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Archaeological Survey for the El Paso Electric Montana Power Station in El Paso County, Texas

Prepared for

Trinity Consultants

Prepared by

SWCA Environmental Consultants

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ARCHAEOLOGICAL SURVEY FOR THE EL PASO ELECTRIC MONTANA POWER STATION IN EL PASO COUNTY, TEXAS

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MANAGEMENT SUMMARY

Project Title. Archaeological Survey for the El Paso Electric Montana Power Station in El Paso County, Texas

SWCA Project Number. 23132

Project Description. SWCA Environmental Consultants (SWCA) conducted an archaeological background review and intensive pedestrian survey of two parcels of land and potential transmission line and water pipeline corridors for the El Paso Electric Company (EPEC) Montana Power Station project to determine whether the undertaking would impact any significant archaeological resources. A visual effects analysis of potential impacts to National Register of Historic Places (NRHP)-eligible properties was conducted to a distance of 8.0 km (5 miles) from the project.

Location. The project consists of two parcels of private land, A and B, for the Montana Power Station and additional proposed transmission line and water pipeline corridors located on private, El Paso County, and Fort Bliss land. Parcel A is 166.29 acres; 10.71 acres of this parcel were removed from the project area after survey was completed and will not be affected by project activities. Parcel B is 88.61 acres. The proposed transmission and water line corridors total 250.13 acres. One of these areas, a north-south trending portion of the proposed transmission line corridor running parallel to Rene Drive (Filing 1, Route 1A), could not be surveyed. SWCA archaeologists attempted to survey this area, a commercial enterprise, and were denied entry. Also, the portion of the proposed transmission line corridor south of and running parallel to Montana Avenue/Highway 62 (Filing 2, Route 3B), was surveyed but found to be fully developed, covered by an automobile salvage yard and other commercial buildings, with no ground surface visibility. The project area surveyed by SWCA appears on the Nations South Well (31106-G2) and Fort Bliss SE (31106-G3) U.S. Geological Survey 7.5-quadrangle maps.

Number of Acres Surveyed. 505.03 acres

Principal Investigator. Thomas P. Barrett

Dates of Work. March 5–7, 2012 and June 3–12, 2013 and August 28, 2013

Purpose of Work. EPEC is proposing to build a natural gas-fired simple cycle electrical generating facility located within El Paso County, Texas, designated the Montana Power Station. Construction and operation of the facility will require a permit from the U.S. Environmental Protection Agency (EPA). The cultural resources survey was completed in support of EPA's obligations under Section 106 of the National Historic Preservation Act.

The project will be constructed on an approximately 255-acre site that is roughly 1.5 miles east-northeast of the outer boundary of El Paso, Texas. It will consist of four General Electric LMS 100 simple cycle gas turbine generators, each nominally rated at 100 megawatts. The four units will be sequentially constructed from 2013 to 2015. Electrical power generated by the facility will be transmitted to EPEC's existing transmission system through a switch yard, which will be constructed as part of the project.

Properties Identified. Two newly recorded archaeological sites (41EP6784 and 41EP6901), three previously recorded sites (41EP4766, 41EP5886, 41EP6902), and 13 non-site isolated occurrences were identified within the survey area.

Eligibility of Properties. Site 41EP6784 is a deflated hearth with a small scatter of burned caliche with no artifacts. It has limited information potential and is therefore recommended not eligible for the NRHP. Site 41EP6901 is a hearth feature with an associated artifact scatter including a Folsom projectile point. The feature has intact subsurface deposits and this, coupled with the rare nature of the observed artifacts, suggests the site has important information potential about the prehistory of the area. The Texas Historical Commission (THC) has found the site undetermined in terms of its eligibility to the NRHP. Site 41EP4766 no longer exists, having been destroyed by previous development. Site 41EP5886 is a large prehistoric campsite located both within and outside the survey area. The site has been determined eligible for the NRHP by the Texas State Historic Preservation Office. 41EP6902

is a prehistoric campsite with two thermal features containing intact subsurface cultural deposits. THC has found the site undetermined in terms of its eligibility to the NRHP.

Curation. Three projectile points from 41EP6901 were collected and are being temporarily curated at the SWCA Albuquerque office until the landowner can be contacted and a final curation location determined.

Comments. The archaeological survey of the two land parcels and proposed transmission and water line corridors for the EPEC Montana Power Station project resulted in the updating of three previously recorded archaeological sites (41EP4766, 41EP5886, and 41EP6902), and the recording of two new prehistoric archaeological sites (41EP6784 and 41EP6901) and 13 non-site isolated occurrences. Two of the survey findings, 41EP6901 and 41EP6902, have been found by THC to be undetermined in terms of their eligibility to the NRHP. Site 41EP5886 has already been determined eligible for listing on the NRHP. Sites 41EP5886, 41EP6901 and 41EP6902 should be temporarily fenced and avoided during any proposed work. If avoidance is not possible testing and mitigation measures should be developed in consultation with THC. Site 41EP6784 and the 13 non-site isolated occurrences are recommended not eligible to the NRHP and no further management of these resources is recommended. Site 41EP4766 no longer exists and no further management is recommended. No known sensitive historic properties are present within the indirect/visual area of potential effect. However, if additional resources are identified through future consultations or investigations the potential exists for a moderate visual impact from certain of the transmission route alternatives.

Effect. If the mitigation measures specified in this report are implemented SWCA recommends that the development of the proposed Montana Power Station and its interdependent activities will have No Adverse Effect on historic properties. It is possible that tribal consultations to be undertaken by EPA will result in the identification of cultural resources not documented in this report. In that case, potential effects and mitigation measures would need to be developed in consultation with the THC and interested tribes.

INTRODUCTION

El Paso Electric Company (EPEC) is proposing to construct and operate a greenfield electric generating station, referred to as the Montana Power Station consisting of four General Electric (GE) simple cycle natural gas-fired turbines, Model LMS100, and associated equipment, for a total of 400 MW of generating capacity during peak summer and winter demand periods. Electrical power generated by the facility would be transmitted to EPEC's existing transmission system through a switchyard, which would be constructed on-site as part of the proposed project. From the switchyard, a new power line would be constructed and would connect to the existing power line along Frankie Lane, an east-west two-track road that defines the northern edge of the power station area. Each of the GE LMS100 units would be equipped with a selective catalytic reduction (SCR) and water-injection systems to control emission of nitrogen oxides (NO_x). In addition, the turbines will be equipped with an oxidation catalyst, a GE carbon monoxide reduction (COR) system, to reduce carbon monoxide (CO) and volatile organic compound (VOC) emissions. The GE LMS100 is the first inter-cooled gas turbine system developed especially for the power generation industry, using the better of two technologies: heavy-duty gas turbines and aero-derivative gas turbine technology. The LMS100 is specifically designed for cyclic applications providing flexible power and shortened (i.e., 10 minutes) start-up times. While the new generating facility is primarily designed to provide power at peak periods of electrical demand (i.e., peaking plant), the annual hours of operation for each turbine will be limited to 5,000 hours per year, including startup and shutdown events. Each LMS100 Electric Generating Unit (EGU) would have a power generation output capacity of approximately 100 MW during the winter and 89.9 MW during extreme summer temperatures.

Access to the proposed project would be from Montana Avenue, north on Flagger Street, west on Frankie Lane, and to a new paved road to be constructed within the project area; however, no improvements to Montana Avenue are required at this time. Additional infrastructure on-site would include ammonia storage tanks, two wet cooling towers, an administration building, a water treatment building, transformers, compressors, a wastewater wash tank, a fuel gas waste tank, a gas metering station, a zero liquid discharge (ZLD) building, and a metering station. El Paso Water Utilities would provide water to the site for operational use. The first two LMS100 turbines would be constructed to use reverse osmosis and two 20-acre evaporation ponds; however, after final construction, the plant would be a ZLD facility and would contain an on-site water treatment system. In addition, a 10-acre storm water retention pond would be constructed to retain storm water on-site during periods of precipitation. Natural gas would be supplied by a newly constructed tap and header specifically constructed for the proposed project.

The project would be constructed on an approximately 255-acre site that is roughly 1.5 miles east-northeast of the outer boundary of El Paso, Texas (Figure 1). The future facility consists of a greenfield surrounding the existing Magellan fuel storage operation. The area surrounding the project is a mix of undeveloped native desert, developed residential/commercial properties, and Fort Bliss. The project is bounded by Fort Bliss to the north, mixed residential and commercial properties to the east and west, and the Magellan fuel storage and Montana Avenue/Highway 62 to the south. There are approximately 65 residences within 0.5 mile of the proposed electric generation units. The nearest residences are about 1,200 feet to the west and 4,100 feet to the east (Figure 2 through Figure 4). Trinity Consultants, acting on behalf of EPEC, selected SWCA Environmental Consultants (SWCA) to conduct an archaeological survey to identify prehistoric and historic properties that might be affected by the proposed work and a visual effects analysis of the entire proposed project. The survey area consisted of two parcels of land, A and B, for the power station totaling approximately 255 acres (Figure 5). Parcel A is 166.29 acres after the removal of 10.71 acres, and Parcel B is 88.61 acres. In addition, potential transmission and water line corridors were surveyed totaling 250.13 acres.

The proposed area of potential effect (APE) for the power station has sustained extensive disturbance from wind, previous construction activities, and modern trash dumping. The project area consists of a coppice dune and blowout landscape, and retains little integrity (Figure 6). Parcel A has approximately 29 acres of disturbed area (17 percent). Parcel B has a little over 9 acres of disturbance, or 30 percent. In all, 17 percent of the total survey area has been disturbed. The proposed APEs for the possible transmission and water line corridors have also sustained disturbance from wind deflation, previous construction activities, and modern trash (Figure 7 and Figure 8). A portion of the corridor located south of and running parallel to Montana Avenue/Highway 62 (Filing 2, Route 3B) has been completely developed by a large automotive salvage yard and other commercial buildings. In addition, a portion of the corridor running parallel to Rene Drive just south of Montana Avenue/Highway 62 (Filing 1, Route 1A) could not be surveyed. SWCA archaeologists attempted to survey this area (a commercial enterprise), but were turned away by individuals behind the property fence.

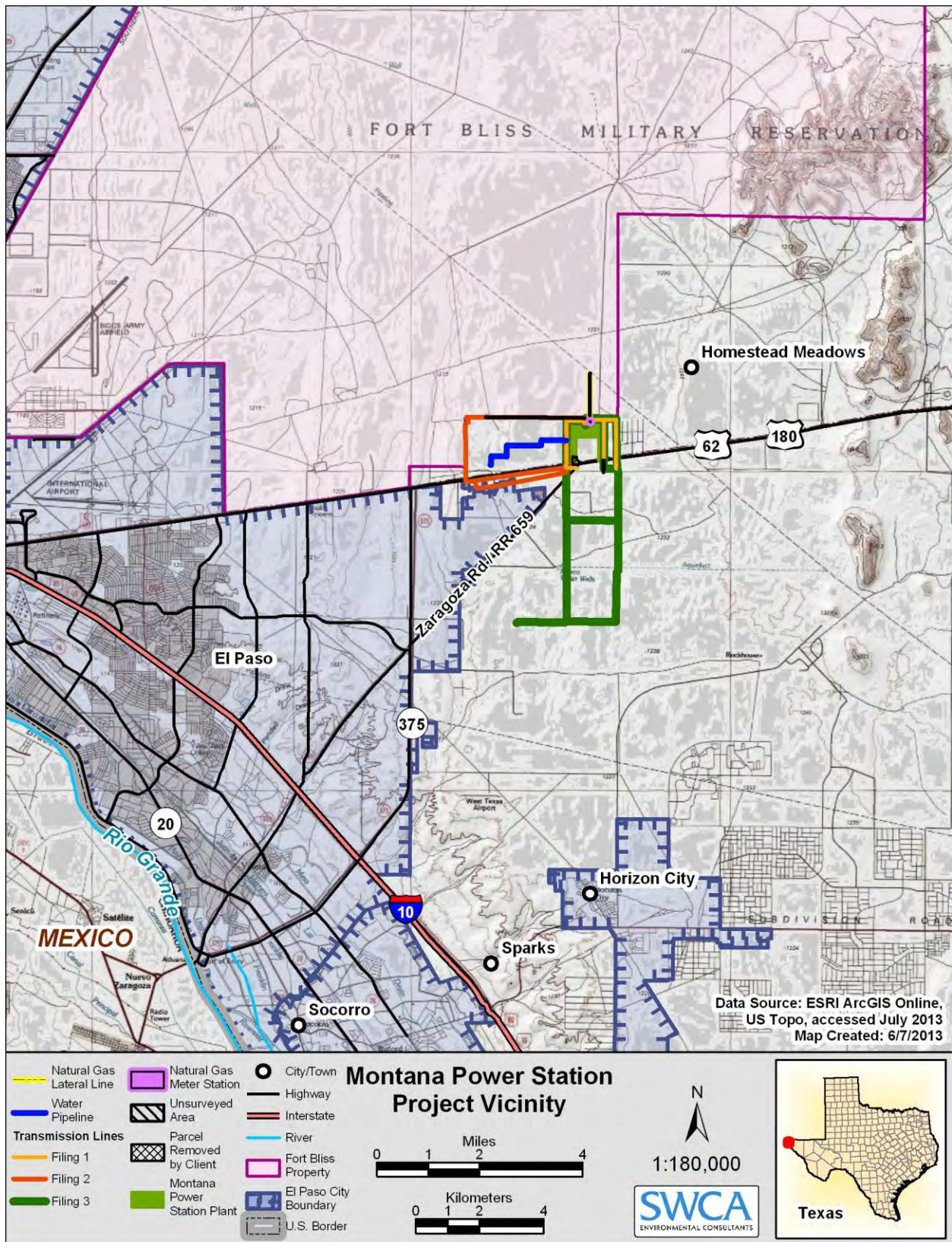


Figure 1 Project vicinity map.

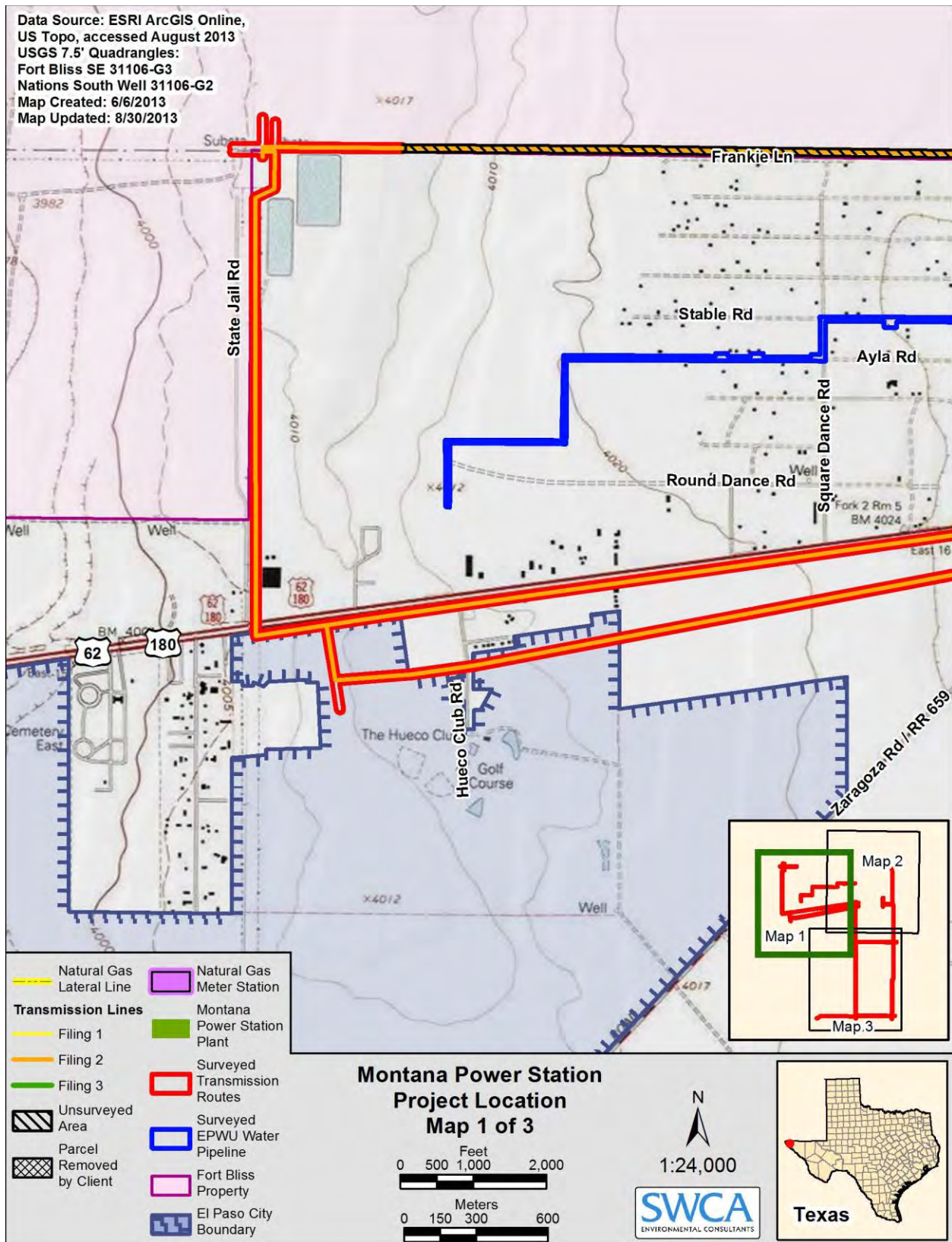


Figure 2. Project location map 1 of 3.

