

**United States Department of the Interior  
Bureau of Land Management  
Las Cruces District Office  
1800 Marquess Street  
Las Cruces, NM 88005**

**Environmental Assessment for  
El Paso Electric Company Right-of-Way for a  
3-Phase 24-kV Overhead Distribution Feeder Powerline  
(Arroyo 23 - Salopek 24 Feeder Tie)**

Located north of Centennial High School along Sonoma Ranch Blvd.,  
Las Cruces, Doña Ana County New Mexico 88011

**NEPA Number: DOI-BLM-NM-L000-2014-0103-EA  
BLM Serial Number: NMNM 131403**



/s/ Christine S. Legarda

April 13, 2015

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Signature and Title of Project Lead

Date

/s/ Jennifer Montoya

April 13, 2015

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Signature and Title Lead of Reviewer

Date





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# 1 INTRODUCTION

El Paso Electric Company (EPECo) proposes to construct a new 3-Phase 24kV overhead electric distribution feeder power line in sections 11, 12, and 14, township 23 south, range 2 east, New Mexico Principal Meridian, New Mexico for the purpose of upgrading electric service to the area. This new power line will allow EPECo to connect (tie) existing Salopek 24 distribution feeder (NMNM 52922) to Arroyo 23 distribution feeder (NMNM 115695); thus providing continuity for current and future growth.

The project is located north and east of the new Centennial High School, off of Sonoma Ranch Blvd. in Las Cruces, NM. Total length of proposed right-of-way (ROW) is 10,078.51' in length and 25' wide being 12.5' on either side of the centerline as described on the survey. All project areas occur on Federal (BLM) lands.

A ROW application, serial number NMNM 131403, under authority of Title V of the Federal Land Policy and Management Act of 1976 (FLPMA), as amended, was submitted by EPECo to the BLM - Las Cruces District Office (LCDO) to obtain legal access to construct, operate and maintain a ROW across the following affected Federal lands:

## **New Mexico Principal Meridian, New Mexico**

T. 23 S., R. 2 E.,

sec. 11, SE1/4SE1/4SW1/4SW1/4, S1/2SW1/4SE1/4SW1/4,  
S1/2SE1/4SE1/4SW1/4, S1/2SW1/4SW1/4SE1/4,  
S1/2SE1/4SW1/4SE1/4, SE1/4NE1/4SE1/4SE1/4,  
and S1/2SE1/4SE1/4;

sec. 12, NE1/4SW1/4, SE1/4NW1/4SW1/4, NW1/4NE1/4SW1/4SW1/4,  
and NW1/4SW1/4SW1/4;

sec. 14, NW1/4NW1/4NE1/4NE1/4, E1/2NE1/4NW1/4NW1/4,  
E1/2SE1/4NW1/4NW1/4, E1/2NE1/4SW1/4NW1/4,  
and E1/2SE1/4SW1/4NW1/4.

### **1.1 Purpose and Need**

For this particular proposed action, the BLM's specific purpose is to provide for use of lands for transmission systems and distribution of electric energy in a manner consistent with the principles of sustained yield and multiple use as described in the Federal Land Policy and Management Act of 1976 (FLPMA). Growth on the east side of the City of Las Cruces has led to an increase in demand for reliable power to accommodate hospitals, homes, and a large high school. The purpose of the feeder line is to enhance reliability and capacity in these areas.

The need is to respond to a request for a Right-of-Way Grant for legal access across public land as established by the BLM's responsibility under Title V of the FLPMA, as amended.

### **1.2 Decision to be Made**

A ROW application, serial number NMNM 131403 was submitted by EPECo to the BLM - Las Cruces District Office (LCDO) to obtain legal access to construct, operate and maintain a ROW for an electric feeder line, 10,078.51' in length and 25' wide being 12.5' on either side of the centerline as described on the survey. EPECo. also requests that the ROW include temporary construction areas, and an associated permanent access road. The BLM would decide whether or not to authorize this ROW.

### 1.3 Plan Conformance

This site-specific analysis tiers into and incorporates by reference the information and analysis contained in the 1993 Mimbres Resource Management Plan (RMP) and Environmental Impact Statement (EIS). This project Environmental Assessment (EA) addresses site-specific resources and/or impacts that are not specifically covered within the Mimbres RMP Final EIS, as required by the National Environmental Policy Act of 1969 (NEPA), as amended Public Law 91-90, 43 U.S.C. 4321 et seq.

This Proposed Action conforms to the terms and conditions of the Mimbres RMP, approved April 1993; it is not located within the portion of public lands designated for ROW avoidance or exclusion. The RMP states on p. 2-17 “The remainder of the Resource Area (outside of avoidance and exclusion areas) is open to the location of ROWs, subject to standard stipulations (1,970,180 acres).”

### 1.4 Scoping and Issues

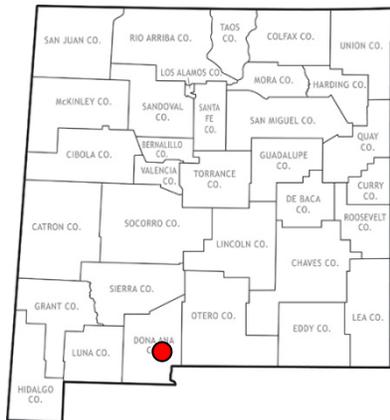
#### 1.4.1 Internal Scoping

On June 16, 2014, the proposed action was presented to the BLM Las Cruces District Office (LCDO) Interdisciplinary Team.

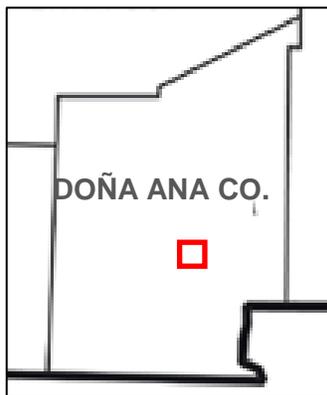
#### 1.4.2 Resource Issues Identified

The following resource issues were identified as a result of internal and external scoping.

<b>Resource</b>	<b>Issue</b>
Cultural	What would be the affect of project disturbance on historical and archaeological resources?
Paleontological	Are project disturbances within potential high yield fossil areas?
Visual Resources	Are visual resources affected by the project's permanent structures?
Surface Waters & Wetlands	What would be the effect of the project construction and ROW on surface waters and wetlands?
Soils	What would the effect of the project ROW be on erosion and water infiltration?
Vegetation	What would be the effect on vegetation in the ROW?
Invasive, non-native species	Would project activities potentially introduce or spread invasive species?
Special Status Species/T&E	Does the project and its disturbance affect Special Status Species/T&E?
Wildlife	What impact to wildlife in general does the project ROW entail (including raptor protection)?



STATEWIDE LOCATION



COUNTY LOCATION

SOURCE: Google Maps 2014  
 Map Width: Approx. 8 miles

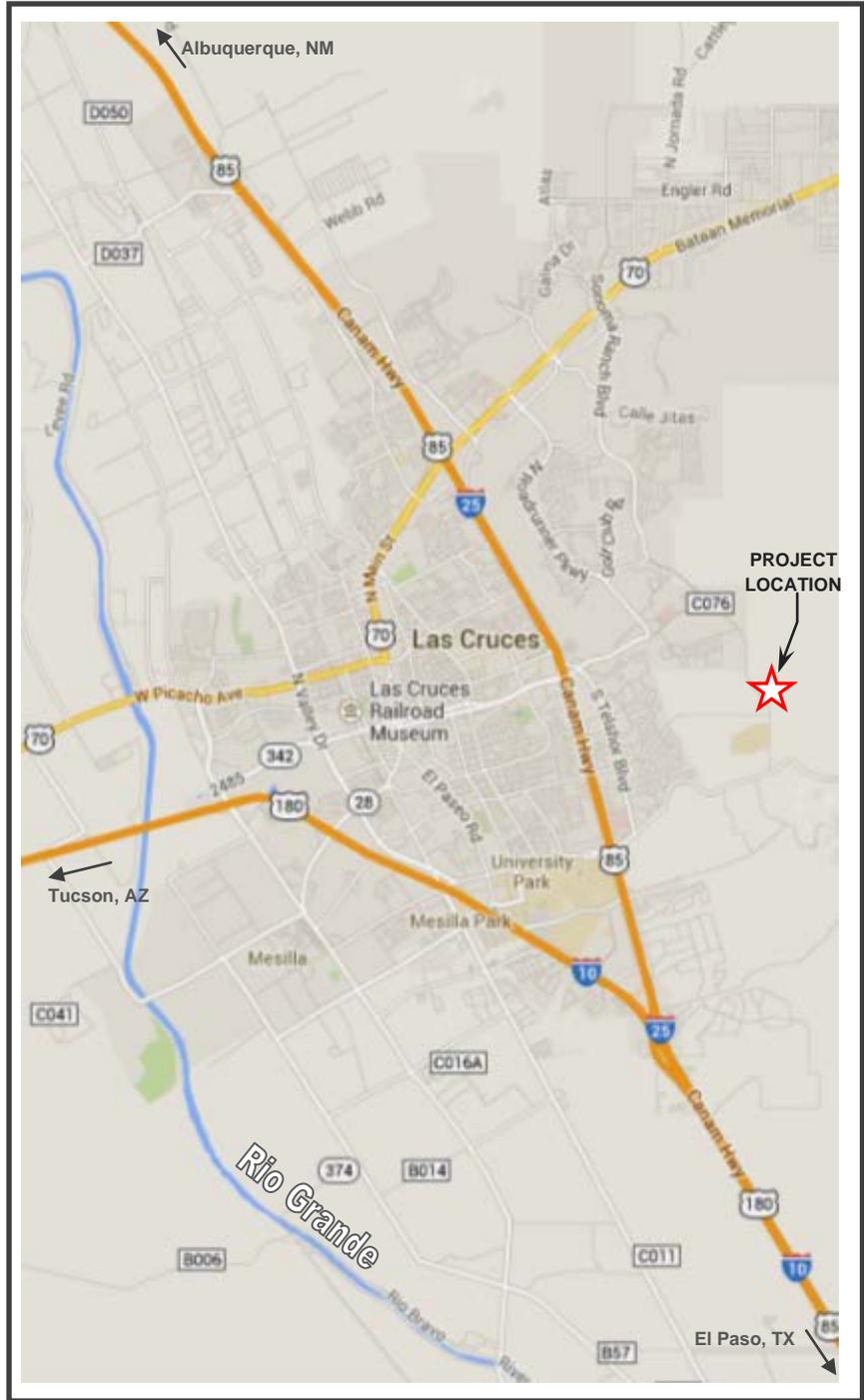


Figure 1 General Vicinity Map EPECo 3-Phase 24 kV Arroyo 23 - Salopek 24 Feeder Tie, Las Cruces, Doña Ana County, New Mexico 88011

