Survey

The APE was subjected to a 100-percent pedestrian survey along transects that were 98.4 ft (30 m) wide, and augmented with shovel testing. All survey work was conducted in accordance with the Archeological Survey Standards for Texas, but because the APE exceeded 200 acres, the survey methodology was developed in consultation with the THC Archeology Division. One shovel test per three acres, or a minimum of 89 shovel tests for the APE, was required.

Archaeological investigations were supervised by Dr. Mary Jo Galindo, an archaeologist who meets the U.S. Secretary of the Interior's Professional Qualification Standards for Archaeology (48 Federal Register 22716; 36 Code of Federal Regulations [CFR] Part 61), and the requirements for Principal Investigator as defined in 13 Texas Administrative Code (TAC) 26, Part 2. Galindo Environmental examined the entire ground surface along transects and any erosional exposures for cultural resources. Subsurface investigations were placed in settings with the potential to contain buried cultural materials. The systematic shovel tests were approximately 1 ft (30 centimeters [cm]) in diameter and excavated to 3.3 ft (1 m) or to culturally sterile deposits or bedrock. The matrix from each shovel test was screened through 0.25-inch (0.64-cm) mesh unless the matrix is dominated by clay. Clay matrices were finely divided by hand and visually inspected for cultural material. The location of each excavation was plotted using a hand-held, global positioning system (GPS) receiver. Each shovel test was also recorded on a standardized form to document the excavation results.

Galindo Environmental anticipated revisiting site 41HY157, but if new sites were encountered, a minimum of six shovel tests would have been excavated to delineate each site boundary. A State of Texas Archaeological Site Data Form was completed for site 41HY157, and the form was subsequently submitted to TARL to document the revisit. A detailed plan map of site 41HY157 was produced with excavation locations plotted on a USGS 7.5-minute topographic map.

Temporally diagnostic artifacts, had any been encountered, would have been collected and brought to Galindo Environmental Archaeological Laboratory in Austin. Representative samples of non-diagnostic artifacts observed during the survey were photographed and documented in the field, but were not collected. Project paperwork and photographs will be curated at the Center for Archaeological Studies at Texas State University.

Site 41HY157 was evaluated by the criteria for listing in the NRHP according to 36 CFR 60.4 and for designation as an SAL according to 13 TAC 26.12. Historic archaeological deposits were present within the APE; thus, archival research was necessary. Galindo Environmental conducted a limited chain-of-title search on the property along with an historic map review and limited census research to determine potential occupants associated with historic archaeological sites, in order to evaluate the significance of the site with regard to NRHP and SAL eligibility.

Results

Background Review

The background literature and records search revealed that a portion of the APE had previously been surveyed along the Lower Colorado River Authority (LCRA) transmission line easement and site 41HY157 was recorded within the APE, while site 41HY156 is adjacent to the east of the APE. No sites, districts, or properties listed on the NRHP, SALs, or

cemeteries are within the study radius; however, one OTHM and RTHL that commemorates the Lloyd Gideon Johnson House at 1030 Belvin Street is 1 km south of the APE. It was erected in 1982 and reads:

> Local banker Lloyd G. Johnson and his wife Katherine built this house as a residence for their family in 1919-1920. The house, designed by noted architect Atlee B. Ayres, combines informal elements of the Mediterranean style with classical detailing and a formal, symmetrical plan. San Marcos Masonic Lodge No. 342 bought the house in 1937. It served as a Lodge building until 1990, when it was purchased for use again as a private residence. Recorded Texas Historic Landmark – 1982

The Ranch Road 12 to San Marcos Transmission Line project was surveyed in 1981 by the Texas Archeological Survey from the University of Texas at Austin under Texas Antiquities Permit No. 252. A portion of the 4.5-mile project traversed the current APE, where site 41HY157 was recorded as a large lithic resource procurement area situated on a broad, gently sloping western flank of a ridge. The site was comprised of a number of lithic concentrations scattered on the surface within a large low-density area. The recorders did not have access, but speculated that the site extended in a broad band to the southeast, paralleling the ridge. Artifacts observed at the site included cores, quarry blanks, smaller crude biface fragments, lithic debitage and large quantities of unmodified chert.

Site 41HY156 is a campsite situated on a hillslope to the east of a broad, deeply incised valley of a small unnamed tributary to Sink Creek, and about 30 m southeast of the APE. The overall distribution of cultural material on the surface of the site was patchy and the overall density of material was low. The site measures 200 m east to west and 50 m north to south. Artifacts observed included mostly small- to moderate-sized chert flakes scattered thinly and widely. A few larger flakes were noted along with small cores. No unmodified chert was available at site 41HY156, but chert nodules were noted 250 m west, and within the current APE.

