Application for a Certificate of Environmental Compatibility

Golden Valley 230 Kilovolt Transmission Line Project

Prepared for:
Arizona Power Plant and
Transmission Line Siting Committee

Submitted by:
UNS Electric, Inc.

Date: March 16, 2021
Case No.

BEFORE THE
ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF UNS ELECTRIC, INC. AND ITS ASSIGNEES, IN CONFORMANCE WITH THE REQUIREMENTS OF A.R.S. § 40-360, *et seq*., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE GOLDEN VALLEY 230 KILOVOLT (KV) TRANSMISSION LINE PROJECT, WHICH INCLUDES THE CONSTRUCTION OF A NEW 230 KV TRANSMISSION LINE ORIGINATING NEAR THE INTERSECTION OF INTERSTATE 40 AND SHINARUMP DRIVE (TOWNSHIP 20 NORTH, RANGE 17 WEST, SECTION 4) AND TERMINATING NEAR U.S. HIGHWAY 93 AND MINERAL PARK ROAD AT THE PLANNED MINERAL PARK SUBSTATION (TOWNHIP 22 NORTH, RANGE 18 WEST, SECTION 3), MOHAVE COUNTY, ARIZONA	)	Docket No. _____ Case No.

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LIST OF ACRONYMNS

ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
AM	Amplitude modulation
AMM	Avoidance and minimization measure
APE	Area of potential effect
A.R.S.	Arizona Revised Statute
ASLD	Arizona State Land Department
ASM	Arizona State Museum
BE	Biological Evaluation
BLM	Bureau of Land Management
BNSF	Burlington Northern Santa Fe
CEC	Certificate of Environmental Compatibility
CFRA	Cerbat Foothills Recreation Area
dBA	A-weighted decibel
EA	Environmental Assessment
EMF	Electric and magnetic field
EO	Executive Order
ESA	Endangered Species Act
FCC	Federal Communications Commission
FLPMA	Federal Land Policy and Management Act
FM	Frequency modulation
hZ	Hertz
I-11	Interstate 11
I-40	Interstate 40
KFO	Kingman Field Office
kHz	Kilohertz
KOP	Key observation point
kV	Kilovolt
L_{dn}	Average day-night noise level
L_{eq}	Equivalent energy level
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
RMP	Resource Management Plan

ROW	Right-of-way
RPM	Resource protection measures
RV	Recreational vehicle
SHPO	State Historic Preservation Office
SR-68	State Route 68
TYP	Ten-year Plan
UNSE	UNS Electric, Inc.
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
US 66	Historic Route 66
VRM	Visual Resource Management
WAPA	Western Area Power Administration
WHO	World Health Organization
US 93	U.S. Highway 93
µT	Microteslas

INTRODUCTION

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, the Project Applicant, respectfully submits this Application for a Certificate of Environmental Compatibility (CEC) for the purposes of constructing, operating, and maintaining the Golden Valley 230 Kilovolt (kV) Transmission Line Project (Project). The Project will consist of a new 230 kV transmission line of approximately 17 miles in length located in Mohave County within and near Kingman and Golden Valley, Arizona.

Project Purpose and Need

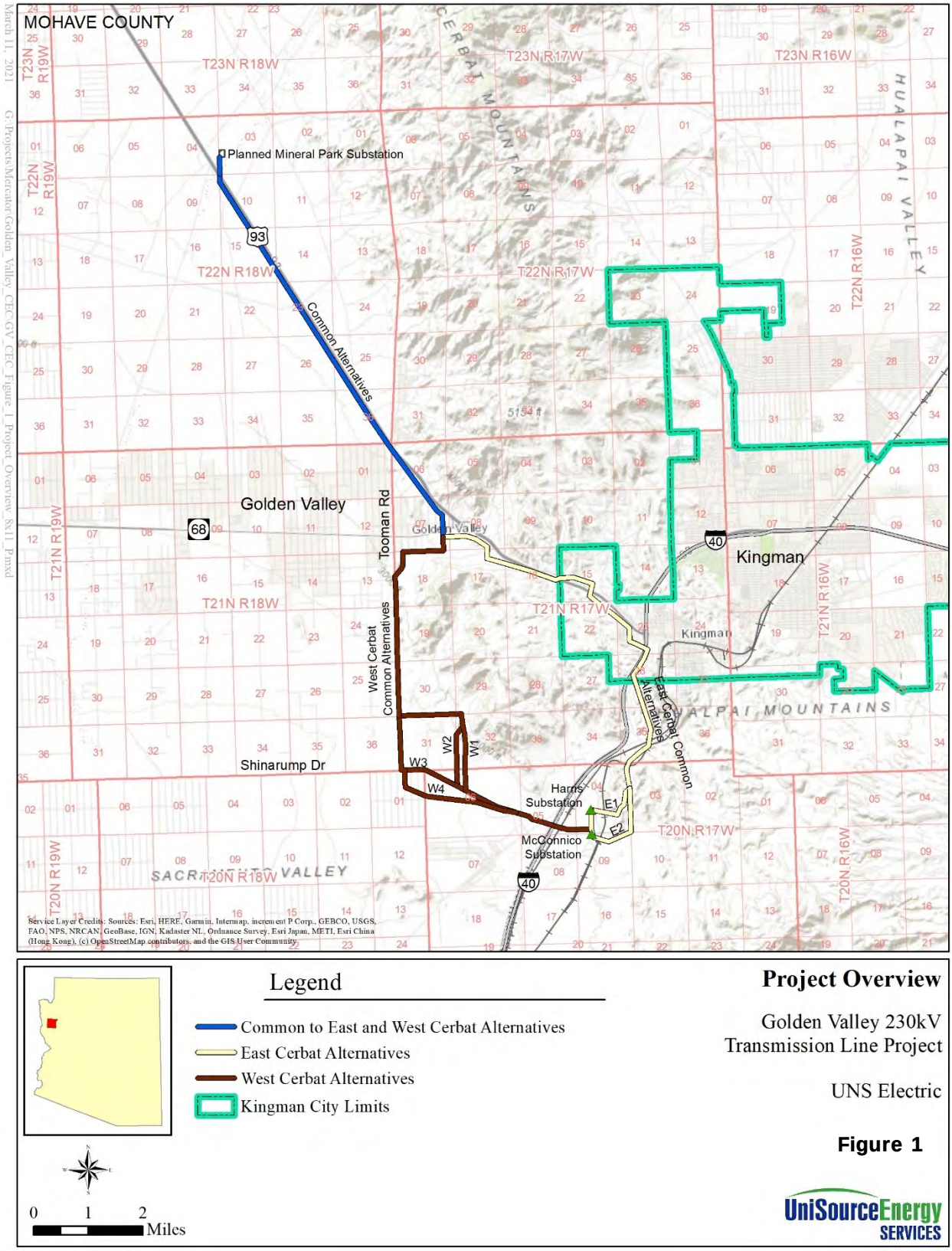
The Project will ensure system stability, improving service reliability by replacing aging equipment and providing greater electric capacity to accommodate a projected increase in peak energy demand over the next decade in the north Golden Valley and surrounding areas. The existing 69 kV transmission system is not equipped to serve future energy demands in the northern area of UNSE's service territory in Mohave County. New infrastructure is required to continue providing safe, reliable electric service in the area.

The Project will provide a higher-voltage transmission system for the area, which will ensure system stability, improve reliability, enable and enhance UNSE's ability to respond to future energy demands, and provide additional support to the existing 69 kV system currently serving the area.

Project Overview

The Project will consist of building a new 230 kV double-circuit capable transmission line. The transmission line will total approximately 17 to 18 miles in length, depending upon the alternative approved. All portions of the transmission line will be designed to accommodate double-circuit 230 kV transmission; however, portions will be constructed as either single-circuit 230 kV transmission, double-circuit 230 kV transmission, or double-circuit 230/69 kV transmission. In the areas where the structures are constructed as double-circuit 230/69 kV transmission, the existing 69 kV line will be removed or topped to allow for existing distribution and/or communication facilities to remain in place.

UNSE, in conjunction with the Bureau of Land Management (BLM), has considered six alternative routes for this Project. These routes were studied through the federal permitting process conducted by the BLM discussed in greater detail below. Two of these routes are identified as the East Cerbat alternatives (E1 and E2) and the other four as the West Cerbat alternatives (W1, W2, W3, and W4). UNSE's preferred route aligns with the BLM's preferred route for the Project. The preferred route is E1 East Cerbat Alternative. **Figure 1** and **Figure 2** provide a Project overview and depict the Project alternatives.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West Cerbat Alternatives
Kingman City Limits
0 1 2 Miles
Project Overview
Golden Valley 230kV Transmission Line Project
UNS Electric
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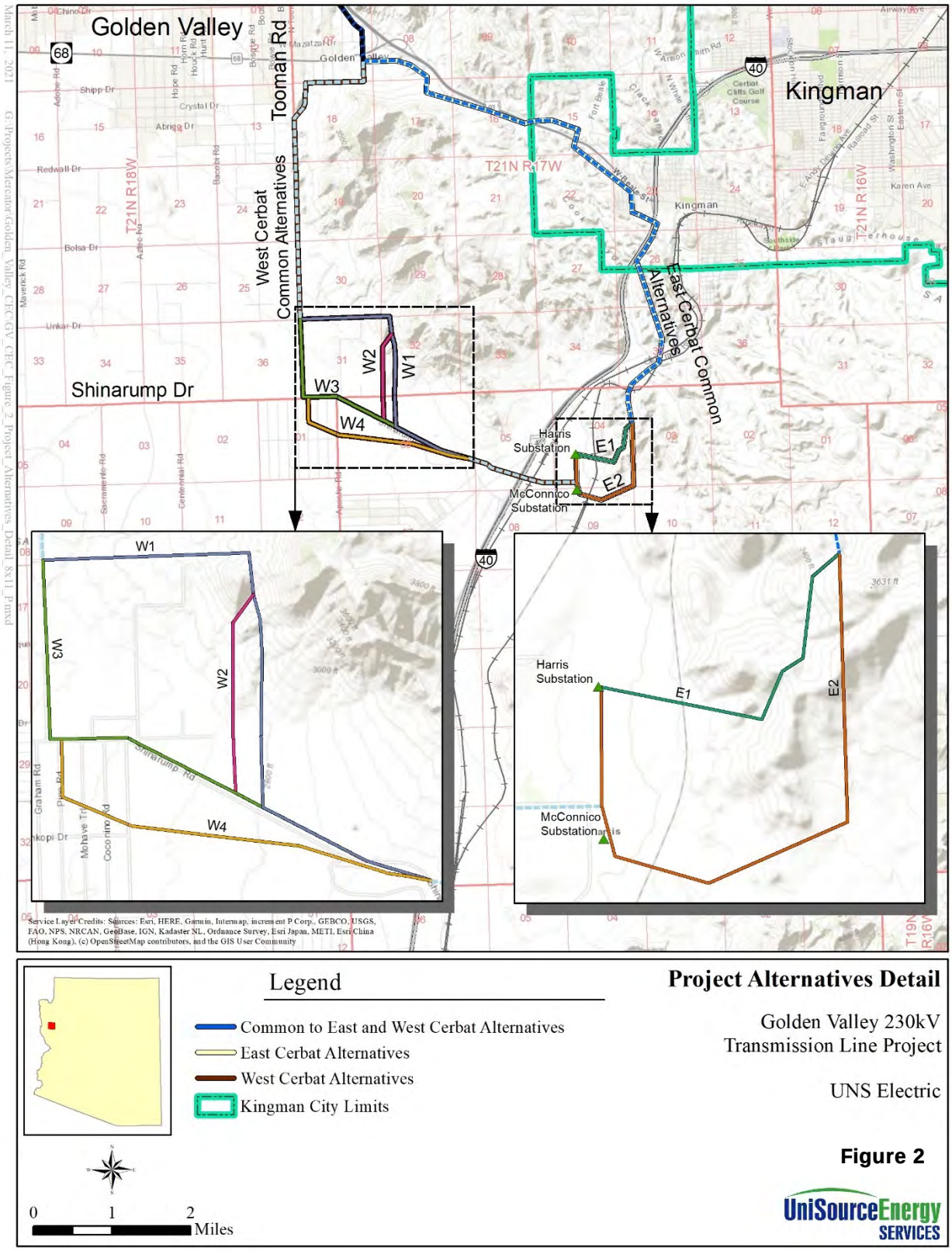
UniSourceEnergy SERVICES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On the southern end of the proposed transmission line, all six alternatives originate at either the existing Harris or McConnico substations approximately 3 miles southwest of Kingman. Either interconnection point will require the expansion of the existing substation to allow for the interconnection of the planned 230 kV transmission line. UNSE has initiated talks with the owner of the Harris 230 kV Substation to purchase a portion of land and interconnect into the existing Harris Substation. However, if those talks are unsuccessful, UNSE will interconnect into the existing Western Area Power Administration's (WAPA) McConnico 230 kV Substation. On the northern end of the proposed transmission line, all six alternatives terminate just south of Mineral Park Road at the planned Mineral Park 230/69 kV Substation located approximately 10 miles northwest of Kingman.