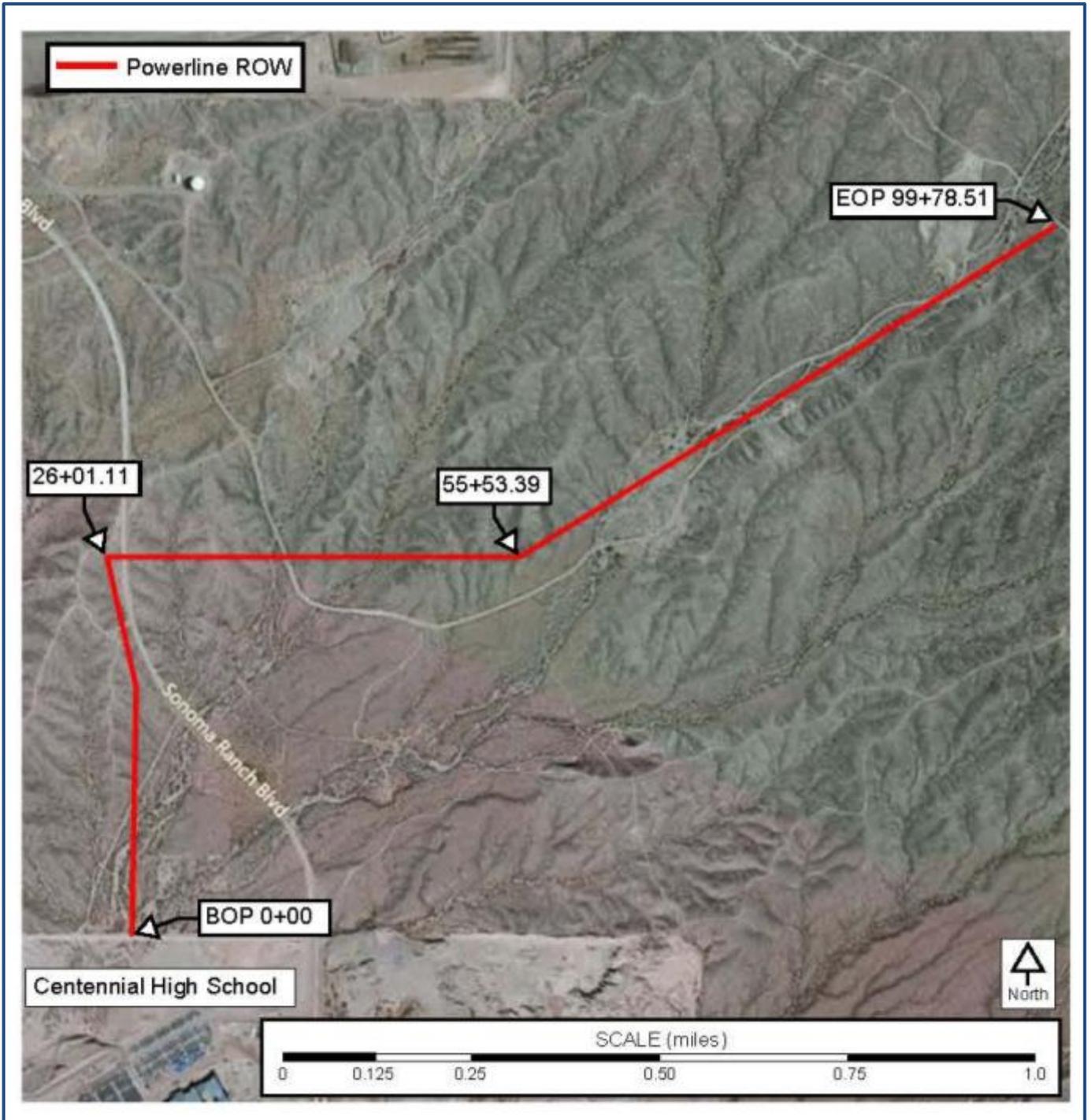


Figure 2 - Aerial Overview Map - Project Benchmarks, EPECo 3-Phase 24 kV Arroyo 23 - Salopek 24 Feeder Tie, Las Cruces, Doña Ana County, New Mexico 88011 Image Courtesy of Digital Globe

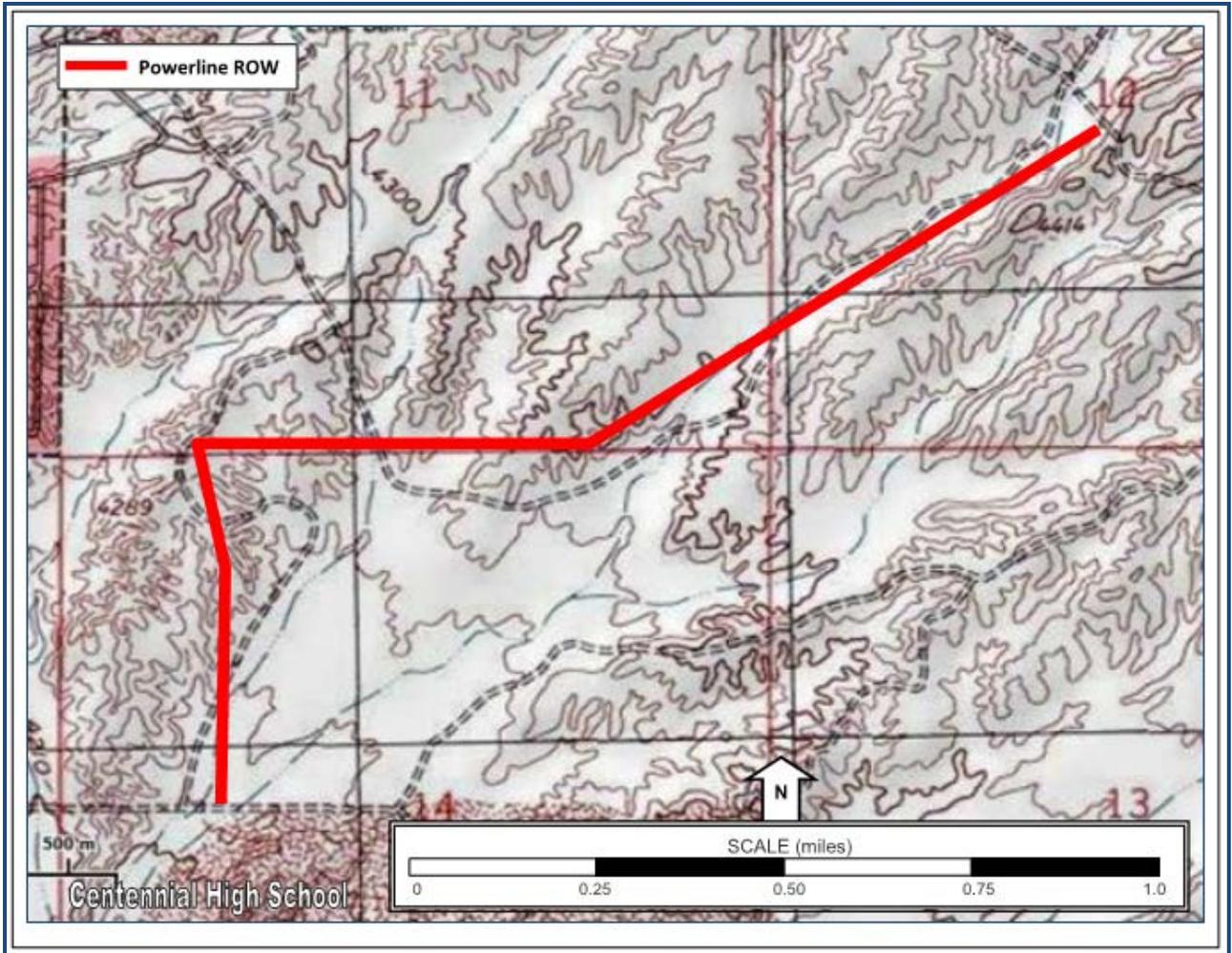


Figure 3 - USGS 1:24,000 Project Area Topographic Map Tortugas Mountain Quadrangle, New Mexico

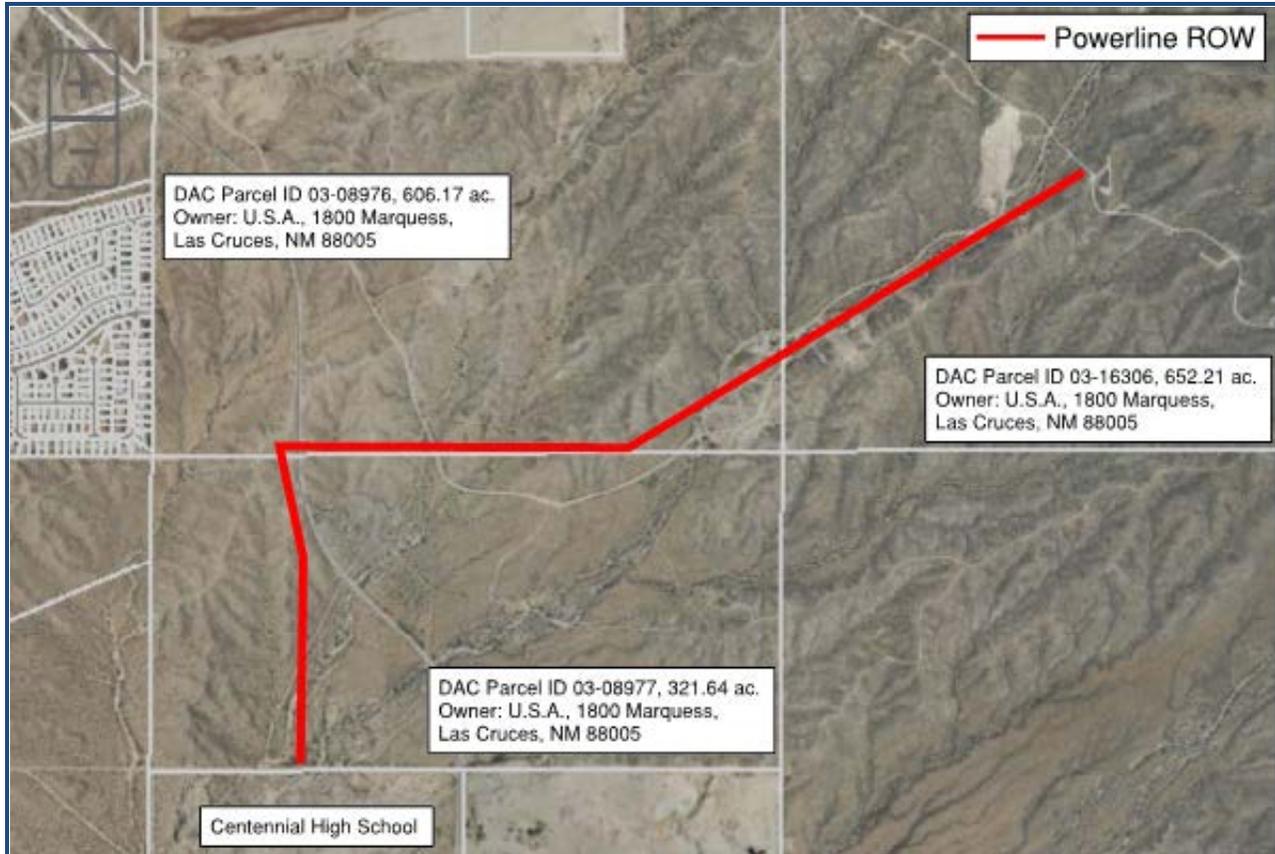


Figure 4 - Land Ownership Map of Project Area (ref. Doña Ana County Parcel Map, located at <http://maps.donaanacounty.org/parcels/>. Accessed on May 26, 2014.)

## 2 PROPOSED ACTION AND ALTERNATIVES

### 2.1 Proposed Action

El Paso Electric Company (EPECo) proposes to construct a new 3-Phase 24kV overhead electric distribution feeder power line in sections 11, 12 and 14, township 23 south, range 2 east, New Mexico Principal Meridian, New Mexico for the purpose of upgrading electric service to the area. In addition to the power line, EPECo proposes to construct a temporary access road for construction of the line. After the line is constructed, disturbed sites outside of the access road would be re-seeded and re-contoured, and EPECo would use the ROW in the future for access to their facilities for maintenance and repair.

#### Location

The proposed 25' wide BLM power line right-of-way will begin at Station 0+00, point on centerline of existing El Paso Electric Company's BLM RW NMNM 52922. This proposed power line right-of-way will consist of a new 3 phase 24KV distribution feeder power line, built on the centerline of the proposed 25' right-of-way (Figure 4).

El Paso Electric Company's proposed 3 phase 24KV distribution feeder power line begins on the north side of the new Centennial High School, and heads north for approximately 2601' to Station 26+01.11, a point on the centerline common to Section 11 and Section 14. Proposed power line will

then turn and head east for approximately 2952' to Station 55+53.39. At Station 55+53.39, proposed powerline will turn and head northeast for approximately 4425.12 to centerline of El Paso Electric Company's BLM ROW NMNM 115695.

