

**Environmental Assessment for the
Authorization of a BLM Right-of-Way
for an Electric Distribution Line in
Pima County, Arizona
DOI-BLM-AZ-G020-2010-0029-EA**

Prepared for

**Tucson Electric Power Company
Bureau of Land Management**

Prepared by

SWCA Environmental Consultants

July 2010

**ENVIRONMENTAL ASSESSMENT FOR THE AUTHORIZATION OF A
BLM RIGHT-OF-WAY FOR AN ELECTRIC DISTRIBUTION LINE
IN PIMA COUNTY, ARIZONA
DOI-BLM-AZ-G020-2010-0029-EA**

Prepared for

Tucson Electric Power Company

Mail Stop DS315
P.O. Box 711
Tucson, Arizona 85702
Attn: Patricia Smith

and

**U.S. Department of the Interior
Bureau of Land Management**

12661 East Broadway Boulevard
Tucson, Arizona 85748
Attn: Linda Dunlavey

Prepared by

SWCA Environmental Consultants

343 West Franklin Street
Tucson, Arizona 85701
(520) 325-9194
www.swca.com

SWCA Project No. 15282.05

July 2010

CONTENTS

1. INTRODUCTION	1
1.1 Legal Description and Map Names	1
1.2 Project Background	1
1.3 Purpose OF and Need for the Proposed Action.....	1
1.4 Conformance with Land Use Plan	4
1.5 Relationship to Statutes, Regulations, or Other Plans or Policies	4
2. PROPOSED ACTION AND ALTERNATIVES	5
2.1 Description of the Proposed Action.....	5
2.2 No-Action Alternative	8
2.3 Alternatives Considered but Not Analyzed	8
3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES.....	9
3.1 General Setting	9
3.2 Resource Issues Analyzed	9
Air Quality.....	9
Cultural Resources.....	10
Environmental Justice.....	11
Threatened or Endangered Species.....	12
Wildlife.....	12
Migratory Bird Treaty Act.....	13
Native American Religious Concerns	14
Wastes, Hazardous or Solid.....	14
Vegetation.....	14
Invasive and Non-Native Weeds	15
National Energy Policy.....	16
Soils	16
Description of Mitigation Measures	16
Cumulative Impacts.....	18
Compliance and Area Monitoring	19
4. CONSULTATION AND COORDINATION.....	20
4.1 Persons and Agencies Consulted.....	20
4.2 List of Preparers.....	20
5. LITERATURE CITED.....	21

Figures

1. Overview map.....	2
2. Location of the Unauthorized ROW Segment	3
3. TEP pole structure design.	6

Chapter 1

INTRODUCTION

1.1 LEGAL DESCRIPTION AND MAP NAMES

The area evaluated in this Environmental Assessment (EA) is within an existing Tucson Electric Power Company (TEP) unauthorized right-of-way (ROW) on land administered by the Bureau of Land Management (BLM). TEP currently operates a 13.8-kV overhead electric distribution line within a 16-foot-wide ROW easement for which no authorization from the BLM has been received. The easement is 795 feet long and is in Section 3, Lots 5, 29, and 30, Township 15 South, Range 12 East, in Pima County, Arizona (Figure 1). The unauthorized ROW can be accessed by taking Exit 99 of Interstate 19 and traveling west on State Route (SR) 86 for approximately 7.4 miles to the ROW, which is located at SR 86 Milepost 164, adjacent to Camino Verde Road, between SR 86 and Old Ajo Highway. This ROW segment is depicted on the U.S. Geological Survey Cat Mountain, Arizona, 7.5-minute quadrangle (Figure 2).

The easement evaluated in this EA is a part of TEP's BD-3 Circuit, which is approximately 2.4 miles long. BD-3 Circuit begins at TEP's Bopp Donald Substation in the southeast corner of Section 27, Township 14 South, Range 12 East and traverses south-southwest to the ROW, which is located along Camino Verde Road, before continuing south and terminating at Camino Verde and Drexel roads (see Figure 2).

1.2 PROJECT BACKGROUND

TEP is applying for initial authorization of the ROW from the BLM. Within this ROW, TEP has built and owns, operates, and maintains a 13.8-kV power line. SWCA Environmental Consultants (SWCA) was contracted by TEP to assist the BLM by preparing this EA to comply with the National Environmental Policy Act (NEPA).

1.3 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

The purpose of the action is to provide TEP with legal access across a segment of public land, totaling approximately 0.29 acre, managed by the BLM. The need for the action is established by the BLM's responsibility under the Federal Land Policy and Management Act to respond to a request for a 16-foot-wide ROW grant for legal access to operate and maintain the 13.8-kV power line. Since 1969, TEP: 1) has inspected the overall condition of the easement each year; and 2) has not rebuilt or replaced any of the four poles within the easement. It is likely that all four poles in the easement will need to be replaced over the next 30 years.