The Project will cross private land and public lands administered by the Arizona State Land Department (ASLD) and BLM. The East Cerbat alternatives also will cross land owned by the City of Kingman. The Project will cross existing interstate, state, county, and local road rights-of-way (ROWs) as well as the Burlington Northern and Santa Fe (BNSF) Railroad ROWs.

Route Selection Process and Environmental Studies Overview

The history of the Project dates back to 2006 in response to a service request from the Mineral Park Mine. UNSE coordinated with Transcon Environmental (Transcon) who was under contract to the Mineral Park Mine to assist UNSE in the development of a 230 kV transmission line project including evaluation of relevant land use and environmental issues associated with the proposed Project. The route siting evaluation process began in 2007 with the identification of a preliminary study area and progressed with early public outreach and the analysis of opportunities and constraints for the early evaluation of route alternatives for the transmission line and related facilities. The focus of this early opportunity and constraint analysis was to identify opportunities for minimizing the impact of the Project by paralleling or using existing transmission line corridors or other linear features; the avoiding of sensitive areas where locating the Project could have especially high impacts on land use; and the potential impacts to biological, cultural, and/or visual resources. Next, UNSE identified preliminary segments that could be combined into routes for the Project. UNSE examined in greater detail the overall impact the Project would have on these resources. This research included field visits, review of relevant land use planning documents, and environmental analyses.

All proposed corridor alignments were carefully selected for the proposed facilities following an analysis of relevant environmental and land use factors; ability to utilize existing corridors, engineering, construction, and ROW considerations; and extensive input from political leaders, agency staff, and members of the public.

At the beginning of the route siting and environmental analysis process, UNSE established three objectives: 1) provide robust notice to the public and interested parties, 2) gather as much information as possible on impacts and preferences, and 3) apply the information gathered in a reasonable and systematic manner.

This approach enabled UNSE to consider a broad range of alternative transmission line locations at the beginning of the process. The company's analysis focused on environmental and land use impacts, public and stakeholder comments, and construction feasibility prior to UNSE identifying final alternative

transmission line routes. The result of this process was the identification of one preferred route and five alternative routes that minimized public and agency concerns and environmental impact as compared to the other potential routes, while still meeting UNSE's system requirements, constructability, and cost considerations.

Professional and technical studies to evaluate the compatibility of the Project were performed by qualified environmental planners, biologists, land use planners, archaeologists, engineers, and other relevant specialists to examine existing conditions, and to the extent possible, future conditions. During each step of the transmission line siting process, UNSE sought input from elected officials, municipal and county planners, landowners, and the public. The Project team worked diligently to provide opportunities for members of the public to participate throughout each phase of the process (detailed in **Exhibit J**). The public outreach activities included:

- Public open house meetings to discuss the Project and solicit input
- Project information telephone line, responding to telephone calls
- Project website which included figures, schedules, and general project information
- Project email address for the public to provide comments electronically
- Meetings with individual and special interest group stakeholders
- Press releases and meeting announcements in local newspapers
- Project factsheets

The siting study and public involvement process consisted of two Project phases, identified and described as Phase 1 and Phase 2 below.

Phase I (2006 to 2008)

The first phase of the project in 2007 and 2008 involved the initial route siting and development of potential transmission line corridors and the identification of route alternatives. In conjunction with the initial route siting activities, the 2006 service request from the mine initiated the federal permitting process under the NEPA with the BLM as the lead agency.

In August 2007, UNSE and Transcon initiated outreach activities to relevant stakeholders by introducing the Project via the mailing of a factsheet and through a public meeting. The first factsheet was sent to residents, property owners, businesses, agencies, Tribes, and special interest groups. The factsheet provided information about the proposed Project, outlined a general study area, and announced a public meeting to identify public concerns prior to initiating transmission line siting activities.

That same month, a public meeting was held in Golden Valley, and attendees were asked specifically for input regarding the potential transmission line corridors. During this period, UNSE and Transcon were gathering data and pertinent information from agencies and stakeholders to determine environmental, engineering, and land use sensitivities for internally and externally identified route segments.

During the initial public meeting and through comments received during the comment period, local landowners and other members of the public expressed a preference to locate the line, to the extent possible,

on BLM-managed land and to use areas that already have existing lines. The BLM eliminated some areas from consideration across the Cerbat Foothills and urged the use of existing utility corridors.

After review of potential environmental impacts and issues expressed by the public, UNSE and Transcon identified two routes for detailed analysis. Both routes utilized an existing WAPA transmission line corridor west of the Harris and McConnico substations and then diverged from the WAPA line to the north at the intersection of Tooman Road and Collins Drive. The two routes included an eastern route (referred to as Alternative A at that time) and a western route (referred to as Alternative B at that time), both of which utilized the BLM land on the BLM/Golden Valley border and then rejoined to a single route along U.S. Highway 93 (US 93) where the existing UNSE 69 kV transmission line would be rebuilt to allow for the new 230 kV circuit.

In January 2008, a second Project factsheet was sent to area landowners, agencies, organizations, business owners, and residents. This factsheet provided an update on the process for selecting a new transmission line alignment, identified two alternative routes, described the next steps in the approval process, provided a status report on the permitting process, and announced a public meeting where people would have an opportunity to meet with the Project team, review the Project, and provide comments. The second public meeting was held in February 2008. Comments received during the public scoping meeting and written comments received during the public comment period overwhelmingly expressed concern over impacts to private landowners and opposition to Alternative B (an alternative generally extending north-south along the Bacobi Road alignment on private land in Golden Valley).

Due to the landowner concerns over potential impacts to private property and the BLM's desire to utilize existing utility corridors, the siting process was recalibrated and opened back up to consideration of other routes. In April 2008, a third Project factsheet was prepared and delivered to over 5,000 residents, property owners, businesses, agencies, Tribes, and special interest groups. This third factsheet provided an update on the evaluation process for selecting a new transmission line alignment, provided a map of the Project "siting area" without specific corridors, and announced a series of three public open houses that would allow members of the public to discuss the siting process, suggest or offer alternative routes for consideration, and comment on previously identified alternatives.

Three public open house meetings were held in Golden Valley in May 2008, and a total of over 100 people attended these meetings. Comments received at the meeting and during the public scoping comment period again indicated concerns for transmission line alternatives that crossed private land and those crossing near existing residences. The public also expressed preferences for using corridors across public lands and following or replacing existing electric transmission lines. Following public meetings held in May, research and analysis were performed on the various alternatives recommended by the public. Individual discussions were held with stakeholders, including private property owners; representatives from Mohave County, the City of Kingman, BLM, and Arizona Department of Transportation (ADOT); trail users of the Cerbat Foothills Recreation Area; City of Kingman and county elected officials; and representatives from Golden Valley (e.g., Golden Valley Public Awareness Team). As a result of discussions and analysis, alternative routes were identified for detailed examination in the BLM Environmental Assessment (EA).

A fourth Fact Sheet was prepared and mailed to over 5,000 landowners, agencies, organizations, business owners, and residents in November 2008. This Fact Sheet provided an update on the route evaluation process and provided a map depicting the final alternative routes under consideration in the BLM EA.

An Administrative Draft EA was prepared in December 2008. This EA examined four alternatives identified as the E1 and E2 East Cerbat alternatives and the W1 and W2 West Cerbat alternatives. The Administrative Draft EA was being reviewed by the BLM when the federal permitting process ceased because talks between the mine and UNSE began to slow, and work on the Project eventually halted.

Phase II (2016 to 2021)

In 2015, UNSE conducted load saturation studies that again validated the need for a 230 kV transmission line from the Harris Substation, with a new substation in northern Golden Valley to improve reliability, replace aged equipment, and accommodate a projected increase in energy demand over the next decade in the north Golden Valley and surrounding areas. Upon completion of this study, UNSE reached out to the BLM with a request that they proceed with the federal permitting process, including the completion of an EA, for the Project.

As the Project siting and environmental studies were resumed in 2016, the alternatives developed in the first phase of the Project were reviewed. This review included:

- Revaluating the routing study performed in previous phase
- Revaluating the Project Purpose and Need to understand if the alternatives still met the purpose and need or if other alternatives not previously considered would meet it; this included confirming the Project study area had not changed from Phase I
- Initiating public outreach activities
- Gathering data from stakeholders and other sources for analysis

A Project factsheet (Factsheet #5) was prepared and sent to over 2,700 landowners, agencies, organizations, business owners, and residents in June 2016. The factsheet reintroduced the Project by providing a Project description and a statement of need, summarized the previous siting study, and announced two public open house meetings.