## **Construction Features**

Construction will consist of approximately 45 poles: 3 steel Poles (1-45', 2-50'), 42 wood poles varying in size from 45' to 60'. Span distances vary due to terrain and weight of the power line conductor. A total of 2-50' anchors will be installed (Anchor Location A & B). The installation of steel poles will eliminate the need for additional anchors and better support the 795/336 ACSR cable. Static wire construction will be used for raptor protection by placing the neutral wire in pole top position with the three phase conductors located 5' below the neutral. Wood poles buried to a depth of between 7'-7.5'; steel pole bases installed as indicated on the Pole Detail drawing in Appendix B. Total length of Centerline is 9978.51'; along with 100.00' for Anchor locations "A" (50') and "B" (50'). Total Right-of-Way = 10,078.51'.

A Temporary Construction right-of-way is requested for blading of a road and installation of the steel and wooden power poles. Blading will be limited to 10' in width within the proposed right-of-way; a 50' radius is required for the installation of steel poles and a 40' radius is required for the installation of wooden poles. Major equipment to be used for construction will consist of line trucks, bucket trucks and pole/wire trailers, as well as a backhoe to blade road and cement truck to deliver concrete for the footing of the steel structures. Access for construction will be limited to within the proposed 25' right-of-way, existing BLM RW NMNM 52922 and NMNM 115695 and the proposed additional Temporary Access & Construction right-of-way. Approximate construction time is 6 weeks.

### **2.1.1 Design Features**

EPECo will implement the following design features to benefit resources. These design features will be attached to the ROW grant as stipulations.

1. Cultural. If buried archaeological or cultural deposits are discovered during construction, work in the area shall cease while the BLM - LCDO is consulted. If Native American human remains are discovered during construction, construction activity shall cease while the appropriate tribes are consulted for treatment and disposition of these objects, pursuant to the Native American Graves Protection and Repatriation Act of 1990. If a human burial or unmarked burial ground is encountered during construction, notify the local law enforcement agency and State Medical Investigator pursuant to 4.10.11.8 NMAC.
2. Paleontology. The permittee shall immediately notify the BLM Authorized Officer of any paleontological resources discovered as a result of operations under this authorization. The permittee shall suspend all activities in the vicinity of such discovery until notified to proceed by the Authorized Officer and shall protect the discovery from damage or looting. The permittee may not be required to suspend all operations if activities can be adjusted to avoid further impacts to a discovered locality or be continued elsewhere. The Authorized Officer will evaluate, or will have evaluated, such discoveries as soon as possible, but not later than 10 working days after being notified. Appropriate measures to mitigate adverse effects to significant paleontological resources will be determined by the Authorized Officer after consulting with the operator. Within 10 days, the operator will be allowed to continue construction through the site, or will be given the choice of either (1) following the Authorized Officer's instructions for stabilizing the fossil resource in place and avoiding further

disturbance to the fossil resource, or (2) following the Authorized Officer's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.

3. Existing Land Uses. The One Call Center shall be utilized before excavation/digging takes place to locate and mark underground utility lines. All existing land uses and activities will be rehabilitated as closely as possible to their preconstruction condition. All existing improvements will be protected. Any structure damaged by the Village of Hatch, EPECo or its agents through construction activities, such as gates, fences, terraces, levees, underground drainage systems, irrigation pipelines, canals, culverts, and ditches, will be restored as closely as possible to preconstruction conditions and to the satisfaction of the owner.

Permittees and other regular users of public land administered by BLM shall be notified in advance of any construction activity that may affect their facility or operations by the BLM - Las Cruces District Office.

4. Soil, Water, Vegetation, and Fauna.
  - The contractor shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) and a temporary erosion and sediment control plan (TESCP) in compliance with Section 402 of the Clean Water Act. Best Management Practices (BMP's) shall be installed and maintained both during and after construction to prevent, to the extent practicable, pollutants in storm water runoff from entering Waters of the U.S. The USACE - Albuquerque District, Las Cruces Regulatory Field Office will be consulted for impacts to ephemeral streams and any permits obtained before construction begins.;
  - All construction vehicle movement outside of the defined ROW will be restricted;
  - The limits of construction activities will be predetermined, with activity restricted to and confined within those limits. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits;
  - Avoid leaving holes open overnight to limit entrapment of small mammals, amphibians and reptiles and injury to large mammals;
  - During excavation and trenching, set aside topsoil from subsurface soil, backfilling with subsurface soil first then topsoil and restoring the area as close to its original grade and slope as possible;
  - Vegetation will be left in place wherever possible to avoid excessive root damage and allow for re-sprouting. Large shrubs such as sumac and desert willow would be avoided when possible; trimming branches where necessary would be preferable to removing the entire plant.
  - The following species would be avoided during construction when possible. If the plants could not be avoided they would be dug up with as much root intact as possible and left at a designated pickup area near the project site. The BLM-LCDO would then be notified within 24 hours and collect the cactus to be adopted out.

ECCO5 (claret cup cactus)  
FEWI (fishhook barrel cactus)  
YUTR (Torrey's yucca)  
YUEL (soaptree yucca)  
COMA14 (nipple cactus)  
FOSP2 (ocotillo)

5. Seeding. Disturbed areas would be seeded after construction activity was completed. Areas that would continue to be disturbed (access roads) would not need to be seeded.

Any seed used on public lands shall not contain noxious weed seed and must meet certified seed

quality. The seed procured for use on public lands will meet the Federal Seed Act criteria. All seed to be applied on public lands must have a valid seed test, within 1 year of the acceptance date, from a seed analysis lab by a registered seed analyst (Association of Official Seed Analysts). The seed lab results shall show no more than 0.5 percent by weight of other weed seeds. The seed lot shall contain no noxious, prohibited, or restricted weed seeds according to state seed laws in the respective state(s). Copies of the seed lab test results, including purity and germination (viability) rate, must be forwarded to the appropriate BLM office prior to seed application. If the seed does not meet the BLM and State/Federal standards for noxious weed seed content or other crop seed allowances, it shall not be applied to public lands. All seed test results must be retained in the seeding project file. Seeding should be accomplished in June or July to coincide with the "rainy" season to achieve optimum results. Seed will be planted a quarter to half inch deep using a disc type or similar rangeland drill sufficient to accommodate variations in seed sizes, or if broadcast, the rates should be doubled. Seeding may need to be completed in more than one year before being successful.

Seed-bed preparation should be performed to provide a hospitable environment for germinating seed by breaking up impermeable soil layers that have formed and increasing void spaces for air and water. Ground shall be roughed-up prior to planting, by raking, harrowing or other methods.

Seed shall be broadcast with a "cyclone" hand seeder or similar broadcast seeder to facilitate an even spread. After seed is broadcast, ground shall be raked or dragged, to help bury it and improve soil contact and provide texture. Next, mulch should be placed where necessary to prevent loss of moisture and seed to wind.

Mulch shall be free of weeds and weed seed. Mulch shall be applied on the surface within one day following seeding. Mulch must be free of noxious weeds and other diseased plant residues. Rotten or molded hay is not acceptable as mulch.

The LCDO will provide a recommended seed mixture and application rate of pounds pure-live-seed (PLS) per acre. Species substitutions and deviations to application rates must be approved by the Authorized Officer.

#### 6. Noxious Weeds.

- All equipment would be power or high-pressure cleaned of all mud, dirt, and plants immediately prior to moving into the project area.
- Any gravel or fill to be used must come from weed-free sources. Inspect gravel pits and fill sources to identify weed-free sources. Gravel or fill is not anticipated to be required by the proposed action.
- No soil spoil that could potentially contain noxious weed seeds would be transported out of the area where it is created.
- The project applicant has conducted a survey for noxious weeds in the proposed project area and one was found, salt cedar (Class C noxious weed). If during construction noxious weeds are identified that were not originally encountered during the survey, the project applicant would avoid driving vehicles and equipment through or over the infested area. If avoidance measures cannot be taken within the area originally cleared, operations would cease and the BLM LCDO would be contacted.
- The holder shall be responsible for weed control on disturbed areas within the limits of the site. The holder is responsible for consultation with the authorized officer and/or local authorities for acceptable weed control methods, which include following EPA and BLM requirements and policy. Prior to the use of any herbicides, holder shall obtain from the Authorized Officer (AO) written approval of a plan showing the type and quantity of materials to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the AO.

## 7. Wildlife and Special Status Species.

- Nesting Birds. If possible, construction activities should be conducted outside of the nesting bird breeding season that occurs from mid-March to the end of July.
- Burrowing Owl. It is recommended that construction activities occur outside the breeding season from mid-March through mid-July.
- Loggerhead Shrike. It is recommended that construction occur outside of the nesting period from June to July.
- If construction activities occur within the breeding season time periods above, then appropriate habitat should be checked within 2 weeks prior to the initiation of construction to ensure that nesting birds are not within the ROW. If nesting birds are found then the BLM LCDO should be consulted prior to continuing construction activities.

## 2.2 No Action Alternative

Under the No Action Alternative, the BLM would deny the request for the proposed right-of-way.

## 2.3 Other Alternatives

One alternative was considered: underground burial of the power line. According to EPECo, the new power line is considered a distribution primary feeder for connecting existing Arroyo 23 Feeder to Salopek 24 Feeder; thus providing continuity for current and future growth to the area. Due to the voltage carried in the line in this particular area, and the necessity for visual monitoring of the line, underground construction is not a feasible alternative.

## 3 AFFECTED ENVIRONMENT

The project area is located just east of the city of Las Cruces and occurs in central Doña Ana County (Figure 2). The Right-of-Way (ROW) for the 3 phase 24KV distribution feeder power line is 25 feet in width and 9,978.51 feet in length (approximately 5.7 acres). The proposed ROW is located on land administered by the BLM.

The lands considered in the Proposed Action cross several arroyos with highly disturbed dirt roads, illegal dump sites and roadside right-of-ways.

Based upon long-term data (1897 – 2013) from Las Cruces, NM, annual precipitation averages 6.28 inches per year. However, annual average precipitation ranges from 7.35 to 11.90 inches. Precipitation peaks during the monsoonal rains of late summer (July – October). August averages the most rainfall (1.16 inches) while April averages the least amount of rainfall (0.12 inches). Highest average maximum temperatures reach 96.5° F in June and average minimum temperatures dip to 28.4° F in December (WRCC 2014).

### 3.1 Cultural

The southern end of survey area begins in a wide area of sheet wash drainage, across a series of very narrow ridge tops and side slopes and very narrow drainages, then proceeds up the broad floodplain of an unnamed arroyo. The ridge tops are covered with desert pavement and there is a lack of sandy soils or dunes that are suitable for habitation. Archaeological sites were not observed during the survey although there are known sites on the broader and flatter ridges above the large arroyo in the eastern part of the survey area. Three isolated manifestations were observed and recorded. These three flakes are the result

from testing a pebble or cobble and expedient tool use. Similar isolated manifestations are known to exist on the rocky ridges of the east mesa area between Las Cruces and the Organ Mountains.

### 3.2 Paleontological

The project area is located within Potential Fossil Yield Classification (PFYC) 4 - defined as follows:

**Class 4 – High.** Geologic units containing a high occurrence of significant fossils. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability. Surface disturbing activities may adversely affect paleontological resources in many cases.

Class 4a – Unit is exposed with little or no soil or vegetative cover. Outcrop areas are extensive with exposed bedrock areas often larger than two acres. Paleontological resources may be susceptible to adverse impacts from surface disturbing actions. Illegal collecting activities may impact some areas.

Class 4b – These are areas underlain by geologic units with high potential but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to moderating circumstances. The bedrock unit has high potential, but a protective layer of soil, thin alluvial material, or other conditions may lessen or prevent potential impacts to the bedrock resulting from the activity.