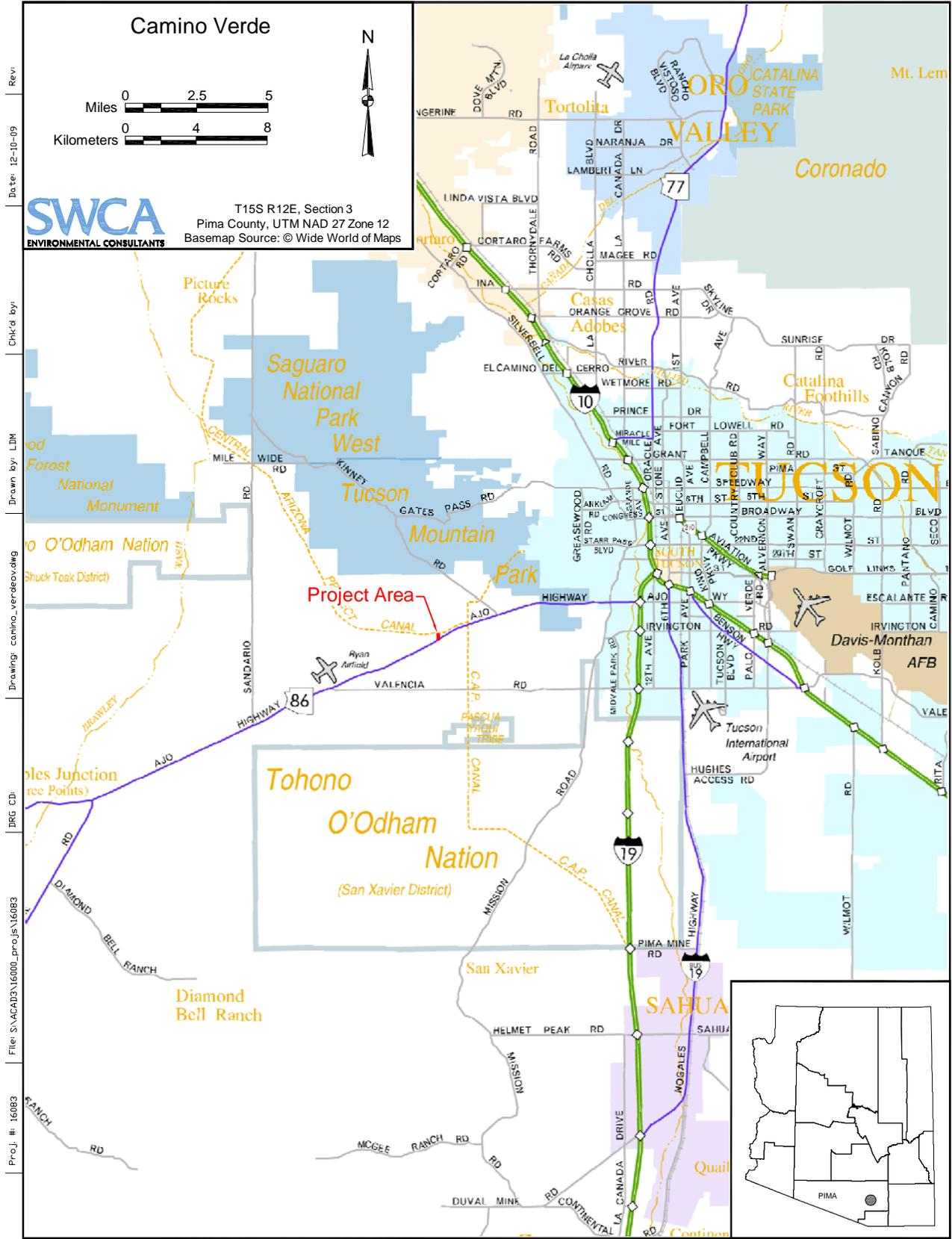


Figure 1. Project location.

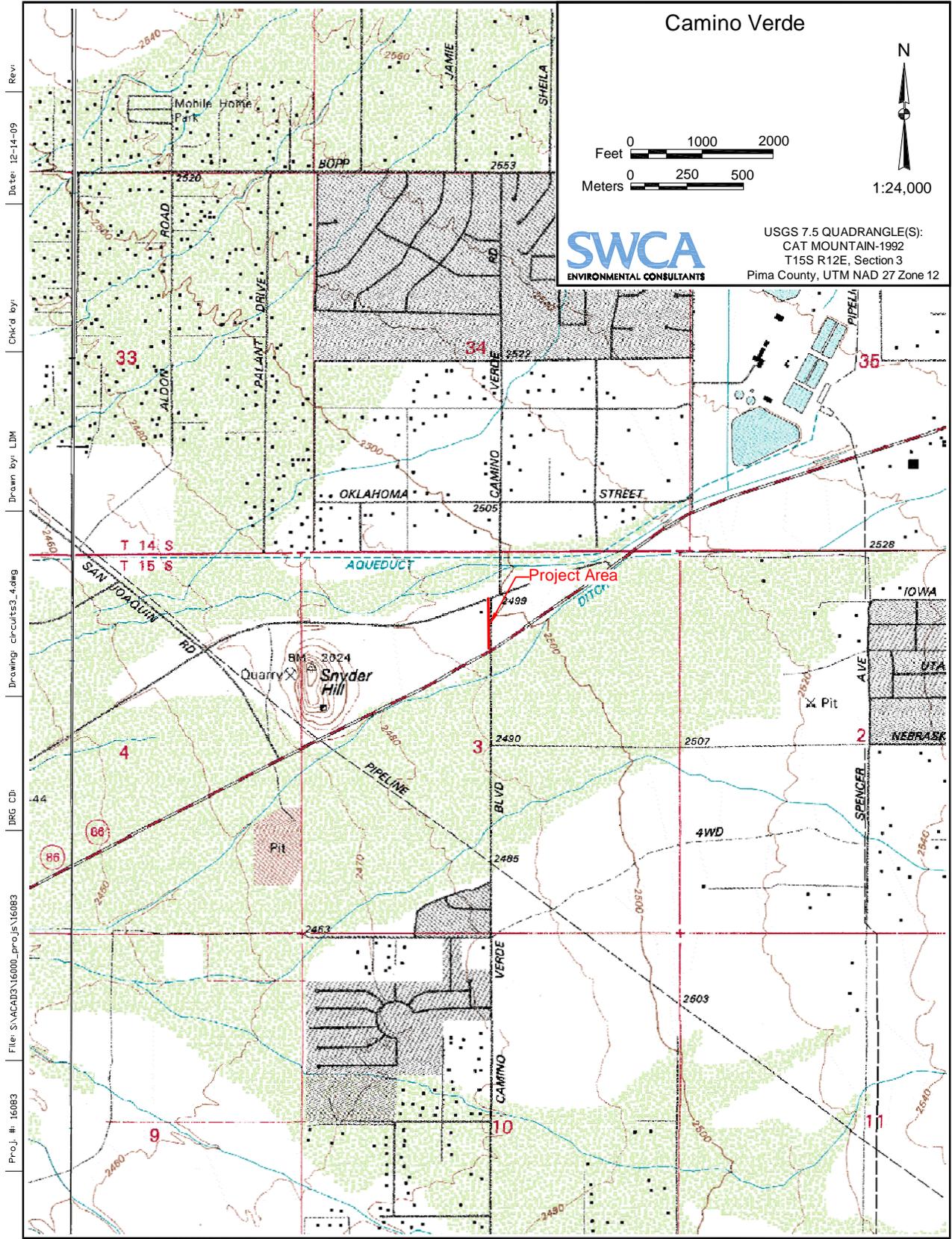


Figure 2. Project area.

1.4 CONFORMANCE WITH LAND USE PLAN

The Proposed Action is subject to the BLM Phoenix Resource Management Plan (RMP), approved in December 1988 (BLM 1988). The RMP was reviewed to ensure that the BLM ROW authorization conforms to the land use plan terms and conditions, as required under 43 Code of Federal Regulations (CFR) 1610.5, BLM Manual §1617.3. The RMP states that “land use authorizations (rights-of-way, leases, permits, easements) would continue to be issued on a case-by-case basis and in accordance with recommendations in this Proposed RMP/FEIS [Final Environmental Impact Statement]. Rights-of-way routes would be issued to promote the maximum utilization of existing right-of-way routes.” The segment being evaluated in this report is located entirely within an existing 100-foot-wide transportation ROW (A-22310) and would not result in any deviation from the land use planned for the area.

1.5 RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS OR POLICIES

The BLM may authorize this ROW pursuant to Title V of the Federal Land Policy and Management Act, October 21, 1976, with 43 CFR 2800 governing the terms and conditions. The BLM decision only authorizes use of BLM lands. Use of non-BLM land (i.e., Arizona State Land Department State Trust lands, tribal lands, Pima County lands, private lands, etc.) is subject to the permission of the appropriate agency or landowner. Other BLM-administered ROWs in the vicinity include pipelines (AZA-22075; 75 feet wide and A 4725; 15 feet wide) that are north of the unauthorized utility ROW and transportation ROWs for Camino Verde Road (A-22310; 100 feet wide) and SR 86 (A 6032; 200 feet wide) that are within or adjacent to the utility ROW.

Public lands in the area are subject to inventory protocols for archaeological resources in accordance with the National Historic Preservation Act. All work related to the proposed BLM ROW authorization is consistent with federal, state, and local laws, regulations, and plans, including, but not limited to, the Endangered Species Act (ESA), the Migratory Bird Treaty Act (MBTA), and the Arizona Department of Agriculture (ADA) Arizona Native Plant Law.