In late June 2016, two public meetings were held, one in Golden Valley and one in Kingman. The four previously identified alternatives were presented to the public. The public were encouraged to submit comments. Comments were gathered and reviewed by the BLM and Transcon. The alternatives were reevaluated in light of public comment. There were several comments expressing concerns to private property value and viewsheds along the West Cerbat alternatives. After considering these comments, two new alternatives were identified through the southern Golden Valley region. These new alternatives were titled the W3 and W4 West Cerbat alternatives. These alternatives were sited to follow existing infrastructure and avoid running along the southern boundary of the Cerbat Foothills Recreation Area (CFRA). The W3 alternative generally extended along Shinarump Road, and the W4 alternative followed the existing WAPA Davis-Prescott transmission line.

Six Project alternatives were carried forward into the NEPA analysis performed by the BLM. The E1 and E2 East Cerbat alternatives and the W1, W2, W3, and W4 West Cerbat alternatives. NEPA analysis was performed to determine environmental and land use sensitivities for each alternative segment. Engineering constraints such as access road construction in steep terrain and ability to group infrastructure when newly proposed transmission line alignments ran parallel to existing UNSE infrastructure were also considered. Throughout the NEPA analysis, modifications/refinements were made to alternatives to minimize Project-related impacts.

For the East Cerbat alternatives, along a portion of the alignment shared by both East Cerbat alternatives, two route modifications were made. The first was to modify a short segment of alignment where it was proposed to cut across a tract of privately owned land west of the junction of Interstate 40 (I-40) and US 93. This land is undeveloped but has been subdivided into lots. As originally designed, the transmission line would bisect some of the lots. The alignment was modified so it would run along the eastern and northern edges of this private land where it would not bisect the lots. A second modification was made where a portion of the alignment shared by both East Cerbat alternatives crosses I-40. UNSE identified this change in order to group the newly proposed Golden Valley 230 kV transmission line crossing with an existing UNSE 69 kV crossing of I-40. This shifted the crossing of I-40 approximately 0.5 mile north of where it was originally proposed to cross I-40.

Three other East Cerbat Alternative route modifications were considered but were eliminated from further review. Two East Cerbat routes were analyzed to minimize impacts to an individual private property owner of the land between I-40 and Historic Route 66 (US 66). One of these route modifications followed an existing UNSE electric line through the landowner's residential property, and the other followed I-40 within the I-40 ADOT ROW. The first route was eliminated after meeting with the private property owner because it was determined that it would not reduce impacts to the land and it also had engineering constraints. Building the transmission line within the ADOT ROW was eliminated because ADOT has a policy regarding accommodating utilities on highway ROWs, stating new utilities will not be permitted to be installed longitudinally within the access controlled corridor. The third East Cerbat Alternative modification that was reviewed but eliminated after further consideration was a straightening of the alignment along US 93 near Coyote Pass and within the CFRA. This option was identified by UNSE engineers in an effort to straighten the transmission line and eliminate several turning structures and crossings of US 93. This alignment was discussed with the City of Kingman, who owns the majority of the land affected by this alignment. This route modification was eliminated because it would result in placing new poles for the 230 kV, in addition to the existing UNSE 69 kV transmission line poles, which would result in more visual disturbance to the area.

One modification was made along the West Cerbat alternatives. During NEPA analysis, a public safety issue was identified because the W4 alternative alignment extended over a residence near Moenkopi and Pine roads. As a result, UNSE moved the alignment north so that it is safely distant from the residence.

Factsheet #6 was sent to over 3,000 landowners, agencies, organizations, business owners, and residents in March 2017. The factsheet provided a Project update, summarized the public comments from the June 2016 open house meetings, provided some alternatives comparison information, and included an estimated

Project timeline. Maps included with Factsheet #6 clearly depicted each of the E1, E2, W1, W2, W3, and W4 alternatives being analyzed in the BLM EA.

Another factsheet (Factsheet #7) was prepared and posted to the UNSE website in June 2019. This factsheet provided an update on Project activities and focused on a modification to the East Cerbat alternatives in the vicinity of the I-40 and US 93 intersection so that the East Cerbat alternative alignments would cross I-40 at the same location as an existing UNSE-owned 69 kV transmission line, minimizing visual impacts and keeping transmission lines within a common corridor. As a result of this modification, environmental analyses were conducted for this area and the EA was updated.

Factsheet #8 was prepared and posted to the UNSE website in July 2020. The purpose of this factsheet was to update residents, landowners, agencies, organizations, and business owners in the area on the progress of the EA and provided a map of the six alternatives being analyzed in the EA.

Following data collection and assessment of potential environmental impacts, a comparison of the six alternatives was conducted. NEPA analysis of alternatives involved identifying and comparing the environmental impacts of each alternative. This analysis was summarized in the Golden Valley 230 kV Transmission Line Project Draft EA (**Exhibit B**). The EA identified Alternative E1 as the environmentally preferred alternative for the following reasons: both East Cerbat alternatives would be within designated utility corridors, would follow or be proximate to existing linear infrastructure more than the West Cerbat alternatives, would be proximate to less residential properties, and would have less impacts to the CFRA.

The public was notified of the opportunity to comment on the Draft EA via a postcard mailing to over 3,200 persons/entities on the mailing list in August 2020. Comments received by the BLM relative to the Draft EA were collected by Transcon and the BLM and were organized, categorized, and reviewed to determine if any new issues not previously considered during the NEPA analysis were identified. The Finding of No Significant Impact (FONSI) and Decision Record are expected to be finalized following the CEC hearings.

UNSE conducted additional outreach specific to the CEC Application via newsletter mailing, virtual public meeting, and outreach to elected officials and stakeholders. Comments about the Project were also invited and continue to be accepted. A newsletter was mailed on January 22, 2021 to over 3,200 persons/entities on the mailing list. The newsletter provided an update about the Project regarding future required approvals and anticipated filings and hearings for the CEC, invited attendance at the planned virtual public meeting via a Zoom link, and invited comments about the Project. A virtual public meeting was held on February 9, 2021 via a Zoom link posted on the Project website. Presentation materials and the attendance list are included in **Exhibit J**. The purpose of the meeting was to present the Project, provide updates with respect to anticipated CEC filings and hearings, answer questions, and inform the public how to provide comments. Attendees were able to ask UNSE and Transcon representatives questions during the live meeting session.

In conjunction with the completion of the federal EA, UNSE is moving forward with the state siting process for the Project as required by the Arizona Power Plant and Line Siting Statute. This Application for a CEC brings forward all six of the alternative routes analyzed in the EA as the East Cerbat Alternatives (E1 and E2) and the West Cerbat Alternatives (W1, W2, W3, and W4) while adopting the same E1 route as the UNSE's Preferred Route.

Need and Compatibility

This Application balances all relevant matters in the broad public interest, including the need for an adequate, economical, and reliable supply of electric power with the desire to minimize impacts on the environment and ecology of the State of Arizona. The Project will greatly enhance the reliability of UNSE's electric grid.

The Project will result in no adverse impacts to factors to be considered by the Arizona Power Plant and Transmission Line Siting Committee pursuant to Arizona Revised Statute (A.R.S.) §§ 40-360.06 and 40-360.13, including but not limited to existing land use plans; fish, wildlife, and plant life; areas unique in biological wealth; scenic areas; historic and archaeological sites and structures; and the total environment of the area.

Requested Action

UNSE requests that the Arizona Power Plant and Transmission Line Siting Committee grant approval of a CEC authorizing the construction of an approximately 17-mile-long 230 kV transmission line with a corridor ranging in width from 150 to 500 feet, known as the Golden Valley 230 kV Transmission Line Project, following the E1 East Cerbat Alternative route as described in this Application.

The Applicant believes it is beneficial to the State of Arizona to issue a CEC for the following reasons:

- The Project is needed to ensure system reliability for the conditions studied
- The selected E1 East Cerbat Preferred Alternative is located entirely within a designated utility corridor
- The Project will provide a higher voltage class, allowing for more reliable energy delivery within UNSE's service territory
- The Project will assist UNSE in accommodating future electric service requests within the Golden Valley area
- The Project provides for future opportunity for accommodating future interconnection requests
- The Project will not result in any significant environmental impacts as outlined in A.R.S. §§ 40-360.06 and 40-360.13

Wherefore, UNSE submits that the Golden Valley 230 kV Transmission Line Project and its location are environmentally compatible and requests that the Committee grant this Application and that the Arizona Corporation Commission issue an order approving the CEC.

APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

(Pursuant to A.R.S. §§ 40-360.03 and 40-360.06)

Project Information

Name and address of Applicant:

UNS Electric, Inc.
88 East Broadway Boulevard, Tucson, Arizona 85701
P.O. Box 711, Tucson, Arizona 85702

Name, address, and telephone number of a representative of Applicant who has access to technical knowledge and background information concerning this application and who will be available to answer questions or furnish additional information:

Eric S. Raatz
Manager, Operations Planning
UNS Electric, Inc.
88 East Broadway Boulevard, Tucson, Arizona 85701
P.O. Box 711, Tucson, Arizona 85702
Phone: 520-745-3196

Dates on which Applicant filed a Ten-year Plan in compliance with A.R.S. § 40-360.02 and designate each such filing in which the facilities for which this application is made were described. If they have not been previously described in a Ten-year Plan, state the reasons therefore:

The Golden Valley 230 kV Transmission Line Project (Golden Valley) was first identified in the 2007 Ten-Year Plan (TYP) filing and has been included in each subsequent filing (**Table 1**).