- Extensive soil or vegetative cover; bedrock exposures are limited or not expected to be impacted.
- Areas of exposed outcrop are smaller than two contiguous acres.
- Outcrops form cliffs of sufficient height and slope so that impacts are minimized by topographic conditions.
- Other characteristics are present that lower the vulnerability of both known and unidentified paleontological resources.

- (1) Management concern for paleontological resources in Class 4 is moderate to high, depending on the proposed action.
- (2) A field survey by a qualified paleontologist is often needed to assess local conditions.
- (3) Management prescriptions for resource preservation and conservation through controlled access or special management designation should be considered.
- (4) Class 4 and Class 5 units may be combined as Class 5 for broad applications, such as planning efforts or preliminary assessments, when geologic mapping at an appropriate scale is not available. Resource assessment, mitigation, and other management considerations are similar at this level of analysis, and impacts and alternatives can be addressed at a level appropriate to the application.

The probability for impacting significant paleontological resources is moderate to high, and is dependent on the proposed action. Mitigation considerations must include assessment of the disturbance, such as removal or penetration of protective surface alluvium or soils, potential for future accelerated erosion, or increased ease of access resulting in greater looting potential. If impacts to significant fossils can be anticipated, on-the-ground surveys prior to authorizing the surface disturbing action will usually be necessary. On-site monitoring or spot-checking may be necessary during construction activities.

### 3.3 Visual Resources

The project area is located in a Visual Resource Management (VRM) Class III area. VRM Class III management objectives are (ref. Mimbres RMP):

Class III: Partially retain the existing character of the landscape. The level of change to the characteristic landscape can be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Under the proposed action, steel poles may be as close as 125' to Sonoma Ranch; wooden poles may be in proximity as well. Additionally, the overhead power line will cross Sonoma Ranch Blvd.

### **3.4 Surface Waters and Wetlands**

The proposed action does not impact or cross any perennial or intermittent surface water bodies but crosses several ephemeral streams (arroyos). Surface water drainage is within HUC 8 El Paso-Las Cruces Watershed (USGS HUC 13030102). Overall drainage is to the west and southwest, and the project is located on the eastern piedmont with drainages feeding into the Rio Grande within the Mesilla Valley.

### **3.5 Soil Resources**

The soils are derived from sandy and gravelly alluvium. USDA NRCS soil survey Doña Ana County soil maps indicate that the ROW corridor traverses three soil complexes (Figure 5); Bluepoint-Caliza-Yturbide, Canutio and Arizo gravelly sandy loams, and Haplargids, dissected.

The Bluepoint-Caliza-Yturbide soil complex (BP, Fig. 5) dominates the western half of the project area. The Bluepoint component occurs on piedmont slopes and valley sides with slopes of 5 to 15 percent. The parent material consists of wind-modified sandy alluvium. The Yturbide component occurs on piedmont slopes and alluvial fans with slopes of 1 to 8 percent. The parent material consists of mixed sandy and gravelly alluvium. Both of these components are in the R042XB011NM Deep Sand ecological site. This ecological site was not observed within the project area so it is likely that it is dominated by the Caliza component. The Caliza component occurs on piedmont slopes and alluvial fans with slopes of 15 to 40 percent. The parent material consists of mixed sandy and gravelly alluvium. This component is in the R042XB024NM Gravelly Sand ecological site. This ecological site is associated with the gravelly ecological site and may grade into sandy or deep sand ecological sites. This site often occupies arroyos and is flanked by gravelly sites.

The Haplargids, dissected soil complex (HD) dominates the eastern portion of the project area. It occurs on piedmont slopes and alluvial fans with slopes between. This component is in the R042XB010NM Gravelly ecological site. This site has a high amount of surface and subsurface gravel. The presence of a shallow petrocalcic layer in this site limits productivity and is an important aspect of its ecology.

The Canutio and Arizo gravelly sandy loams soil complex (Cb) is a minor component of the project area, occupying less than 500 feet of the southwestern portion of the proposed ROW. The Canutio component occurs on alluvial fans with slopes of 1 to 5 percent. The parent material consists of mixed gravelly loamy alluvium. The Arizo component occurs on valley floors with slopes of 1 to 5 percent. The parent material consists of mixed sandy and gravelly alluvium. Both components are in the R042XB024NM Gravelly Sand ecological site. Tracks from ATV use was evident within the portions passing through the dry washes.

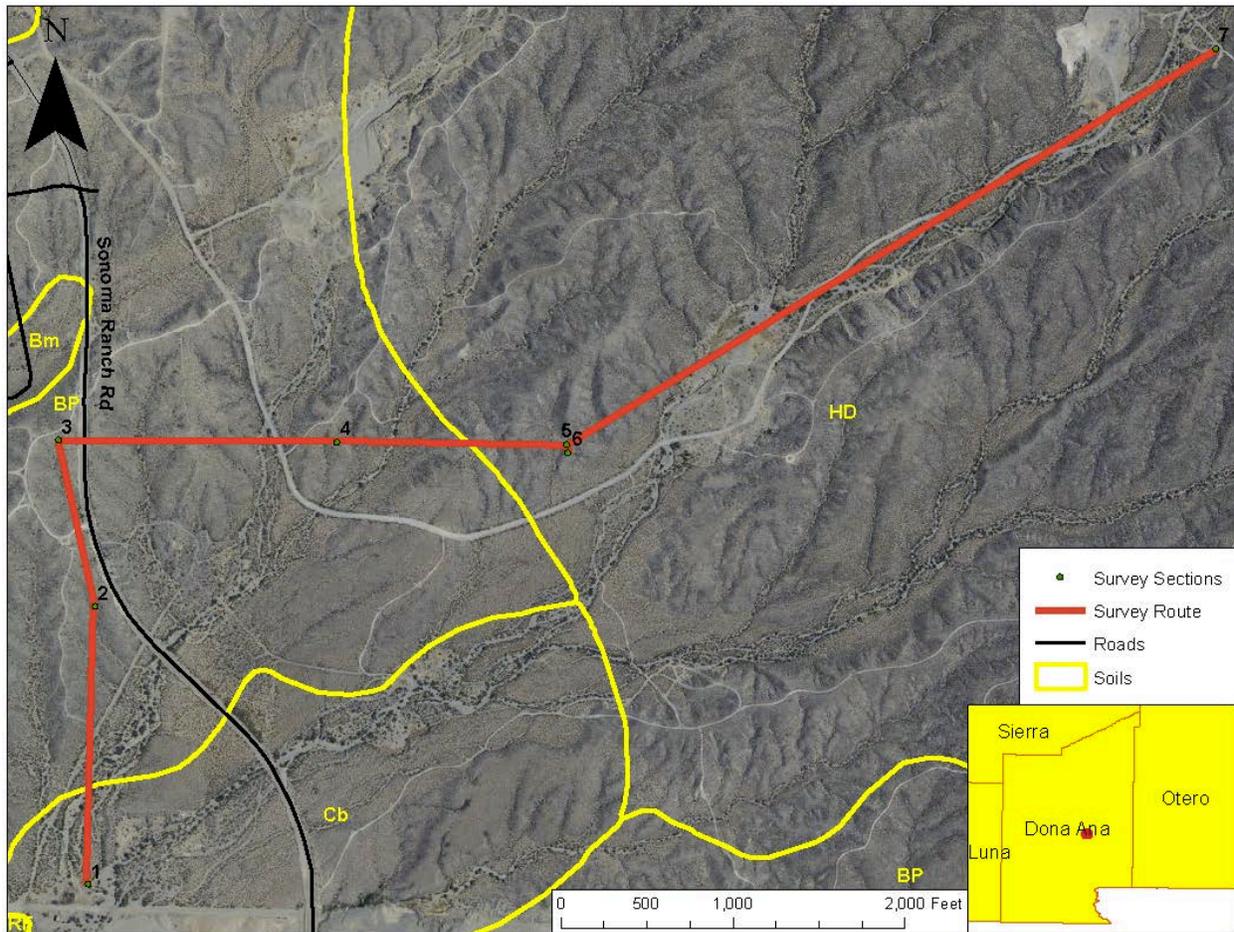


Figure 5 - NRCS soil map units occurring in and around the project area in Doña Ana County, NM.

### 3.6 Vegetation

The project area is located in the Chihuahuan Basins and Playas Ecoregion (Griffith et al. 2006). The Chihuahuan Basins and Playas encompass 14,029 square miles and include alluvial fans, internally drained basins, and river valleys mostly below 4500 feet. Areas within this ecoregion receive, on average, 9 – 13 inches of precipitation per year. The playas and basin floors have saline or alkaline soils and areas of salt flats, dunes, and windblown sand. The typical desert shrubs and grasses, the dominant creosotebush, along with tarbush, fourwing saltbush (*Atriplex canescens*), acacias, gyp grama, and alkali sacaton, must withstand large seasonal and diurnal ranges in temperature, low available moisture, and a high evapotranspiration rate. Horse creeper and other cacti are common.

At the local scale, the project area crosses through six vegetation communities (Figure 6). Chihuahuan Creosotebush, Mixed Desert and Thorn Scrub dominates the project area (0.83) followed by North American Warm Desert Wash (0.06) and Apacherian-Chihuahuan Piedmont Semi-Desert Grassland and Steppe (0.06). Minor inclusions include Chihuahuan Stabilized Coppice Dune and Sand Flat Scrub (0.03), Apacherian-Chihuahuan Mesquite Upland Scrub (0.01), and Inter-Mountain Basins Semi-Desert Shrub Steppe (0.01).

Chihuahuan Creosotebush, Mixed Desert and Thorn Scrub includes xeric creosotebush basins and plains and the mixed desert scrub in the foothill transition zone above, sometimes extending up to the lower montane woodlands. Vegetation is characterized by creosotebush alone or mixed with thornscrub and

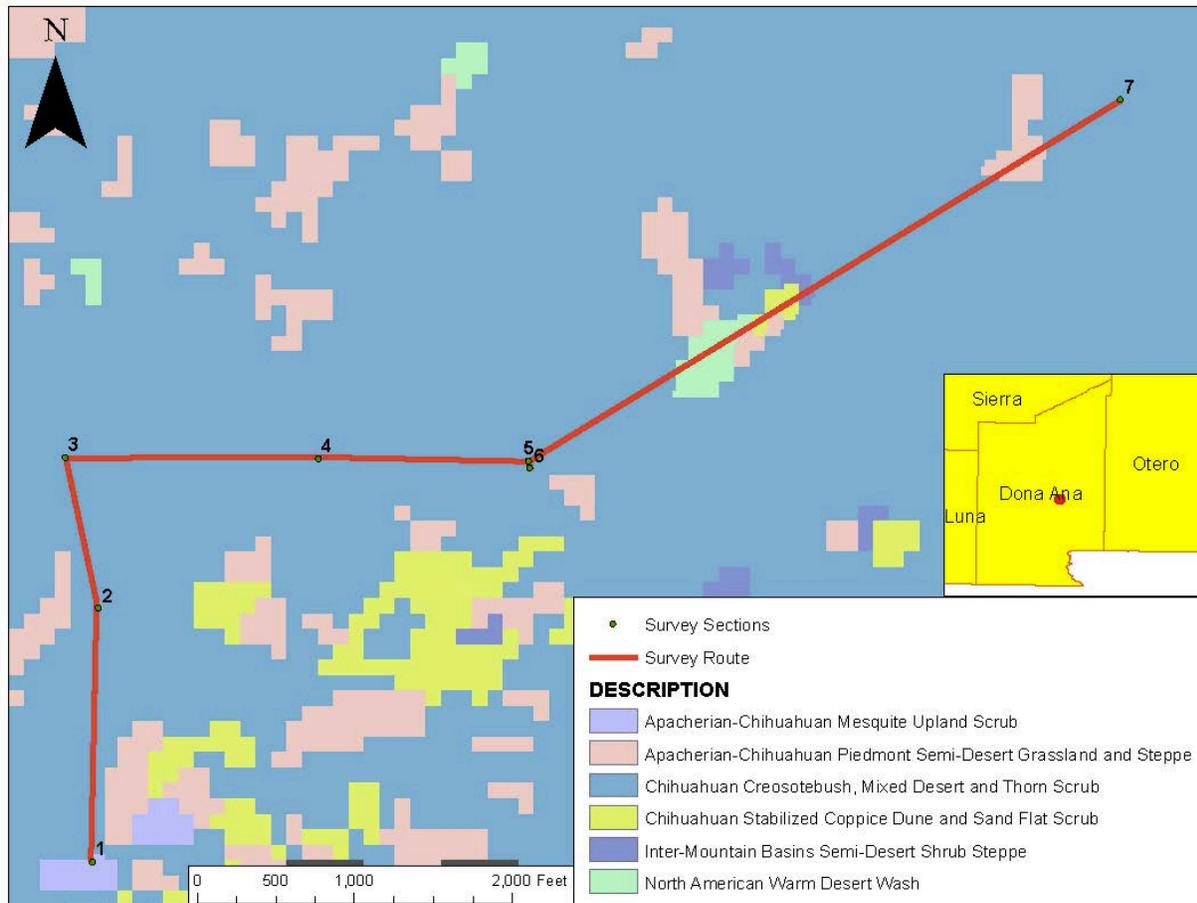
other desert scrub such as, Ocotillo (*Fouquieria splendens*), Green sotol (*Dasyilirion leiophyllum*), tarbush (*Flourensia cernua*), Catclaw mimosa *Mimosa aculeaticarpa* var. *biuncifera*, cactus apple (*Opuntia engelmannii*), mariola, honey mesquite, and Plumed crinklemat (*Tiquilia greggii*). Stands of whitethorn acacia (*Acacia constricta*), Viscid acacia (*Acacia neovernicosa*) or catclaw acacia (*Acacia greggii*) dominated thornscrub are included in this system. Grasses such as fluffgrass (*Dasyochloa pulchella*), sideoats grama, black grama, Chino grama (*Bouteloua ramosa*), bush muhly and tobosa may be common, but generally have lower cover than shrubs (Prior-McGee et al. 2007).