Chapter 2

PROPOSED ACTION AND ALTERNATIVES

2.1 DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action involves the initial authorization of the BLM-administered ROW, which contains electric distribution power lines owned, operated, and maintained by TEP. Included in the authorization (grant) request is the 16-foot-wide ROW easement (with a total length of 795 feet) for which no authorization from the BLM has currently been received. The ROW authorization would be valid for a period of 30 years, with the right to request renewal at that time. Specific distribution line upgrades and ROW maintenance are not currently scheduled at this time. However, it is necessary for TEP to be able to schedule these types of project activities whenever problems arise in order to continue providing customers with electricity. These potential future actions are connected to the proposed initial authorization of the ROW.

Future maintenance or upgrades of the existing overhead power lines as described below could include replacing individual poles, rebuilding or upgrading the segment, and pruning existing vegetation to maintain clearance limits. TEP's regular maintenance procedures dictate that all poles and attached parts, the ROW itself, and all equipment be visually inspected annually to note their condition and to eliminate weak points in the circuit in order to ensure the quality of the power delivery to customers. Maintenance crews are trained to visually inspect the lines for fire damage, bird nests, vehicle damage, structure alignment, clearance problems, brush and tree limbs, and other potential problems. As a result of these visual inspections, typical maintenance or emergency activities that may be undertaken by qualified TEP line crews during the life of the ROW authorization include, but are not limited to, the following:

- **Pole Replacement.** The easement contains a total of four poles. Potential power line rebuilds to upgrade the capacity of the lines could involve replacing existing 65-foot poles. The typical life span for the wooden poles is approximately 50 years, depending on weather conditions, maintenance, and other factors. Given this life span, it is likely that all four poles will need to be replaced over the duration of the 30-year ROW authorization, depending on individual pole condition. TEP anticipates the need to replace individual poles as warranted in order to avoid pole failure and human health and safety problems such as fire and power outages. Pole replacement could take place any time of the year, depending on when it is warranted. The poles are usually removed entirely, although on occasion the poles are cut off 1 foot below ground level. In some cases where an entire line segment is replaced (in this segment, four poles) it may be necessary to space the poles at different intervals, which would require the excavation of new holes, and the old poles would either be completely removed, or cut off 1 foot below ground level. Any new poles would be placed within the existing overhead line, which would remain energized during pole replacement. For new holes, auger trucks would access the pole locations from existing roads. Each new pole hole would be approximately 24 inches in diameter × 8.5 feet deep. A narrow profile design (TEP spec VOC1-SR30) would be used for the pole structures (Figure 3). Replacement poles would use standard environmental colors such as Carlsbad Canyon or Shadow Gray. The replacement time per pole is four hours.

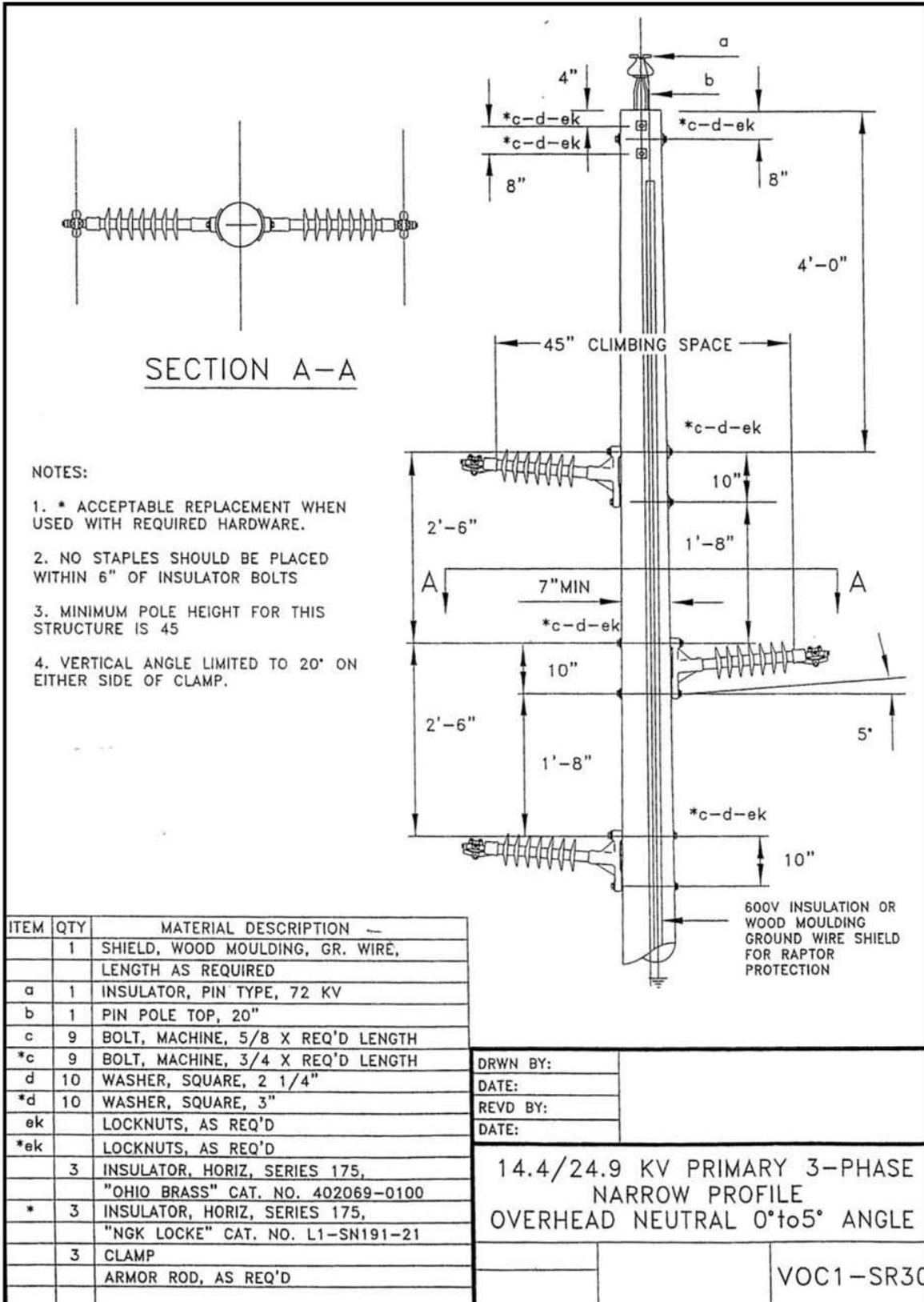


Figure 3. TEP pole structure design.