TABLE 1
TEN-YEAR PLAN FILING

Filing Year	TYP Date	Docket Number	Project Name	Point of Origin	Point of Termination
Jan 2020	2020–2029	E-00000D-19-0007	GV 230 kV Transmission Line	Harris	Mineral Park
Jan 2019	2019–2028	E-00000D-19-0007	GV 230 kV Transmission Line	Harris	Mineral Park
Jan 2018	2018–2027	E-00000D-17-0001	GV 230 kV Transmission Line	Harris	Mineral Park
Jan 2017	2017–2026	E-00000D-17-0001	GV 230 kV Transmission Line	Harris	Mineral Park
Jan 2016	2016–2025	E-00000D-15-0001	GV 230 kV Transmission Line	McConnico	Mineral Park
Jan 2015	2015–2024	E-00000D-15-0001	230 kV Mineral Park Transmission Line	McConnico or Griffith	Mineral Park
Jan 2014	2014–2023	E-00000D-13-0002	Not included in TYP	N/A	N/A
Jan 2013	2013–2022	E-00000D-13-0002	Not included in TYP	N/A	N/A

TABLE 1 TEN-YEAR PLAN FILING					
Filing Year	**TYP Date**	**Docket Number**	**Project Name**	**Point of Origin**	**Point of Termination**
Jan 2012	2012–2021	E-00000D-11-0017	Golden Valley, between McConnico/Harris and Mineral Park Substations	N/A	N/A
Jan 2011	2011–2020	E-00000D- 1 1-00 17	Golden Valley, McConnico / Harris to Mineral Park Substation (previously Mercator Mill Substation) Transmission	McConnico or Harris Substation	Mineral Park Substation (previously)
Jan 2010	2010–2019	E-00000D-09-0020	Golden Valley, McConnico / Harris to Mineral Park Substation (previously Mercator Mill Substation) Transmission	McConnico or Harris Substation	Mineral Park Substation (previously)
Jan 2009	2009–2018	E-00000D-09-0020	Golden Valley, McConnico / Harris to Mineral Park Substation (previously Mercator Mill Substation) Transmission	McConnico or Harris Substation	Mineral Park Substation (previously Mercator Mill Substation)
Jan 2008	2008–2016	E-00000D-05-0040	Golden Valley, McConnico to Mercator Mill Substation Transmission	McConnico Substation	Mercator Mill Substation

Description of the Proposed Facility

a. *With respect to an electric generating plant:*

Not applicable.

b. *With respect to a proposed transmission line:*

i. Nominal voltage for which the line is designed; description of the proposed structures and switchyards or substations associated therewith; and purpose for constructing said transmission line:

- Nominal Voltage for the Transmission Line Design

  For all routes, the portion of the Project that runs parallel to the existing US 93 will be designed for two nominal voltages, 69 kV and 230 kV. The nominal voltage of the remaining portions of the Project will be 230 kV.

- Description of the Proposed Structures

  The transmission line structures will be designed to accommodate up to two circuits of 230 kV transmission. However, they will be constructed with only one circuit of 230 kV unless specified otherwise. The structures will be tubular, self-weathering, steel monopole structures, and the conductor will have a non-specular finish to reduce visibility. The structures may have two static wires and will typically be 85 to 115 feet aboveground. Taller structures may be required for site-specific clearance issues. The average span length between structures will be approximately 700 feet.

- Description of Associated Substations

  The Project will originate at either the expanded Harris 230 kV Substation or the existing WAPA-owned McConnico 230 kV Substation and will terminate at the planned Mineral Park 230/69 kV Substation. Both substations at the origination point will require expansion to accommodate the interconnection of the Project. UNSE is in discussions with Nucor for the possible purchase of land and interconnection into the existing Harris Substation; however, if these talks fail, UNSE will interconnect into the existing McConnico Substation. The McConnico Substation is located approximately 0.4 mile directly south of the existing Harris Substation. Expansion of the Harris Substation will require an Industrial Use Permit.

  The planned Mineral Park 230/69 kV Substation will be located on federal land administered by the BLM. The Mineral Park Substation will require a 10-acre parcel of land: 7 acres for the proposed substation development and 3 acres to accommodate future development. The planned substation will require a rezoning application to be filed with Mohave County as well as an Industrial Use Permit.

  See **Exhibits G-1** through **G-4** for typical structures. See **Exhibits G-5 through G-30** for visual simulations of the transmission line.

- Purpose for Constructing Transmission Line

  The purpose for constructing the transmission line is to improve reliability, replace aged equipment, and provide greater electric capacity to accommodate a projected increase in peak energy demand over the next decade in the area. The existing electrical infrastructure does not provide sufficient support to serve future load growth.

ii. *Description of geographic points between which the transmission line will run, the straight-line distance between such points and the length of the transmission line for each alternate route for which the application is made:*

- Description of Geographic Points

  The Applicant, in conjunction with the BLM, has considered six alternatives for this Project. These are identified as the East Cerbat alternatives (E1 and E2) and the West Cerbat alternatives (W1, W2, W3, and W4). All alternatives originate at the Harris Substation (or the McConnico Substation, located approximately 0.4 mile directly south of the Harris Substation), which is located approximately 3 miles southwest of Kingman adjacent to the Nucor Steel Plant, and all alternatives terminate just south of Mineral Park Road at the proposed Mineral Park Substation, located approximately 10 miles northwest of Kingman. The straight-line distance between the existing Harris (or McConnico) Substation and the planned Mineral Park Substation is approximately 13.8 miles. The distance of the transmission line for each alternative route is shown in **Table 2** below. Each alignment is described in *Section v.* below. It should be noted that if the McConnico Substation is the point of interconnection, the E1 Alternative is lengthened by approximately 0.4 mile and all other routes are decreased by the same amount.

TABLE 2
ALTERNATIVE DISTANCES

Alternative	Distance (Miles)
E1 (**preferred**)	16.9
E2	17.9
W1	17.6
W2	17.7
W3	17.4
W4	17.5

iii. Nominal width of right-of-way required, nominal length of spans, maximum height of supporting structures and minimum height of conductor above ground:

- Nominal Width of Right-of-Way

  In areas not covered by existing ROW, the Applicant plans to acquire up to a 125-foot-wide ROW.

- Nominal Length of Span

  The nominal length of span is approximately 700 to 900 feet.

- Maximum Height of Supporting Structures

  Maximum height of any structure is 195 feet, with supporting structures typically ranging from 85 feet to 115 feet for the transmission lines.

- Minimum Height of Conductor

  The minimum height of the 230 kV transmission line conductor above existing grade will be 24 feet.

iv. To the extent available, the estimated costs of the proposed transmission line and route, stated separately. (If application contains alternative routes, furnish an estimate for each route and a brief description of the reasons for any variations in estimates.):

- Estimates for the routes are shown in **Table 3**. Variations in cost depend upon length of construction and quantity of materials required as well as mitigation of existing conflicts and acquisition of land rights. The total Project cost is anticipated to range between $23.19 to $26.97 million, depending on which alternative is selected. Note that the construction and materials costs shown include (as required) the wreck out of existing transmission and distribution lines, relocation of existing distribution to underground, and construction of new transmission.

TABLE 3
ESTIMATED COSTS BY ALTERNATIVE*

Alternative	Construction & Materials	Land Acquisition ($ Million)	Total Cost ($ Million)
E1 (**preferred**)	$25,277,000	$1,169,160	$26,446160
E2	$25,706,000	$1,268,790	$26,974,790
W1	$22,460,000	$1,085,340	$23,545,340
W2	$22,690,000	$1,085,445	$23,775,445
W3	$21,906,000	$1,280,505	$23,186,505
W4	$22,800,000	$1,082,190	$23,882,190

v. Description of proposed route and switchyard locations. (If application contains alternative routes, list routes in order of applicant's preference with a summary of reasons for such order of preference and any changes such alternative routes would require in the plans reflected in (i) through (iv) hereof):

- Description of Proposed Routes

  The six alternatives are split into two groups based on their respective positions in relation to the CFRA. The East Cerbat alternatives (E1 and E2) are generally in the eastern portion of the CFRA, and the West Cerbat alternatives (W1, W2, W3, and W4) run along the west side of the CFRA.

- *East Cerbat Alternatives*

  Both East Cerbat alternatives will originate at either the existing Harris or the McConnico Substation and follow US 93 through the CFRA. Depending on which

alternative is followed, the two East Cerbat alternatives share a common alignment.

- E1 East Cerbat (**Preferred**)

  The E1 East Cerbat Alternative is the shortest of all 6 alternatives, totaling 16.9 (17.4 if originating from McConnico) miles in length. It will cross the least amount of BLM-administered land. It would extend east from the Harris (north then east from the McConnico) Substation to the base of mountainous terrain, where it will turn and generally follow a northerly route through the terrain. The route will cross the BNSF Railroad as well as US 66 and then extend over the mesa between US 66 and I-40. It will then cross I-40 and head north towards US 93, where it will turn northwest and extend along US 93. The alignment will cross and run along the northeast side of US 93 for a short distance before crossing back over and running along US 93 toward the ADOT Port of Entry. The alignment will turn west for a short distance, continuing along the alignment of an existing 69 kV transmission line and extending away from US 93, before turning north at Kofa Road and remaining along the alignment of the existing 69 kV transmission line. From the point of interconnection up to this point, the structures will be designed as double-circuit capable; however, they will be constructed as single-circuit structures. From this point to the planned Mineral Park Substation, the transmission line will be constructed as double circuit, with one circuit energized at 230 kV and the other energized at 69 kV. The existing 69 kV structures will either be removed or topped to accommodate existing infrastructure. Shortly after crossing State Route 68 (SR-68), the alignment will run parallel to US 93 again, following the alignment of the existing 69 kV transmission line, and continue along US 93 to a point just south of Mineral Park Road. At this point, it will turn north, cross US 93, and terminate at the planned Mineral Park Substation.

- E2 East Cerbat (Alternative)

  The E2 East Cerbat Alternative is the longest alternative, at 17.9 (17.5 if originating from McConnico Substation) miles. The location of the E2 East Cerbat Alternative is nearly identical to the E1 East Cerbat Alternative, with the exception of approximately the first 2 miles of the alignment. If the Harris Substation is the point of interconnection, the E2 East Cerbat Alternative extends south when it exits the Harris Substation. If this route is approved and point of interconnection selected, the transmission structures for this portion of the Project between the existing Harris and McConnico substations may be constructed as double-circuit 230 kV for approximately 0.4 mile. From the McConnico Substation, the structures will be designed as double-circuit capable but will be constructed as single circuit only unless specified otherwise. The route then continues east around the base of the mountains

following an existing WAPA 230 kV transmission corridor for approximately 0.5 mile. On the east side of the mountains, the route turns north and continues into the same mountainous terrain discussed for the E1 East Cerbat Alternative. Just south of the second crossing of the BNSF Railroad, the E2 East Cerbat Alternative would follow the same alignment as described for the E1 East Cerbat Alternative. From the point where the alignment runs along US 93 towards the ADOT Port of Entry, following the existing 69 kV alignment, the structures will be constructed as double circuit for the remainder of the alignment to the point of termination at the planned Mineral Park Substation.

- *West Cerbat Alternatives*

  There are four West Cerbat alternatives, all of which would continue westerly from the origination point at either the Harris or McConnico Substation and generally follow Shinarump and Kirkland roads before turning north and following the boundary of the CFRA. The primary distinguishing feature of the four alternatives is the differing routes and land type traversed near the southwestern boundary of the CFRA. In this area, the W1 and W2 West Cerbat alternatives would be built on BLM-administered land, whereas the W3 and W4 alternatives would be built on a combination of BLM and private land. The first approximate 2 miles and the last approximate 12 miles would be the same for all four of the West Cerbat alternatives.