North American Warm Desert Wash is restricted to intermittently flooded washes or arroyos that dissect bajadas, mesas, plains and basin floors throughout the warm deserts of North America. The vegetation of desert washes is quite variable ranging from sparse and patchy to moderately dense and typically occurs along the banks, but may occur within the channel. The woody layer is typically intermittent to open and may be dominated by shrubs and small trees such as catclaw acacia, Splitleaf brickellbush (*Brickellia laciniata*), Desertbroom (*Baccharis sarothroides*), desert willow, Apache plume, burrobrush (*Hymenoclea salsola*), Singlewhorl burrobrush (*Hymenoclea monogyra*), little walnut (*Juglans microcarpa*), Prosopis spp., Smoketree (*Psorothamnus spinosus*), desert almond (*Prunus fasciculata*), littleleaf sumac, Mexican bladdersage (*Salazaria Mexicana*), or Greasewood (*Sarcobatus vermiculatus*).

Apacherian-Chihuahuan Piedmont Semi-Desert Grasslands and Steppe is a broadly defined desert grassland, mixed shrub-succulent or xeromorphic tree savanna. It is found on gently sloping bajadas that supported frequent fire throughout the Sky Islands and on mesas and steeper piedmont and foothill slopes in the Chihuahuan Desert. It is characterized by typically diverse perennial grasses. Common grass species include black grama, hairy grama (*Bouteloua hirsuta*), Rothrock's grama (*Bouteloua rothrockii*), sideoats grama (*Bouteloua curtipendula*), blue grama (*Bouteloua gracilis*), Plains lovegrass (*Eragrostis intermedia*), bush muhly, curlyleaf muhly (*Muhlenbergia setifolia*), galleta (*Pleuraphis jamesii*), tobosa (*Pleuraphis mutica*), and alkali sacaton (*Sporobolus airoides*), succulent species of *Agave*, *Dasyilirion*, and *Yucca*, and tall-shrub/short-tree species of *Prosopis* (Prior-McGee et al. 2007).

Chihuahuan Stabilized Coppice Dune and Sand Flat Scrub includes the open shrublands of vegetated coppice dunes and sandsheets found in the Chihuahuan Desert. Usually dominated by honey mesquite (*Prosopis glandulosa*) but includes fourwing saltbush (*Atriplex canescens*), Torrey's jointfir (*Ephedra torreyana*), Longleaf jointfir (*Ephedra trifurca*), Frosted mint (*Poliomintha incana*), and littleleaf sumac coppice sand scrub with 10-30% total vegetation cover. Soap tree yucca (*Yucca elata*), broom snakeweed, and mesa dropseed are commonly present.

Apacherian-Chihuahuan Mesquite Upland Scrub occurs as upland shrublands that are concentrated in the extensive grassland-shrubland transition in foothills and piedmont in the Chihuahuan Desert. Substrates are typically derived from alluvium, often gravelly without a well-developed argillic or calcic soil horizon that would limit infiltration and storage of winter precipitation in deeper soil layers. *Prosopis* spp. and other deep-rooted shrubs exploit this deep soil moisture that is unavailable to grasses and cacti. Grass cover is typically low. (Prior-McGee et al. 2007).



**Figure 6 - Vegetation communities within and adjacent to the project area as defined by SWReGAP.**

Inter-Mountain Basins Semi-Desert Shrub Steppe occurs throughout the intermountain western U.S., typically at lower elevations on alluvial fans and flats with moderate to deep soils. This semi-arid shrub-steppe is typically dominated by graminoids (>25% cover) with an open shrub layer. Characteristic grasses include indian ricegrass (*Achnatherum hymenoides*), blue grama, saltgrass (*Distichlis spicata*), needle and thread (*Hesperostipa comata*), galleta, Sandberg bluegrass (*Poa secunda*), and alkali sacaton. The woody layer is often a mixture of shrubs and dwarf-shrubs. Characteristic species include fourwing saltbush, big sagebrush (*Artemisia tridentata*), Ephedra spp, broom snakeweed, and winterfat (*Krascheninnikovia lanata*). The general aspect of occurrences may be either open shrubland with patchy grasses or patchy open herbaceous layer. Microphytic crust is very important in some stands.

To the north, the route transitions into upland gravelly soils and the vegetation becomes more xeric. It is dominated by creosotebush and mariola. In addition, there was a high abundance of whitethorn acacia. There were seven species of cacti observed as well as three species of yucca and two species of ephedra. Moving to the east, the vegetation continued to be the same with broom snakeweed and featherplume (*Dalea formosa*) being common subshrubs. In more xeric locations, Ocotillo (*Fouquieria splendens*) becomes more prevalent. Where dirt roads passed through the project area, obvious erosional features have formed. Rills along Sonoma Ranch Boulevard are also present. After the route turns to an east by northeast direction it drops into another wide desert wash with vegetation very similar to that described above. Additional plant species include Missouri gourd (*Cucurbita foetidissima*), an abundance of carelessweed (*Amaranthus palmeri*), and Singlewhorl burrobrush (*Hymenoclea monogyra*). One particular observation is that in this larger wash there were scattered salt cedar present.

### 3.7 Invasive, Non-Native Species (Noxious Weeds)

Flora in the vicinity of the proposed ROW are typical of the Chihuahuan Desert Grasslands ecoregion communities. The floral list from the survey was compared to the New Mexico Noxious Weed List prepared by New Mexico Department of Agriculture (2010). During the pedestrian survey, one noxious weed was observed, salt cedar (*Tamarix ramosissima*).

**Table 1 List of noxious weeds known to occur in Doña Ana County**

Scientific Name	Common Name	Class
<i>Alhagi maurorum</i>	Camelthorn	A
<i>Pennisetum setaceum</i>	Crimson fountaingrass	Watch List
<i>Acroptilon repens</i>	Russian knapweed	B
<i>Tamarix spp.</i>	Salt cedar	C
<i>Centaurea melitensis</i>	Malta starthistle	B
<i>Elaeagnus angustifolia</i>	Russian olive	C
<i>Brassica tournefortii</i>	Sahara mustard	Watch List
<i>Peganum harmala</i>	African rue	B
<i>Bromus tectorum</i>	Cheatgrass	C
<i>Arundo donax</i>	Giant cane	Watch List
<i>Cardaria spp.</i>	Hoary cress	A
<i>Aegilops cylindrica</i>	Jointed goatgrass	C
<i>Myriophyllum aquaticum</i>	Parrotfeather	A
<i>Lepidium latifolium</i>	Perennial pepperweed	B
<i>Saccharum ravennae</i>	Ravennagrass	A
<i>Ulmus pumila</i>	Siberian elm	C
<i>Ailanthus altissima</i>	Tree of heaven	B
<i>Xanthium spinosum</i>	Spiny cocklebur	Watch List

### 3.8 Special Status Plant Species

Special Status Plant Species: There is one special status plant species that may occur within the project area (Table 2). The species was not observed during the survey (see Attachment A for survey floral list).

**Table 2 Potential floral special status species that may occur in the project area.**

Scientific name	Common Name	Status
<i>Peniocereus greggii var. greggii</i>	Night-blooming cereus	FWS Species of Concern BLM Sensitive NM Endangered

### 3.9 Special Status Animal Species

Potential for special status species to occur in the project area of impact was considered using species occurrence/habitat records and current Fish and Wildlife Service, New Mexico Department of Game and Fish and New Mexico Rare Plant Technical Council lists:

<http://nmrareplants.unm.edu>, <http://www.bison-m.org/index.aspx>, and <http://www.fws.gov/southwest/es/>.

Geographic distribution and habitat requirement information for each special status plant and animal species was considered with regard to the location of the project and habitat within the area of potential impact. The review indicates there is potential for 25 special status faunal species (Table 4) to occur within the project area at least part of the year. In addition, there are 298 avian species listed under the Migratory Bird Treaty Act as potentially occurring in Doña Ana Counties at some point during the year (BISON 2014). Of these, 13 were observed during the survey (Table 3).

**Table 3 Birds protected under the Migratory Bird Treaty Act that were observed during the survey.**

Scientific Name	Common Name
<i>Amphispiza bilineata</i>	Black-throated Sparrow
<i>Archilochus alexandri</i>	Black-chinned Hummingbird
<i>Auriparus flaviceps</i>	Verdin
<i>Carpodacus mexicanus</i>	House Finch
<i>Corvus cryptoleucus</i>	Chihuahuan Raven
<i>Mimus polyglottos</i>	Northern Mockingbird
<i>Pipilo chlorurus</i>	Green-tailed Towhee
<i>Spizella breweri</i>	Brewer's Sparrow
<i>Spizella passerina</i>	Chipping Sparrow
<i>Thryomanes bewickii</i>	Bewick's Wren
<i>Toxostoma curvirostre</i>	Curve-billed Thrasher
<i>Zenaida asiatica</i>	White-winged Dove
<i>Zenaida macroura</i>	Mourning Dove