Field Survey

Between June 19 and 22, 2018, Galindo Environmental archaeologists conducted an intensive pedestrian and subsurface survey of the 248.711-acre APE (Figures 2a and 2b). Based on these efforts and with the addition of an historic component, the boundary of previously recorded site 41HY157 was expanded to encompass the APE. Lithic artifacts were encountered on the surface throughout the APE; however none was temporally diagnostic. The prehistoric component includes a mortar hole in a boulder within the unnamed drainage to Sink Creek, while 14 features comprise the historic component, including a laborers' house, two barns, three sheds, three concrete foundations, four water troughs and a former cattle dip.

Site 41HY157

Pedestrian survey was conducted across the entire APE with subsurface investigations corresponding to the presence of soil. The current condition of the APE, including previous disturbance and soils, was documented through detailed notes, shovel test records, and photographs. Field investigations encountered two distinct settings in the northeastern and southwestern portions of the APE. The northeastern half of the APE consisted of a few flat terraces at the margins of the tract, flanking the unnamed tributary to Sink Creek; however, the majority of the terrain is sloped and includes numerous small drainages. Ground surface visibility across the terraces was approximately 10 to 30 percent (Figure 3), and higher in the drainages where rocks covered the surface (Figure 4). The southwestern half of the APE contained more level terrain and its southern extents had been modified for agricultural and ranching purposes, with various fencing, concrete foundations, storage sheds, barns, and a small twentieth-century residence.

Vegetation throughout the APE consisted primarily of isolated copses of oak, elm, Ashe juniper, mesquite, huisache, and persimmon trees with yaupon, agarita, cacti, and various grasses growing in the open areas. Prior disturbances were noted, including the transmission line corridor, vegetation clearing for ranching purposes and two-track road construction, cattle grazing, and hunting activities. Natural impacts include erosion and numerous animal trails and feral hog disturbances, several of which revealed lithic artifacts. Soils encountered were generally shallow (less than 30 cm), dark grayish brown to reddish brown, silty clay loams before yielding to limestone and chert cobbles or bedrock.

Figure 2a. Results Map, Northern Half

Figure redacted because archaeological site location information is protected by the National Historic Preservation Act of 1966 (as amended), Title III §304 and by the Texas Antiquities Code §191.004, and is not intended for public distribution

Figure 2b. Results Map, Southern Half

Figure 3. Typical vegetation and ground visibility of upland terrace, facing south.

Figure 4. Typical ground visibility in drainage setting, facing south.

A total of 104 shovel tests was excavated throughout the APE (Figures 5a and 5b; Appendix A). One prehistoric feature, a mortar hole in a boulder with a maximum diameter of 20 cm (Figure 6) was identified during the course of the survey. The boulder was situated within a steep rocky drainage roughly perpendicular to the transmission line easement, and subject to periodic, high-energy flood events. Shovel test depth ranged from 2 to 40 cm below surface (cmbs), averaging 18.4 cmbs. Six shovel tests were positive for prehistoric lithic artifacts (Shovel Tests [STs] 11, 30, 49, 65, and 83) and historic-age ceramic sherds (ST 59) (Table 2), but many more artifacts were noted scattered on the surface of the APE, including 1 aqua-colored, square glass bottle base, 2 cores, 4 bifaces and fragments, 4 expedient flake tools, 10 flakes, and 3 lithic concentration areas with these types of artifacts along with shatter and debitage.

Prehistoric artifacts observed on the surface were not distributed evenly or continuously across the APE. Ground surface visibility was limited to 10 to 30 percent across the terraces, likely influencing this finding. The glass shard was along the northern fence and may be associated with the property to the north, rather than the historic component of 41HY157 that is about 2 km south. All six of the positive shovel tests contained artifacts only in the top 10 cm and the artifact density was low. For example, ST 11 had a late-stage biface (Figure 7), four flakes, and a piece of shatter, while ST 30 contained a flake. Similarly, ST 49 contained a small biface (Figure 8), while ST 65 encountered four flakes and three pieces of shatter. Four pieces of Fiestaware was encountered in shovel test ST 59 in the top 10 cm of matrix (Figure 9). First produced in 1936, Fiestaware is a line of ceramic glazed dinnerware manufactured by the Homer Laughlin China Company of Newell, West Virginia since its introduction, with a production hiatus from 1973 to 1985. Based on its color, it could have been produced at any point after 1938 when turquoise (robin's egg blue) was introduced. Since Fiestaware continues to be manufactured, its utility as a temporal indicator is limited. Details about the small residence near ST 59 provide better clues about the likely time period of occupation, which is assessed as early- to mid-twentieth century.

The original structure (rear) was two-thirds the size of the current house, with wooden 1-over-1 pane windows (Figure 10) and vertical shiplap siding, indicating construction during the first half of the twentieth century. The addition was placed to the front of the previous house along with a small gable for a porch (Figure 11). The siding of the addition appears to be board-and-batten construction, but at least one window is aluminum, indicating mid-twentieth-century construction or repair. According to the former landowner Joe B. Millican, this structure had already been added onto when he bought the property in the 1970s and he used it to house his hired help (Joe B. Millican personal communication 2018).