- **Vegetation Pruning.** Maintenance activities may include the pruning of tree limbs that have grown into the ROW, around the conductor, or at the base of the poles. Whenever possible, pruning would be done by hand tools (e.g., clipper, saw, etc.), but removal of larger limbs may require the use of power tools such as a chainsaw. Pruning would be done in a careful manner to maintain the health of the vegetation while ensuring or improving the safety of the power line. All pruned vegetation would be removed from the ROW and disposed of in an approved manner. Vegetation protected by the Arizona Native Plant Law will not be trimmed or removed without first contacting the BLM. Arizona Native Plant Law-protected native plants that interfere with the ROW facilities will be handled appropriately by working with the BLM and the ADA.
- **Cross-Arm, Insulator, or Transformer Replacement.** Cracked or damaged cross-arms (supporting the power line), ceramic insulators, or transformers would be replaced with new identical parts. The power line would remain energized during this replacement.
- **Access Road Erosion Repair.** There is no access road within the proposed ROW, as access from the adjacent Camino Verde Road is excellent. Camino Verde is a paved road maintained by Pima County.

TEP will consult with the BLM on all matters related to future upgrades affecting the subject power line and any plans for access roads or staging areas and equipment that have not been identified in their ROW application, engineering designs, or analyzed in this EA. A Plan of Development will be submitted to the BLM prior to any work proposed to be conducted in this ROW.

Mitigation measures for the Proposed Action would include the following:

1. All vehicles and construction equipment would be properly maintained to minimize exhaust emissions and would also be properly muffled to minimize noise. In addition, a water truck would be on-site during maintenance or upgrade activities to minimize fugitive dust.
2. Any equipment or materials transported onto BLM-administered lands for maintenance or repair would be promptly removed upon completion of the project.
3. Project maintenance or upgrade activities would not entail impacts to vegetation components of potential habitat for any species listed under the ESA.
4. Any vehicles and equipment that would be brought in from outside the area would be power-washed, including the undercarriage, prior to entering the ROW and afterward, before moving vehicles and equipment onto any other public lands, to prevent the introduction and spread of noxious weeds and invasive species.
5. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes any access roads and associated power line corridor, and adjacent land affected by the establishment of weeds as a result of this action. The operator shall consult with the authorized officer for acceptable weed control methods, which include following U.S. Environmental Protection Agency (EPA) and BLM requirements and policies.
6. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder or any person working on the holder's behalf, on public or federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine the appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of the evaluation, and any decision regarding the proper mitigation measures will be made by the authorized officer after consulting with the holder.

7. As required by the Native American Graves Protection and Repatriation Act regulations at 43 CFR 10.4(g), “If in connection with the project operations under this authorization, any human remains, funerary objects, scared objects or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001) are discovered, the ROW holder shall stop operations in the immediate area of the discovery, protect the remains and objects, and immediately notify the Authorized Officer of the discovery. The ROW holder shall continue to protect the immediate area of the discovery until notified by the Authorized Officer that operations may resume.”
8. An additional cultural and paleontological resource survey may be required in the event the project location is changed or additional surface disturbing operations are added to the project after the initial survey. Any such survey would have to be completed prior to commencement of operations.
9. All replacement poles installed will both support an increased conductor capacity and also allow for suitable separation between the conductor and distribution wires to meet raptor-protection guidelines. Wherever possible, damaged poles will be removed entirely and new poles installed in the same hole; otherwise, damaged poles are to be cut off 1 foot below ground level. Where poles are cut off below ground, an auger truck will be used to drill the new hole, as indicated in the pole replacement description above. Unless otherwise agreed to by the authorized officer in writing, power lines shall be constructed in accordance with standards outlined in *Suggested Practices for Raptor Protection on Powerlines, State of the Art 2006*, by the Avian Powerline Interaction Committee. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication are “eagle safe.” Such proof shall be provided by a raptor expert approved by the authorized officer. The BLM reserves the right to require modifications or additions to all power line structures placed on this ROW should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States. Placement of all new, replaced, or upgraded poles and power lines would be designed and constructed to minimize the potential for electrocution of raptors.
10. Vegetation protected by the Arizona Native Plant Law will not be trimmed or removed without first contacting the BLM. Arizona Native Plant Law–protected native plants that interfere with the ROW facilities will be handled appropriately by working with the BLM and the ADA.

2.2 NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the BLM would not grant the requested authorization, nor would they allow any additional maintenance or upgrades to the power line. Thus, the existing route and capacity would eventually no longer be sufficient to continue serving nearby residences and businesses. The areas currently served by the power line would need to seek alternative sources of electrical power distribution.

2.3 ALTERNATIVES CONSIDERED BUT NOT ANALYZED

Alternative ROW acquisition and construction of a new overhead electric line outside BLM-administered land would entail substantial construction costs and create an unnecessary level of environmental impacts. This could also result in an interruption or loss of consumer service, as well as delays or an inability to provide the local communities and businesses with electricity. Conversely, the authorization of the ROW would result in uninterrupted service and no significant environmental impacts. For these reasons, other alternatives were not considered.

Chapter 3

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 GENERAL SETTING

The entire 795-foot-long ROW was disturbed previously during construction and maintenance of Camino Verde Road and SR 86 and construction of the Drexel Heights Fire Department station. This included paving for the fire station driveways and associated parking lots, as well as blading of the area south of the fire station. With the exception of scattered native trees and shrubs, most of the vegetation in the project area was removed during these activities.

No aquatic habitats (including stock ponds), broadleaf deciduous riparian vegetation communities (i.e., communities containing willow, cottonwood, or ash, etc.), or potential bat roost sites (e.g., natural caves or mine features) occur in the project area.

Vegetation was classified to the community level according to the map “Biotic Communities of the Southwest” in Brown (1994). The project area, which is located at an elevation of approximately 2,500 feet above mean sea level, is in the Arizona Upland subdivision of the Sonoran Desertscrub biotic community. Vegetation in the southern portion of the project area from SR 86 to a point approximately 190 feet to the north is dominated by buffelgrass (*Pennisetum ciliare*) and prickly Russian thistle (*Salsola tragus*), with scattered Mexican paloverde (*Parkinsonia aculeata*). In the northern portion of the project area, native vegetation occurs in the project area from Old Ajo Highway to a point approximately 100 feet to the south and from Old Ajo Highway to a point approximately 25 feet to the north. Vegetation is sparse and includes creosote bush (*Larrea tridentata*), desert broom (*Baccharis sarothrae*), velvet mesquite (*Prosopis velutina*), and threeawn (*Aristida* sp.). Buffelgrass is also present in the northern portion of the project area. The remaining portion of the project area between the areas described above is devoid of native and non-native vegetation.

3.2 RESOURCE ISSUES ANALYZED

The following resource issues are not affected by the Proposed Action or No-Action Alternative because they do not occur in the ROW or because of the nature of the Proposed Action: Areas of Critical Environmental Concern; Farm Lands (Prime or Unique); Floodplain; Water Quality, Drinking or Ground; Wetlands/Riparian Zones; Wild and Scenic Rivers; and Wilderness. The following resource issues may be affected and are discussed in detail below: Air Quality; Cultural Resources; Environmental Justice; Threatened or Endangered Species; Wildlife; MBTA; Native American Religious Concerns; Wastes, Hazardous or Solid; Vegetation; Invasive and Non-Native Weeds; National Energy Policy; and Soils.