**Table 4 Special status faunal species that do or may occur in the project area at some point during the year.**

Common Name	Scientific Name	Status	Notes
Varied Bunting	<i>Passerina versicolor</i>	NM Threatened	Transient migrant
Peregrine Falcon	<i>Falco peregrinus anatum</i>	FWS Sp. of Concern NM Threatened	Unlikely and foraging only
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	FWS Sp. of Concern NM Threatened	Unlikely and foraging only
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	Federal Endangered NM Endangered	Transient migrant
Ferruginous Hawk	<i>Buteo regalis</i>	BLM Sensitive	Unlikely during non-breeding
Broad-billed Hummingbird	<i>Cynanthus latirostris</i>	NM Threatened	Transient migrant
Costa's Hummingbird	<i>Calypte costae</i>	NM Threatened	Transient migrant
Violet-crowned Hummingbird	<i>Amazilia violiceps</i>	NM Threatened	Transient migrant
Burrowing Owl	<i>Athene cunicularia</i>	BLM Sensitive FWS Sp. of Concern	Possible
Loggerhead Shrike	<i>Lanius ludovicianus</i>	BLM Sensitive	Possible
Bell's Vireo	<i>Vireo bellii</i>	FWS Sp. of Concern NM Threatened	Transient migrant
Gray Vireo	<i>Vireo vicinior</i>	NM Threatened	Transient migrant
Pale Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	BLM Sensitive FWS Sp. of Concern	Foraging only
Arizona Myotis	<i>Myotis occultus</i>	BLM Sensitive	Foraging only
Big Free-tailed Bat	<i>Nyctinomops macrotis</i>	BLM Sensitive	Foraging only
Fringed Myotis	<i>Myotis thysanodes</i>	BLM Sensitive	Foraging only
Long-legged Myotis	<i>Myotis volans</i>	BLM Sensitive	Foraging only
Western Red Bat	<i>Lasiurus blossevillii</i>	FWS Sp. of Concern	Foraging only
Western Small-footed Myotis	<i>Myotis ciliolabrum</i>	BLM Sensitive	Foraging only
Spotted Bat	<i>Euderma maculatum</i>	BLM Sensitive NM Threatened	Foraging only
Yuma Myotis	<i>Myotis yumanensis</i>	BLM Sensitive	Foraging only
Desert Pocket Gopher	<i>Geomys arenarius arenarius</i>	BLM Sensitive FWS Sp. of Concern	No mounds observed
Anthony Blister Beetle	<i>Lytta mirifica</i>	BLM Sensitive FWS Sp. of Concern	Lack of adequate information
Obsolete Viceroy Butterfly	<i>Limenitis archippus obsoleta</i>	FWS Sp. of Concern	Lack of adequate information
Slate Millipede	<i>Comanchelus chihuanus</i>	BLM Sensitive FWS Sp. of Concern	Lack of adequate information

### **3.10 Wildlife and Wildlife Habitats**

Fauna in the vicinity of the proposed ROW are typical of the Chihuahuan Desert ecoregion. Black-tailed jackrabbits (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), Kangaroo rat (*Dipodomys* spp.), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), and mule deer (*Odocoileus hemionus*). A variety of birds occurred throughout the study area. These include Black-throated Sparrow, Black-chinned Hummingbird, Verdin, Gambel's Quail, House Finch, Chihuahuan Raven, Northern Mockingbird, Green-tailed Towhee, Brewer's Sparrow, Chipping Sparrow, Bewick's Wren, Curve-billed Thrasher, White-winged Dove, and Mourning Dove. Western fence lizards and lesser earless lizards were also observed. The ecoregions covering the project area are expected to have a high variety of reptiles and amphibians occurring within them.

## **4 ENVIRONMENTAL EFFECTS**

Environmental effects on the resources identified in Section 1.4.3 are analyzed in detail in the sections below. The impacts of the No Action alternative are similar for all resources as follows:

### **Impacts of the No Action Alternative on All Resources**

If the activity were not permitted, the resources would not be changed. There are no changes to BLM resources if the activity is not permitted.

### **4.1 Impacts of Proposed Action on Cultural Resources**

Mr. David T. Kirkpatrick, PhD, RPA, Human Systems Research performed a Class III pedestrian inventory survey of the powerline ROW (ref. NMCRIS Activity No. 128,661).

The proposed action should have no impact on cultural resources. If cultural resources are encountered during the construction phase, then the BLM LCDO and Human Systems Research should be immediately notified.

### **4.2 Impacts of Proposed Action on Paleontological Resources**

John Burris, PhD, BLM-Permitted Paleontologist conducted a survey on June 12-13, 2014 for potential impacts to paleontological resources. A report entitled "A Paleontological Resource Survey for the El Paso Electric Company Arroyo 23 Feeder to Salopek 24 Feeder Tie, Sections 11, 12, 14, T23S, R2E, Doña Ana County, New Mexico" dated June 19, 2014 concluded the following (excerpt):

"Development of the project area should proceed without the need for an on-site paleontology monitor. During construction of the power line, fossils may be uncovered, at which point excavation or disturbance in a 50 foot radius of the discovery should halt until the BLM-permitted paleontologist can examine the specimen to determine the appropriate next steps."

The confidential report was submitted to Jim Renn/BLM-LCDO paleontologist and Phillip Gensler, the BLM Regional Paleontologist.

### **4.3 Impacts of Proposed Action on Visual Resources**

The visual impact of the overhead power distribution lines will be moderate. The proposed action will be visible to the observer with its overhead power lines supported by 40 - 50 ft. poles. Pole span distances vary due to terrain and weight of the power line, but generally can be 200 ft. or more.

The impact of the access will be moderate as it will conform to the native terrain but will remain visible for the life of the feeder line.

The visual effect of the overhead power line will, however, be consistent with the existing Salopek 23 and Arroyo 24 overhead power line ROWs.

#### **4.4 Impacts of Proposed Action on Surface Waters and Wetlands**

Negative impacts to water quality (siltation, sedimentation) can occur from construction activities if not properly managed. No wetlands, perennial streams, lakes, or ponds are affected by the proposed action.

Since more than one acre will be disturbed by the proposed action, the U.S. Environmental Protection Agency (EPA) requires coverage under the National Pollutant Discharge Elimination System (NPDES). The NPDES Construction General Permit for Construction Activities, dated February 16, 2012, requires operators of construction activities to submit a Notice of Intent (NOI) and develop a Storm Water Pollution Prevention (SWPP) Plan that implements control measures and best management practices to minimize pollutants and sediments in storm water discharge that impact surface waters.

Given the implementation of a SWPP Plan and proper management of the construction activity, no adverse effects to surface quality are anticipated in the short or long term.

#### **4.5 Impacts of Proposed Action on Soils**

The overall impact to soils will be moderate within the ROW corridor. The proposed action will impact approximately 5.7 surface acres along the ROW corridor due to blading of the access road, including portions of the arroyo north of Centennial High School. The access road will be further bladed for patrol and line maintenance purposes as needed. Turn-outs will be installed along the access road to enhance drainage.

Subsurface disturbance will occur for the 42 wooden poles that will be buried 5 ft. -7.5 ft. below ground, at span distances averaging over 200 ft. The three steel poles will be buried to a depth of 14.5 ft. The wooden pole holes are dug by auger, and the steel pole holes are dug by auger or by hand with sleeve.

An area around each pole is cleared during installation for construction crew safety. Excess soil from digging of the holes would be distributed around each pole.

#### **4.6 Impacts of Proposed Action on Vegetation**

Direct impacts associated with the proposed action would include below and above ground disturbance to entire plants or portions of plants. These may result in injury or mortality to individual plants while equipment is used to install the electrical power line. Native vegetation would be impacted along the electric power line ROW (5.7 acres). A road would be established within the right of way for accessing the power line for future maintenance. Any vegetation within the footprint of the road would be destroyed and vegetation would likely not reestablish due to ongoing disturbances.

The power line ROW occurs within a xeric vegetation community and natural re-vegetation takes many years to occur.

#### **4.7 Impacts of Proposed Action on Noxious Weeds**

There was one species of noxious weeds present which could be spread as a result of the proposed project, salt cedar (*Tamarix ramosissima*). It is also possible that the proposed project may introduce other noxious weeds to the area from construction vehicles and related construction activities. There are 18 species of noxious weeds reported to occur in Doña Ana County (Table 1). Disturbances created by the construction activities and ongoing maintenance would leave areas more vulnerable to future weed establishment.

#### **4.8 Impacts of Proposed Action on Special Status Plant Species**

No impact to special status plant species is expected and none were observed during the site survey.

#### **4.9 Impacts of Proposed Action on Special Status Animal Species**

The four highest profile species that may be potentially impacted the most are Burrowing Owl, and Loggerhead Shrike. In addition, nesting birds may be impacted from construction activities. Breeding generally occurs from mid-March to the end of July and, if possible, construction activities should be conducted outside of this time period. If construction occurs during this time period then a nest search along the proposed route should be undertaken no more than two weeks prior to construction activities. If nesting birds are observed in or adjacent to the proposed ROW then the BLM LCDO should be consulted prior to continuing construction activities. After reviewing habitat requirements and distribution for all species listed below, impacts from construction would be at the individual level and not approach the local population or species level. In addition to the information provided in Table 3, a detailed discussion of the impact on special status species is provided below:

-Burrowing Owl may be nesting in the kangaroo rat mounds or soil embankments in and adjacent to the proposed ROW. Construction and maintenance activities would disturb local individuals and could result in the loss of nests and chick mortality. Any impact would be at the individual level and not approach the local population or species level. Construction activities should be conducted during times of non-breeding (mid-July to mid-March) (Desmond 2010).

- Loggerhead Shrikes were observed near the proposed ROW and may nest in open areas containing a shrub component. Construction and maintenance activities would disturb local individuals and could result in the loss of nests and chick mortality. Any impact would be at the individual level and not approach the local population or species level.

- Pale Townsend's Big-eared Bat, Arizona Myotis, Big Free-tailed Bat, Fringed Myotis Bats, Long-legged Myotis Bats, Western Red Bats, Western Small-footed Myotis Bats, Spotted Bats, and Yuma Myotis Bats may utilize the project area at some point during their annual cycle. The listed bats may migrate through the area and/or forage at some point in the area. It is unlikely that construction or maintenance activities would disturb foraging individuals as the time of day in which both activities occur would not coincide with each other. Any impact would be at the individual level and not approach the local population or species level.

#### **4.10 Impacts of Proposed Action on Wildlife and Wildlife Habitat**

Direct impacts associated with the power line project would include noise, ground disturbance, and human activity which may cause some resident and or migrating wildlife species to vacate the area during construction. There may be some mortality to individual birds, reptiles, amphibians, and small mammals in burrows or young birds in nests (depending on season) as equipment is used to clear the ROW and construct the power line.

After reviewing habitat requirements and distribution for all species listed below, impacts from construction would be at the individual level and not approach the local population or species level.

#### **4.11 Cumulative Impacts**

Cumulative and secondary impacts occur from actions in combination with other, related projects or occur indirectly as part of a chain of events related to the initial activity. Such impacts may develop incrementally over time from a series of actions.

No reasonably foreseeable future actions were identified in the vicinity of the power line.

### **5 INDIVIDUALS, ORGANIZATIONS, TRIBES OR AGENCIES CONSULTED**

The following personnel from the BLM - Las Cruces District Office were consulted for this report.

- Carl Krause, Realty Specialist - Project Manager
- Paula Montez, Realty Specialist - Project Manager
- Corey Durr, Hydrologist
- Ciara Cusack, Rangeland Management Specialist
- Steve Torrez, Wildlife Resources/Special Status Species
- Doug Haywood, Legal Review
- Jennifer Montoya, Planning & Environmental Specialist

The public had the opportunity to contact the LCDO and provide input on this project. The project was listed on the New Mexico BLM Website NEPA Log:

[http://www.blm.gov/nm/st/en/prog/planning/nepa\\_logs.html](http://www.blm.gov/nm/st/en/prog/planning/nepa_logs.html)

### **6 LIST OR PREPARERS**

Staff, Bureau of Land Management, Las Cruces District Office

Charles Britt, M.A., Biologist, Mesa Ecological Services, LLC

David T. Kirkpatrick, PhD, RPA, Archaeologist, Human Systems Research

Raymond Reynaud, P.E., Environmental Scientist, Verde Environmental, LLC

John H. Burris, Ph.D., BLM-Permitted Paleontologist, Four Corners Paleontology

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## **8 ATTACHMENTS**

Attachment A - Biological Review, Report of Site Visit

Attachment B - El Paso Electric Co. Right-of-Way Map and Pole Detail Drawing

## Attachment A - Biological Review, Report of Site Visit

On April 11, 2014, Charles Britt conducted a pedestrian survey of the proposed phase 3 24KV distribution powerline ROW for El Paso Electric Company. Project area is approximately 300 meters east of the City of Las Cruces in central Doña Ana County. The survey began along a ROW north of Centennial High School at approximately 32° 18.485' N 106° 42.793' W and continued north through a desert wash, crossing a dirt road at 32° 18.640' N 106° 42.795' W and heading north by northwest to 32° 18.914' N 106° 42.831' W. The route then heads due east, crossing Sonoma Ranch Boulevard and continuing east to approximately 32° 18.924' N 106° 42.258' W where the route turns east by northeast, drops into a large desert wash, crosses a maintained gravel road in the wash several times, and terminates at approximately 32° 19.325' N 106° 41.530' W. The distribution powerline will require 9,978.51 linear feet, 25' wide (approximately 5.7 acres) ROW. All land is administered by the Bureau of Land Management. Ambient conditions during the survey were clear and sunny (< 3% cloud cover), with zero to little (< 4 mph) wind. The temperature ranged from 61°F to 80°F.