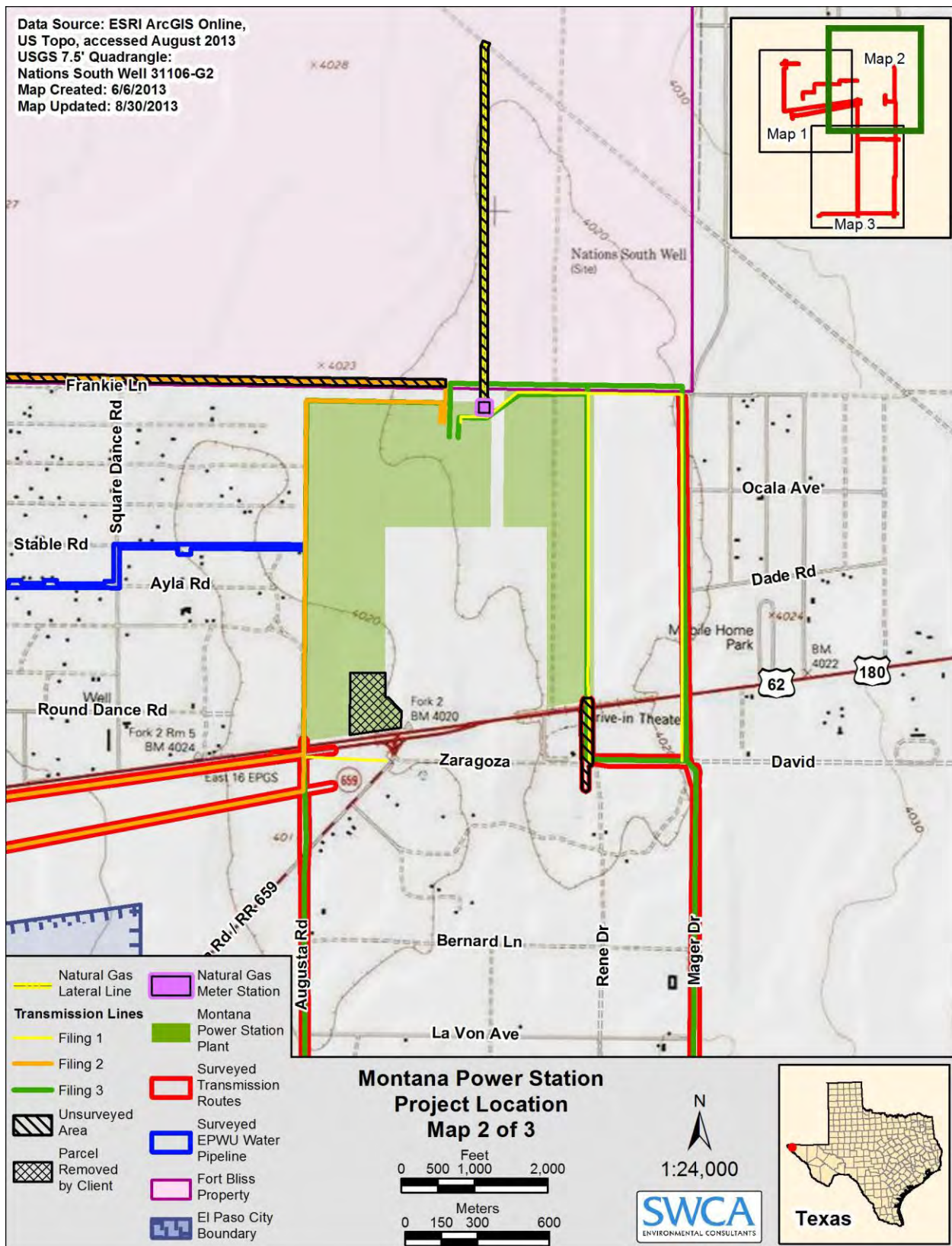


Figure 3. Project location map 2 of 3.

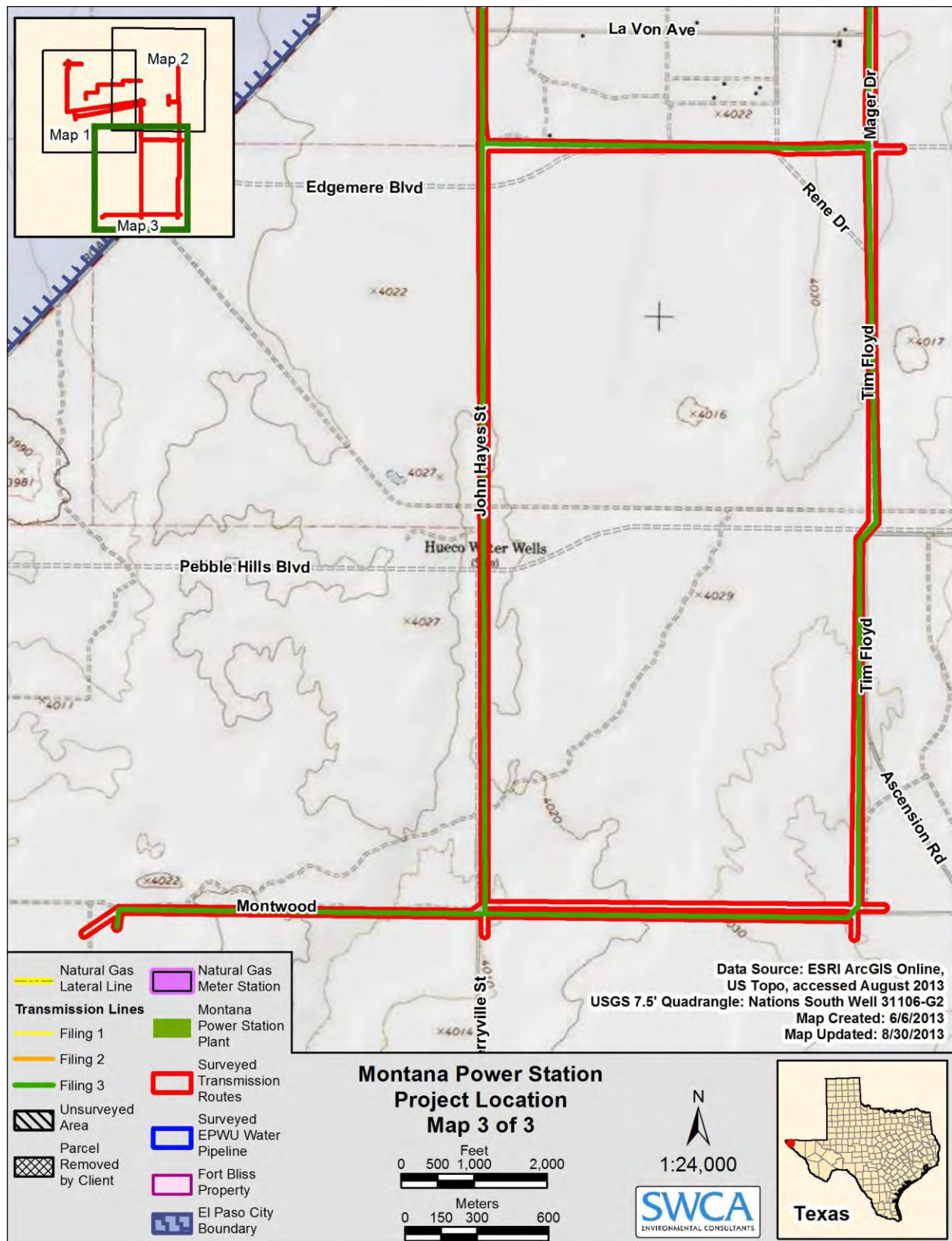


Figure 4. Project location map 3 of 3.

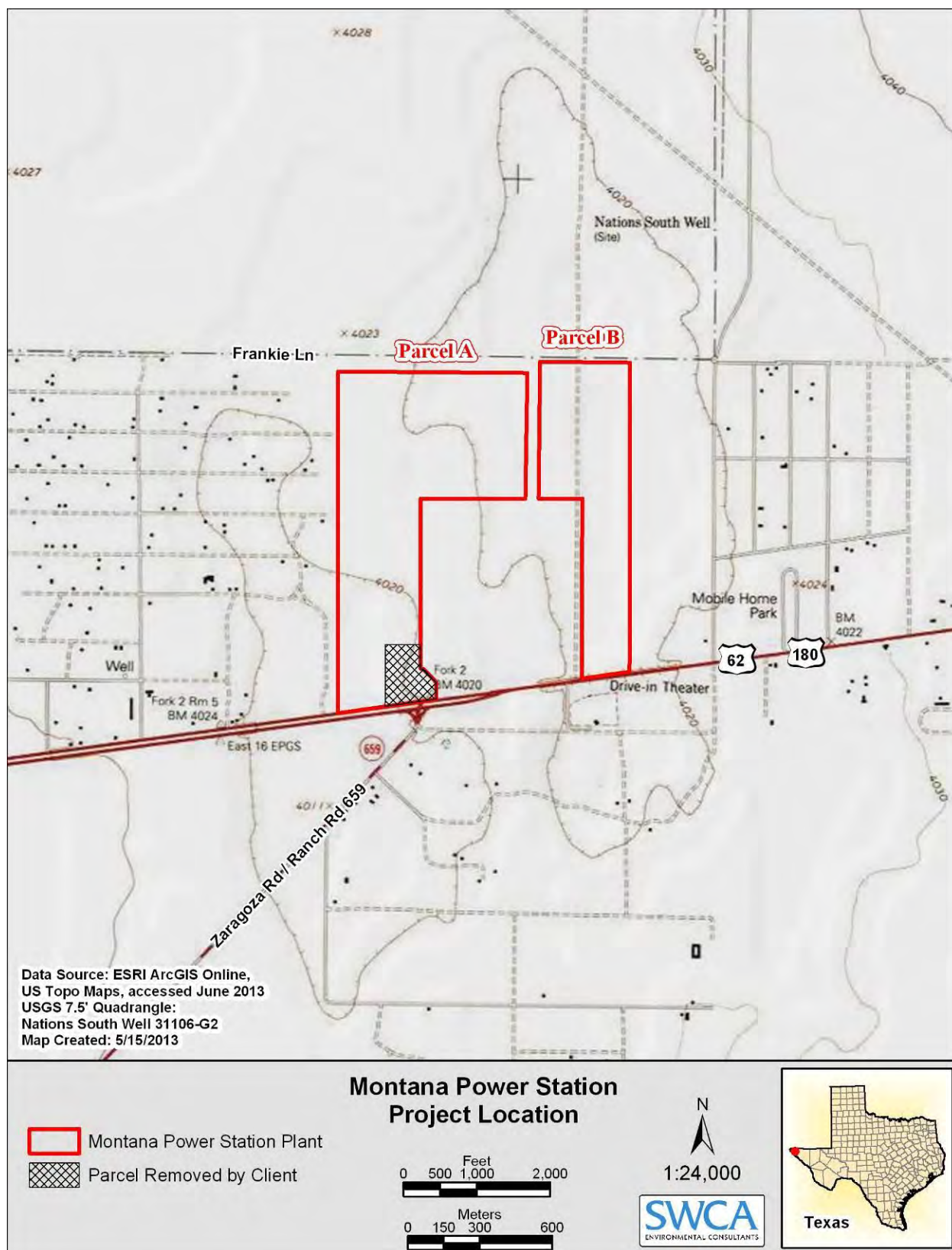


Figure 5. Montana Power Station project location map.



Figure 6. Overview in Parcel B showing coppice dune and blowout landscape of the project area (view northeast).



Figure 7. Project area overview of transmission line corridor showing modern trash and commercial development within coppice dune landscape.



Figure 8. Project area overview of transmission line corridor at Montana Ave./62 and Rich Beem Blvd, facing east.

Interrelated and Interdependent Actions

Interrelated actions are those that are part of a larger action and depend on the larger action for their justification (i.e., the proposed action would not occur without the larger project). All interrelated actions were incorporated into the project actions and description as part of the associated infrastructure description. Thus, no additional discussion regarding interrelated actions related to the proposed Montana Power Station project is required for the analysis of the proposed project.

Interdependent actions are those that have no significant independent utility apart from the action under consideration (i.e., other projects would not occur without the proposed action). This proposed project has three such interdependent actions: 1) transmission line and substation upgrades to the existing EPEC transmission system in the project vicinity, 2) natural gas pipeline upgrades and new installation within and in the vicinity of the proposed project, and 3) a 30-inch-diameter water pipeline to provide municipal water to the Montana Power Station project. Refer to SWCA 2013 for a more detailed description of these actions.

EPEC proposes to interconnect the Montana Power Station with a double-circuit 115-kilovolt (kV) line from the proposed Montana Power Station to intersect and split the existing 1.3-mile long Caliente to Coyote 115-kV line into two circuits and construct a new, double-circuit 115-kV transmission line from the proposed Montana Power Station to EPEC's existing Caliente Substation, approximately 2.4 miles east of Montana Power Station. This interdependent action is currently under consideration as part of an Environmental Assessment and Alternative Route Analysis to support an application for a Certificate of Convenience and Necessity (CCN). For the Montana Power Station project, there are two phases, each representing different potential transmission line corridors.

Kinder Morgan (El Paso Natural Gas Company) plans to construct and operate the Montana Power Station Meter Station and Lateral Line for the proposed Montana Power Station project. These facilities are located within northern portion of the Montana Power Station parcel and the pipeline extends north onto Fort Bliss to connect with an existing Kinder Morgan natural gas transmission pipeline. This activity is regulated by the Federal Energy

Regulatory Commission (FERC) and consultation was performed with the Texas Historical Commission (THC) in order to fulfill FERC's obligations and responsibilities under Section 106 of the NHPA. On June 10, 2013 the THC determined that the undertaking would have no effect on historic properties. Appendix D contains the SWCA desktop review letter and the SHPO concurrence letter received by Kinder Morgan.

El Paso Water Utilities plans to construct and install a 30-inch-diameter water pipeline to provide municipal water to the Montana Power Station project. The proposed water line would be installed within disturbed rights-of-way just west of the proposed project area.

The Montana Power Station and each of its three interdependent actions are analyzed in terms of their potential effects to historic and cultural resources in the body of this report.

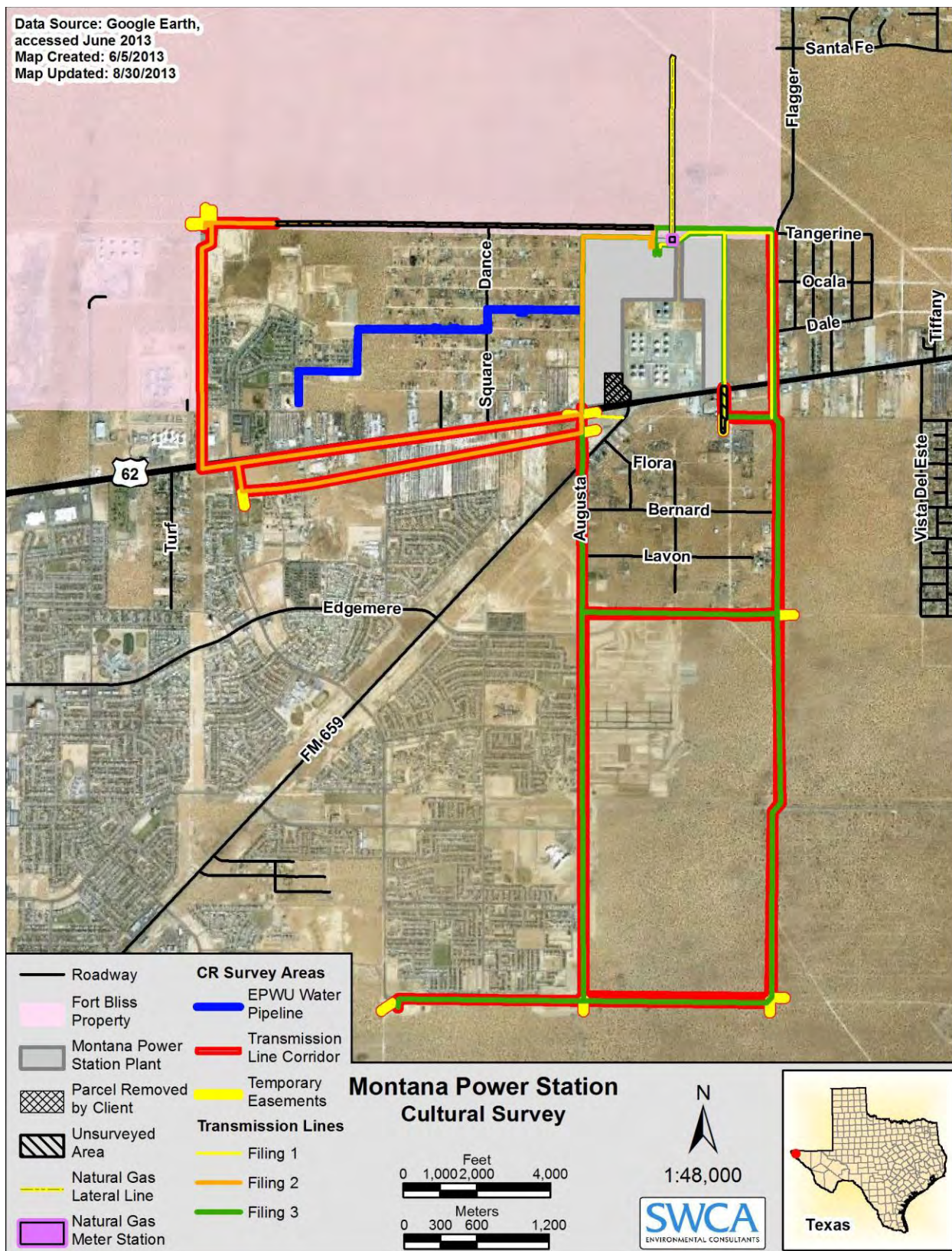


Figure 9. The Montana Power Station and interdependent actions survey area.

NATURAL AND CULTURAL SETTING

Natural Setting

The project area is situated within the Basin and Range physiographic province. The area is located within the northern portion of the Chihuahuan Desert, a high arid desert and the largest of the creosote bush deserts in North America (Brown 1994:169). Annual temperature extremes can be significant, with summer temperatures regularly exceeding 100 degrees Fahrenheit and winter temperatures dropping well below freezing. The majority of precipitation occurs during the summer months and is associated with thunderstorms. Precipitation ranges from around 8 to 12 inches a year. The combination of rainfall and temperature make for marked seasonality and a long growing season. Little surface water is available in the general area. Playas, which are scattered across the region, serve as sources of standing water after thunderstorms. Some playas near mountains that receive substantial runoff will hold water for prolonged periods of time during the wet season. Vegetation observed in the project area includes Texas prickly pear, honey mesquite, creosote bush, Don Quixote's lace, clapweed, Texas barometer bush, and cholla cactus. Some of these species were of economic importance to the prehistoric inhabitants of the region. It is generally thought that there has been little change in the vegetation and climate of the area since early Holocene times (8000 B.P.); thus, current environmental conditions provide a context for interpreting the prehistoric occupation of the area (e.g., O'Laughlin et al. 1988). Animals found in the area include jackrabbit and cottontail, some deer, pronghorn, various rats and mice, coyote, snakes, turtles, quail, and badger. Many of these species were also of economic importance to the prehistoric peoples of the area.

Cultural Setting

The region has a long history of human use. The earliest remains date to the end of the Pleistocene, and Native American populations were living in the region, primarily along rivers, when the Spanish first entered the area. A more detailed overview of prehistory of the Jornada Mogollon area can be found in O'Laughlin and Martin (1993).

Paleoindian Period

The earliest occupants of the Jornada Mogollon region are associated with the Paleoindian period (9000–6000 B.C.). Few remains associated with these early people have been identified in the region. Their presence is most often documented by the discovery of isolated projectile points that distinguish these people from later times. Points are commonly lanceolate and fluted. Paleoindians are generally thought to have lived in small bands. They hunted late Pleistocene megafauna, including mammoth and bison, and consumed other animals as well as plants. The earliest Paleoindians are associated with the Clovis tradition. Clovis points and sites are few in the general area. Subsequent Paleoindian traditions include the Folsom and Plano traditions. Remains of these later groups are generally more common (O'Laughlin and Martin 1993:17–19).

Archaic Period

The Archaic period in the region is generally dated between 6000 B.C. and A.D. 200. During this time there was a shift from subsistence economies focused on hunting to diversified subsistence economies based on a mix of hunting small game and extensive and intensive use of wild plant resources. Between 4,000 and 2,000 years ago, an environment much like today was established. This was initiated with a prolonged drying period, an increase in winter precipitation, and intensification of the summer monsoon season. This impacted settlement and subsistence patterns (Carmichael 1986; Van Devender and Spaulding 1979).

Despite the documentation of a well-established Archaic period occupation of the region, primarily through surface finds, excavations have been limited. This has made it difficult to document the cultural and subsistence changes that occurred during this extended period of time. Additionally, the excavation and chronometric data at hand are often conflicting. Archaic populations in the region peaked during the Late Archaic period. During this time, cultigens are introduced to and used in the area. Radiocarbon dates indicate corn was introduced between 1665 and 1225 B.C. (Carmichael 1982; Upham et al. 1986), and squash and beans were in use by the end of the Late Archaic

period (MacNeish and Beckett 1987). However, it does not appear that cultigens played a major part in the overall diet of Late Archaic peoples.