Air Quality

The Pima County Department of Environmental Quality, subject to the Arizona State Implementation Plan, is responsible for regulating activities affecting air quality in the area being evaluated. Under the State Implementation Plan, the BLM land containing the ROW lies completely within an attainment area for all six criteria pollutants (carbon monoxide [CO], lead, nitrogen dioxide, sulfur dioxide, ozone, and particulate matter [PM_{2.5} and PM₁₀]) (Arizona Department of Environmental Quality [ADEQ] 2009). A Carbon Monoxide Limited Maintenance Plan was developed by the Pima Association of Governments for the Tucson Air Planning Area, submitted by ADEQ to EPA in 1996, and updated in 1997. The Tucson Air Planning Area was designated to CO attainment status by EPA, effective July 10, 2000. EPA’s

Limited Maintenance Plan option required a revision for the remaining 10-year period of the Limited Maintenance Plan, 2010–2020. The 2008 Revision to the Carbon Monoxide Limited Maintenance Plan for the Tucson Air Planning Area, developed by the Pima Association of Governments, was submitted by ADEQ to EPA on July 10, 2008. This 10-year plan essentially maintains existing controls and contingency provisions and succeeds the previous plan approved by EPA in 2000. CO levels are expected to remain well below the National Ambient Air Quality Standards for the 10-year period ending in 2020.

Ambient lead monitoring was discontinued in Pima County in March 1997 as a result of EPA regulations since the levels were so low; the reduction in lead readings to below a detectable level is the result primarily of the federal regulation that eliminated lead in automobile gasoline (Pima County 2009a). According to the 2005 National Air Emissions Inventory from EPA, Pima County has no sources of lead of 1 ton or more, so Pima County will only be required to perform area monitoring at the Children’s Park location (400 West River Road). Monitoring is expected to commence prior to January 2011.

Impacts of the Proposed Action

The authorization of the ROW and its connected actions would likely result in future minor temporary impacts to air quality resulting from vehicle and equipment emissions and fugitive dust during maintenance or upgrade activities. These impacts are anticipated to be insignificant and short term. All vehicles and equipment would be properly maintained to minimize exhaust emissions and properly muffled to minimize noise. In addition, a water truck would be on-site during any ground-disturbing maintenance or upgrade activities to minimize fugitive dust.

Impacts of the No-Action Alternative

The No-Action Alternative would have no effect on air quality.

Cultural Resources

Section 106 of the National Historic Preservation Act, as amended and implemented, requires federal agencies to take into account the effects of their activities and programs on sites that may be eligible for the National Register of Historic Places (NRHP). Section 106 also requires federal agencies to consult with Native American groups concerning properties of traditional religious or cultural importance. The American Indian Religious Freedom Act (Public Law [PL] 95-341, 92 Stat. 469; 42 United States Code [USC] 1996) protects and preserves for the American Indian, Eskimo, Aleut, and Native Hawaiian the inherent right of freedom to believe, express, and exercise their traditional religions, including “access to religious sites, use and possession of sacred objects, and freedom to worship through ceremonials and traditional rites.” Federal land managers are directed to consult with “native traditional religious leaders” to determine which sites on federal lands are sacred and how they are used. In addition to the American Indian Religious Freedom Act, Presidential Executive Order 13007 was issued in 1996 to protect and preserve Indian sacred sites and religious practices. It states that managers must “(1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, and (2) avoid adversely affecting the physical integrity of such sacred sites.” It applies explicitly to sacred sites on federal lands.

The Archaeological Resources Protection Act of 1979, as amended, protects archaeological sites on federal lands as an irreplaceable part of our nation’s heritage. The Native American Graves Protection and Repatriation Act of 1990 enables affiliated Native Americans to control the ownership of cultural items and human remains when those items are found intentionally or inadvertently on federal lands. On state and privately held lands in Arizona, human remains and associated artifacts are protected by Arizona Revised Statutes §41-844 and §41-865; the Arizona State Museum would conduct consultation with Native American tribes under these laws, as needed.

A Class III cultural resources survey of the ROW was conducted (SWCA 2010). The survey identified one NRHP-eligible historic property—an in-use historic highway alignment—at the north end of the ROW. This segment of historic highway no longer reflects its historical significance and is therefore considered a non-contributing component of the NRHP-eligible property. Furthermore, the power line spans the property, effectively avoiding it. Therefore, no additional archaeological work is recommended within the ROW.

Impacts of the Proposed Action

The Proposed Action would have no adverse effect on historic properties.

Impacts of the No-Action Alternative

The No-Action Alternative would have no adverse effect on historic properties.

Environmental Justice

“Environmental Justice” is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. The EPA has this goal for all communities and persons across this nation; it will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work (EPA 2009a). Title VI of the Civil Rights Act of 1964 and related statutes ensure that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal financial assistance on the basis of race, color, national origin, age, sex, and disability. “Executive Order 12898” on environmental justice, dated 11 February 1994, directs that programs, policies, and activities not have a disproportionately high and adverse human health and environmental effect on minority and low-income populations (EPA 2009a).

According to the U.S. Census Bureau (Census 2009), specific information is not available for one of the two zip codes serviced by the Circuit BD-3. However, from 2008 data, 15.4% of people of all ages (compared with the national average of 13.2%) living in Pima County live below the national poverty level. According to Census (2009), 33.1% of Pima County residents consider themselves to be Hispanic or Latino, and 35% of residents in one of the two zip codes serviced by the line consider themselves Hispanic or Latino (compared with the national average of 12.5% from the 2000 Census); 27.5% of Pima County residents speak a language other than English at home (compared with the national average of 17.9%). Thus, there are expected to be numerous low-income and minority residents served by the utility ROW.

Impacts of the Proposed Action

The authorization of the ROW and its connected actions would provide more reliable electrical power delivery to residents served by the line. No structures or businesses would be altered as a result of the Proposed Action, and no private properties would be affected. Thus, as the Proposed Action will provide an inexpensive, reliable energy source to the minority and low-income populations in the area, the authorization of the ROW would result in a positive overall impact for the residents served by the power line and would not result in any negative impacts related to environmental justice.

Impacts of the No-Action Alternative

Under the No-Action Alternative, there would be a negative impact on the minority and low-income populations that are currently served by the ROW, as they would be forced to search for alternative

energy sources that would likely be more expensive. Thus, the No-Action Alternative would likely result in disproportionately high and adverse effects on low-income and minority populations in the area.

Threatened or Endangered Species

The Endangered Species Act of 1973, as amended, establishes a national program for the conservation and protection of threatened and endangered species of plants and animals and the preservation of their habitats. Section 7 of the ESA requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) to ensure that the actions they authorize do not jeopardize the continued existence of a federally listed threatened or endangered species.

An evaluation of federally listed threatened and endangered species was conducted (SWCA 2010), and it was determined that the ROW authorization would have no effect on any of the species listed by the USFWS as potentially occurring in Pima County (USFWS 2009). With the exception of Pima pineapple cactus (PPC) (*Coryphantha scheeri* var. *robustispina*), a federally listed endangered plant, none of the 23 species that are currently listed by the USFWS in Pima County have the potential to occur in the ROW. A species-specific survey for PPC was conducted by qualified biologists in the 795-foot-long ROW, and no PPC were found.

Impacts of the Proposed Action

The authorization of the ROW and its connected actions would have no effect on any of the 23 federally listed threatened or endangered species known to occur in Pima County or on any proposed or designated Critical Habitat.