  - W1 West Cerbat (Alternative)

    The W1 West Cerbat Alternative would span the least amount of private land. If the Harris Substation is the point of interconnection, the W1 West Cerbat Alternative extends south when it exits the Harris Substation. If this route is approved and point of interconnection selected, the transmission structures for this portion of the Project between the existing Harris and McConnico substation may be constructed as double-circuit 230 kV for approximately 0.4 mile. From the McConnico Substation, the structures will be designed as double-circuit capable but will be constructed as single circuit only unless specified otherwise. This alternative would extend north from Shinarump Road across BLM-administered land and would then enter the CFRA. The transmission line would follow the southern and western boundaries of the CFRA through Golden Valley. Just south of SR-68, the transmission line would turn east and follow the northern boundary of the CFRA for a short distance before turning north to extend along Kofa Road, where it would be within the existing alignment of a 69 kV transmission line. From this point, the structures would be constructed as double-circuit structures with the existing 69 kV transmission line either being removed or topped to accommodate existing infrastructure. The alignment follows the same route as described for the E1 and E2 East Cerbat alternatives to the point of termination at the planned Mineral Park Substation.

- W2 West Cerbat (Alternative)

  The W2 West Cerbat Alternative is nearly identical to the W1 Alternative but for a 1.3-mile segment which would be constructed along the edge of the CFRA (i.e., on the border but inside the CFRA), whereas the W1 West Cerbat Alternative in this area would be built approximately 800 feet inside the CFRA. The W1 West Cerbat Alternative was designed to be deeper into the CFRA to minimize the effects to residences located close to the boundary. This alternative would cross the most BLM-administered land and one of the least amounts of private land.

- W3 West Cerbat (Alternative)

  The W3 West Cerbat Alternative varies from the W1 and W2 West Cerbat alternatives because it would be built along Shinarump Road for an additional 1 mile, extending across more privately owned land. It would turn north from Shinarump Road at Tooman Road and continue north on private land for 1 mile before reaching the western boundary of the CFRA. At this point, all West Cerbat Foothill alternatives would follow the same route to the Mineral Park Substation.

- W4 West Cerbat (Alternative)

  The W4 West Cerbat Alternative would cross the most private land. The W4 West Cerbat Alternative would differ from the other three West Cerbat alternatives in that it has an approximate 2.5-mile segment that would be built south of Shinarump Road along the north side of the WAPA Davis to Prescott 230 kV Transmission Line. It would follow the Davis to Prescott line for 1.5 miles; the other approximately 1-mile segment would follow residential roads. At one of the residential roads, Pine Road, it would turn north, extending across Shinarump Road and following the same route along Tooman Road as described for the W3 West Cerbat Alternative.

- Reasons the East Cerbat 1 Alternative is Preferred

  UNSE selected the E1 Alternative as its preferred alternative over the five other alternatives based on the following factors:

- The E1 Alternative is the shortest alternative
- Per the BLM Resource Management Plan (RMP), the alignment is entirely within designated utility corridors
- The E1 Alternative has the greatest percentage of existing UNSE transmission line easement on private land
- The E1 Alternative is located in proximity to existing utility lines more than the West Cerbat alternatives
- The East Cerbat alternatives will have fewer impacts to the CFRA
- Fewer residences will be directly affected by a *new* transmission line corridor along the East Cerbat alternatives
- The East Cerbat alternatives will require the least amount of new and improved access roads
- The E1 Alternative provides for more opportunity for co-locating 230/69kV transmission on same structure

vi. For each alternative route for which the application is made, list the ownership percentages of land traversed by the entire route (federal, state, Indian, private, etc.):/

The ownership percentages of land traversed by alternative route are provided in **Table 4**.

TABLE 4
LAND OWNERSHIP BY PROJECT ALTERNATIVE (PERCENTAGE)*

Action Alternatives	Land Jurisdiction		
	Private	BLM	ASLD
East Cerbat Alternatives			
E1	65.1%**	24.2%	10.7%
E2	64.8%**	25.1%	10.1%
West Cerbat Alternatives			
W1	42.6%	50.6%	6.8%
W2	42.4%	50.8%	6.8%
W3	51.7%	41.4%	6.9%
W4	53.1%	40.0%	6.9%

*Alternative length is measured from the Harris Substation to the Mineral Park Substation, inclusive of all common or overlapping segments.
**Includes some land owned by the City of Kingman.

List the areas of jurisdiction [as defined in A.R.S. § 40-360(1)] affected by each alternative site or route and designate those proposed sites or routes, if any, which are contrary to the zoning ordinances or master plans of any of such areas of jurisdiction.

1. The proposed alignments will cross federal (BLM), state, private, and City of Kingman land within Mohave County, Arizona.

2. The transmission line alignments are not contrary to the existing zoning, existing land use plans, or land management plans. Maps depicting Project area land ownership and jurisdiction and City of Kingman and Mohave County General Plan designations are included in **Exhibit A-3** and **Exhibit A-4**. Additional land use information is provided in **Exhibit H—Existing Plans**.

Describe any environmental studies applicant has performed or caused to be performed in connection with this application or intends to perform or cause to be performed in such connection, including the contemplated date of completion.

UNSE, through their environmental consultant (Transcon), has conducted appropriate environmental studies, including intensive field studies and routing analyses to support this Application. Potential environmental effects of construction and operation of the proposed Project and alternatives are described in the exhibits to this Application. An EA has been completed in compliance with the NEPA and is included as **Exhibit B-1**. A separate Biological Evaluation (BE) has been prepared describing the potential impacts to biological resources from all alternatives. The BE is included as **Exhibit C-1**. In the information included for this Application, a cultural resources overview and information from the Class III Cultural Resources Report is included within **Exhibit E**.

Applicant Authorization

Respectfully submitted this day of

by: */s Eric S. Raatz*

Eric S. Raatz
Manager, Operations Planning
UNS Electric, Inc.

I certify that on this day of March 16, 2021, I have delivered
to the Arizona Corporation Commission
25 copies of this Application for a
Certificate of Environmental Compatibility

by: _____

A. EXHIBIT A—PROJECT LOCATION AND LAND USE

As stated in Arizona Administrative Code R14-3-219:

1. *Where commercially available, a topographic map, 1:250,000 scale, showing the proposed plant site and the adjacent area within 20 miles thereof. If application is made for alternative plant sites, all sites may be shown on the same map, if practicable, designated by applicant's order of preference.*
2. *Where commercially available, a topographic map, 1:62,500 scale, or each proposed plant site, showing the area within two miles thereof. The general land use plan within this area shall be shown on the map, which shall also show the areas of jurisdiction affected and any boundaries between such areas of jurisdiction. If the general land use plan is uniform throughout the area depicted, it may be described in the legend in lieu of an overlay*
3. *Where commercially available, a topographic map, 1:250,000 scale, showing any proposed transmission line route of more than 50 miles in length and the adjacent area. For miles less than 50 miles in length use a scale of 1:62,500. If application is made for alternative transmission line routes all routes may be shown on the same map, if practicable designated by applicant's order of preference.*
4. *Where commercially available, a topographic map, 1:62,500 scale, of each proposed transmission line route of more than 50 miles in length showing that portion of the route within two miles of any subdivided area. The general land use plan within the area shall be shown on a 1:62,500 map required for Exhibit A-3, and for the map required by this Exhibit A-4, which shall also show the areas of jurisdiction affected and any boundaries between such areas of jurisdiction. If the general land use plan is uniform throughout the area depicted, it may be described in the legend in lieu of on an overlay.*

EXHIBIT	CONTENTS
A-1	n/a
A-2	n/a
A-3	230 kV Transmission Line Project—Location and Land Status
A-4	230 kV Transmission Line Project—Planned Land Use

A.1 Project Location

The proposed Project is located in Mohave County in and near Kingman and Golden Valley, Arizona. There are six alternatives being considered. All alternatives originate near the intersection of I-40 and Shinarump Drive near the Nucor Steel Plant, located approximately 3 miles southwest of Kingman in Section 4, Township 20 North, Range 17 West, Gila and Salt River Baseline and Meridian, Arizona. The newly proposed Mineral Park Substation is just south of Mineral Park Road, which is located approximately 10 miles northwest of Kingman in Section 3, Township 22 North, Range 18 West, Gila and Salt River Baseline and Meridian, Arizona. **Table A-1** provides the legal description for each alternative.

TABLE A-1 LEGAL DESCRIPTION BY ALTERNATIVE*		
Section(s)	**Township**	**Range**
E1 East Cerbat Alternative		
3, 4	20 North	17 West
7, 8, 15, 16, 17, 22, 23, 26, 35	21 North	17 West
1	21 North	18 West
22	22 North	17 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
23	23 North	17 West
E2 West Cerbat Alternative		
3, 4, 9, 16	20 North	17 West
7, 8, 15, 16, 17, 22, 23, 26, 35	21 North	17 West
1	21 North	18 West
22	22 North	17 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
23	23 North	17 West
W1 West Cerbat Alternative		
4, 5, 6, 8, 9	20 North	17 West
6, 7, 18, 19, 20, 28, 29, 30, 31, 32	21 North	17 West
1, 24	21 North	18 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
W2 West Cerbat Alternative		
4, 5, 6, 8, 9	20 North	17 West
6, 7, 18, 19, 20, 28, 29, 30, 31, 32	21 North	17 West
1, 24	21 North	18 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
W3 West Cerbat Alternative		
4, 5, 6, 8, 9	20 North	17 West
6, 7, 18, 19, 20, 28, 29, 30, 31, 32	21 North	17 West
1, 24, 36	21 North	18 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
W4 West Cerbat Alternative		
4, 5, 6, 8, 9	20 North	17 West