USDA NRCS soil survey Doña Ana County soil maps indicate that the ROW corridor traverses three soil complexes; Bluepoint-Caliza-Yturbide, Canutio and Arizo gravelly sandy loams, and Haplargids, dissected.

The Bluepoint-Caliza-Yturbide soil complex (BP, Fig. 5) dominates the western half of the project area. The Bluepoint component occurs on piedmont slopes and valley sides with slopes of 5 to 15 percent. The parent material consists of wind-modified sandy alluvium. The Yturbide component occurs on piedmont slopes and alluvial fans with slopes of 1 to 8 percent. The parent material consists of mixed sandy and gravelly alluvium. Both of these components are in the R042XB011NM Deep Sand ecological site. This ecological site was not observed within the project area so it is likely that it is dominated by the Caliza component. The Caliza component occurs on piedmont slopes and alluvial fans with slopes of 15 to 40 percent. The parent material consists of mixed sandy and gravelly alluvium. This component is in the R042XB024NM Gravelly Sand ecological site. This ecological site is associated with the gravelly ecological site and may grade into sandy or deep sand ecological sites. This site often occupies arroyos and is flanked by gravelly sites. The historic plant community type is generally assumed to exhibit dominance by dropseed grasses (mesa dropseed, *Sporobolus flexuosus* and sand dropseed, *Sporobolus cryptandrus*), and, secondarily black grama (*Bouteloua eriopoda*) and bush muhly (*Muhlenbergia porteri*). Creosotebush (*Larrea tridentata*) is a secondary dominant and annuals may be important components. Loss of these grasses due to overgrazing and/or drought, or due to climate change, may lead to a transition to dominance by creosotebush and mesquite (*Prosopis glandulosa*). This area was found to be in Shrub-dominated and eroded shrubland states and was dominated by creosotebush, mariola, and broom snakeweed with little grass cover present.

The Haplargids, dissected soil complex (HD) dominates the eastern portion of the project area. It occurs on piedmont slopes and alluvial fans with slopes between. This component is in the R042XB010NM Gravelly ecological site. This site has a high amount of surface and subsurface gravel. The presence of a shallow petrocalcic layer in this site limits productivity and is an important aspect of its ecology. The historic plant community type is generally assumed to exhibit co-dominance between grasses, including black grama (*Bouteloua eriopoda*) and bush muhly (*Muhlenbergia porteri*), and shrubs and half-shrubs, chiefly creosotebush (*Larrea tridentata*) and mariola (*Parthenium incanum*). Due to variation in aspect, slope, landscape position, and subsurface soil properties, there is likely to have been considerable variation in historic plant communities within and among gravelly soil series. Transitions from mixed shrub grasslands to a mixed shrub-dominated state may be catalyzed by overgrazing which reduces grass competition to shrubs. There have been recent increases in whitethorn acacia (*Acacia constricta*) with

declines in creosotebush on some gravelly soils. From observations made during the survey, the vegetation community found within this soil complex had transitioned to mixed shrub-dominated state. The upland portion is dominated by whitethorn acacia, creosotebush, and ocotillo (*Fouquieria splendens*) with some tarbush (*Flourensia cernua*). The portion passing through the dry washes tended to contain a higher degree of floral biodiversity than upland areas, including grasses and shrubs (*Rhus microphylla*, *Chrysothamnus spp.*, *Chilopsis linearis*, *Atriplex canescens*, *Fallugia paradoxa*, *Baccharis pteronioides*, and *Hymenoclea monogyra*). In addition, there were scattered occurrences of salt cedar (*Tamarix ramosissima*). There were informal dumps as well as evidence of target shooting in the wash.

The Canutio and Arizo gravelly sandy loams soil complex (Cb) is a minor component of the project area, occupying less than 500 feet of the southwestern portion of the proposed ROW. The Canutio component occurs on alluvial fans with slopes of 1 to 5 percent. The parent material consists of mixed gravelly loamy alluvium. The Arizo component occurs on valley floors with slopes of 1 to 5 percent. The parent material consists of mixed sandy and gravelly alluvium. Both components are in the R042XB024NM Gravelly Sand ecological site. The upland portions were found to be in the same state as noted above for the Bluepoint-Caliza-Yturbide soil complex. The portion passing through the dry washes was similar to that found in the Haplargids, dissected soil complex. However, salt cedar was not present.

Below are site photos and a list of the fauna and flora encountered during the pedestrian survey.



Site Visit Photo 1 - Desert wash located in the southwestern portion of the project area.



Site Visit Photo 2 - Upland area was dominated by creosotebush and mariola with erosion features associated with dirt roads



Site Visit Photo 3 - Upland site with Torrey's yucca.



Site Visit Photo 4 - Typical upland vegetation community dominated by creosotebush and mariola.



Site Visit Photo 5 - Northern Mockingbird singing on a Torrey's yucca.



Site Visit Photo 6 - Salt cedar located in the desert wash in the eastern portion of the study area.



Site Visit Photo 7 - Gravel road located in the xeric wash vegetation.



Site Visit Photo 8 - Gambel's Quail in the desert wash.

## Wildlife and Plants Inventoried

FLORA	
Scientific Name	Common Name
<b>Agavaceae</b>	
<i>Yucca baccata</i>	Banana yucca
<i>Yucca elata</i>	Soaptree yucca
<i>Yucca torreyi</i>	Torrey's yucca
<b>Amaranthaceae</b>	
<i>Amaranthus palmeri</i>	Carelessweed
<b>Anacardiaceae</b>	
<i>Rhus microphylla</i>	Littleleaf sumac
<b>Asteraceae</b>	
<i>Baccharis pteronioides</i>	Yerba de pasmo
<i>Baileya multiradiata</i>	Desert marigold
<i>Chrysothamnus spp.</i>	Rabbitbrush
<i>Cirsium spp.</i>	Thistle
<i>Ericameria spp.</i>	Rabbitbrush
<i>Gutierrezia sarothrae</i>	Broom snakeweed
<i>Gutierrezia sphaerocephala</i>	Roundleaf snakeweed
<i>Hymenoclea monogyra</i>	Singlewhorl burrobrush
<i>Parthenium incanum</i>	Mariola
<b>Bignoniaceae</b>	
<i>Chilopsis linearis</i>	Desert willow
<b>Cactaceae</b>	
<i>Cylindropuntia leptocaulis</i>	Christmas cactus
<i>Echinocereus triglochidiatus</i>	kingcup cactus
<i>Echinocereus stramineus</i>	Strawberry hedgehog cactus
<i>Ferocactus wislizeni</i>	Candy barrelcactus
<i>Opuntia engelmannii</i>	Cactus apple
<i>Opuntia macrocentra</i>	Purple pricklypear
<i>Opuntia phaeacantha</i>	Tulip pricklypear
<b>Capparaceae</b>	
<i>Koeberlinia spinosa</i>	Crown of thorns
<b>Chenopodiaceae</b>	
<i>Atriplex canescens</i>	Fourwing saltbush
<i>Salsola kali</i>	Russian thistle
<b>Cucurbitaceae</b>	
<i>Cucurbita foetidissima</i>	Rabbitbrush

FLORA	
Scientific Name	Common Name
<b>Ephedraceae</b>	
<i>Ephedra torreyana</i>	Torrey's jointfir
<i>Ephedra trifurca</i>	Longleaf jointfir
<b>Fabaceae</b>	
<i>Acacia constricta</i>	Whitethorn acacia
<i>Dalea formosa</i>	Featherplume
<b>Fouquieriaceae</b>	
<i>Fouquieria splendens</i>	Ocotillo
<b>Poaceae</b>	
<i>Aristida adscensionis</i>	Sixweeks threeawn
<i>Aristida purpurea</i>	Purple threeawn
<i>Bouteloua barbata</i>	Sixweeks grama
<i>Chloris</i>	
<i>Dasyochloa pulchella</i>	Low woollygrass
<i>Enneapogon desvauxii</i>	Nineawn pappusgrass
<i>Eragrostis mexicana</i>	Mexican lovegrass
<i>Muhlenbergia porteri</i>	Bush muhly
<i>Sporobolus flexuosus</i>	Mesa dropseed
<b>Rhamnaceae</b>	
<i>Condalia ericoides</i>	Javelina bush
<b>Rosaceae</b>	
<i>Fallugia paradoxa</i>	Apache plume
<b>Solanaceae</b>	
<i>Lycium berlandieri</i>	Berlandier's wolfberry
<i>Solanum elaeagnifolium</i>	Silverleaf nightshade
<b>Tamaricaceae</b>	
<i>Tamarix ramosissima</i>	Saltcedar
<b>Zygophyllaceae</b>	
<i>Larrea tridentata</i>	Creosote bush

FAUNA		
Scientific Name	Common Name	Notes
<b>BIRDS</b>		
<i>Amphispiza bilineata</i>	Black-throated Sparrow	Nesting Territorial
<i>Archilochus alexandri</i>	Black-chinned Hummingbird	displays
<i>Auriparus flaviceps</i>	Verdin	

<b>FAUNA</b>		
Scientific Name	Common Name	Notes
<i>Callipepla gambelii</i>	Gambel's Quail	
<i>Carpodacus mexicanus</i>	House Finch	
<i>Corvus cryptoleucus</i>	Chihuahuan Raven	
<i>Mimus polyglottos</i>	Northern Mockingbird	
<i>Pipilo chlorurus</i>	Green-tailed Towhee	
<i>Spizella breweri</i>	Brewer's Sparrow	
<i>Spizella passerine</i>	Chipping Sparrow	
<i>Thryomanes bewickii</i>	Bewick's Wren	
<i>Toxostoma curvirostre</i>	Curve-billed Thrasher	
<i>Zenaida asiatica</i>	White-winged Dove	
<i>Zenaida macroura</i>	Mourning Dove	
<b>INSECTS</b>		
Pieridae	White	
<i>Vanessa virginiensis</i>	Painted lady	
Diptera	Fly	
<b>MAMMALS</b>		
<i>Canis latrans</i>	Coyote	
<i>Dipodomys spp.</i>	Kangaroo rat	
<i>Lepus californicus</i>	Black-tailed Jackrabbit	
<i>Odocoileus hemionus</i>	Mule deer	
<i>Sylvilagus audubonii</i>	Desert cottontail	
<i>Urocyon cinereoargenteus</i>	Gray fox	
<b>REPTILES</b>		
<i>Holbrookia maculata</i>	Lesser earless lizard	
<i>Sceloporus occidentalis</i>	Western fence lizard	

#### CERTIFICATION OF SITE VISIT

I, Charles Britt, hereby certify that on 11-April-2014 I conducted a site visit along the proposed Distribution Powerline ROW located east of Las Cruces, NM, north and northeast of Centennial High School, crossing Sonoma Ranch Boulevard in order to inventory fauna and flora present at the location and assess habitat for potential occurrence of species of special status, based on habitat, for the Biological Assessment for Threatened and Endangered species and Flora and Fauna.