Impacts of the No-Action Alternative

The No-Action Alternative would have no effect on any threatened or endangered species or their proposed or designated Critical Habitat.

Wildlife

Wildlife species in the vicinity of the ROW are expected to be typical of the Sonoran Desertscrub vegetation community. No unusual wildlife species or unusually high concentrations of wildlife species are anticipated. There is no permanent surface water in the ROW; therefore, no aquatic species are expected to occur.

The online Arizona Heritage Geographic Information System (AZHGIS) was reviewed (AZHGIS 2009) to determine whether any proposed or designated critical habitat or special-status species have been documented near the ROW. The search results are included in Appendix C of the biological evaluation (SWCA 2009). The AZHGIS response document indicated that two special-status wildlife species, California leaf-nosed bat (*Macrotus californicus*) and cave myotis (*Myotis velifer*), have been observed within 3 miles of the ROW. In addition, a bat colony is also located within 3 miles of the ROW. Although these species could occasionally fly over the ROW while foraging or migrating, they are not expected to occur regularly, and there are no potential roost sites in the project area. Of the 22 wildlife species listed as sensitive by the BLM with the potential to occur in the geographical region of the Tucson Field Office, 21 are considered unlikely to occur in the ROW segment. The remaining species, cave myotis, is not expected to occur regularly in the ROW, as there are no potential roost sites for bats.

The project area was also reviewed relative to the Pima County Conservation Lands System, which categorizes and identifies locations of priority biological resources within Pima County. According to the Pima County Conservation Lands System review (Pima County 2009b), there are no designated Priority

Conservation Areas¹ for any wildlife species in the project area. Thus, no special-status wildlife issues are expected as a result of this authorization or its connected actions (see also the “Threatened or Endangered Species” and “Migratory Bird Treaty Act” sections).

Impacts of the Proposed Action

No state-listed special-status species or other wildlife species would be adversely affected as a result of project-related activities. It is assumed that impacts on wildlife habitat would be equivalent to the acreage of native desert vegetation lost during the connected actions as described in Chapter 2, which is expected to be less than 0.3 acre. Because impacts on habitat would be limited, it is unlikely that any wildlife would be displaced, even temporarily, from the area.

Impacts of the No-Action Alternative

The No-Action Alternative could have a beneficial impact on wildlife species, particularly bird species such as raptors, if the line were abandoned in place and no maintenance or upgrade activities were performed in the ROW.

Migratory Bird Treaty Act

Under the Migratory Bird Treaty Act of 1918 and subsequent amendments (16 USC 703–711), it is unlawful to take, kill, or possess migratory birds. Executive Order 13186, issued 11 January 2001, further defines the responsibilities of federal agencies to protect migratory birds; a list of those protected birds can be found in 50 CFR 10.13. The MBTA provides federal protection to all migratory birds, including their nests and eggs. In order to relocate or alter any MBTA-protected nests, it is necessary to obtain a permit from the USFWS.

Investigations of the ROW and visual inspections of the four poles determined that there are currently no potential migratory bird nests in the ROW.

Impacts of the Proposed Action

The authorization of the ROW and its connected actions would require that TEP comply with the MBTA and avoid, to the extent possible, potential impacts to those bird species covered by the MBTA. With respect to birds of prey (raptors), any replacement poles installed would both support an increased conductor capacity and also allow for suitable separation between the conductor and distribution wires to meet raptor-protection guidelines. All new, replaced, or upgraded pole and power line placement would be designed and constructed to minimize the potential for electrocution of raptors. Thus, a residual impact of the line upgrade or maintenance activities would be a reduced likelihood of raptor electrocution.

Impacts of the No-Action Alternative

The No-Action Alternative could have a beneficial effect on bird species protected by the MBTA, including raptors, if the line were abandoned in place and no maintenance or upgrade activities were performed in the ROW.

¹ Priority Conservation Area: These areas (sometimes referred to as Special Species Management Areas) are defined as crucial for the conservation of specific native flora and fauna of special concern of Pima County. Management of these areas will focus on conservation, restoration, and enhancement of habitat for these species.

Native American Religious Concerns

The American Indian Religious Freedom Act of 1978 established national policy to protect and preserve for Native Americans their inherent right of freedom to believe, express, and exercise their traditional religions, including the rights of access to religious sites, use and possession of sacred objects, and freedom to worship through traditional ceremonies and rites.

On the basis of recent Native American consultations conducted with local tribal governments for the Ironwood Forest National Monument Resource Management Plan and other projects in Ironwood Forest National Monument, there are no known Native American religious concerns associated with the project area.

Wastes, Hazardous or Solid

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), provides a federal “Superfund” to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies. The Superfund Amendments and Reauthorization Act of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities (EPA 2009b). No chemicals subject to the Superfund Amendments and Reauthorization Act in amounts greater than 10,000 lb and no extremely hazardous substances, as defined in 40 CFR 355 (National Archives and Records Administration 2009), in threshold-planning quantities would be used in the ROW.

Impacts of the Proposed Action

The authorization of the ROW and its connected actions would not introduce hazardous materials into the ROW. No fuels or hazardous materials would be stored in the ROW temporarily or permanently.

Impacts of the No-Action Alternative

Under the No-Action Alternative, no impacts related on hazardous materials would be encountered.

Vegetation

Vegetation in the southern portion of the project area from SR 86 to a point approximately 190 feet to the north is dominated by buffelgrass and prickly Russian thistle, with scattered Mexican paloverde (*Parkinsonia aculeata*). In the northern portion of the project area, native vegetation occurs in the project area from Old Ajo Highway to a point approximately 100 feet to the south and from Old Ajo Highway to a point approximately 25 feet to the north. Vegetation is sparse and includes creosote bush, desert broom, velvet mesquite, and threeawn. Buffelgrass is also present in the northern portion of the project area. The remaining portion of the project area between the areas described above is devoid of native and non-native vegetation.

Of the 11 plant species listed as sensitive by the BLM that have the potential to occur in the geographic region of the Tucson Field Office, all but Tumamoc globeberry (*Tumamoca macdougalii*) are considered unlikely to occur in the ROW. Plants protected under the ANPL cannot be removed from any lands without permission of the owner and a permit from the ADA. Landowners have the right to destroy or remove plants growing on their land; however, 20 to 60 days prior to the destruction, transport, or

removal of any protected native plants, landowners are required to notify the ADA and secure a permit (ADA 2009a). The AZHGIS response document (Appendix C of the biological evaluation [SWCA 2010]) noted that Tumamoc globeberry has been documented within 3 miles of the ROW segment. This species is listed as sensitive by the BLM and is afforded protection under the ANPL (ADA 2009a). According to the AZHGIS (2009) search, two other special-status plant species besides the BLM-sensitive Tumamoc globeberry have been observed within 2 miles of the ROW: Thornber fishhook cactus (*Mammillaria thornberi*) and federally listed endangered PPC.