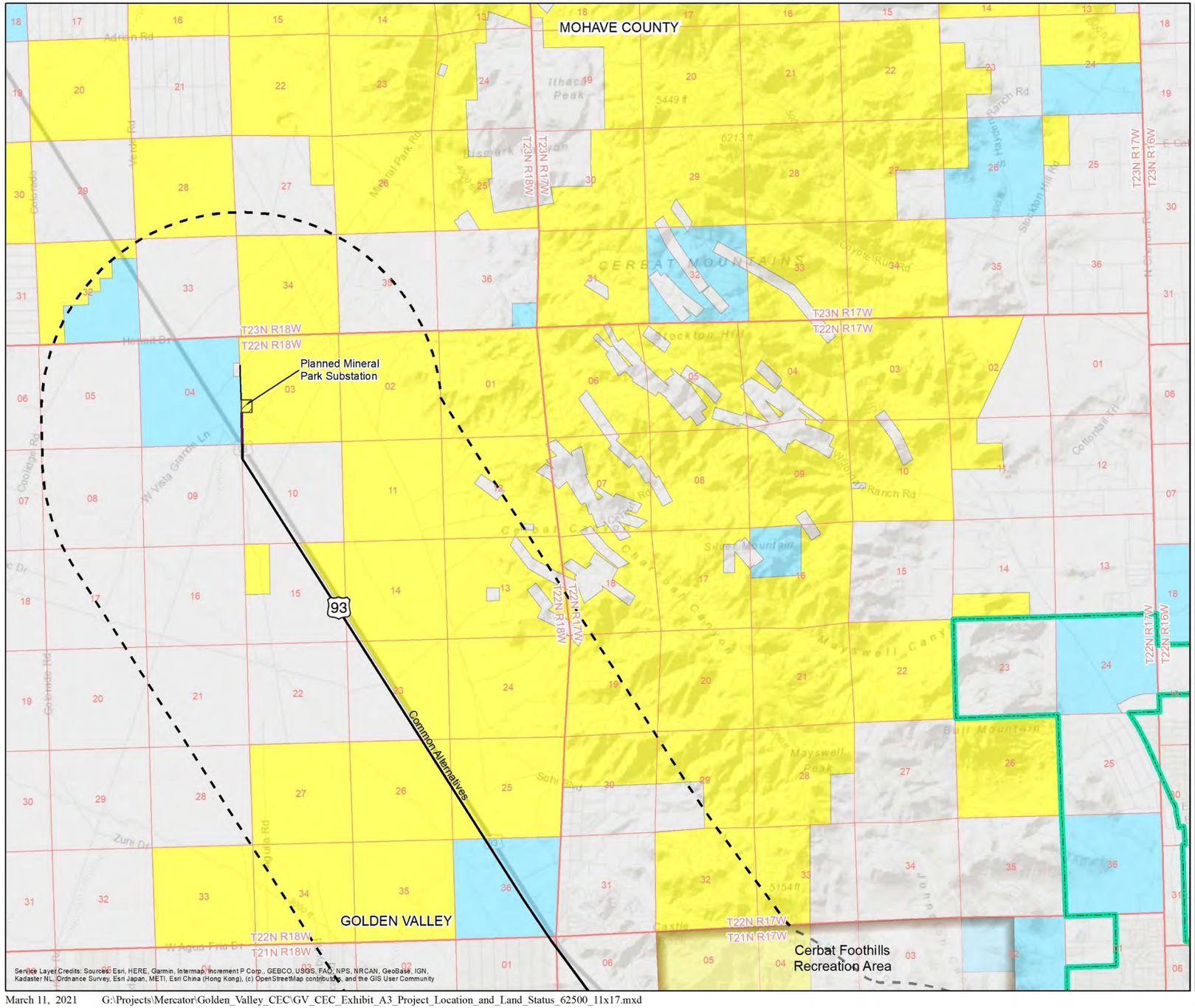
TABLE A-1 LEGAL DESCRIPTION BY ALTERNATIVE*		
Section(s)	**Township**	**Range**
1	20 North	18 West
6, 7, 18, 19, 20, 28, 29, 30, 31, 32	21 North	17 West
1, 24, 36	21 North	18 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
***Note:** Gila and Salt River Baseline and Meridian, Arizona		

A.2 Land Ownership and Jurisdiction

Exhibit A-3 includes maps that depict the proposed Project alignments and alternatives and the land ownership within the Project study area. Land ownership and jurisdiction is described in more detail in **Exhibit H**.

A.3 Planned Land Use

Planned land use information was obtained from general or comprehensive plans adopted by federal, state, and local governmental agencies. Planned land uses traversed or adjacent to the Project alignments and alternatives for each affected jurisdiction are depicted in **Exhibit A-4** and are described in more detail in **Exhibit H**.



March 11, 2021 G:\Projects\Mercator\Golden_Valley_CEC\GV_CEC_Exhibit_A3_Project_Location_and_Land_Status_62500_11x17.mxd

Project Location and Land Status

Golden Valley 230kV
Transmission Line Project

UNS Electric

Legend

- Project Alternatives
- Two-Mile Project Area Buffer
- Kingman City Limits

Land Ownership

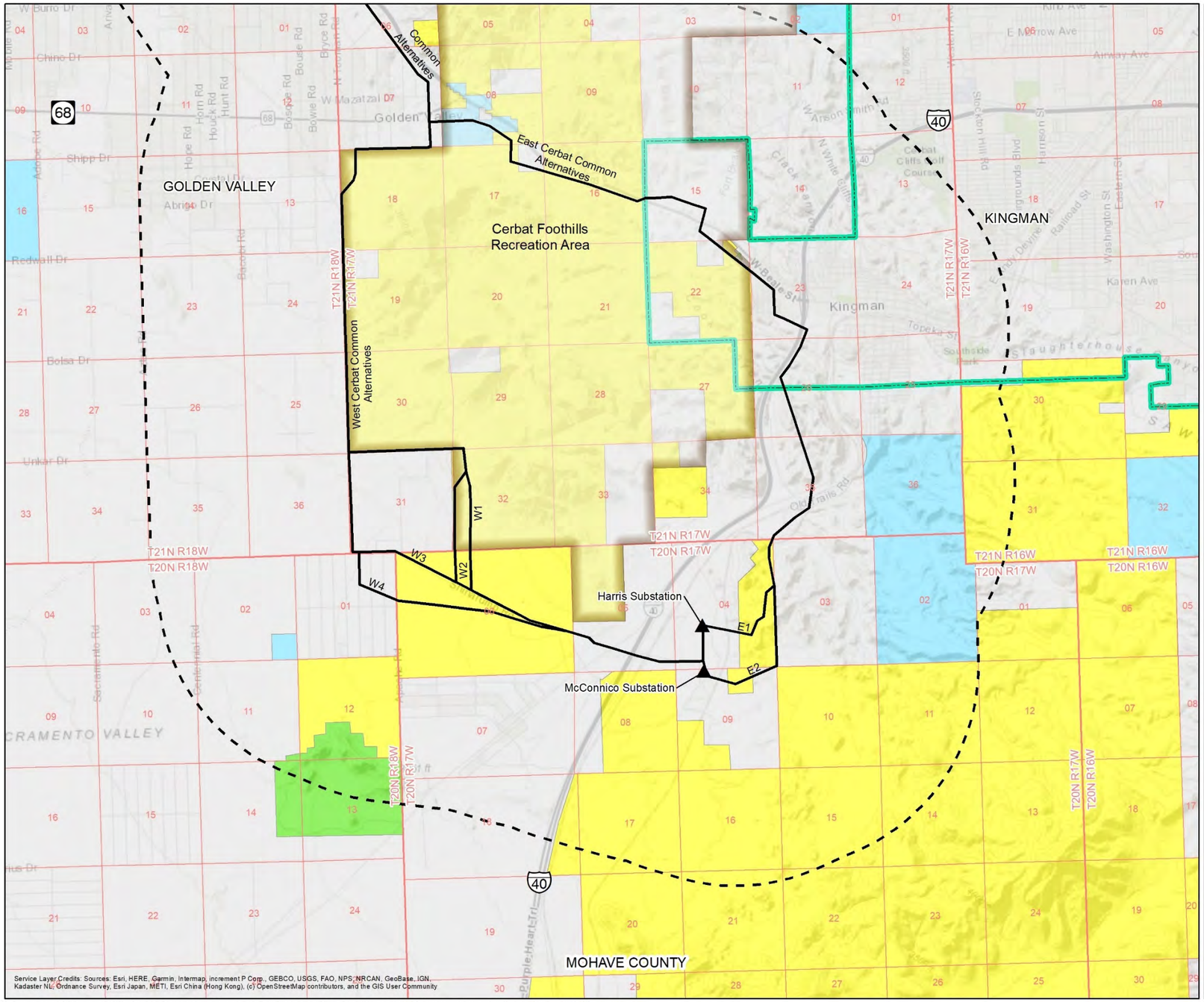
- Bureau of Land Management
- Arizona State Trust Land
- Private Land

0 1 2 Miles

1:62,500

Exhibit A-3

UniSourceEnergy SERVICES



March 11, 2021 G:\Projects\Mercator\Golden_Valley_CEC\GV_CEC_Exhibit_A3_Project_Location_and_Land_Status_62500_11x17.mxd

Project Location and Land Status

Golden Valley 230kV
Transmission Line Project

UNS Electric

Legend

- Project Alternatives
- Two-Mile Project Area Buffer
- Kingman City Limits

Land Ownership

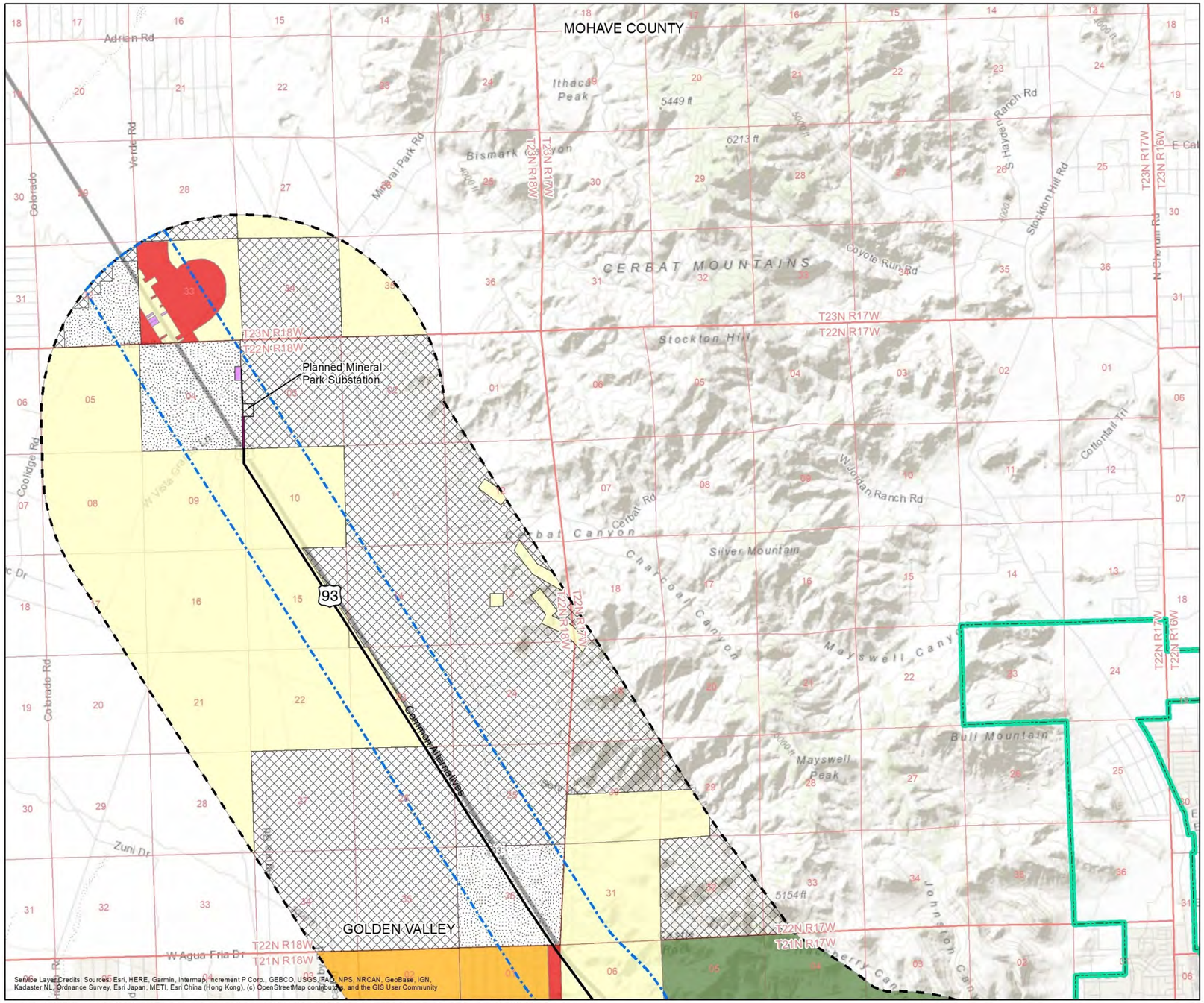
- Bureau of Land Management
- Arizona Department of Game and Fish
- Arizona State Trust Land
- Private Land