For the most part, Archaic-period sites are identified by the presence of distinctive projectile point types and the presence of slab metates and handstones or one-hand manos. In west Texas, the Late Archaic period is also referred to the Hueco phase (O’Laughlin and Martin 1993:19–22).

Formative Period

The Formative or ceramic period is divided into three phases and defined as the Jornada branch of the Mogollon culture (Lehmer 1948). Study of the Jornada Mogollon languished for decades until the inception of cultural resource management and enforcement of Section 106 of the National Historic Preservation Act (NHPA). Numerous large-scale surveys and excavations in both the Hueco and Mesilla bolsons resulted in a proliferation of new data that challenge existing paradigms and basic units of analysis. However, as a result new questions and problems arose, many of which are still topics of current research.

Mesilla Phase

The Mesilla phase is defined by the appearance of ceramic technology, the introduction of the bow and arrow, and the appearance of deep pithouses. Other than the appearance of these traits, in many ways the early Mesilla phase represents a continuum of the Late Archaic lifeway. The diagnostic ceramic type associated with this phase is El Paso Brown, which can be identified by distinctive rim forms. Despite the introduction of pithouses, both round and rectangular, Mesilla phase populations appear to have remained fairly mobile, moving seasonally (O’Laughlin 1980; Hard 1983; Whalen 1981a). However, by the end of the Mesilla phase, villages became larger and populations less mobile as settled village life set in with the adoption of agriculture as the primary source of food. Late in the Mesilla phase there is evidence of interregional interaction with the appearance of some Mimbres wares in Mesilla phase contexts. However, this seems limited. It is likely Mesilla phase villages consisted of nuclear or extended families, and there is no evidence of any significant social differentiation within groups (Whalen 1981b). The phase is generally dated ca. A.D. 1 to 1100 (O’Laughlin and Martin 1993:25–30).

Doña Ana Phase

The Doña Ana phase is the least well understood of the three Formative period phases in the Jornada area. As initially defined (Lehmer 1948), the phase is seen as a transitional phase between the earlier Mesilla phase and the subsequent El Paso phase. It is said to exhibit traits of both, and it is dated between A.D. 1100 and 1200. Both residential sites and camp sites make up the settlement system for the Doña Ana phase. Ceramics associated with this phase include El Paso Brown, El Paso Bichrome, and an early version of El Paso Polychrome. Some deep pithouses with unplastered floors and floor features, such as hearths, have been identified. Shallow pit rooms with aboveground adobe walls have also been identified. These are non-contiguous but arranged in a linear fashion and can be seen as precursors to El Paso phase pueblo architecture. There is some evidence to suggest an increase in social and socio-religious complexity. Some rooms are larger than average. These are thought to have functioned as communal rooms. Social groups probably continued to be kin-based nuclear or extended families. There is a continued dependence on agriculture, although hunting and gathering continued to supplement the diet (O’Laughlin and Martin 1993:30–34).

El Paso Phase

The El Paso phase is the last prehistoric phase of the Formative period in the Jornada area (Lehmer 1948). Initially dated between A.D. 1200 and 1400, there is some evidence that the phase did not begin until sometime around A.D. 1250, which suggests the Doña Ana phase lasted longer than originally thought. The El Paso phase is defined by the presence of a late variety of El Paso Polychrome; a variety of intrusive ceramics, including Chihuahuan, Salado, and Mogollon types; and adobe-walled pueblos. El Paso phase architecture, once thought to be exclusively aboveground adobe-walled pueblos, also includes pit structures, which probably functioned as field houses. The majority of El Paso phase adobe-walled pueblos are small, with rooms arranged in a linear fashion. Large pueblo sites with enclosed plazas are also known.

The presence of a late variety of El Paso Polychrome distinguishes El Paso phase ceramic assemblages. In general, there is an elaboration of El Paso phase material culture. Not only are intrusive ceramics common, so are a variety of non-local exotic items such as shell, turquoise, and obsidian, indicating that El Paso phase peoples were participating in regional exchange networks. Additionally, variation in site and room size has been interpreted as evidence of social differentiation within and between El Paso phase social groups. There is also evidence for increased ceremonialism and socio-religious integration. This elaboration of material culture is likely related to the florescence of the Casas Grandes culture to the south in Chihuahua, Mexico (O’Laughlin and Martin 1993:36).

A sedentary lifeway appears to be the norm for El Paso phase peoples. Villages are common, and the subsistence base is dominated by several varieties of corn, beans, squash, and bottle gourd. Nevertheless, the role of wild-plant foods remains important. To name a few, mesquite, datil, acorns, cheno-ams, and cacti contributed to the diet. Hunting of small game, rabbit and hares, deer, pronghorn, and other small to medium-sized mammals also continued to contribute to the diet (O’Laughlin and Martin 1993:36).

The Formative period in the region ends with the demise of the El Paso phase sometime around A.D. 1400. Prehistoric agricultural peoples appear to have abandoned the area. It is not known whether this represents a collapse due to climatic shifts that overwhelmed agriculturalists, or whether the collapse was tied to events in the Casas Grandes area and the decline of the Casas Grandes regional system, or both. There is little evidence for occupation of the area after the El Paso phase (O’Laughlin and Martin 1993:38).

Protohistoric and Early Historic Period

Early Spanish accounts document the presence of semi-nomadic horticultural groups in the El Paso area. In 1598, Don Juan de Oñate encountered a group that became known as Mansos on the Rio Grande just below El Paso. Subsequent chronicling in the 1600s indicates the Mansos exhibited a highly flexible settlement and subsistence systems that made them well adapted to the region. This seems true for most native groups (e.g., Raydos, Ryas, Pataros, Patarueyes, Jumanso, Mansos, and Sumas) living along the Rio Grande in the vicinity of El Paso and southward to La Junta (Camilli et al. 1988:3-37–3-39). In general, the protohistoric and early historic period remains located in the bolsons and plains away from the rivers are difficult to distinguish from earlier hunter-gatherer remains because these areas were used almost exclusively for hunting and gathering throughout human occupation.

Ysleta del Sur

In 1680, Native American and Spanish refugees of the Pueblo Revolt in New Mexico resettled in the area now called El Paso. Refugees who wished to keep moving south were prevented from doing so and missions were established for the different groups: Senecu (for Piroso and Tompiros), Socorro (for Piroso, Janos, and Jemez), and Ysleta (for Tiguas). The Ysleta Mission was constructed in 1682 in present-day El Paso and became a permanent settlement in 1692. In 1751, the Tigua Indians received the Ysleta Grant from the King of Spain. The Spanish “del Sur” was added to the name to distinguish it from its mother pueblo of Isleta, located near Albuquerque. Ysleta del Sur is the southern-most of the pueblos that extend northward to Taos Pueblo in New Mexico. Despite several relocations due to consolidation, flooding, and fire, the Ysleta pueblo remains one of the oldest communities in Texas and is still very active today (Ysleta del Sur Pueblo 2006).

Historic El Paso

El Paso officially became a town in 1859 but was established as a settlement for Spanish explorers, mestizos, and Native Americans long before that. During the Civil War, El Paso pioneers were sympathetic to the south and Confederate forces occupied Fort Bliss in 1861. The arrival of the railroad in 1881 transformed El Paso from a small adobe village into a successful frontier community and boosted it to county seat in 1883. The population grew to 10,000 inhabitants but with that growth also came increased violence in the town and it became known as the “Six Shooter Capital” until 1905 when city ordinances closed houses of gambling and prostitution. After 1905, El Paso became the industrial, commercial, and transportation center that it is today. Factors making this rapid development possible included El Paso’s geographic location as a gateway to Mexico; its proximity to the mining areas of Mexico, New Mexico, and Arizona; its plentiful natural resources; and refugees from the Mexican Revolution who became an inexpensive labor force (Timmons 2012).

PRE-FIELD INVESTIGATIONS

During pre-field investigations for the EPEC Montana Power Station project, SWCA's Albuquerque office completed a search of THC and Texas Archaeological Research Laboratory (TARL) records to identify any previously recorded sites and surveys within a 1.6-kilometer (1-mile) radius of the current project area. These record searches revealed that three surveys had been conducted within 1 mile of the project area. The search revealed one site (41EP4766) that was located in the southwestern portion of the current power station project area, but this site has been destroyed by subsequent development. Site 41EP4766 was formerly a deflated prehistoric hearth, recorded by Richard Hubbard of the Texas Water Development Board on November 2, 1994. Another site, 41EP5886, is located within the eastern-most potential transmission line corridor, both within the survey area and just outside of it. It is a large prehistoric camp recorded by Geo-Marine on October 26, 2006. It has been determined eligible for listing on the NRHP and should be avoided during any proposed work. Site 41EP6902 is located within a proposed temporary easement area within Fort Bliss. It is a prehistoric camp first recorded in 1978 (as FB-10542) and has been found to be undermined in terms of its eligibility to the NRHP.

One hundred twenty-eight additional previously recorded sites are located within a 1.6-kilometer (1-mile) radius of the project area, but outside the project area (Table 1). The THC online database was also searched for NRHP listed properties, NRHP districts, cemeteries (including historic cemeteries), Official Texas Historical Markers (included Historic Landmarks), State Archaeological Landmarks, National Historic Landmarks, Monuments, Memorials, and Sites and Parks. None of the previously recorded archaeological sites are listed in the state or national registers. No NRHP-listed or state-listed properties are located within 1 mile of the survey area.

The two closest listed sites on the NHRP are both National Register Districts. The Sergeant Doyle Site (41EP18) is a Mogollon Village site 8.7 miles northwest of the project area. The other district, 9.1 miles to the southwest, is the El Paso County Water Improvement District No. 1 that supplies agricultural irrigation to El Paso and surrounding areas. Based on the record searches, SWCA archaeologists anticipated that low densities of both prehistoric and historic artifacts and sites would be encountered during the course of fieldwork.

The nearest Native American tribe is Ysleta del Sur Pueblo, located within the El Paso city limits 10.6 miles southwest of the project area. Their other holdings within El Paso County include the Sabinas Archaeological Site approximately 7.1 miles to the east-southeast and the Bennett Ranch roughly 11.2 miles east-northeast of the project area. These distances far exceed the indirect/visual APE for this project and none of the sites observed within the project area (detailed in the Survey Results section of this report) are likely to be of concern for tribal entities.

Table 1. List of Previously Recorded Sites within 1 Mile of the Project Area.

Site No.	NRHP Eligibility	Site Type	Site No.	NRHP Eligibility	Site Type
41EP272	U	Prehistoric camp	41EP4773	N	Prehistoric camp
41EP273	U	Prehistoric camp	41EP4774	E	Prehistoric camp
41EP274	U	Prehistoric camp	41EP4775	E	Prehistoric camp
41EP275	U	Prehistoric camp	41EP4776	N	Prehistoric camp
41EP276	U	Prehistoric camp	41EP4777	E	Prehistoric camp
41EP277	U	Prehistoric camp	41EP4778	E	Prehistoric camp
41EP278	U	Prehistoric camp	41EP4779	N	Prehistoric camp
41EP279	U	Prehistoric camp	41EP4780	N	Prehistoric camp
41EP280	E	Prehistoric camp	41EP4781	N	Prehistoric camp
41EP281	E	Prehistoric camp	41EP4782	E	Prehistoric camp
41EP282	N	Prehistoric camp	41EP4783	N	Prehistoric camp
41EP283	N	Prehistoric camp	41EP4784	E	Prehistoric camp
41EP284	N	Prehistoric camp	41EP4785	E	Prehistoric camp
41EP285	U	Prehistoric camp	41EP4786	E	Prehistoric camp
41EP469	N	Prehistoric camp	41EP4837	U	Prehistoric camp
41EP470	U	Prehistoric camp	41EP4838	U	Prehistoric camp
41EP471	N	Prehistoric camp	41EP4839	U	Prehistoric camp
41EP472	N	Prehistoric camp	41EP4840	U	Prehistoric camp
41EP473	N	Prehistoric camp	41EP4841	U	Prehistoric camp
41EP474	N	Prehistoric camp	41EP4842	U	Prehistoric camp
41EP475	N	Prehistoric camp	41EP4843	U	Prehistoric camp
41EP1531	U	Prehistoric camp	41EP4844	U	Prehistoric camp

Site No.	NRHP Eligibility	Site Type	Site No.	NRHP Eligibility	Site Type
41EP1533	U	Historical dump	41EP4845	U	Prehistoric camp
41EP1535	U	Unknown	41EP4846	U	Prehistoric camp
41EP1536	E	Prehistoric village	41EP4857	U	Prehistoric camp
41EP1537	U	Unknown	41EP5184	E	Prehistoric camp
41EP1538	E	Prehistoric village	41EP5185	N	Prehistoric camp
41EP1539	U	Unknown	41EP5186	N	Prehistoric camp
41EP1540	E	Prehistoric village	41EP5187	N	Prehistoric camp
41EP1541	U	Unknown	41EP5188	N	Prehistoric camp
41EP1542	U	Unknown	41EP5189	N	Prehistoric camp
41EP1543	U	Unknown	41EP5190	N	Prehistoric camp
41EP1544	U	Unknown	41EP5191	N	Prehistoric camp
41EP1546	U	Prehistoric camp	41EP5192	N	Prehistoric camp
41EP1547	U	Prehistoric camp	41EP5193	N	Prehistoric camp
41EP1548	U	Prehistoric camp	41EP5194	E	Prehistoric camp
41EP1549	U	Prehistoric camp	41EP5195	N	Prehistoric camp
41EP1550	U	Prehistoric camp	41EP5196	N	Prehistoric camp
41EP1551	U	Prehistoric camp	41EP5197	N	Prehistoric camp
41EP1552	U	Prehistoric camp	41EP5198	N	Prehistoric camp
41EP1553	U	Unknown	41EP5290	U	Unknown
41EP2783	U	Prehistoric camp	41EP5291	U	Unknown
41EP2794	U	Prehistoric camp	41EP5292	U	Unknown
41EP2796	U	Prehistoric camp	41EP5293	U	Unknown
41EP2797	U	Prehistoric camp	41EP5313	U	Unknown
41EP2798	U	Prehistoric camp	41EP5314	U	Unknown
41EP2799	U	Prehistoric camp	41EP5315	U	Unknown
41EP2800	U	Prehistoric camp	41EP5316	U	Unknown
41EP2802	U	Prehistoric camp	41EP5317	U	Unknown
41EP2803	U	Prehistoric camp	41EP5318	U	Unknown
41EP2804	U	Prehistoric camp	41EP5319	U	Unknown
41EP2805	E	Prehistoric camp	41EP5333	U	Unknown
41EP2806	E	Prehistoric camp	41EP5345	U	Unknown
41EP2807	U	Prehistoric camp	41EP5490	U	AT&T Communications Cable
41EP2808	U	Prehistoric camp	41EP5542	E	Prehistoric Camp
41EP2809	U	Prehistoric camp	41EP6155	N	Prehistoric camp
41EP2810	U	Prehistoric camp	41EP6422	N	Prehistoric camp
41EP2811	U	Prehistoric camp	41EP6423	N	Prehistoric camp
41EP2813	U	Prehistoric camp	41EP6424	N	Prehistoric camp
41EP3603	U	Unknown	41EP6435	N	Prehistoric camp
41EP4759	N	Historic ranch	41EP6439	E	Prehistoric camp
41EP4769	U	Prehistoric camp	41EP6441	N	Prehistoric camp
41EP4770	U	Prehistoric camp	41EP6442	N	Prehistoric camp
41EP4771	U	Prehistoric camp	41EP6443	N	Prehistoric camp
41EP4772	N	Prehistoric camp	41EP6784	N	Prehistoric camp

E = eligible; N = not eligible; U = undetermined

FIELD METHODS

From March 5 through 8, 2012, and June 3 through 8, 2013, SWCA archaeologists conducted an archaeological survey of the proposed project area in order to identify any prehistoric or historic properties that might be affected by the EPEC undertaking. The area surveyed by SWCA consisted of two adjoining areas, Parcels A and B surrounding the existing Magellan fuel storage operation, and additional associated proposed water pipeline and transmission line corridors. In total, SWCA surveyed 505.03 acres.

SWCA archaeologists conducted an intensive pedestrian survey of the various direct effects APEs by walking parallel transects spaced no more than 15 m apart. Ground surface visibility was very good, at approximately 90 percent. THC survey standards mandates 16 shovel test units for every 1 mile of linear survey in areas that have the potential for buried deposits and in areas with less than 30 percent ground surface visibility. The survey area is located within a low coppice dune and blowout landscape, with substantial modern disturbance. Because ground

surface visibility was very good and subsurface context was regularly exposed by blowouts and recent disturbance, no shovel tests were required under THC survey guidelines, and none were excavated in the course of the survey.

As cultural resource sites were discovered, all information needed to complete a TexSite Archeological Site Data Form was collected. Site boundaries contained the full extent of artifact scatters and associated features. Three projectile points from newly recorded site 41EP6901 were collected and are being temporarily curated at the SWCA Albuquerque office until the landowner can be contacted.

Non-site archaeological findings were designated isolated occurrences (IOs) and mapped with a handheld global positioning system (GPS) unit and described using an IO form. A digital camera was used to take IO, site, and feature overview photographs to document erosion or other factors necessary to properly evaluate the significance and integrity of each site. A photograph log was maintained throughout the course of fieldwork.

At a minimum, the Universal Transverse Mercator (UTM) coordinates of all IOs, site datums, features, selected artifacts, and site boundaries were recorded using a handheld Trimble GeoXH GPS unit. This unit has sub-meter accuracy and pocket PC capabilities. All spatial data and forms information were stored on the Trimble unit and downloaded in the lab, where project area maps and site plans were generated using ArcGIS software.

SURVEY RESULTS

The archaeological survey resulted in the discovery of two new archaeological sites (41EP6784 and 41EP6901), documentation of the destruction of a small previously recorded site (41EP4766), revisiting two additional previously recorded sites (41EP5886 and 41EP6902), and the documentation of 14 IOs. The visual effects analysis identified no sensitive historic properties within the indirect/visual effects APE, and only a weak to moderate visual contrast that would result from project construction. SWCA recommends a finding of No Historic Properties Affected in regards to visual effect to cultural resources.

Visual Effects Analysis

The indirect/visual APE (visual effects) analysis was conducted to address potential indirect impacts that could occur to historic properties from power station construction and maintenance and from construction of the interconnected activities. Analysis of the indirect/visual APE extended 8.0 km (5 miles) from the proposed Montana Power Station, as well as from the boundaries of the three interconnected actions, including their associated rights-of-way and temporary work areas (Figure 10). This indirect/visual APE was reviewed and approved by the THC (Bill Martin, personal communication, 7/9/2013). The visual effects analysis area used here is considerably larger than what is normally analyzed even for visually obtrusive activities such as electrical transmission line construction. Visual effects analysis of recent transmission line projects in the desert Southwest, such as the SunZia project, has typically been limited to a 4.8 km (3.0 mile) buffer surrounding the project centerlines.