Impacts of the Proposed Action

The authorization of the ROW and its connected actions would likely result in minor impacts on vegetation, expected to total less than 0.3 acre. Impacts would be limited to crushing of grasses, forbs, and small shrubs by vehicles and soil piles and the pruning of large trees to maintain clearance limits for overhead lines. Crushed vegetation would recover relatively quickly following project completion. Construction equipment can currently access the ROW segments using existing roads, so no other permanent impacts to vegetation are anticipated. One non-federally listed special-status plant species may be impacted by maintenance or upgrade activities: Tumamoc globeberry. However, this species was not observed during field reconnaissance and, given the small impact area associated with the authorization of the ROW and its connected actions, impacts are unlikely to result in population-level impacts or contribute to the future listing of this species as threatened or endangered under the ESA.

Impacts of the No-Action Alternative

Under the No-Action Alternative, no impacts on vegetation would occur.

Invasive and Non-Native Weeds

The ADA is responsible for enforcing Arizona's invasive (or noxious weed) regulations, which categorize noxious weeds into three groups: Prohibited, Regulated, and Restricted. According to the Arizona noxious weed regulations, Prohibited noxious weeds are those exotic plant species that are prohibited from entry into the state, while Regulated and Restricted noxious weeds are those exotic plant species that may be controlled or quarantined to prevent further infestation or contamination if found within the state (ADA 2009b). The ROW segment was surveyed for noxious weeds by a qualified biologist on November 10, 2009, and two noxious weed species, buffelgrass and prickly Russian thistle, were observed.

Impacts of the Proposed Action

One of the primary concerns stemming from the authorization of the ROW and its connected actions is the potential to introduce noxious weeds into the ROW or to facilitate the spread of existing noxious weed populations by equipment during maintenance or upgrade activities. To minimize this potential, TEP contractors would power-wash any equipment brought into the ROW both before and after entry and before moving the equipment onto any other public lands (see mitigation measure 4). Thus, the Proposed Action is not expected to have any significant adverse impacts related to invasive and non-native weeds.

Impacts of the No-Action Alternative

Under the No-Action Alternative, noxious weeds could still enter the ROW by means outside BLM control because the segment is adjacent to a public road. Thus, the No-Action Alternative is expected to have a neutral impact with respect to invasive and non-native weeds.

National Energy Policy

Currently, the national energy policy of the United States is an aggregate of various energy laws, regulations, and policies of federal, state, and local government entities. In order to create a central national policy, President Barack Obama is working with Congress to pass comprehensive energy legislation based on the following guiding principles: reduce the nation's reliance on foreign oil, increase production of domestic renewable energies, invest in clean energy technologies, and promote energy efficiency (White House 2009). The Proposed Action is not an energy exploration or development project and has no impact on potential exploration and development of energy resources because of the unsuitability of the area to support these actions. This policy does not apply to this project.

Soils

According to the Natural Resources Conservation Service (2009), the soils in the ROW segment are composed of one type: Mohave soils and urban land, 1% to 8% slopes. Mohave soil is very deep and well drained. It is formed from mixed alluvium (Natural Resources Conservation Service 2009). The ROW crosses flat terrain. Soil horizons in the ROW have been disturbed from previous utility activities, road construction and maintenance, and fire station construction.

Impacts of the Proposed Action

The authorization of the ROW and its connected actions would not significantly affect soils in the ROW. The majority of the potential maintenance and upgrade activities, including equipment staging, access, and trenching (if any), would take place within the existing, previously disturbed ROW. Soil disturbance would include compaction from equipment staging and the storage of soil piles. Because no blading would be conducted during maintenance or upgrade activities, soil disturbance would be insignificant.

Impacts of the No-Action Alternative

Under the No-Action Alternative, no impacts to soils would occur.

Description of Mitigation Measures

Proposed Action

Mitigation measures would include the following:

1. All vehicles and construction equipment would be properly maintained to minimize exhaust emissions and would also be properly muffled to minimize noise. In addition, a water truck would be on-site during maintenance and upgrade activities to minimize fugitive dust.
2. Any equipment or materials transported onto BLM-administered lands for maintenance or repair would be promptly removed upon completion of the project.
3. Project maintenance and upgrade activities would not entail impacts on vegetation components of potential habitat for any species listed under the ESA.
4. Any vehicles and equipment that would be brought in from outside the area would be power-washed, including the undercarriage, prior to entering the ROW and afterward, before moving vehicles and equipment onto any other public lands, to prevent the introduction and spread of noxious weeds and invasive species.
5. The operator shall be held responsible if noxious weeds become established within the areas of operations (access road). Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads and associated power line corridor, and adjacent land

affected by the establishment of weeds due to this action. The operator shall consult with the authorized officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

6. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder or any person working on the holder's behalf on public or federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine the appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of the evaluation, and any decision regarding the proper mitigation measures will be made by the authorized officer after consulting with the holder.
7. As required by the Native American Graves Protection and Repatriation Act regulations at 43 CFR 10.4(g), "If in connection with the project operations under this authorization, any human remains, funerary objects, scared objects or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (P.L. 101-601; 104 Stat. 3048; 25 U.S.C. 3001) are discovered, the ROW holder shall stop operations in the immediate area of the discovery, protect the remains and objects, and immediately notify the Authorized Officer of the discovery. The ROW holder shall continue to protect the immediate area of the discovery until notified by the Authorized Officer that operations may resume."
8. An additional cultural and paleontological resource survey may be required in the event the project location is changed or additional surface disturbing operations are added to the project after the initial survey. Any such survey would have to be completed prior to commencement of operations.
9. All replacement poles installed will both support an increased conductor capacity and also allow for suitable separation between the conductor and distribution wires to meet raptor-protection guidelines. Wherever possible, damaged poles will be removed entirely and new poles installed in the same hole; otherwise, damaged poles are to be cut off 1 foot below ground level. Where poles are cut off below ground, an augur truck will be used to drill the new hole, as indicated in the pole replacement description in the EA. Unless otherwise agreed to by the authorized officer in writing, power lines shall be constructed in accordance with standards outlined in *Suggested Practices for Raptor Protection on Powerlines, State of the Art 2006*, by the Avian Powerline Interaction Committee. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication are "eagle safe." Such proof shall be provided by a raptor expert approved by the authorized officer. The BLM reserves the right to require modifications or additions to all power line structures placed on this ROW should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States. Placement of all new, replaced, or upgraded poles and power lines would be designed and constructed to minimize the potential for electrocution of raptors.
10. Vegetation protected by the Arizona Native Plant Law will not be trimmed or removed without first contacting the BLM. Arizona Native Plant Law-protected native plants that interfere with the ROW facilities will be handled appropriately by working with the BLM and the ADA.

No-Action Alternative

No mitigation measures have been identified for this alternative.

Cumulative Impacts

A cumulative impact, as defined by the Council on Environmental Quality (40 CFR 1508.7), is the impact on the environment that results from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts are interdisciplinary and multi-jurisdictional and usually do not conform to political boundaries. To determine any cumulative effects, all applicable past, present, and future actions within the same geographic extent as the Proposed Action were evaluated.

Projects Evaluated for Cumulative Analysis²

Past

- Construction activities associated with underground pipelines (AZA-22075; 75 feet wide and A 4725; 15 feet wide) north of the utility ROW (BLM 2009).
- Road construction and maintenance activities associated with Camino Verde Road (A-22310; 100 feet wide) and SR 86 (A 6032; 200 feet wide) (BLM 2009).