0 1 2 Miles

1:62,500

Exhibit A-3

UniSourceEnergy SERVICES



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Planned Land Use

Golden Valley 230kV
Transmission Line Project

UNS Electric

Legend

- Project Alternatives
- Two-Mile Project Area Buffer
- Kingman City Limits

State/Public Lands

- Arizona State Trust Lands
- Public Lands (BLM)
- Designated Utility Corridors (BLM RMP)

Planned Land Use

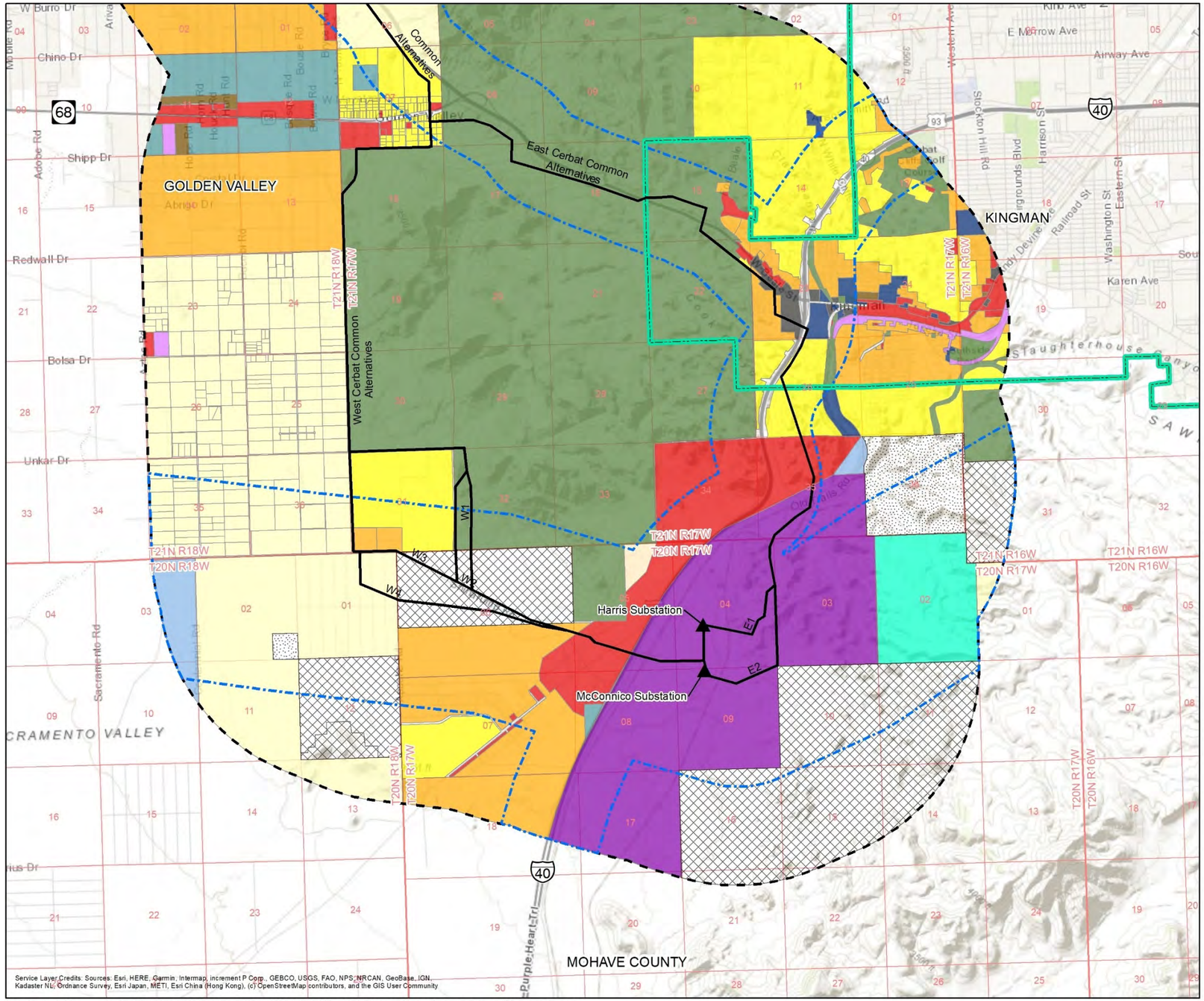
- Medium Density Residential
- Rural Development Area
- General Commercial
- Light Industrial
- Parks/Open Space

0 1 2 Miles

1:62,500

Exhibit A-4

UniSourceEnergy SERVICES



Planned Land Use

Golden Valley 230kV
Transmission Line Project

UNS Electric

Legend

- Project Alternatives
- Two-Mile Project Area Buffer
- Kingman City Limits

State/Public Lands

- Arizona State Trust Lands
- Public Lands (BLM)
- Designated Utility Corridors (BLM RMP)

Planned Land Use

- Suburban Development Area
- Urban Development Area
- High Density Residential
- Medium Density Residential
- Low Density/Rural Residential
- Rural Development Area
- Urban
- General Commercial
- Highway Service Commercial
- Public/Quasi-Public
- Heavy Industrial
- Light Industrial
- Alternative Energy
- Parks/Open Space

0 1 2 Miles

1:62,500

Exhibit A-4

UniSourceEnergy SERVICES

March 11, 2021 G:\Projects\Mercator\Golden_Valley_CEC\GV_CEC_Exhibit_A4_Planned_Land_Use_62500_11x17.mxd

B. EXHIBIT B—ENVIRONMENTAL STUDIES

As stated in Arizona Administrative Code R14-3-219:

> *Attach any environmental studies which applicant has made or obtained in connection with the proposed site(s) or route(s). If an environmental report has been prepared for any federal agency or if a federal agency has prepared an environmental statement pursuant to Section 102 of the National Environmental Policy Act, a copy shall be included as part of this exhibit.*

EXHIBIT	CONTENTS
B-1	Environmental Assessment

The main body and Appendix A (Maps and Tables) of the EA prepared for the Project is included as **Exhibit B-1**, *Environmental Assessment*.

All Project alternatives would cross federal land managed by the BLM. As a result, an EA was prepared for the Project pursuant to section 102 of the NEPA, with the BLM as the lead federal agency. The Project is in conformance with the BLM Kingman Resource Area Proposed RMP, Final Environmental Impact Statement (BLM 1993), and the Record of Decision (BLM 1995). The alternatives considered are consistent with applicable federal, state, and local laws and regulations to the maximum extent possible. A summary of applicable laws and regulations are identified it **Table B-1** below.

TABLE B-1
SUMMARY OF APPLICABLE LAWS AND REGULATIONS

Law / Regulation	Applies to:
American Indian Religious Freedom Act	Archaeological resources and tribal consultation
Antiquities Act of 1906	Archaeological resources and tribal consultation
Archaeological Resources Protection Act	Archaeological resources and tribal consultation
Clean Air Act	Air pollution prevention and control; emission levels of regulated pollutants
Clean Water Act (Sections 401/402/404)	Surface water quality; discharge, dredge, or fill materials into jurisdictional Waters of the United States
Endangered Species Act (ESA)	Threatened and endangered species
Executive Order (EO) 11593	Protection and enhancement of the cultural environment
EO 11988/11990 (10 CFR 1022 DOE)	Floodplains and wetlands
EO 12898	Environmental justice
EO 13112	Noxious weeds
EO 13175	Consultation and coordination with tribal government
EO 13212	Energy policy
Farmland Protection Policy Act	Prime and unique farmlands
Federal Land Policy and Management Act (FLPMA)	Management of public lands

TABLE B-1 SUMMARY OF APPLICABLE LAWS AND REGULATIONS	
Law/Regulation	**Applies to:**
Migratory Bird Treaty Act	Protection of selected bird species
NEPA	Federal undertakings/Department of Energy NEPA regulations
National Historic Preservation Act (NHPA)	Historic properties and traditional cultural properties
Native American Graves Protection and Repatriation Act of 1990	Archaeological resources and tribal consultation
Noise Control Act of 1972, as amended	Noise protection
Occupational Safety and Health Act	Health and safety standards
Pollution Prevention Act of 1990	Reducing potential for pollution sources
Secretarial Order 3206	ESA and tribal Trust responsibilities

TABLE B-2 SUMMARY OF PERMITS AND AUTHORIZATION	
Permitting Agency	**Permit/Authorization**
BLM Kingman Field Office (KFO)	FLPMA ROW authorization
U.S. Army Corps of Engineers	Section 404 Clean Water Act
Arizona Department of Environmental Quality (ADEQ)	Arizona Pollutant Discharge Elimination System Permit for construction activities (Section 402 of the Clean Water Act)
ADOT	Encroachment Permit, Oversized Load Permit
ASLD/Arizona State Museum (ASM)	Arizona Antiquities Act
Arizona Corporation Commission	CEC
Arizona Department of Agriculture	Native Plant Law; Notice of Intent to Clear Land
ASLD	ROW amendment
Mohave County	Mohave County General Plan conformance
City of Kingman	City of Kingman General Plan conformance
BNSF Railroad	Railroad encroachment easement
Private landowners	Property easements

The BLM invited government agencies that have jurisdiction by law or special expertise to cooperate in the preparation of the EA. The ASLD accepted the invitation to be a cooperating agency and executed a Memorandum of Understanding with the BLM. The ASLD cooperated in preparation of the NEPA document and is recognized to have special expertise as the official representative of the State of Arizona in any communication between the State of Arizona and the United States government in all matters respecting state lands or any interest of the state in, or with regards to, the BLM-administered land within Arizona.