The analysis conducted here is divided into three stages:

- 1) Visual contrast. Visual effects to historic properties may be caused by perceived changes in the visual quality of the landscape produced by the construction and maintenance of a proposed facility.
- 2) Identification of sensitive resources. Visual contrasts produced by proposed activities and facilities may affect the capacity of a resource to convey its significance – in technical terms, it's "integrity." Some resource types are more sensitive than others to visual contrast.
- 3) Assessment of visual effects. In this stage, visual contrast is assessed with respect to specific sensitive resources in order to assess the effects of the project on resource integrity.

Visual Contrast

Visual contrast - change in the visual setting - was assessed to gauge the potential impact to the setting and character of historic properties in the surrounding area. The visual contrast effects of each project action are discussed below. To summarize, the Montana Power Station and its interdependent activities would generally produce only a weak visual contrast with the mixed residential, commercial, and industrial landscape of its surroundings. The exceptions are three alternative routes of the proposed transmission line (Filing 3) connecting the Montana Power Station with the Montwood substation to the southwest. The details of these assessments are discussed below in relation to each interdependent activity.

Identification of Sensitive Resources

Cultural resources are sensitive to visual effects to the extent that the visual character of their surroundings is integral to their integrity – their ability to convey their historical significance. In general, resources can be categorized into low, medium, and high sensitivity to visual effects.

Low Sensitivity: This category includes most archaeological sites and other resources which are significant only for their potential to contribute information to the scientific knowledge of the history or prehistory of an area (criterion D). Visual contrast will not affect the integrity of these resources. Hundreds of archaeological sites and other such resources are located within the indirect/visual effects APE. Table 1 contains a list of such properties located within 1.6 km (1.0 mile) of the project area. However, none of these resources would be affected by visual contrast produced by the Montana Power Station and its interdependent activities.

Medium Sensitivity: This category includes historic trails, structures, homesteads, and transportation and utility properties, as well as rock art sites and archaeological or historical districts. All of these resource types have interpretive potential and historical significance beyond the information they may contain. No medium sensitivity resources are located within the indirect/visual effects APE. The closest such properties in the TARL database are either NRHP districts or properties. The Ysleta Mission is a NRHP-listed property located 13.7 km (8.5 miles) southwest of the project area, across Interstate 10. The Sergeant Doyle Site (archaeological site 41EP18) is a Mogollon Village site 14 km (8.7 miles) northwest of the project area. Another district, 14.6 km (9.1 miles) to the southwest, is the El Paso County Water Improvement District No. 1 that supplies agricultural irrigation to El Paso and surrounding areas.

High Sensitivity: This category includes resources with high interpretive value and great historical significance. Examples would include national historic trails, monuments, state or federal historical parks, landmarks, cemeteries, and historical or traditional cultural landscapes. One cemetery (Evergreen Cemetery East) is listed in the TARL database approximately 1.5 km (0.9 mile) southeast of the western terminus of the proposed waterline, directly south of Montana Avenue/Highway 62. However, this cemetery was founded after 1970 and is not eligible for the NRHP. The closest example of a high sensitivity resource is Hueco Tanks State Park and Historical Park, located approximately 18 km (11.18 miles) northeast of the project area.

Assessment of Visual Effects

The development of the Montana Power Station and its interdependent activities would produce only a weak or at most moderate visual contrast with respect to an existing visual setting already dominated by imposing and visually obtrusive structures such as the Magellan tanks and numerous existing electrical transmission lines. Furthermore, no historic properties that could be adversely visually impacted by the project (medium and high sensitivity resources) are known to be located within the indirect/visual APE. The only resources present within the indirect/visual APE are archaeological sites whose integrity would not be affected by any level of visual contrast. Therefore, the project will not visually affect historic properties that are eligible for inclusion to the NRHP. It is recommended that a finding of No Historic Properties Affected be applied to this undertaking in respect to visual effects.

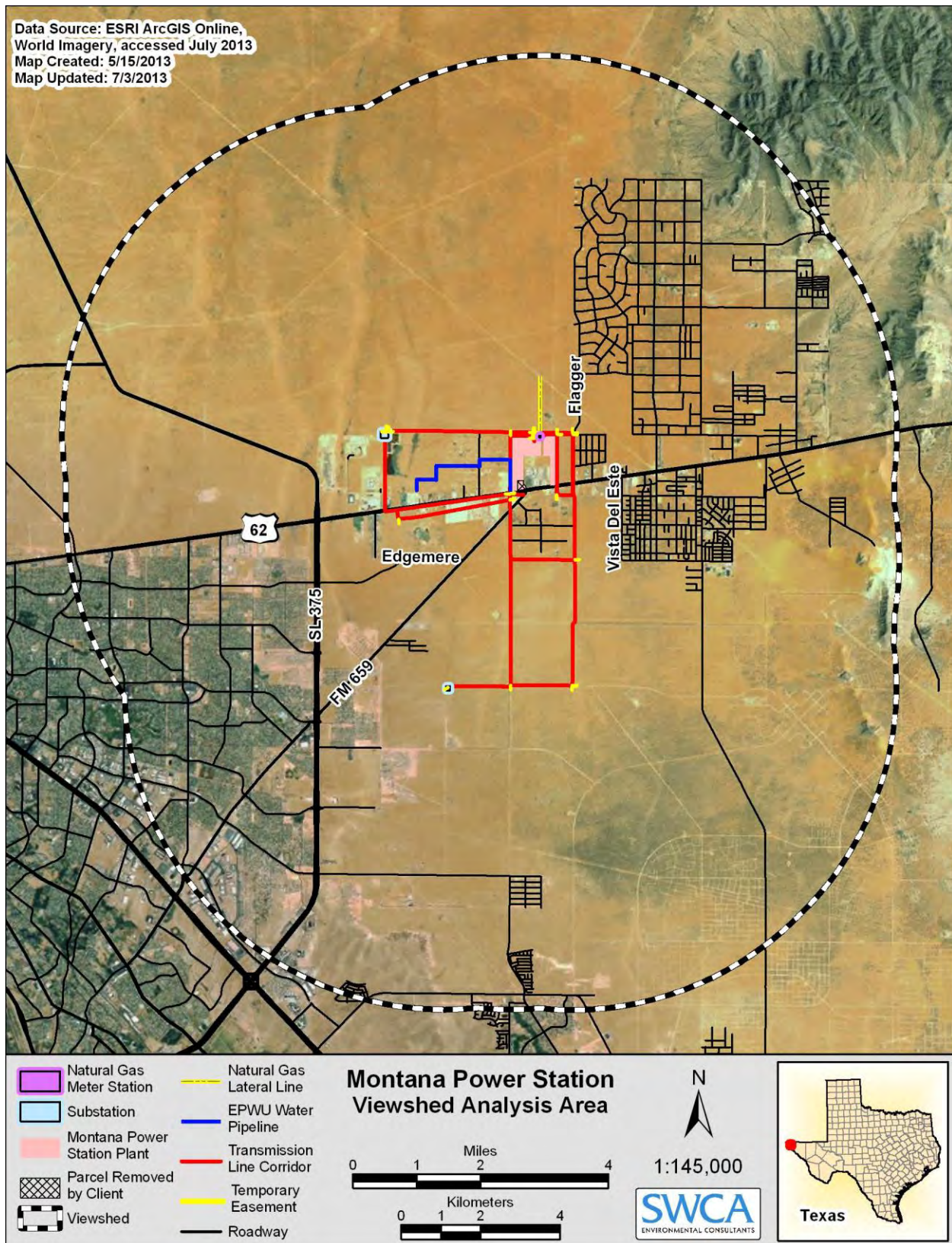


Figure 10. The Montana Power Station project with the surrounding 8.0-km (5-mile) visual effects analysis.

The Montana Power Station site project area consists of two parcels of private land, A and B. Parcel A is 166.29 acres; 10.71 acres of this parcel were removed from the project area after survey was completed and will not be affected by project activities. Parcel B is 88.61 acres. The entire 166.29-acre location was surveyed for cultural resources.

One previously recorded archaeological site (41EP4766), now destroyed, was documented and one newly recorded site (41EP6784) was identified within the Montana Power Station site project area.

Site Type: Partially deflated thermal feature

Occupation Type: Unspecified prehistoric

Depth of Deposits: Surface

Now destroyed, site 41EP4766 was recorded in 1994 as north of North Zaragoza Road and Montana Avenue/Highway 62 among low, mesquite-stabilized dunes (Figure 11 and Figure 12). The site location has been leveled and paved as part of the parking lot for a Flying J gas station. Recorded on-site vegetation consisted of mesquite, fourwing saltbush, snakeweed, rabbitbrush, and yucca. Across the site, minimum ground surface visibility was estimated to be 85 to 90 percent. Surface sediment was characterized as a sand/sandy loam. Elevation at the site is approximately 4,022 feet amsl. Appendix A has the online THC site form for 41EP4766.

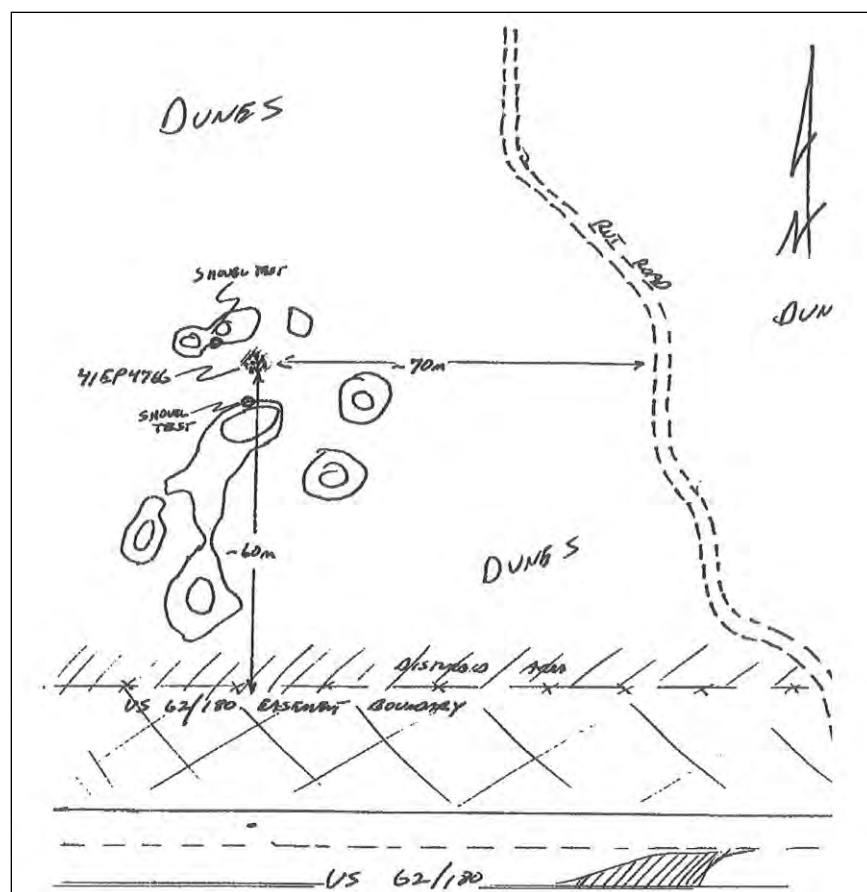


Figure 11. Site 41EP4766, site sketch from the previously recorded THC site form.



Figure 12. Site 41EP4766 overview (view west); the Highway 62/Montana Avenue overpass of North Zaragosa Road is in photo right.

The THC online site form described the site as a “a single deflated hearth composed of burned caliche (grayish white) fragments scattered over 2 square meter area; concentrated area of burned caliche 60 by 60 cm contains grayish carbon stain within brown sandy loam soil context.” No artifacts were observed in direct association and two shovel tests on the slopes of nearby dunes revealed no cultural materials; an isolated core and flake were found roughly 105 m to the east.

The research value of the site was described as almost negligible during the initial 1994 recording, with similar numerous nearby intact and dated hearths recorded as part of other investigations; no further investigation was recommended. Because the site no longer exists, the current investigation concurs with this recommendation—archaeological site 41EP4766 is recommended not eligible to the NRHP under any of the four criteria for eligibility. On August 2, 2013 THC concurred that 41EP4766 is not eligible to the NRHP. No further management of 41EP4766 is recommended.

Site 41EP6784

Field Number: 23132-01

Site Type: Deflated thermal feature

Occupation Type: Unspecified prehistoric

Area: 2 × 2 m

Depth of Deposits: Surface

Site 41EP6784 is located within a blowout in the central portion of Parcel A, surrounded by small coppice dunes (Figure 14 and Figure 13). Appendix A contains the site form for Site 41EP6784. On-site vegetation consists of mesquite, fourwing saltbush, snakeweed, rabbitbrush, and yucca. Across the site minimum ground surface visibility was estimated to be 90 percent. Surface sediment was characterized as a sand/sandy loam. Elevation at the site is approximately 4,027 feet amsl. Appendix A has the new THC site form for 41EP6784.

The site is a single deflated thermal feature with a diameter of 2 m and a scatter of approximately 30 pieces of burned caliche. No artifacts or associated features were observed. An area of the feature was trowel-scraped to determine if subsurface cultural deposits were present. No cultural materials were observed within the matrix removed during this scrape. These results suggest that there is no potential for buried archaeological deposits within the site. Extensive wind erosion has disturbed the site so that only the burned caliche marks the remains of the once-intact thermal feature. Additional disturbance is evidenced by large mounds of modern trash and two-track roads nearby.

Site 41EP6784 retains no integrity beyond the deflated surface expression of burned caliche. In addition, an area within the feature that was trowel-scraped revealed no potential for subsurface cultural deposits. The site type is common in the vicinity and is recommended not eligible to the NRHP under any of the four criteria for eligibility. The site is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A); the site is not associated with lives of persons significant in our past (Criterion B); the site does not exemplify a distinctive type, period, or method of construction, or the work of a master, or a high artistic quality (Criterion C); and the site has not yielded, or is likely to yield, information important in prehistory or history (Criterion D). Because the site is recommended not eligible to the NRHP, no further management of the site is recommended. On August 2, 2013 THC concurred that 41EP6784 is not eligible to the NRHP.



Figure 13. Site 41EP6784 overview.



Figure 14. Site 41EP6784.

Visual Effects Analysis

The proposed Montana Power Station is located in a mixed commercial, residential, and industrial area in northeastern El Paso. Numerous other visual obstructions exist in the area. The most prominent of these is the existing Magellan Fuel Storage Facility. The Magellan Fuel Storage Facility is located in the center of the proposed Montana Power Station property and postdates 1995. Thirteen of the 22 existing Magellan aboveground tanks are visually imposing with a height of 15.1 m (49.7 feet), with a diameter ranging between 26.2 and 40.4 m (85.8–132.4 feet). The remaining Magellan aboveground tanks are between 12.2 and 14.9 m (40.0–48.8 feet) in height with tank diameters between 14.6 and 40.2 m (47.9–131.8 feet). For this project, the maximum height of proposed power station buildings is 15.5 m (51 feet). The maximum height of four proposed combustion turbine stacks (the tallest of the proposed structures) is 28 × 4 m (92 × 13.5 feet). Though elements of the newly proposed power station facility will be slightly taller than some of the existing fuel tanks (though with a much narrower diameter), the proposed plant facilities will produce only a weak visual contrast with respect to the existing visual setting which is dominated by the large and imposing Magellan tanks.

Summary

Two historic resources were documented within the Montana Power Station site project area. Site 41EP4766 has been destroyed and site 41EP6784 retains no integrity and is recommended not eligible for the NRHP. No further management of cultural resources is recommended within this project area. This project action will have no effect on NRHP-eligible cultural resources within the APE or visual buffer.

Water Pipeline

The El Paso Water Utilities proposed water pipeline would be installed just west of the power station site. The 30-inch diameter pipeline would extend for approximately 4.0 km (2.5 miles) and be installed within already-disturbed rights-of-way. The entire proposed water pipeline right-of-way was surveyed for cultural resources.

Historic Resources

No cultural resources were observed during the survey of the water pipeline corridor.

Visual Effects Analysis

The proposed water pipeline will consist of buried infrastructure which will produce virtually no visual contrast with respect to the existing visual setting.

Summary

The proposed water pipeline will have no effect on NRHP-eligible cultural resources within the APE or the visual buffer.

Natural Gas Meter Station and Lateral Line

Kinder Morgan (El Paso Natural Gas Company) plans to construct and operate the Montana Power Station Meter Station and Lateral Line for the proposed Montana Power Station project. The meter station and a portion of the line are located within the Montana Power Station property.

Historic Resources

Effects to cultural resources related to the Montana Power Station Meter Station and Lateral Line were assessed by SWCA in 2013 under contract to Kinder Morgan. The activity is regulated by the FERC and consultation was performed with the THC in order to fulfill FERC's obligations and responsibilities under Section 106 of the NHPA. On June 10, 2013 the THC determined that the undertaking would have no effect on historic properties. Appendix D contains the SWCA desktop review letter and the SHPO concurrence letter received by Kinder Morgan.

Visual Effects Analysis

The natural gas pipeline will consist primarily of buried infrastructure with a few low-lying above-ground components such as the meter station to be installed on the northern boundary of the Montana Power Station property. These buried and low-lying facilities will produce no visual contrast with respect to the existing visual setting.

Summary

The Kinder Morgan natural gas pipeline and meter station will have no effect on NRHP-eligible cultural resources within the APE or visual buffer. THC has concurred with this assessment (Appendix D) and Section 106 review for this activity has been completed.

Transmission Lines

Three transmission lines are planned in conjunction with the development of the Montana Power Station. EPEC has filed or plans to file three Certificates of Convenience and Necessity with the Texas Public Utility Commission (PUC) to select a route. These three transmission lines are accordingly referred to as Filings 1, 2, and 3. Filing 1 will connect the Montana Power Station with the existing Caliente-to-Coyote transmission line located to the south of Montana Avenue (Figure 15). Filing 2 will connect the Montana Power Station with the Caliente substation, approximately 2.5 miles west of the proposed power station location (Figure 16). Filing 3 will connect the Montana Power Station with the Montwood substation, approximately 4.0 miles southwest of the proposed power station location (Figure 17). Following PUC guidelines, three alternative routes have been identified for each of these filings, as depicted on Figure 15 through Figure 17. Since no preferred alternative can be identified prior to the conclusion of the PUC review process, all alternatives were analyzed for potential effects to cultural resources.

A pedestrian archaeological survey was conducted of these transmission line alternatives. The survey area was designed to cover the entire area that would potentially be disturbed by transmission line construction activities and comprised a 200-foot-wide corridor centered on each proposed transmission line segment (see Figure 9). Temporary work areas were also surveyed.

There were two portions of the transmission line alternatives that were not surveyed. The first of these was a small portion of Filing 1, Route 1A located to the south of Montana Avenue. In this area the alternative crossed into property owned by the Fiesta drive-in movie theater and it was not possible to obtain access to the property. The unsurveyed portion measures approximately 700 feet in length and is completely disturbed by recent construction and development. No intact historic properties are likely to be present in this area. The second unsurveyed area was a 2.0-mile segment of Filing 2, Route 1B located along the southern boundary of Fort Bliss within an existing EPEC easement. The unsurveyed portion of this route was surveyed in 2010 by Geo-Marine (THC 2013) and no archaeological sites were identified within 100 feet of the proposed transmission line. The Directorate of Public Works, Fort Bliss, issued a Record of Environmental Consideration on December 21, 2012 (included as Appendix E), which stated that no cultural resources would be affected by the proposed transmission line construction within the existing EPEC easement and that no further environmental analysis or review of the proposed activity was necessary. Based on a combination of documented surface disturbance, a review of recent archaeological surveys in the area, and the independent review and determination by the Fort Bliss Directorate of Public Works, SWCA concludes that no cultural resources are present in the unsurveyed segments of the transmission line alternatives and that the proposed activities in these unsurveyed areas would have no effect on historic properties.