Along with this house, two barns, three sheds (Figure 12 and Figure 13), three concrete foundations, four water troughs, and a former cattle dip (Figure 14) were recorded as an historic component of site 41HY157. Mr. Millican said all of these features were already constructed when he acquired the property in the 1970s, and that the cattle dip had already been filled with soil (Joe B. Millican personal communication 2018). The house is at the southwestern end of a hay field, across a two-track road from the sheds, foundations, troughs, and cattle dip, which are aligned parallel to the northeast-southwest trending road for a distance of about 200 m. Various barb-wire fences delimit pastures in the vicinity.

Based on archival research, the small house and all of the various associated ranching features that are within the APE were constructed sometime between 1899 and 1975, by members of either the Storey, Morgan, Hughson, or Guenther families. Two barns adjacent to a hay field are about 200 m to the northeast (Figure 15, Figure 16, and Figure 17), built upon artificially leveled ground. The 1966 San Marcos North USGS topographic map depicts the largest barn at the hay field (Barn 2), but the residence and second barn (Barn 1) are not depicted until the 1974 USGS topographic map (National Environmental Title Research (NETR) Online 2018).

Figure redacted because archaeological site location information is protected by the National Historic Preservation Act of 1966 (as amended), Title III §304 and by the Texas Antiquities Code §191.004, and is not intended for public distribution

Figure 5a. Site 41HY157 Map, Northern Half

Figure 5b. Site 41HY157 Map, Southern Half

Figure 6. Mortar hole in a boulder at site 41HY157.

Table 2. Positive Shovel Tests at Site 41HY157

Site Shovel Test	Site	Field Shovel Test	Level (10 cm)	Depth (cm)	P=Pos N=Neg	Munsell	Color	Soil Texture	Comments / Reason for Termination
11	41HY157	S11	1	0-10	**P**	10YR3/2	very dark grayish brown	slity clay loam	scrub vegetation; **1 late-stage biface, 4 flakes, 1 piece of shatter**
	41HY157		2	10-20	N	10YR3/2	very dark grayish brown	slity clay loam	-
	41HY157		3	20-30	N	10YR3/2	very dark grayish brown	slity clay loam	terminated at clay and cobbles
30	41HY157	S30	1	0-10	**P**	5YR3/4	dark reddish brown	slity loam	scrub vegetation; **1 flake**
	41HY157		2	10-20	N	10YR3/3	dark brown	clay	terminated at indurated bedrock
49	41HY157	M10	1	0-10	**P**	10YR3/3	dark brown	clay loam	**1 late-stage small biface with broken distal end**; elm and ashe juniper at margin of an open grassy area
	41HY157		2	10-13	N	10YR3/3	dark brown	clay loam	terminated at decaying bedrock marl
59	41HY157	M20	1	0-10	**P**	10YR3/2	very dark grayish brown	clay loam	**4 Fiestaware sherds**
	41HY157		2	10-20	N	10YR3/2	very dark grayish brown	clay loam	open grassy area with oak trees among a shed, troughs, and a residence
	41HY157		3	20-30	N	10YR3/2	very dark grayish brown	clay loam	-
	41HY157		4	30-40	N	10YR3/2	very dark grayish brown	clay loam	terminated at dense cobbles
65	41HY157	M26	1	0-10	**P**	10YR3/4	dark yellowish brown	clay loam	**4 flakes and 3 pieces of shatter**; grassy open area with huisache, elm, cacti, and mesquite
	41HY157		2	10-20	N	10YR3/4	dark yellowish brown	clay loam	terminated at cobbles
83	41HY157	W11	1	0-10	N	10YR3/6	dark yellowish brown	sandy loam	**1 tertiary flake**; open scrub land with cacti and mesquite
	41HY157		2	10-20	N	10YR3/6	dark yellowish brown	sandy loam	-
	41HY157		3	20-25	N	10YR3/6	dark yellowish brown	sandy loam	terminated at crumbly white bedrock substrate

Figure 7. Late-stage biface from ST 11.

Figure 8. Late-stage biface from ST 65.

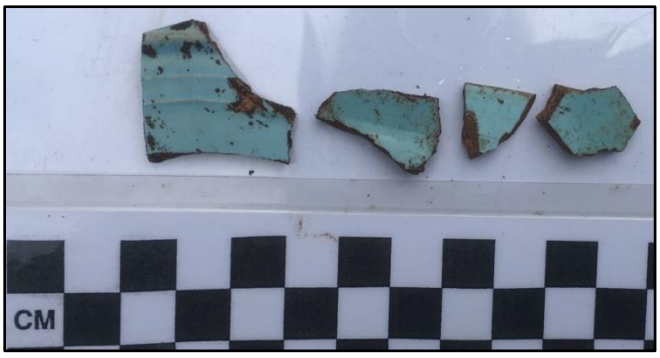

Figure 9. Fiestaware sherds from ST 59.