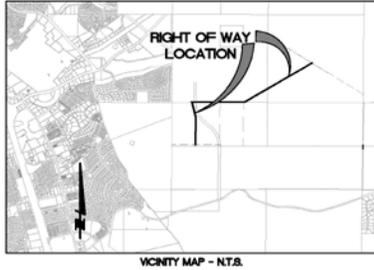
Signature of Biological Assessor

13-May-2014

Date

# Attachment B El Paso Electric Company Right of Way Map and Pole Drawings

## PLAT AND LEGAL DESCRIPTION OF AN ELECTRIC LINE RIGHT OF WAY THROUGH FEDERAL LANDS IN SECTIONS 11, 12 AND 14, T.23S., R.2E., N.M.P.M. OF THE U.S.G.L.O. SURVEYS EAST OF LAS CRUCES, DONA ANA COUNTY, NEW MEXICO SCALE: 1" = 500' AUGUST 30, 2013

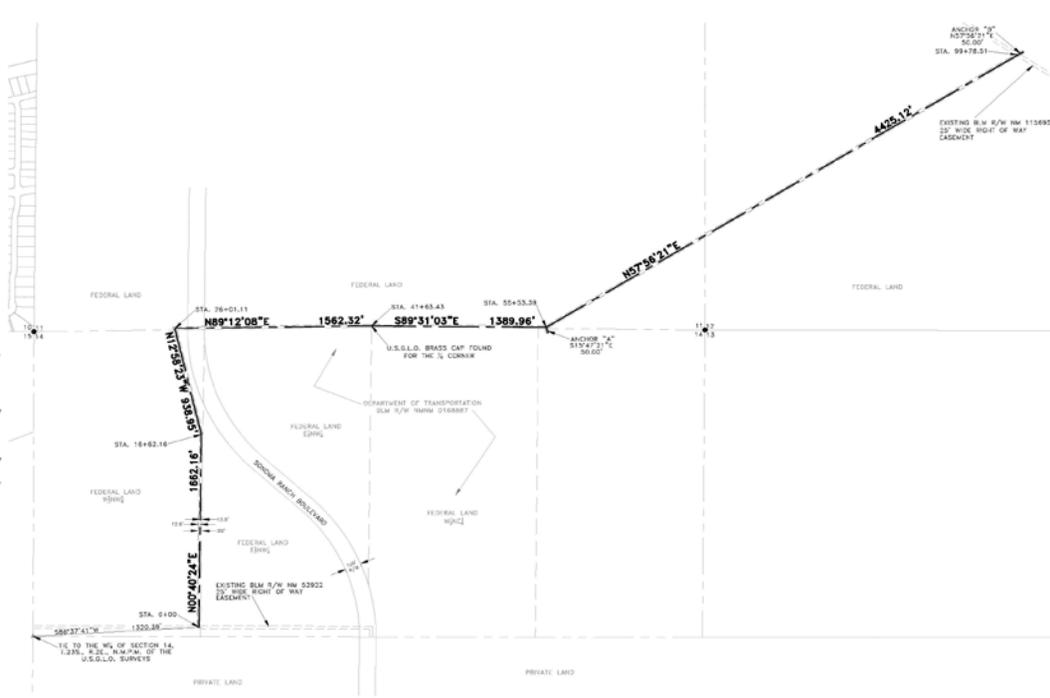


**DESCRIBED CENTERLINE:**  
A STRIP OF LAND, 25 FEET WIDE, BEING 12.5 FEET TO EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:  
BEGINNING AT ENGINEER'S STATION 0+00, A POINT ON THE CENTERLINE OF EXISTING SLM R/W NM 23922, WHENCE THE W1/4 OF SECTION 14 T.23S., R.2E., N.M.P.M. OF THE U.S.G.L.O. SURVEYS BEARS S.89°37'14"W., 1320.36 FEET;  
THENCE N.00°40'37.4"E., 1662.16 FEET TO ENGINEER'S STATION 16+62.16 FOR AN ANGLE POINT OF THIS CENTERLINE;  
THENCE N.12°58'23"W., 936.85 FEET TO ENGINEER'S STATION 24+01.11 FOR AN ANGLE POINT OF THIS CENTERLINE;  
THENCE N.89°12'08"E., 1562.32 FEET TO ENGINEER'S STATION 41+63.43 FOR AN ANGLE POINT OF THIS CENTERLINE;  
THENCE S.89°31'03"E., 1389.98 FEET TO ENGINEER'S STATION 55+53.39 FOR AN ANGLE POINT OF THIS CENTERLINE; WHENCE ANCHOR "A" BEARS S.19°47'21"E., 50.00 FEET.  
THENCE N.57°58'21"E., 4425.12 FEET TO ENGINEER'S STATION 98+78.51 BEING A POINT THE CENTERLINE OF EXISTING SLM R/W NM 112695 FOR THE END OF THIS CENTERLINE; WHENCE ANCHOR "B" BEARS N.57°58'21"E., 50.00 FEET.

CENTERLINE.....8,978.51 FEET  
ANCHOR "A".....50.00 FEET  
ANCHOR "B".....50.00 FEET  
TOTAL LENGTH OF RIGHT OF WAY THROUGH FEDERAL LANDS: 10,078.51 FEET

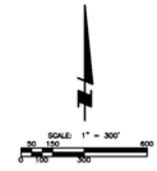
**SURVEYOR'S STATEMENT**  
KERY W. GREINER STATES HE IS BY OCCUPATION, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF NEW MEXICO, EMPLOYED BY EL PASO ELECTRIC COMPANY TO MAKE THE SURVEY OF THE DISTRIBUTION LINE AS DESCRIBED AND SHOWN ON THIS MAP, AND THAT THE SURVEY OF SAID WORKS WAS MADE UNDER HIS SUPERVISION AND AUTHORITY, COMMENCING ON THE 15TH DAY OF MAY, 2013 AND ENDING ON THE 26TH DAY OF AUGUST, 2013, AND THAT SAID SURVEY IS ACCURATELY REPRESENTED UPON THIS MAP. THIS SURVEY MEETS THE MINIMUM REQUIREMENTS FOR LAND SURVEYS IN THE STATE OF NEW MEXICO AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

KERY W. GREINER \_\_\_\_\_ DATE \_\_\_\_\_  
NEW MEXICO PROFESSIONAL SURVEYOR #9781  
DIAMONDBACK LAND SURVEYING COMPANY, INC.  
P.O. BOX 1837  
MESILLA PARK, NM 88047



**APPLICANT'S CERTIFICATE**  
THIS IS TO CERTIFY THAT KERY W. GREINER OF DIAMONDBACK LAND SURVEYING COMPANY, INC. WHO SUBSCRIBED THE STATEMENT HEREON IS THE PERSON EMPLOYED BY THE UNDERSIGNED APPLICANT TO PREPARE THIS MAP WHICH HAS BEEN ADOPTED BY THE APPLICANT AS THE APPROPRIATE FINAL LOCATION OF THE WORK HEREON SHOWN AND THIS MAP IS FILED AS PART OF THE COMPLETE APPLICATION, AND IN ORDER THAT APPLICANT MAY OBTAIN THE BENEFIT OF THE ACT OF CONGRESS APPROVED OCTOBER 31, 1976 (71 STAT. 94-579, TITLE 8, 90 STAT. 2743) AND I FURTHER CERTIFY THAT THE RIGHT-OF-WAY HEREON DESCRIBED IS DESIRED FOR A 3 PHASE 24KV DISTRIBUTION FEEDER POWERLINE - ARROYO 23 TO SALDUEX 24.

EL PASO ELECTRIC COMPANY \_\_\_\_\_ DATE \_\_\_\_\_

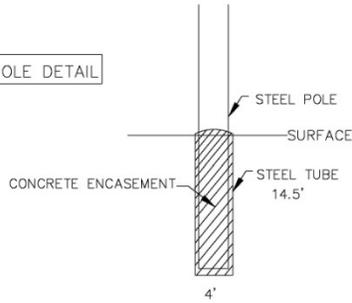


RIGHT-OF-WAY MAP	
EL PASO ELECTRIC CO. - MVD DEPT.	
DRAWN BY: GREINER	08/30/13 13007.DWG
APPR. BY:	DWG. NO.

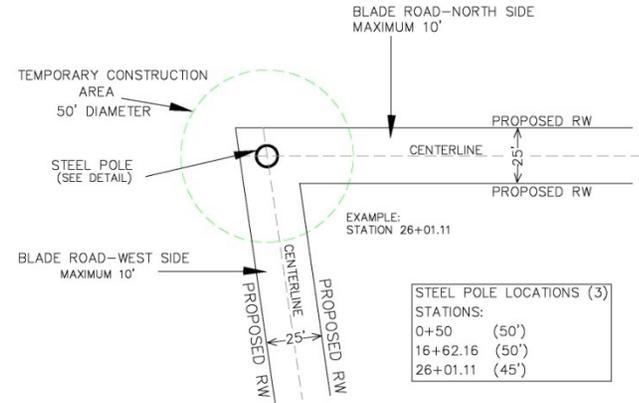
# POLE DESIGN – TEMPORARY ACCESS/CONSTRUCTION



STEEL POLE DETAIL

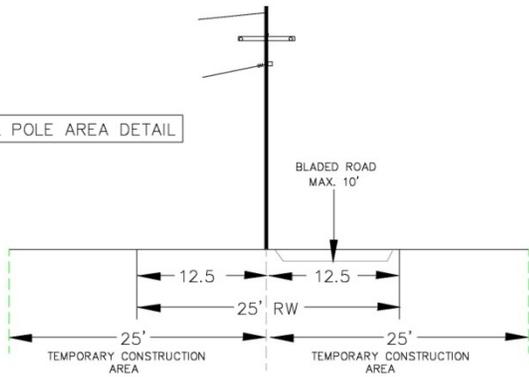


TYPICAL STEEL POLE CONSTRUCTION

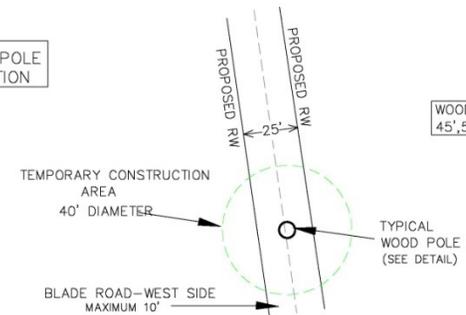


STEEL POLE LOCATIONS (3)	
STATIONS:	
0+50	(50')
16+62.16	(50')
26+01.11	(45')

STEEL POLE AREA DETAIL

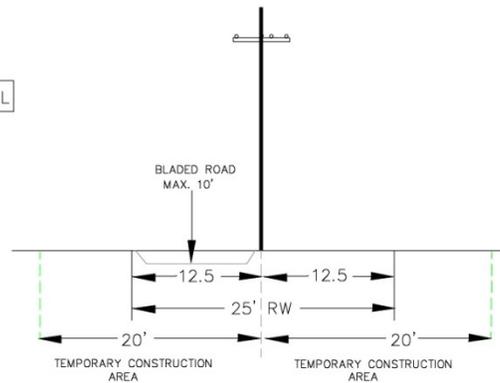


TYPICAL WOOD POLE CONSTRUCTION



WOOD POLES:	42
	45', 50', 55' AND 60'

WOOD POLE AREA DETAIL



NEW 3 PHASE 24KV OVERHEAD DISTRIBUTION FEEDER  
SONOMA RANCH BLVD.

DESIGN

D<sup>3</sup>

REGISTERED

EL PASO ELECTRIC

The Electric Company

Customer: EPE/ARR 23 TO SAL 24 FEEDER		Revision No.:	
Work Order: DN016506		Revision No.:	
Designer: R. HARSH	Drawn: 08/26/2013	Project No. ARR23	
Price:	None	Sheet No. 512	Drawing No.:
City: LAS CRUCES	Scale: 1"=20'	Drawing No.:	
Revision No.:	2E/23S/11,12,14		