The remainder of the transmission line alternatives was surveyed as described above. This survey resulted in the identification of three archaeological sites: 41EP5886, 41EP6901, and 41EP6902.

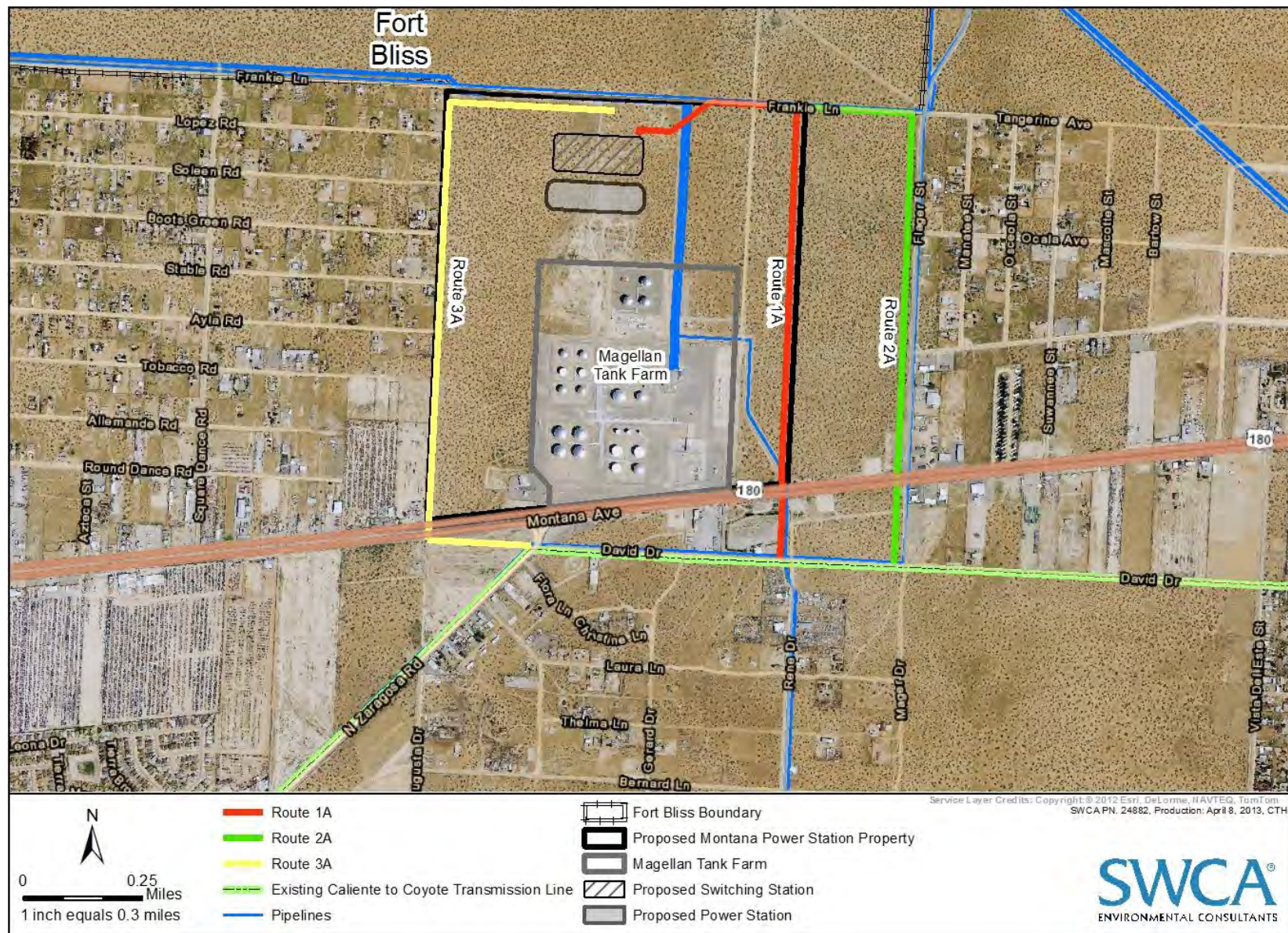


Figure 15. Transmission line alternatives route map for Filing 1.

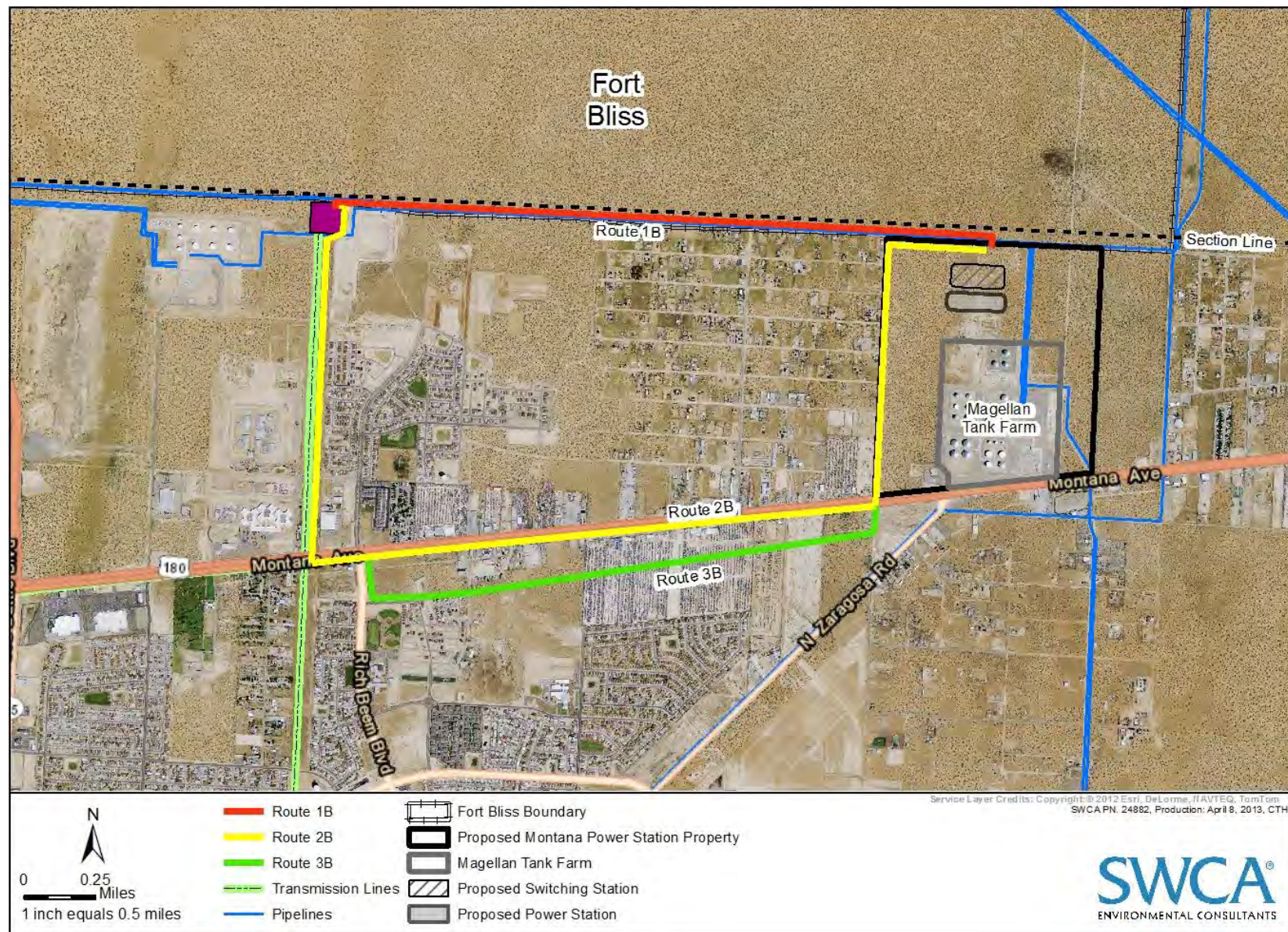


Figure 16. Transmission line alternatives route map for Filing 2.

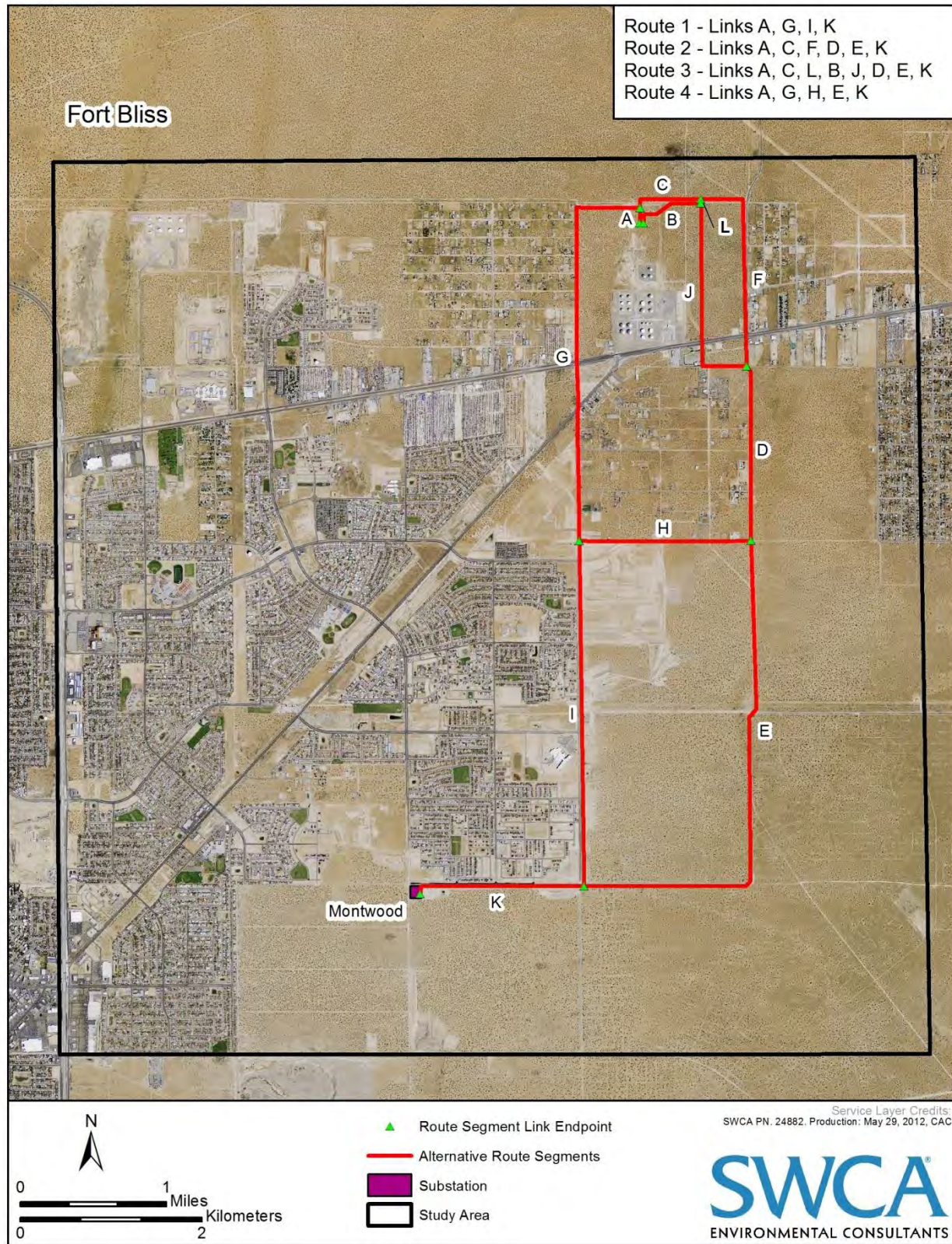


Figure 17. Transmission line alternatives route map for Filing 3.

Historic Resources

Two previously recorded sites (41EP5886 and 41EP6902) were revisited and one new site (41EP6901) was discovered during the proposed transmission line corridor surveys.

Site 41EP5886

Site Type: Structural, one structure, seven thermal features, artifact scatter

Occupation Type: Late Archaic (900 B.C.–A.D. 200) and Formative (A.D. 200–1450)

Depth of Deposits: 15 cm below modern ground surface

Site 41EP5886 was recorded by Geo-Marine, Inc. in 2006 as a large prehistoric multi-component campsite including one possible pithouse feature, seven thermal features, and an associated artifact scatter located on a narrow north-south desert floor ridge. More recently, the site has been excavated by Geo-Marine (Condon and Miller 2013). Tentative results indicate an Archaic period date with several intact features excavated. Recorded on-site vegetation consisted of mesquite, fourwing saltbush, broom snakeweed, and a moderate density of perennials. Across the site, minimum ground surface visibility was estimated to be 60 percent. Surface sediment was characterized as brown friable heavy loamy fine sand. Elevation at the site is approximately 4,030 feet amsl. Appendix A has the 2006 THC site form for 41EP5886.

SWCA relocated a portion of the site within Filing 3 segment E (Routes 2, 3, and 4) (Figure 18 and Figure 19). Found within the survey area were four silicified sandstone flakes, seven chert flakes, one tested cobble, seven El Paso brown ware ceramic sherds, and a random scatter of approximately 200–300 pieces of burned caliche. No features were observed within the survey area; the majority of the site, including the pithouse structure and features, falls just outside the eastern survey boundary.

Based on trowel tests performed by Geo-Marine in 2006 and more recent excavations, several of the features have intact subsurface cultural materials that could contribute important information to the region's prehistory. The THC determined the site eligible for listing on the NRHP under Criterion D in March 2007. Although no features were located within the current survey area, SWCA recommends that temporary fencing be placed around the site and that it be avoided during any proposed work. If avoidance is not possible, monitoring during construction and/or testing are recommended in order to determine if intact subsurface deposits are located within the project area.



Figure 18. Partial site overview of the portion of 41EP5886 within the survey area, facing south. Pin flags denote artifact locations.

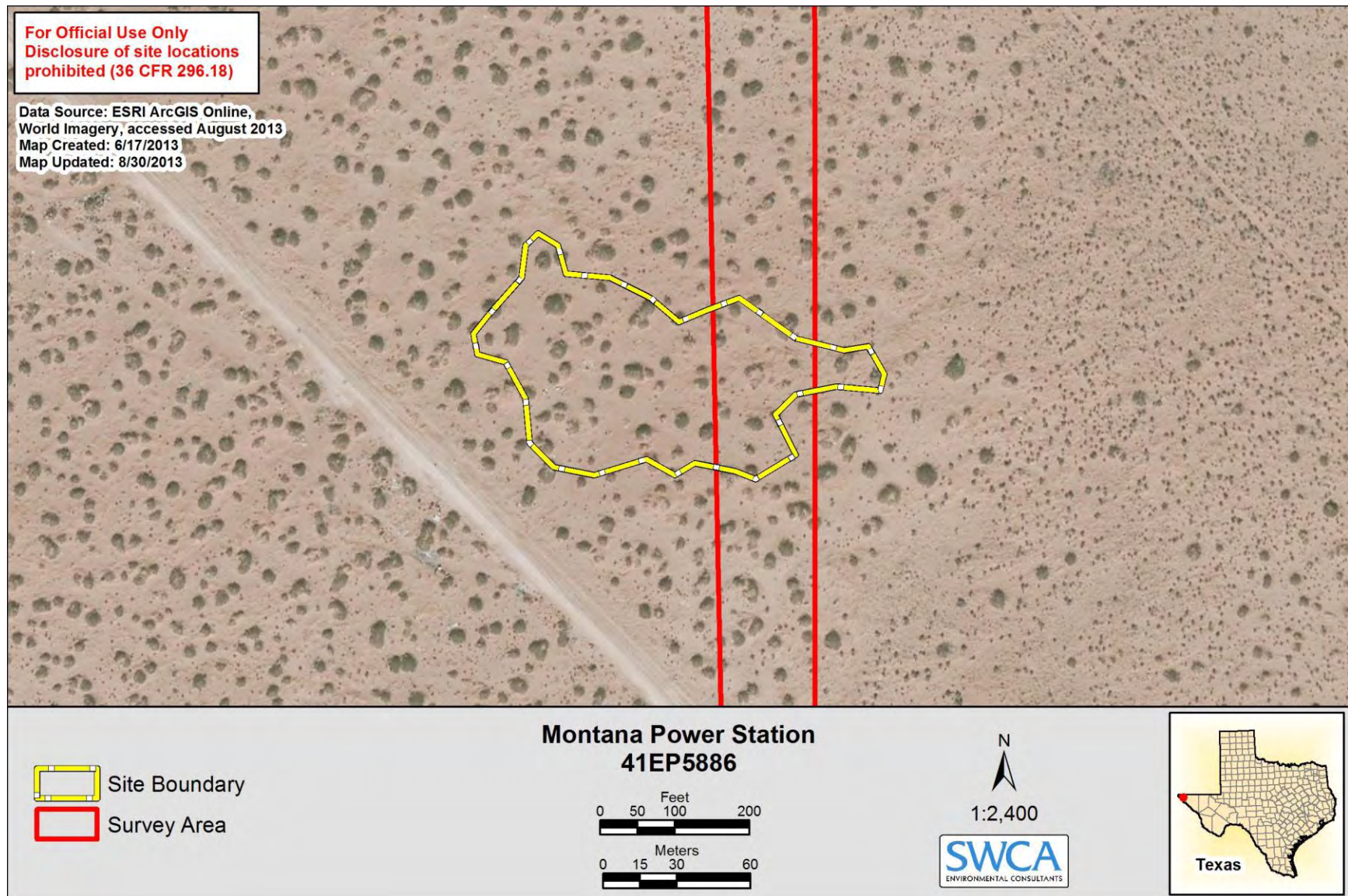


Figure 19. Site map of 41EP5886.

Site 41EP6902 (Fort Bliss No. FB 10542)

Site Type: Two thermal features and artifact scatter

Occupation Type: Formative (A.D. 500–1350)

Depth of Deposits: 5–10 cm below modern ground surface

According to TRC archaeologists Sechrist and Lukowski (1998), site 41EP6902, located on Fort Bliss, was first observed during a 1978 inventory survey of Maneuver Area 2, but was not formally recorded and assigned a number until 1990. At that time, the site was given a Fort Bliss-specific identifier, FB 10542. With this SWCA site update, TARL assigned the site a Texas state-specific identifier, 41EP6902. The total site area was originally recorded as 600 square meters and consisted of a single fire-cracked rock (FCR) hearth feature and lithic debitage. TRC's 1998 update extended the site boundary to the north and includes additional FCR and burned caliche (Figure 20) (Sechrist and Lukowski 1998). It appears that the original site area as discovered in 1978 has been destroyed by the subsequent building of the Caliente Substation.

SWCA relocated 41EP6902 during this investigation and identified two new thermal features and an artifact scatter (Figure 21 and Figure 22). The site is located in Filing 2 (Routes 1B, 2B, and 3B) within a coppice dune environment just north of the Caliente Substation on land owned by Fort Bliss. On-site vegetation includes mesquite and desert forbs. Across the site, minimum ground surface visibility was 80 percent. Surface sediment is sand. Elevation at the site is 4,009 feet above mean sea level (amsl). Appendix A contains the 1990 Fort Bliss site form for 41EP6902 (FB-10542).