Figure 10. Rear and side of small residence near ST 59, facing northeast.

Figure 11. Front of small residence near ST 59, facing southwest.

Figure 12. Shed 1 at site 41HY157, facing north.

Figure 13. Shed 1 at site 41HY157, facing southwest.

Figure 14. Foundation, modern Shed 2, and water trough at site 41HY157, facing south-southeast.

Figure 15. Barn 2 at site 41HY157, facing west-southwest.

Figure 16. Barn 2 at site 41HY157, facing northeast.

Figure 17. Barn 1 at site 41HY157, facing west-northwest.

Summary and Recommendations

Galindo Environmental conducted an intensive cultural resources survey of the Millican Tract in Hays County, Texas, on behalf of the City of San Marcos. The City proposes acquiring the MIllican Tract with CWSRF through the TWDB and using the parcel for non-point source pollution prevention mitigation. Besides adding barb wire fencing to approximately 3,300 ft (1 km) of the perimeter, no future development is anticipated. Based on the City of San Marcos' status as a political subdivision of the state, compliance with both Section 106 of the NHPA and the ACT was necessary. All work was conducted under Texas Antiquities Permit No. 8464 with Dr. Mary Jo Galindo serving as Principal Investigator.

The APE is defined as the irregularly shaped 248.711-acre tract with a depth of impact of up to 3.28 ft (1 m). The goal of the survey was to locate all prehistoric and historic archaeological sites in the APE, determine their extent, and evaluate their significance and eligibility for listing on the NRHP or for designation as an SAL. The background review determined that a transmission line easement within the APE had been surveyed in 1981 on behalf of the LCRA, and that prehistoric site 41HY157 was recorded straddling the easement. No sites, districts, or properties listed on the NRHP, SALs, or cemeteries are within the study radius; however, one OTHM and RTHL that commemorates the Lloyd Gideon Johnson House is 1 km south of the APE.

A total of 104 shovel tests was excavated throughout the APE. Six shovel tests were positive for prehistoric artifacts and historic-age ceramic sherds, but many more lithic artifacts were noted scattered on the surface of the APE, although none was temporally diagnostic. Prehistoric artifacts on the surface were not distributed evenly or continuously across the APE, and one prehistoric feature—a mortar hole was identified. A residence, barns, sheds, foundations, water troughs, and a former cattle dip were recorded as an historic component of site 41HY157.

As a result of the survey, the boundary of site 41HY157 was extended to encompass the APE. Except for six shovel tests with artifacts in the upper 10 cm, the prehistoric component is strictly surficial in nature, with lithic artifacts scattered widely and rarely in any concentrated manner. The prehistoric component also lacks diagnostic artifacts or intact buried features; however, the mortar hole is an intact, albeit surficial, prehistoric feature along an intermittent drainage and situated within the LCRA easement. The mortar is assessed as a significant feature not commonly documented in the area. It indicates a more sedentary occupation than would otherwise be represented by a lithic scatter alone.

Overall, the historic component of site 41HY157 is relatively more intact; the house was recently occupied by a worker, cattle currently occupy the pastures, and hay bales are in the barn. That said, the 14 features comprising the historic component have lost integrity because the elements are no longer associated with the original farm house and barn. The front of the small house has been expanded, obliterating the original façade, adversely affecting its integrity, and impairing its ability to be a representative example of vernacular architecture.

Based on the predominately surficial nature of the prehistoric component of the site, the absence of diagnostic artifacts or intact buried prehistoric features, the lack of integrity of the historic component, and the lack of an association with an historically significant person or event, site 41HY157 is recommended not eligible for listing in the NRHP or for designation as an SAL. The prehistoric mortar hole, however, is assessed as a significant feature, given its rarity, and is recommended for avoidance in the future.

In accordance with 36 CFR 800.4, Galindo Environmental has made a reasonable and good faith effort to identify archaeological historic properties within the APE. One prehistoric feature of site 41HY157 is evaluated as significant, but otherwise, no properties were identified that meet the criteria for listing in the NRHP, according to 36 CFR 60.4, or for designation as an SAL, according to 13 TAC 26.12. Galindo Environmental recommends avoidance of the mortar hole, which is situated within the LCRA easement, and that no further cultural resources investigations are necessary within the project APE. If avoidance of the mortar hole is not possible, further archaeological work in consultation with the THC may be necessary. No artifacts were collected during this survey; project records and photographs will be curated at the Center for Archaeological Studies at Texas State University in San Marcos.

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Appendix: Shovel Test Table