Present

- Operational activities associated with the underground pipelines.
- Road maintenance activities associated with Camino Verde Road and SR 86.

Reasonably Foreseeable Future

- Operational activities associated with underground pipelines.
- Road maintenance activities associated with Camino Verde Road and SR 86.

Cumulative Impacts of the Proposed Action (Authorization of the ROW)

The authorization of the BLM ROW would not impact any of the resources issues discussed in this document; therefore, no cumulative impacts are anticipated. Cumulative impacts of the connected actions (i.e., potential maintenance and upgrade activities) described in Section 2.1 and the No-Action Alternative are as follows.

CUMULATIVE CONSTRUCTION-RELATED IMPACTS

Maintenance and upgrade activities within the ROW, in conjunction with other projects in the area, would result in minor, short-term cumulative air quality impacts. The potential maintenance and upgrade activities could also contribute to the cumulative, incremental loss of Sonoran Desertscrub in southern Arizona. Loss of vegetation, however, would be insignificant in light of the limited disturbance projected and the abundance of similar vegetation in the areas surrounding the ROW segment.

CUMULATIVE MAINTENANCE AND OPERATIONALLY RELATED IMPACTS

Operational activities within the ROW, including those related to standard maintenance, in conjunction with operational activities of other nearby facilities (i.e., Camino Verde Road and SR 86) would result in minor, short-term cumulative air quality impacts. The potential maintenance and upgrade activities would also result in a cumulative, incremental decrease in vegetation density in the segment from pruning and other ROW maintenance activities. However, the decrease in vegetation density would be insignificant

² Because the ROW is 16 feet wide, only limited additional future linear projects could reasonably be located within the segment. These projects would also be subject to rules, regulations, and policies, including NEPA.

with respect to the amount of anticipated reduction and the density of vegetation in the areas surrounding the segment.

Cumulative Impacts of the No-Action Alternative

There are no anticipated cumulative impacts of the No-Action Alternative.

Compliance and Area Monitoring

TEP, the ROW grant holder, shall notify the BLM prior to commencing emergency maintenance activities on BLM-administered lands immediately adjacent to the ROW segment. The BLM ROW “Terms and Conditions” are incorporated by reference in this document. All ROW compliance and monitoring pursuant to 43 CFR 2800 will be completed by BLM personnel.

Chapter 4

CONSULTATION AND COORDINATION

4.1 PERSONS AND AGENCIES CONSULTED

- Linda L. Dunlavey, Lands and Realty Specialist, Bureau of Land Management, Tucson Field Office
- Tucson Field Office NEPA Coordination Team
- Patricia Smith, Right-of-Way Coordinator, Tucson Electric Power Company

4.2 LIST OF PREPARERS

- Camille Ensle, Publication Specialist, SWCA Environmental Consultants
- S. Jerome Hesse, Archaeologist, SWCA Environmental Consultants
- Lara Mitchell, GIS Specialist, SWCA Environmental Consultants
- Heidi Orcutt-Gachiri, Technical Editor, SWCA Environmental Consultants
- Jeremy Doschka, Biologist, SWCA Environmental Consultants
- Russell Waldron, Project Manager, SWCA Environmental Consultants

Chapter 5

LITERATURE CITED

- Arizona Department of Agriculture (ADA). 2009a. Protected Arizona native plants. Available at: <http://www.azda.gov/ESD/nativeplants.htm>. Accessed December 4, 2009.
- . 2009b. Prohibited, Regulated and Restricted noxious weeds. Available at: <http://www.azda.gov/PSD/quarantine5.htm>. Accessed December 4, 2009.
- Arizona Department of Environmental Quality (ADEQ). 2009. Air quality analysis data. Available at: <http://www.azdeq.gov/environ/air/index.html>. Accessed December 14, 2009.
- Arizona Heritage Geographic Information System (AZHGIS). 2009. Arizona Game and Fish Department online environmental review tool. Available at: <http://www.azgfd.gov/hgis>. Accessed November 12, 2009.
- Brown, D.E. (ed.). 1994. *Biotic Communities: Southwestern United States and Northwestern Mexico*. Salt Lake City: University of Utah Press.
- Bureau of Land Management (BLM). 1988. *Proposed Phoenix Resource Management Plan and Final Environmental Impact Statement*. U.S. Department of the Interior, Bureau of Land Management.
- . 2009. Master Title Plats and Historical Index Sheets Search. Last modified November 14, 2008. Available at: https://www.blm.gov/az/mtps/mtps_search.cfm. Accessed November 16, 2009.
- National Archives and Records Administration. 2009. Electronic Code of Federal Regulations, Title 40: Protection of Environment, Part 355-Emergency Planning and Notification. Available at: <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=b2ca4088acba6bf6c6cb3a0149cbfaf9&rgn=div5&view=text&node=40:27.0.1.1.11&idno=40>. Accessed December 3, 2009.
- Natural Resource Conservation Service. 2009. Soils data. Last modified November 11, 2009. Available at: <http://websoilsurvey.nrcs.usda.gov/app>. Accessed December 3, 2009.
- Pima County. 2009a. Department of Environmental Quality 2008 Air Quality Summary Report (AQ-357). June 2009. Available at: <http://www.deq.pima.gov/air/pdf/2008AnnualDataSummary.pdf>. Accessed December 14, 2009.
- . 2009b. Pima County Mapguide. Available at: <http://www.dot.co.pima.az.us/gis/maps/mapguide/mgmap.cfm?path=/cmo/sdcpmaps/sdcp.mwf&scripth=mgmapinitnullAPI.inc>. Accessed December 10, 2009.
- SWCA Environmental Consultants (SWCA). 2010. *Biological Evaluation of a TEP Utility Easement with an Unauthorized Power Line across BLM-Administered Land, Pima County, Arizona*. Tucson: SWCA Environmental Consultants. December.
- . 2010. *Archaeological Survey of a TEP Utility Easement containing with an Unauthorized Power Line across BLM-Administered Land, Pima County, Arizona*. Tucson: SWCA Environmental Consultants. January.

- U.S. Census Bureau (Census). 2009. American Factfinder. Available at: <http://factfinder.census.gov/home/saff/main.html>. Accessed December 15, 2009.
- U.S. Environmental Protection Agency (EPA). 2009a. Environmental justice. Last updated December 10, 2009. Available at: <http://www.epa.gov/compliance/environmentaljustice/index.html>. Accessed December 14, 2009.
- . 2009b. Summary of the Comprehensive Environmental Response, Compensation, and Liability Act (Superfund). Last updated December 1, 2009. Available at: <http://www.epa.gov/lawsregs/laws/cercla.html>. Accessed December 3, 2009.
- U.S. Fish and Wildlife Service (USFWS). 2009. List of threatened and endangered species for Pima County, Arizona. Last updated July 7, 2009. Available at: <http://www.fws.gov/southwest/es/arizona/Threatened.htm#CountyList>. Accessed November 12, 2009.
- White House. 2009. National energy policy. Available at: <http://whitehouse.gov>. Accessed December 3, 2009.