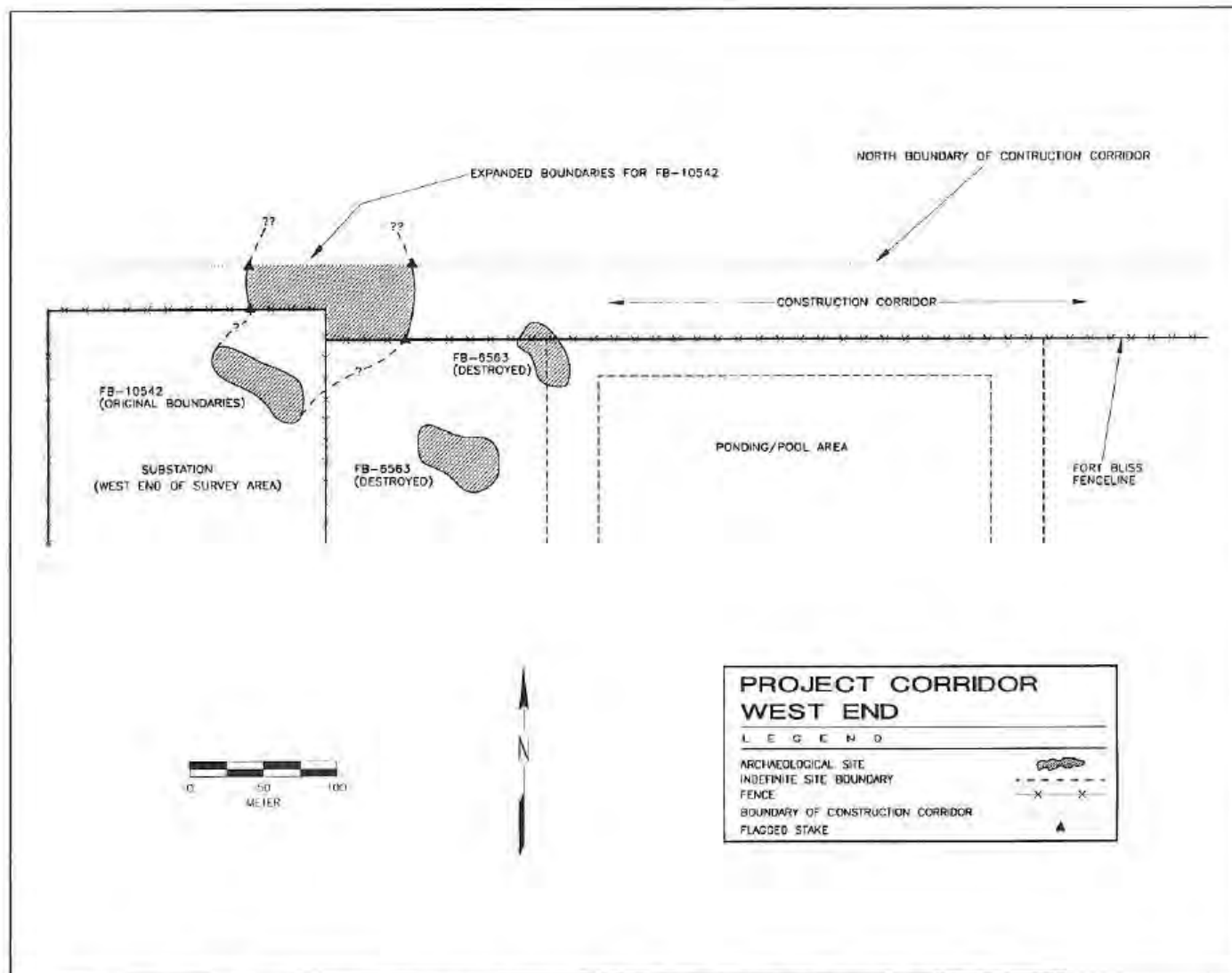


Figure 20. TRC's 1998 site map of 41EP6902 showing the extended boundary.



Figure 21. Partial site overview of 41EP6902, facing south. The Caliente Substation can be seen in the background.

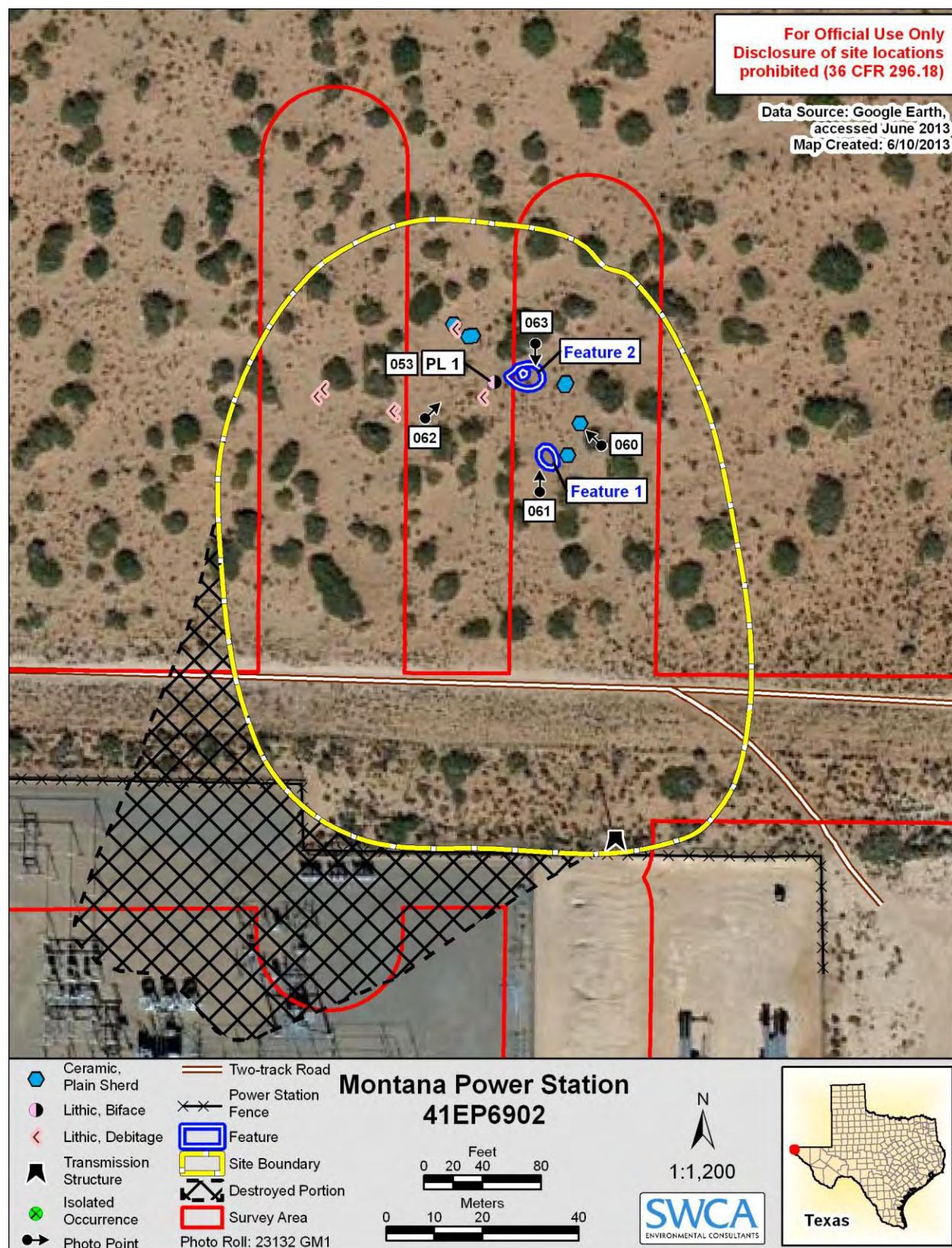


Figure 22. Site map of 41EP6902.

Feature 1 is a thermal feature located at site center and discovered by pedestrian traffic during survey (Figure 23). The feature has a 4.2 m diameter and consists of five to 10 pieces of burned caliche and charcoal-stained soil (Figure 24). A trowel probe revealed burned caliche and charcoal staining to a minimum depth of 3 cm below the surface. The feature was not visible on the modern ground surface and becomes sharply defined at 3 cm. It is likely the feature extends to at least 5 cm below the surface. No artifacts were observed in the feature.



Figure 23. Overview of Feature 1 showing charcoal staining uncovered by pedestrian traffic, facing southwest.



Figure 24. Close-up of charcoal stain in Feature 1.

Feature 2 is also a thermal feature discovered by pedestrian traffic during survey (Figure 25). It is located on the south side of a 2-m-high coppice dune. It measures 7 × 5 m and consists of approximately 200 pieces of burned caliche. The southwest corner of the feature has a well-defined charcoal stain with a 1.5 meter diameter (Figure 26). A trowel probe revealed this charcoal stain becomes more defined at 5 cm below the modern ground surface and likely extends to approximately 10 cm. No artifacts were observed in the feature.



Figure 25. Overview of Feature 2, facing south.



Figure 26. Close-up of charcoal stain in Feature 2.

All artifacts observed at 41EP6902 were recorded and analyzed in the field, and included six pieces of lithic debitage, a biface, and seven ceramic sherds. Debitage material included silicified sandstone (n = 4), grey-with-red chert (n = 1), and brown chert (n = 1). One primary, two secondary, and three tertiary flakes were observed. The biface was silicified sandstone and measured $4.8 \times 3.5 \times 1.2$ cm (Figure 27). All seven of the observed ceramic sherds were identified as El Paso brown ware jar body sherds (Figure 28). This pottery type dates to the Formative period, from A.D. 500 to 1350.



Figure 27. Silicified sandstone biface from 41EP6902.

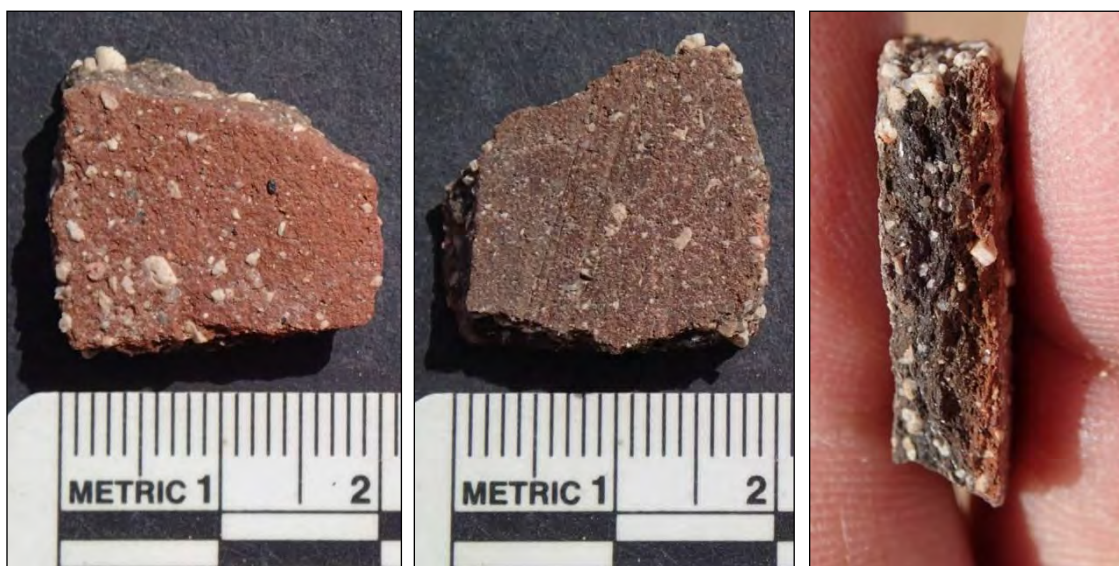


Figure 28. El Paso brown ware ceramic sherd from 41EP6902; from left to right: exterior, interior, cross section.

Based on SWCA's trowel tests, site 41EP6902 has intact subsurface cultural deposits to a minimum depth of 10 cm below the modern ground surface. On August 8, 2013 THC found the site to be undetermined in terms of its eligibility to the NRHP. SWCA recommends placing temporary fencing around the site and avoiding it during project activities. If avoidance is not possible, testing will be necessary to complete the evaluation process. If the site is found to be eligible and cannot be avoided, a Memorandum of Agreement to resolve adverse effect would be required.

Site 41EP6901

Field Number: 23132-02

Site Type: Thermal feature with artifact scatter

Occupation Type: Formative (A.D. 500–1350)

Area: 44 × 22 m

Depth of Deposits: 15 cm below modern ground surface

Site 41EP6901 is a prehistoric thermal feature with an associated artifact scatter including a Paleoindian-period Folsom projectile point (Figure 29 and Figure 30). The site is located in Filing 3 segment K (Routes 1–4) on a gentle 1 to 2 degree slope within a coppice dune/blowout area 1.5 m south of Montwood Drive. The site measures 44.1 × 22.1 m. Soil throughout the site is sand. The site has been heavily disturbed by previous construction including Montwood Drive and a transmission line. In addition, a bladed two-track road is located south of the site that is presently being used by heavy machinery. South of this two-track road are mesquite-anchored coppice dunes where additional burned caliche and artifacts were observed, likely a continuation of this site. It is likely this site was much larger during its use. The site has also been impacted by eolian and alluvial erosion and deposition. On-site vegetation consists of dead grasses and forbs only. Across the site, minimum ground surface visibility was estimated to be 95 percent. Elevation at the site is approximately 4,033 feet amsl. Appendix A contains the new THC site form for 41EP6901.



Figure 29. Overview of site 41EP6901 from Montwood Drive, facing south. Pin flags denote artifact locations.

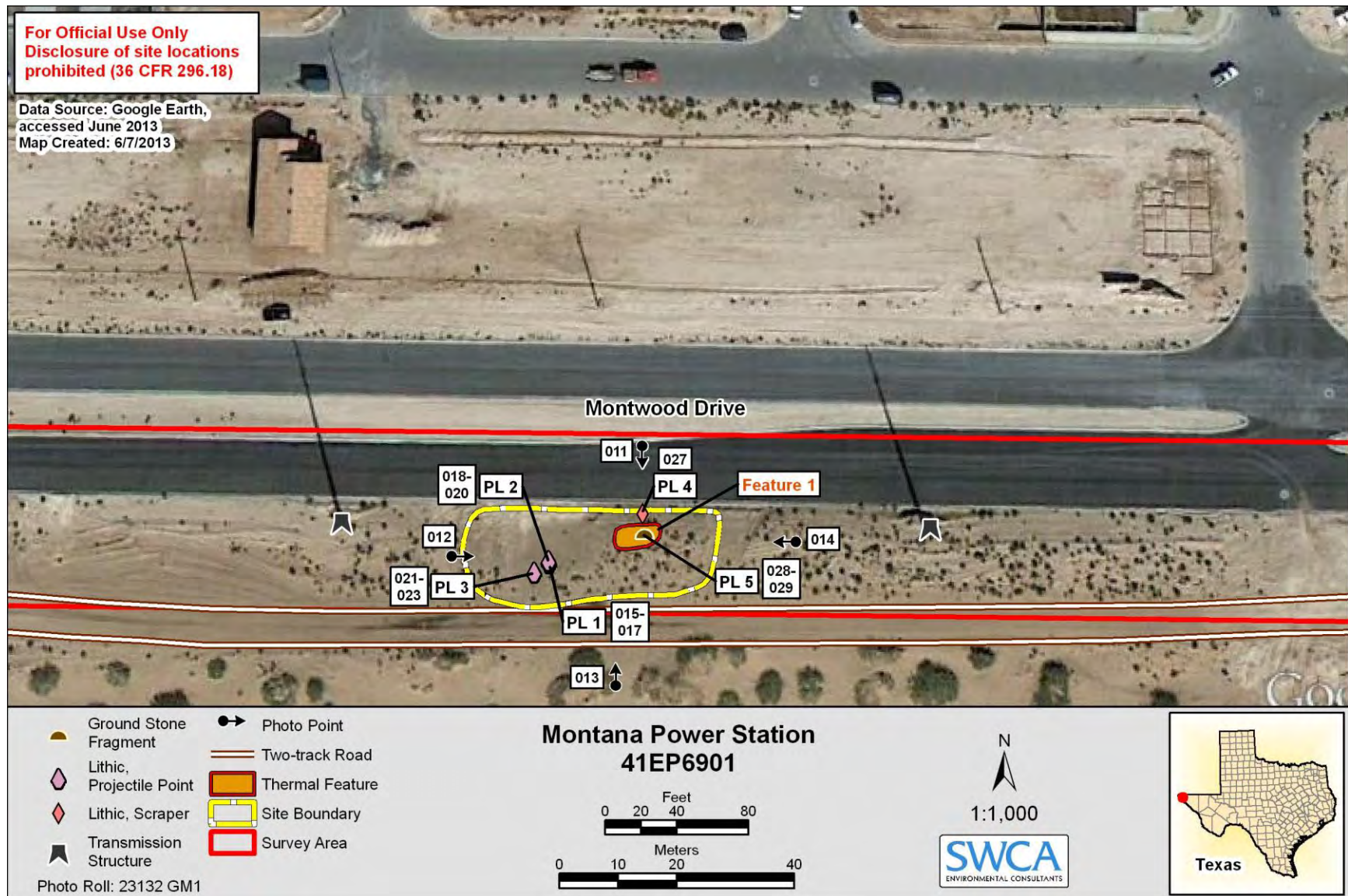


Figure 30. Site map of 41EP6901.

Feature 1 is a thermal feature consisting of charcoal-stained soil and approximately 200 pieces of burned caliche (Figure 31). The feature measures 8.6×4.3 m. An area of the feature was trowel scraped to determine if subsurface cultural deposits were present. Although no further artifacts were observed, the charcoal staining reaches a depth of approximately 15 cm below the modern ground surface. The majority of the observed artifacts were on the surface of or around this feature. The feature is being heavily impacted by eolian deflation as all the dunal sand is gone and the original compact cultural horizon is visible on the surface.



Figure 31. Overview of Feature 1, a thermal feature, at 41EP6901, facing southeast.

All observed artifacts were analyzed and recorded in the field and include lithic debitage, lithic tools, ceramic sherds, and a ground stone fragment. Sixteen pieces of lithic debitage were recorded, the attributes of which are detailed in Table 2. Three projectile points were observed on site including Folsom (9,000–8,000 B.C.), Angostura (8,000–6,000 B.C.), and Pueblo Side Notch (A.D. 1150–1500) types (Figure 32, Figure 33, and Figure 34). All observed tools are detailed in Table 3. Thirteen ceramic sherds were recorded, all of which are El Paso brown ware sherds which date from A.D. 500 to 1350 (Figure 37). Although the Folsom and Angostura projectile points date to the Paleoindian period, it is unclear whether this is an actual occupation component to the site or if the points were collected and brought to the site by later-period inhabitants. Testing of the site would help refine its chronology. All three projectile points were collected during the recording and are being temporarily curated at SWCA's Albuquerque office until the landowner can be contacted.

Table 2. All Lithic Debitage Observed at 41EP6901.

Material Color/Type	Maximum Length of Flake (cm)							Type Total	Material Total
	Type	1	2	3	4	5	5+		
Tan Silicified Sandstone	Secondary				1			1	4
	Tertiary		2		1			3	
Black/Red Rhyolite	Secondary			1				1	2
	Tertiary			1				1	
Grey/Brown Silicified Sandstone	Tertiary				2			2	2
Brown Chert	Secondary			2			1	3	4
	Tertiary			1				1	
Grey/Tan Silicified Sandstone with Chert strata	Tertiary			2				2	2
Tan Chert	Secondary			1				1	2
	Tertiary			1				1	
Totals		0	2	9	4	0	1		16

Table 3. All Tools Observed at 41EP6901.

Material Type	Length (cm)	Width (cm)	Thickness (cm)	Complete (Y/N)	Tool Description
Translucent Light Brown Chert w/Black Inclusions	4.5	2.1	0.2	N	Folsom projectile point, broken base
Brown Chert	4.6	2.0	0.3	N	Angostura projectile point, missing tip
White Chert	2.9	1.3	0.2	N	Pueblo Side Notch projectile point, missing portion of tang, concave base (1.1 cm), hafting (1.6 × 1.2 cm)
Chert/Sandstone	4.0	3.6	1.5	Y	Side scraper, secondary complete flake with one lateral edge unifacially worked (Figure 35)
Rhyolite	7.7	4.0	2.5	N	Unknown ground stone fragment, polish on one side, pitting (Figure 36)



Figure 32. Brown chert Folsom projectile point from 41EP6901.



Figure 33. Brown chert Angostura projectile point from 41EP6901.



Figure 34. White chert Pueblo Side Notch projectile point from 41EP6901.



Figure 35. Chert and sandstone side scraper from 41EP6901.



Figure 36. Rhyolite groundstone fragment from 41EP6901.

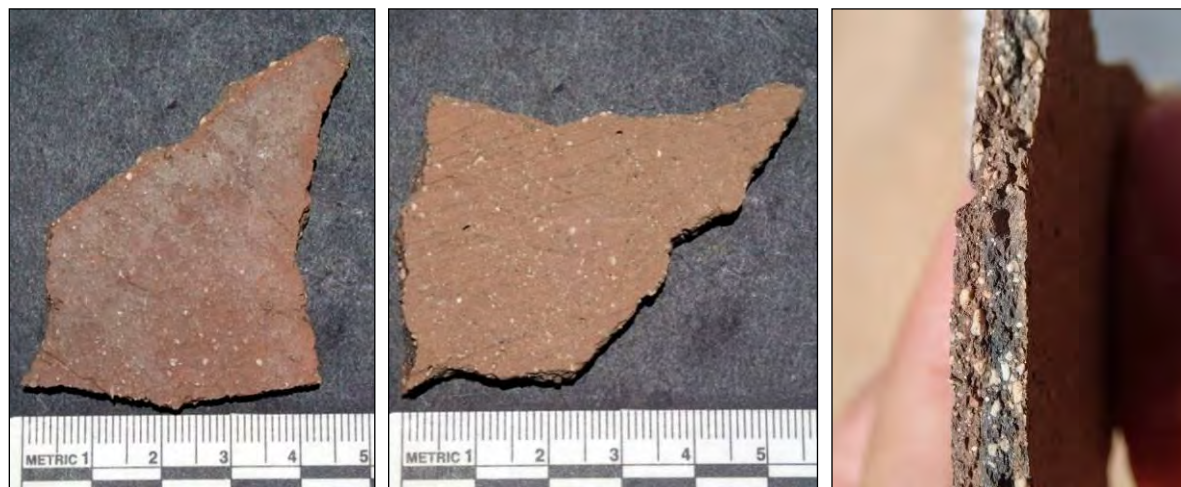


Figure 37. El Paso brown ware sherd from 41EP6901; from left to right, exterior, interior, cross section.

Diagnostic ceramics and projectile points observed at 41EP6901 at the outset suggest a long-term re-use of this site beginning during the Paleoindian period and lasting through the Formative period. However, the presence of ground stone and ceramic artifacts on the surface suggests that the Paleoindian-period artifacts may have been brought to the site by Formative period inhabitants. It is likely this site was used as a temporary camp for resource exploitation and tool production. In addition, based on the wide variety of observed material types and artifact types in relation to the current small size of the site, it is likely the site was much larger during its prehistoric occupation.

Site 41EP6901 contains intact subsurface deposits in Feature 1 and a rare Paleoindian-period Folsom projectile point. It has the potential to yield important information about the prehistory of the area in terms of chronology subsistence and resource extraction activities. On August 8, 2013 THC found the site to be undetermined in terms of its eligibility to the NRHP. SWCA recommends placing temporary fencing around the site and avoiding it during project activities. If avoidance is not possible, testing will be necessary to complete the evaluation process. If the site is found to be eligible and cannot be avoided, a Memorandum of Agreement to resolve adverse effect would be required.

Visual Effects Analysis

The height of proposed transmission line monopole structures ranges from 28.2 to 33.7 m (92.5–110.5 feet). Temporary construction easements (for transmission wire-pulling operations) may be anticipated at all large angle turning locations along proposed alignments. These temporary easements may be up to 122 m (400 feet) long by 15 m (50 feet) wide. Construction work will be contained in permanent or temporary easements; however, pending final alignments and rights-of-way acquisition, means of access may be across non-EPEC property and easements. Therefore, these egress areas cannot be evaluated at this time, but they are not likely to exceed the 122-m (400-foot)

temporary easements for transmission wire-pulling operations and are included within the indirect/visual APE documented in this report. Estimated duration of construction is 90 days and will include the use of cranes, drilling rigs, bulldozers, and wheeled vehicles varying in height from approximately 4.6 to 42 m (15–138 feet). Most of the potential transmission line routes are co-located with existing power lines and would produce only a weak visual contrast.

The exceptions to this general assessment are Filing 3, Routes 2, 3, and 4. All three of these routes include segments D and/or E (Figure 17) located in the southeastern portion of the project area. These segments run north-south along Mager Drive and Tim Floyd between Montana Avenue and Montwood Drive. Though monopole electrical distribution lines are present in portions of this area no existing north-south transmission line is present for most of their length. In addition, the southern portion of this potential route (segment E) is largely undeveloped and lacking in other visual obstructions of similar height and obtrusiveness. This potential transmission corridor would produce a moderate visual contrast with respect to the existing visual setting. However, since no sensitive resources are located within the indirect/visual effects APE, there will be no visual effect on historic properties.

Summary

The survey of the entire proposed transmission line corridor project area resulted in the recording of three NRHP-eligible or undetermined archaeological sites. Table 4 summarizes each transmission line filing and its effects on cultural resources.

The survey of the Filing 1 project area resulted in no cultural resources observed in any of the alternative routes. This filing will produce, at most, a weak visual contrast. This filing will have no effect on NRHP-eligible cultural resources within the APE or the visual buffer.

The survey of the Filing 2 project area resulted in the revisit of previously recorded site 41EP6902. This site has been found by THC to be undetermined in terms of its eligibility to the NRHP. SWCA recommends placing temporary fencing around the site and avoiding it during project activities. If avoidance is not possible, testing will be necessary to complete the evaluation process. If the site is found to be eligible and cannot be avoided, a Memorandum of Agreement to resolve adverse effect would be required. After implementation of appropriate mitigation measures as described above, Filing 2 will have no adverse effect on NRHP-eligible cultural resources within the APE or the visual buffer.

The survey of the Filing 3 project area resulted in the revisit of previously recorded site 41EP5886 and the recording of new site 41EP6901. Site 41EP5886 is located on segment E, both within the project corridor and outside of it, and has been determined eligible for the NRHP by the THC. It is recommended that temporary fencing be placed around the site and that it be avoided by any project activities. If avoidance is not possible, mitigation measures are recommended including construction monitoring and testing to determine if intact subsurface cultural deposits are present within the project corridor. Site 41EP6901 is located in segment K and has been found by THC to be undetermined in terms of its eligibility to the NRHP. SWCA recommends placing temporary fencing around the site and avoiding it during project activities. If avoidance is not possible, testing will be necessary to complete the evaluation process. If the site is found to be eligible and cannot be avoided, a Memorandum of Agreement to resolve adverse effect would be required. Alternative Route 1 will produce, at most, a weak visual contrast, while Routes 2–4 would produce, at most, a moderate visual contrast. No NRHP-eligible cultural resources within the visual buffer will be affected by Filing 3. No cultural resources will be affected by construction of Filing 3 if sites 41EP5886 and 41EP6901 are fenced during construction and avoided by project activities.

Table 4. Summary of Transmission Line Alternative Routes and Effects

Route	Resources Potentially Affected	Eligible or Undetermined Resources Potentially Affected	Visual Contrast
Filing 1			
1A	None	None	Weak
2A	None	None	Weak
3A	None	None	Weak
Filing 2			
1B	41EP6902	41EP6902	Weak
2B	41EP6902	41EP6902	Weak
3B	41EP6902	41EP6902	Weak
Filing 3			
1	41EP6901	41EP6901	Weak
2	41EP5886, 41EP6901	41EP5886, 41EP6901	Moderate
3	41EP5886, 41EP6901	41EP5886, 41EP6901	Moderate
4	41EP5886, 41EP6901	41EP5886, 41EP6901	Moderate

Isolated Occurrences

Table 5 presents a descriptive summary of the IOs that were documented during the current investigation. These resources lack aspects of integrity that are necessary to convey their significance or qualify them to be recorded as sites. The IOs are recommended not eligible for the NRHP. No further investigations are recommended for these resources.

Table 5. Isolated Occurrence Descriptive Summary

IO No.	Description
1	One silicified sandstone secondary complete flake with plain platform (6–7 cm)
2	One grey chert secondary complete flake with cortical platform (4–5 cm); one white rhyolite tertiary flake fragment, proximal end with plain platform (3–4 cm)
3	One <i>descanso</i> , white wooden cross with a photo, a prayer in Spanish, and silk flowers. A wreath is located on a nearby power pole,
4	Two <i>descansos</i> , matching wood and polystyrene crosses, concrete base, silk flowers, have the names Gerardo Ramirez and Juan Man?? (can't be read) Rodriguez R
5	One sandstone ground stone fragment, end piece, shaped, light pecking, one-sided, heavily utilized and burned (7.5 × 5.1 × 3.7 cm); one silicified sandstone tertiary complete flake, plain platform (2–3 cm)
6	Three El Paso brown ware jar body sherds, brown paste, sand/mineral temper with the mineral temper protruding through the surface, reduced/carbon center extending towards interior, hash-marked interior, smoothed on both sides
7	One brown chert bifacially worked side scraper, worked on one lateral edge of a secondary complete flake with a plain platform (6.5 × 3.8 × 1.2 cm); one silicified sandstone secondary complete flake with plain platform (2–3 cm)
8	Four El Paso brown ware jar body sherds with same characteristics as IO 6
9	Four steel beverage cans, three opened with a church key, one opened with 2 knife slits
10	One solder-dot milk can (3 × 3 14/16 inches); one oil can (4 9/16 × 4 15/16 inches); both double-knife punched
11	One solder-dot milk can (3 × 3 14/16 inches) partially crushed; opening style unknown
12	Blue/White graniteware bucket (8 12/16 × 10 inches); once featured a wire handle
13	One tan rhyolite non-cortical complete piece of debitage (4–5 cm)
14	One tan and red banded chert tertiary complete flake with a plain platform (2–3 cm)

MANAGEMENT SUMMARY

The archaeological survey of the EPEC Montana Power Station project APE and those of its three interdependent activities resulted in the revisit of three previously recorded sites and the recording of two new sites, all prehistoric Native American archaeological sites. In addition, 14 non-site IOs were discovered and recorded. Table 6 summarizes the effects on cultural resources by each project component.

Two sites were located within the Montana Power Station site, 41EP4766 and 41EP6784. Site 41EP4766 no longer exists, having been paved over for a Flying J parking lot. 41EP6784 is a deflated thermal feature which retains no integrity and is recommended not eligible for the NRHP. No further management of these sites is recommended. This project component will produce, at most, a weak visual contrast. The Montana Power Station site will have no effect on NRHP-eligible cultural resources within the APE or the visual buffer.

No cultural resources were observed during the survey for the proposed El Paso Water Utilities water pipeline and it will have produce no visual contrast. This project will have no effect on NRHP-eligible cultural resources within the APE or the visual buffer.

The Kinder Morgan proposed natural gas meter station and lateral line project will have no effect on NRHP-eligible cultural resources within the APE or the visual buffer as determined by the present analysis. In response to a consultation already completed by Kinder Morgan, THC has already concurred that this action will have no effect on historic properties.

Within the proposed transmission line corridor survey areas, three NRHP-eligible sites were recorded in Filings 2 and 3. No cultural resources were observed in Filing 1 and this filing will produce, at most, a weak visual contrast. Filing 1 will have no effect on NRHP-eligible cultural resources within the APE or the visual buffer.

Located in Filing 2 on Fort Bliss land, site 41EP6902 has been found by THC to be undetermined in terms of its eligibility to the NRHP. SWCA recommends placing temporary fencing around the site and avoiding it during project activities. If avoidance is not possible, testing will be necessary to complete the evaluation process. If the site is found to be eligible and cannot be avoided, a Memorandum of Agreement to resolve adverse effect would be required. This filing will produce, at most, a weak visual contrast. No historic resources are present within the visual buffer of Filing 2.

Two sites are located within Filing 3, 41EP5886 and 41EP6901. Site 41EP5886 is located on segment E, both within the project corridor and outside it. The site has been determined eligible to the NRHP by the THC and SWCA recommends that temporary fencing be placed around the site and that it be avoided during any project activities. If avoidance is not possible, mitigation measures are recommended including construction monitoring and testing to determine if intact subsurface cultural deposits are present with the project corridor. Site 41EP6901 is located on segment K and has been found by THC to be undetermined in terms of its eligibility to the NRHP. SWCA recommends placing temporary fencing around the site and avoiding it during project activities. If avoidance is not possible, testing will be necessary to complete the evaluation process. If the site is found to be eligible and cannot be avoided, a Memorandum of Agreement to resolve adverse effect would be required. Alternative Route 1 will produce, at most, a weak effect on visual contrast, while Routes 2–4 will result in a moderate visual contrast. No historic resources are present within the visual buffer of Filing 3.

The 14 IOs, by their nature, are not eligible to the NRHP and no further management of these resources is recommended.

If the mitigation measures specified in Table 6 are implemented, SWCA recommends that the development of the proposed Montana Power Station and its interdependent activities will have No Adverse Effect on historic properties. It is possible that tribal consultations to be undertaken by EPA will result in the identification of cultural resources not documented in this report. In that case, potential effects and mitigation measures would need to be developed in consultation with the THC and interested tribes.

Table 6. Summary of Effects and Recommended Mitigation by Project Component.

Project Component		Historic Resources	Eligible or Undetermined Historic Resources	Visual Contrast	Management Recommendations
Montana Power Station Site		41EP4766 (destroyed), 41EP6784	None	Weak	None
Water Pipeline		None	None	Weak	None
Natural Gas Meter Station and Lateral Line		41EP471	None	Weak	None
Transmission Lines					
Filing 1	Route 1A	None	None	Weak	None
	Route 2A	None	None	Weak	None
	Route 3A	None	None	Weak	None
Filing 2	Route 1B	41EP6902	41EP6902	Weak	Temporary fencing and avoidance
	Route 2B	41EP6902	41EP6902	Weak	Temporary fencing and avoidance
	Route 3B	41EP6902	41EP6902	Weak	Temporary fencing and avoidance
Filing 3	Route 1	41EP6901	41EP6901	Weak	Temporary fencing and avoidance
	Route 2	41EP5886, 41EP6901	41EP5886, 41EP6901	Moderate	Temporary fencing and avoidance
					Temporary fencing and avoidance
	Route 3	41EP5886, 41EP6901	41EP5886, 41EP6901	Moderate	Temporary fencing and avoidance
	Route 4	41EP5886, 41EP6901	41EP5886, 41EP6901	Moderate	Temporary fencing and avoidance

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APPENDIX A

Site Forms

**41EP4766, 41EP5886
41EP6784, 41EP6901, and 41EP6902**

Confidential

APPENDIX B

Site Location Map

Confidential

APPENDIX C

Resume of Principal Investigator



THOMAS P. BARRETT, PH.D. Cultural Resources Program Director

Years of Experience

26

Expertise

Regional
archaeological survey

Prehistoric settlement
patterns

Lithic analysis

Public interpretation
and outreach

Historical research

Education

Ph.D., Anthropology;
University of New
Mexico; 2003

M.A., Anthropology;
University of New
Mexico; 1992

B.A., Anthropology;
University of Maryland
College Park; 1988

Registration/ Certification

Registered Professional
Archaeologist

DOD Level 1 AT
Certificate

Permitted in New
Mexico for State Lands
(CPRC) and Bureau of
Land Management
(NW region)

Training

Project Management
Training (PSMJ 2006)

Experience Summary

Dr. Barrett is the cultural resources program director for SWCA's Albuquerque office. He has been involved in work for federal and state agencies, academic institutions, and private cultural resource management firms in eastern and western North America. He has experience in completing environmental assessments and environmental impact statements in New Mexico and the Southwest.

He has served as project director and/or principal investigator for survey projects, test excavations, and data recovery excavations; worked on compliance and cultural resource management planning for historic preservation offices; evaluated and nominated archaeological sites to the National Register of Historic Places; carried out lithic debitage studies and neutron activation analyses, settlement pattern analyses, and synthesized data from numerous excavation projects.

Selected Project Experience

Loco Hills Turner B Archaeological Data Recovery Project, Eddy County, New Mexico. Archaeological mitigation and reporting at deeply buried site impacted by natural gas produced water release, for BLM-CFO and SKA Consulting. *Role: Principal Investigator.* Key tasks or responsibilities included proposal, field and research plan preparation, project management and final deliverable quality control.

Sand Hills and Bluit Cultural Resources Survey Project, Roosevelt County, New Mexico. Directed survey of over 700 acres for NM Department of Game and Fish project to clear brush for habitat improvement for Lesser Prairie Chicken and Dune Sagebrush Lizard. *Role: Principal Investigator.* Key tasks or responsibilities included proposal, field and research plan preparation, project management and final deliverable quality control.

Montana Power Station and Transmission Line Cultural Resources Survey Project, El Paso County, Texas. Directed survey of over 266 acres for El Paso Electric in support of a GHG permit from the EPA. *Role: Principal Investigator.* Key tasks or responsibilities included staffing, field direction and reporting, project management and final deliverables.

Carlsbad Expansion Pipeline Cultural Resources Survey, Eddy County, New Mexico. *Role: Principal Investigator.* Key tasks and responsibilities included staffing multiple field sessions, client relations, field direction and reporting, project management and preparation and delivery of draft and final deliverables.

Class III Cultural Resource Inventory for the Natural Resources Conservation Service's Long Canyon Project, Union County, New Mexico. Archaeological identification survey of over 500 acres for water improvements. *Role: Principal Investigator.* Key tasks included staffing, fieldwork and reporting.

APPENDIX D

SWCA Class I Records Search Report And THC Concurrence on Natural Gas Line



Albuquerque Office
5647 Jefferson Street NE
Albuquerque, NM 87109
Tel 505.254.1115 Fax 505.254.1116
www.swca.com

April 24, 2013

Amy Blythe
Kinder Morgan
Two North Nevada Ave
Colorado Springs, CO 80903

RE: Montana Power Plant Meter Station and Lateral Line Cultural Resources Class I Records Search

Dear Ms. Blythe:

SWCA Environmental Consultants (SWCA) is pleased to provide you with this letter report detailing the results of a cultural resources Class I records search for the proposed construction of the Kinder Morgan (KMI) Montana Power Plant Meter Station and Lateral Line in El Paso County, Texas.

Scope of Work

KMI proposes to install a meter station, including one 3-inch rotary meter and three 6-inch ultrasonic meters and related appurtenances at the Montana Power Plant, located in S24, H.L. Newman, and S25, T.&P., R.R. CO, Block 79, El Paso County, Texas. In addition, a 4,700-foot lateral pipeline of 12-inch O.D. pipe will be installed to connect KMI's California Line (Line NO. 1100) near Milepost 193 to this meter station (Figure 1).

Previous Research

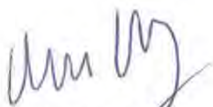
SWCA was contracted to conduct a Class I records search to aid KMI with cultural resources compliance for the project. SWCA's Albuquerque office completed a search of the Texas Archaeological Sites Atlas online database (Atlas) and of Texas Archaeological Research Laboratory (TARL) records to identify any previously recorded archaeological sites and surveys within the current project area (Figure 2). These record searches revealed that the entire area surrounding the pipeline was recently surveyed by Geo-Marine in 2010, by TRC in 2010, and by SWCA in 2012 (THC 2013). One site, 41EP471, is recorded as being located within the project area. It was recorded in 1975 as a small prehistoric camp, but was not relocated by Geo-Marine in its survey of the same area in 2010. Since the site was originally recorded prior to the use of global positioning system devices, its location is likely incorrect and it is in fact located outside of the project area. Geo-Marine's 2010 survey found no sites within the project area. The entire project area has been surveyed recently for cultural resources and none have been identified.

Page 1 of 4

Therefore SWCA recommends that the proposed project will have no effect on any historic properties. No further cultural resource studies are recommended.

Please contact me if you have any questions or concerns.

Sincerely,



Matthew Bandy, Ph.D.
SWCA Environmental Consultants
Albuquerque, NM

Reference

Texas Historical Commission (THC)
2013 *Texas Archeological Sites Atlas*. Available at:
<http://mueces.thc.state.tx.us/map/viewform.asp?areaid=17694>. Accessed April 2013.

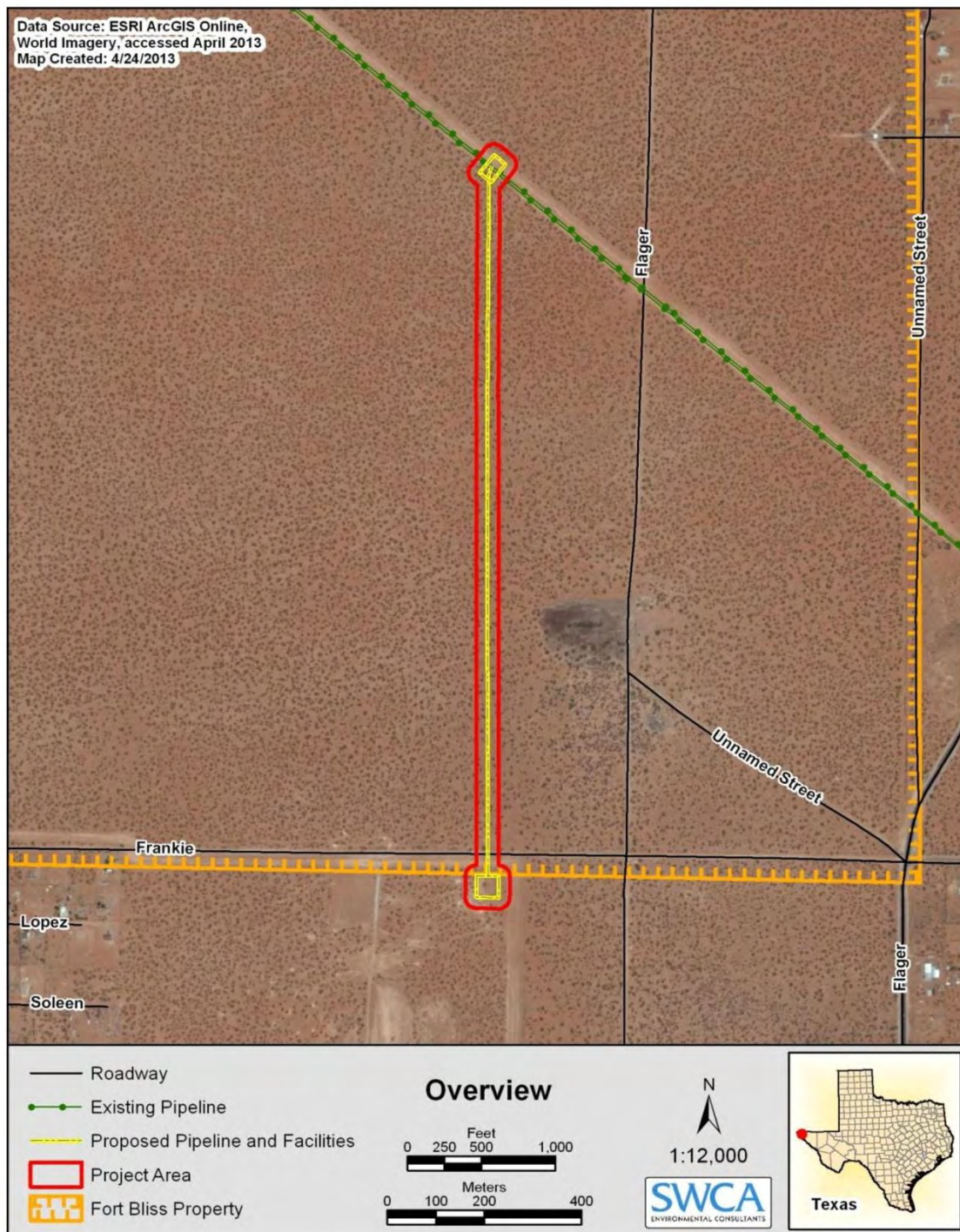


Figure 1. Overview map of the proposed project area.

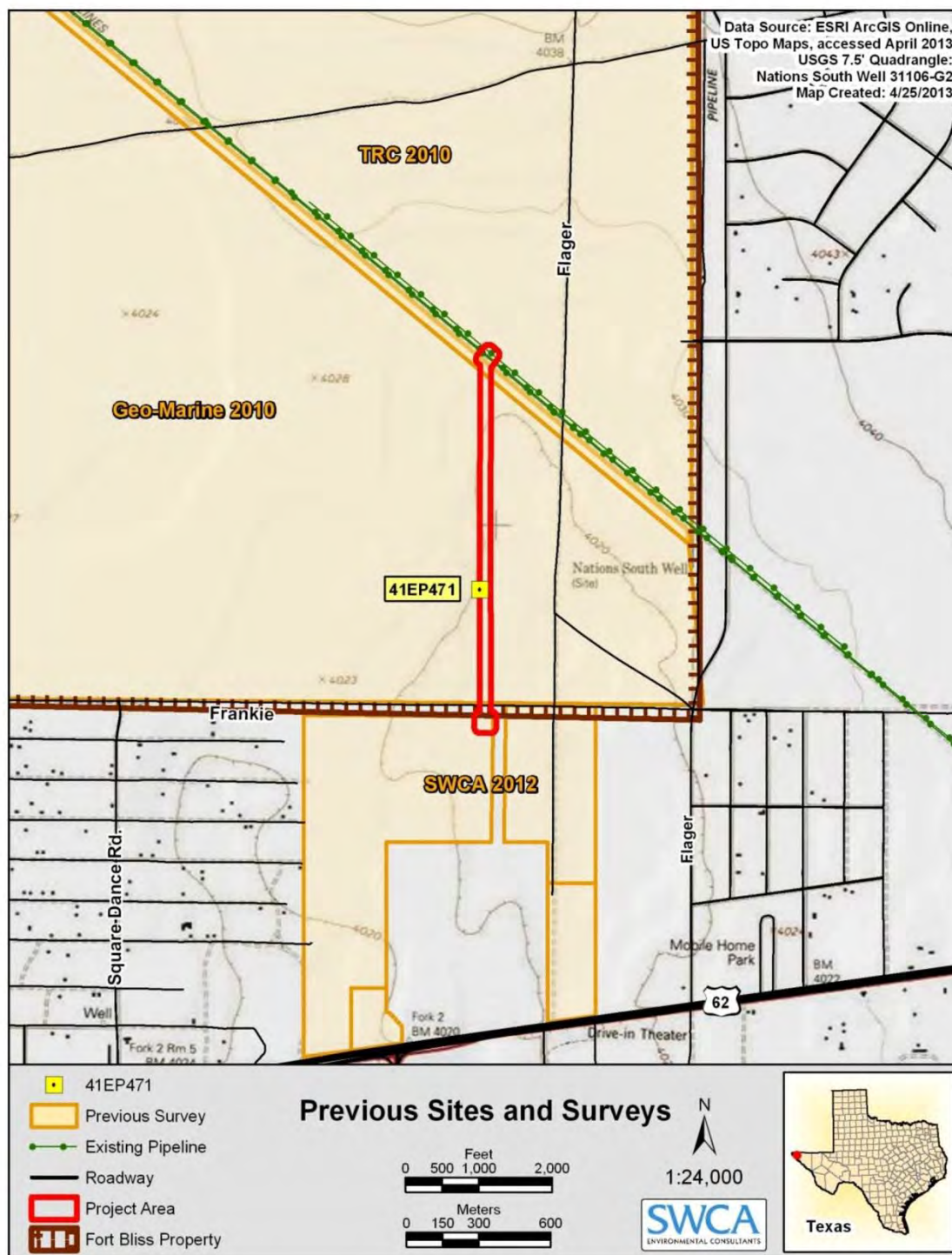


Figure 2. Project location map with previous sites and surveys.

NI LUT



May 23, 2013

Tiffany Osburn
Texas State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711-6100

Re: Consultation for El Paso Natural Gas Project – Construct the Montana Power Plant Meter Station and Lateral Line, Located in El Paso County, Texas

Dear Ms. Osburn:

On behalf of the Federal Energy Regulatory Commission (FERC), El Paso Natural Gas (EPNG), a subsidiary of Kinder Morgan, Inc., wishes to consult with the Texas State Historic Preservation Office regarding the potential effects on historic properties that may result from the construction and operation of the Montana Power Plant Meter Station and Montana Lateral Line located in El Paso County, Texas. In addition to consulting with your office, EPNG has initiated consultation with the following Native American tribes: the Comanche Nation, Kiowa Tribe, Chiricahua Apache Tribe, and Mescalero Apache Tribe.

This project can be constructed under blanket authority granted EPNG by FERC in its order issued September 8, 1982, in Docket No. CP82-435-000, Sections 157.208(a). The project is subject to review under Section 106 of the National Historic Preservation Act (16 United States Code 470) and its implementing regulations (36 Code of Federal Regulations 800). All investigations were conducted in accordance with Texas Historical Commission (THC) and Council of Texas Archaeologist (CTA) standards under permit number 6270.

Project Description

Construct the Montana Lateral Line

EPNG proposes to install approximately 4,700 feet of 12" O.D. lateral line from EPNG's California Line ("Line No. 1100") near Milepost 193 to the Montana Power Plant Meter Station located in Section 24, H.L. Newman, and Section 25, T.&P., R.R. CO, Block 79, El Paso County, Texas.

The construction ROW corridor will be 80 feet wide, which includes 60 feet of new permanent Right-of-Way (ROW), and an additional 20 feet of temporary workspace located on the west side of the ROW. The "tie-in" location to EPNG's Line No. 1100 will require approximately (100' x 100') 10,000 square feet of disturbance, confined within the existing ROW. Total surface disturbance for the lateral line will be approximately 386,000 square feet (8.86 acres). This portion of the project is located entirely within lands on **Fort Bliss Military Base**. As the land managing agency over this portion of the project, they are taking the lead regarding review for cultural resources.

It is my understanding that Ft. Bliss will be providing approval for EPNG to construct under their Categorical Exclusion (attached).

Construct and Operate the Montana Power Plant Meter Station

Install one 3" rotary meter and three 6" ultrasonic meters and related appurtenances at El Paso Electric Company's Montana Power Plant located in Section 24, H.L. Newman, and Section 25, T.&P., R.R. CO. Block 79, El Paso County, Texas. The "footprint of disturbance" for the meter station is approximately (150' x 150') 22,500 square feet (0.51 acres), located on private land.

Survey Results

Kinder Morgan contracted SWCA to conduct a Class I Cultural Survey of the Area of Potential Effect. A records search revealed that the entire area surrounding both the pipeline and the meter station had been previously surveyed in 2010 by Geo-Marine and TRC, and by SWCA in 2012 for El Paso Electric. The report revealed one cultural site along the lateral line segment that was previously identified in 1975, but was not relocated by Geo-Marine during their survey in 2010. Since the entire project area had been recently surveyed for cultural resources and none had been identified, SWCA recommended no further cultural resource studies were required.

Assessment of Effects and Request for Concurrence

Based on the results of the survey, do you concur that the proposed project would result in No effect to historic properties?

Please contact me at (719) 520-4813 or (575) 644-3336 if you have additional questions or concerns.

Respectfully submitted,



Amy Blythe
Environmental Specialist
Kinder Morgan Incorporated
2 North Nevada
Colorado Springs, CO 80903
amy_blythe@kindermorgan.com



APPENDIX E

Fort Bliss Record of Environmental Consideration

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

TO: Directorate of Public Works, Fort Bliss, Texas

FROM: Directorate of Public Works – Environmental Division, Fort Bliss, Texas

PROJECT TITLE: Demolition of Older, and Installation of New, Overhead Electrical Lines within an existing El Paso Electric (EPE) Right-of-Way Easement on Fort Bliss

BRIEF DESCRIPTION: EPE proposes to remove an existing single circuit overhead electric distribution line located adjacent to Fort Bliss's southern border north of Frankie Lane in Training Area 2A. This line would be replaced with a single pole line carrying two transmission circuits (115 KV each) and a single three phase distribution circuit (13.8 KV). The new pole line will be located approximately 40 feet north of Fort Bliss boundary and run from the proposed EPE natural gas generation facility located north of Montana Ave and east of Flager St. to EPE's Caliente Substation (See attached Figure). The new line will be about 2.4 miles in length and approximately 80 feet tall and constructed entirely within the existing EPE easement. No new right-of-way would be required.

DISCUSSION: Because all activity occurs within an existing ROW and does not change land use, DPW-E has determined that this action does not constitute a major federal action and qualifies for a Categorical Exclusion from further NEPA analysis. The entire ROW is completely disturbed from the construction, operation, and maintenance of the existing power poles and lines.

Within the ROW there are no Federal regulated wetlands, arroyo-riparian drainages, or playa lakes, no known cultural resources, and no federal or State threatened and endangered species. The electrical lines would be designed and constructed in accordance with avian protection guidelines. During demo and construction, some dust generation would occur, but no permanent effects on air quality are anticipated. The new towers would not be tall enough to affect aviation air space. Any hazardous or toxic waste or other contaminants generated during the demo and construction would be disposed of by EPE under the Installation Hazardous Waste Management Program. Solid waste will be properly removed and disposed of by EPE.

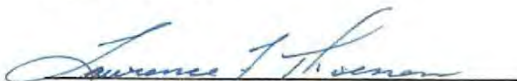
Ground access to the project area will be coordinated with and approved by Range Control in advance of entry. The project falls within an existing EPE easement that has been previously disturbed and the route does not cross a known unexploded ordnance dudged or munitions impact area.

ANTICIPATED DATE AND/OR DURATION OF PROPOSED ACTION: The action will begin mid-2013 and continue until completed.

DETERMINATION: The proposed action falls within an existing easement held by EPE and will not significantly alter land use. The project meets the screening criteria for a Categorical Exclusion as defined in CX (e) (2) of Appendix B, 32 CFR, Part 651, Environmental Analysis of

Army Actions: Acquisition, installation, and operation of utility systems, that use existing right-of-way, easement, distribution systems, and/or facilities. A separate Environmental Impact Statement (EIS) or Environmental Assessment (EA) is therefore not required for this action.

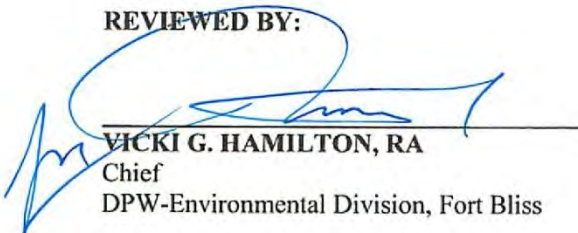
PROPONENT:



LAWRENCE F. THOENEN
Manager, Project Mgt & QC
El Paso Electric Company

December 20, 2012
Date

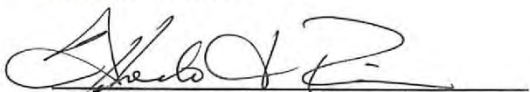
REVIEWED BY:



VICKI G. HAMILTON, RA
Chief
DPW-Environmental Division, Fort Bliss

12/20/2012
Date

APPROVED BY:



ALFREDO J. RIERA, P.E.
Director
Directorate of Public Works, Fort Bliss

12/21/12
Date



APPENDIX F
THC Comment Letter

TEXAS HISTORICAL COMMISSION
real places telling real stories

August 2, 2013

Jeff Robinson
Section Chief
Air Permits Section
United States Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Attention: A.C. Dumaul

Re: Project review under Section 106 of the National Historic Preservation Act
Draft report: *Archaeological Survey for the El Paso Electric Montana Lower Station in El Paso County, Texas*. (EPA)

Dear Mr. Robinson:

Thank you for allowing us to review the report referenced above. This letter serves as comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

The review staff, led by Bill Martin, has completed its review. After reviewing the documentation, we concur with the authors' conclusion that sites 41EP6784 and 41EP4766, as well as the isolated finds, are ineligible for inclusion in the National Register of Historic Places (NRHP) due to lack of integrity. We also concur with the conclusion that sites 41EP5886 (which has been determined eligible for inclusion in the NRHP), FB 10542, and 41EP6901 should be avoided and protected from disturbance during construction.

However, we cannot concur that sites FB 10542 and 41EP6901 are eligible for inclusion in the NRHP on the basis of survey work alone. There are enough caveats in the report, such as a lack of artifact in the features, charcoal staining but no mention of datable charcoal, and the possibility that the Paleoindian points at 41EP6901 were brought to the site by the Late Prehistoric occupants, that there isn't enough solid data to determine the sites eligible. If these sites cannot be avoided, test excavations are warranted to complete the evaluation process. If the sites are then determined eligible and cannot be avoided, construction would be an adverse effect, and a Memorandum of Agreement to resolve the adverse effect would need to be drafted.

This is a very thorough and well written report and we have no specific comments that need to be addressed. We look forward to receiving the final report along with an electronic version in the form of a tagged PDF. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If we may be of further assistance, please call Bill Martin of our staff at 512/463-5867.**

Sincerely,



for
Mark Wolfe, State Historic Preservation Officer

MW/wam

RICK PERRY, GOVERNOR • MATTHEW F. KREISLE, III, CHAIRMAN • MARK WOLFE, EXECUTIVE DIRECTOR
P.O. BOX 12276 • AUSTIN, TEXAS • 78711-2276 • P 512.463.6100 • F 512.475.4872 • www.thc.state.tx.us

US EPA ARCHIVE DOCUMENT