The Public Draft EA was completed and distributed in August 2020, and the public comment period is complete as of September 2020. As of the filing of this CEC application, the EA and public comment is complete, and the BLM is preparing the FONSI and Decision Record. The FONSI and Decision Record are expected to be finalized following the CEC hearings.

B.1 Exhibit B References

Bureau of Land Management (BLM). 1993. Kingman Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement. 611 pp.

_____. 1995. Record of Decision for the Approval of the Kingman Resource Area Resource Management Plan.

EXHIBIT B-1

ENVIRONMENTAL ASSESSMENT

United States Department of the Interior
Bureau of Land Management

Golden Valley 230 kV Transmission Line Project

Environmental Assessment

DOI-BLM-AZ-C030-2018-0012-EA

July 2020

2755 Mission Boulevard, Kingman, Arizona 86401

BLM - KINGMAN FIELD OFFICE

Mission Statement(s)

The Mission of the U.S. Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The Bureau of Land Management, an agency of the U.S. Department of the Interior, is responsible for the balanced management of the public lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield, a combination of uses that take into account the long-term needs of future generations for renewable and nonrenewable resources. These resources include recreation; range; timber; mineral; watershed; fish and wildlife; wilderness; and natural scenic, scientific, and cultural values.

The mission of the Bureau of Land Management is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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ACRONYMS

ACC	Arizona Corporation Commission
ADOT	Arizona Department of Transportation
ASLD	Arizona State Land Department
BE	Biological Evaluation
BLM	Bureau of Land Management
BNSF	Burlington Northern Santa Fe
CEC	Certificate of Environmental Compatibility
CFRA	Cerbat Foothills Recreations Area
dBA	A-weighted decibel
EA	Environmental Assessment
EHC-ELF	Environmental Health Criteria on Extremely Low Frequency Fields
EMF	Electric and magnetic fields
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FCC	Federal Communications Commission
FLPMA	Federal Land Policy and Management Act
HVOTL	High-voltage overhead transmission line
KOP	Key observation point
kV	kilovolt
L_{dn}	Average day-night noise intensity
L_{eq}	Average noise intensity over a given time period
MHz	megahertz
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
OPGW	Optical ground wire
RMP	Resource Management Plan
ROW	Right-of-way
RPM	Resource protection measures
SR	State Route
UNSE	UNS Electric
USDOT	U.S. Department of Transportation
VRM	Visual resource management
WAPA	Western Area Power Administration
µT	Microteslas

CHAPTER 1: INTRODUCTION

1.1 Background

UNS Electric (UNSE), a subsidiary of UniSource Energy Services, has applied for a right-of-way (ROW) from the Bureau of Land Management (BLM) Kingman Field Office to construct, operate, maintain, and terminate a new electric transmission line and substation on BLM-administered land in Mohave County, Arizona.

UNSE first applied for this ROW from the BLM in 2007 but rescinded its application in 2008 when the Mineral Park Mine, the primary proponent, no longer wanted to pursue the project. The transmission line is no longer being proposed to serve the Mineral Park Mine but to accommodate load increases in the system.

1.2 Project Location

The proposed project is located in Mohave County in and near Kingman and Golden Valley, Arizona. There are six alternatives being considered (Maps 1 through 8 in Appendix A-1). All alternatives start at the Harris Substation, which is located adjacent to the Nucor Steel Plant approximately 3 miles southwest of Kingman, and all alternatives end just south of Mineral Park Road at the newly proposed Mineral Park Substation located approximately 10 miles northwest of Kingman (see Table 1 in Appendix A-2 for the project's legal description).

1.3 Purpose and Need

The purpose of the action is to improve reliability, replace aged equipment, and accommodate a projected 5- to 35-megawatt increase in load over the next decade in the north Golden Valley area by transmitting 230 kilovolts (kV) of electricity to a location where the electricity currently is transmitted via UNSE's 69-kV transmission network to its northern service area. 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 ROW grant for a transmission line and substation.

1.3.1 BLM Decision to Be Made

The BLM's authorized officer will decide whether to grant UNSE a ROW for the transmission line and substation on BLM-administered land and if so, under what terms and conditions.

1.4 Statutory and Regulatory Authority

1.4.1 Land Use Plan Conformance

The proposed action is in conformance with the BLM Kingman Resource Area Proposed Resource Management Plan (RMP) and Final Environmental Impact Statement (BLM 1993) and the Record of Decision (BLM 1995). Rationale for this statement can be found in the RMP within the Management Guidance Common to All Alternatives (specifically Land Use Authorizations and Utility Corridors) and Alternative 2 (specifically Linear ROWs and Visual Resources) (BLM 1993). Also providing rationale for project conformity is the lands decision made in the Record of Decision for the RMP, which states, "All major utility systems are required to route their systems through the designated corridors under the Approved RMP where practicable. Alternate routes will be considered on a case by case basis" (BLM 1995).

1.4.2 Applicable Regulatory Requirements and Required Coordination

The proposed action alternatives are consistent with applicable federal, state, and local laws and regulations to the maximum extent possible. A summary of applicable laws, regulations, permits, and authorizations can be found in Tables 2 and 3 in Appendix A-2.

In order to finalize a route for the proposed transmission line should the BLM grant the ROW, UNSE would apply to the Arizona Corporation Commission (ACC) for a Certificate of Environmental Compatibility (CEC) for the project. The Arizona Power Plant and Transmission Line Siting Committee (Line Siting Committee) would then review the application, a process that includes opportunities for the public to provide comments. If approved, the Line Siting Committee would send a proposed CEC to the ACC for final review and approval.

1.4.3 Interagency Coordination

The BLM invited government agencies that have jurisdiction by law or special expertise to cooperate in the preparation of this Environmental Assessment (EA) because working with governmental partners who have knowledge of local conditions and values would benefit the of the EA. The Arizona State Land Department (ASLD) accepted the invitation to be a cooperating agency and executed a Memorandum of Understanding with the BLM. The ASLD will cooperate in preparation of this National Environmental Policy Act (NEPA) document and is recognized to have special expertise as the official representative of the State of Arizona in any communication between the State of Arizona and the United States government in all matters respecting state lands or any interest of the state in or with regards to the BLM-administered land within Arizona.

1.5 Scoping and Issue Identification

Internal (BLM interdisciplinary team) and external (public, agency, and Tribal) scoping was conducted throughout the development of this project, both in 2007 and 2008 when the project was originally proposed as well as in 2016 when the project recommenced (see Appendix B Scoping Summary Report for a list of agencies and Tribes contacted). Information about the project was provided via newsletters, public meetings, and tours of the alignment. Written comments provided by the public, agencies, and Tribes were collected and documented and are summarized in the Scoping Summary Report. Issues and concerns identified during the scoping process (listed in Table 4 of Appendix A-2) have been considered in the preparation of this EA.

CHAPTER 2: PROPOSED ACTION ALTERNATIVES

This chapter describes and analyzes the six proposed action alternatives developed for analysis as well as the no action alternative.

It should be noted that detailed engineering plans have not been completed for any of the proposed action alternatives. UNSE and the BLM collaboratively developed details for the proposed action alternatives to a level sufficient for environmental analysis. If site-specific design and engineering varies from what is analyzed in this EA, the BLM would prepare additional environmental analysis under the NEPA as appropriate.

2.1 Design Features Common to the Proposed Action Alternatives

While the proposed action alternatives would follow different routes, design features would be the same amongst all proposed action alternatives as described in the following sections.

2.1.1 Design and Construction Details

2.1.1.1 Transmission Line Structures

The proposed project would be built on double-circuit 230-kV transmission line structures (Figure 3, Appendix A-3). The structures would be tubular, weathering-steel monopoles that typically range in height from 85 to 115 feet tall when spaced approximately 700 to 900 feet apart (Table 5, Appendix A-2 contains additional design information); long spans for crossing canyons or highways will require structures with heights up to 195 feet. The transmission line structures would be designed to accommodate two 230-kV transmission circuits, but only one 230-kV transmission circuit would be built at this time.

Where the line turns, a structure referred to as a turning structure would be installed. Turning structures would be single poles made of the same material but slightly larger in circumference. Conductors (i.e., the wires) would be non-specular (i.e., treated to reduce reflectivity) aluminum. Polymer insulators would be used between the arms that support the conductors and each conductor. To protect conductors from lightning, overhead ground (also referred to as shield) wires (non-specular) would be installed at the top of the structures. The overhead ground wire would also contain fiber optic cable to control electrical system operations. The fiber optic cable would not be used for commercial purposes without prior approval from the BLM.

2.1.1.2 Substations

As part of the project, the Harris Substation would be slightly modified and a new substation, the Mineral Park Substation, would be built. The Harris Substation would need to be expanded; this substation is located on private land and would not require ROW acquisition from the BLM. The expansion would occupy approximately 5 acres of land to the south and east of the Harris Substation and would contain bus work and breakers, conduits, ground grids, and other auxiliary equipment necessary to operate the facility. Bus work would be approximately 15 feet in height. The substation would be graveled, free of vegetation, and enclosed by an extension of the surrounding fence.

The Mineral Park Substation would require a 10-acre parcel of land: 7 acres for the proposed substation development and 3 acres to accommodate future development. The substation site would contain bus work and breakers, conduits, relaying and communication equipment, ground grids, a metal control building, and other auxiliary equipment necessary to operate the facility. Bus work would be approximately 15 feet in height. Microwave dishes or covers would be gray. The substation grounds would be graveled, free of vegetation, and fenced with a 12-foot tall expanded metal mesh security fence (75 percent opacity) with a 1-foot-diameter roll of razor wire at the top of the fence. The security fence would be painted an appropriate

color, as directed by the BLM. Low-profile lighting would be used to illuminate the yard and would only be used when nighttime work is performed. A 12-foot-wide by approximately 1,600-foot-long gated gravel access road would be installed and maintained between the substation and Mineral Park Road.

2.1.1.3 69-kV Feeders

Two new 69-kV feeders would be constructed from the Mineral Park Substation to tie into existing overhead 69-kV lines (Map 9, Appendix A-1). Feeder 1 would be 1,850 feet long, and Feeder 2 would be 2,210 feet long. Feeder 2 would be collocated with the 230-kV Golden Valley transmission line towers, so no new structures would be required. Structures for Feeder 1 would be tubular weathering-steel monopoles averaging 65 to 75 feet in height above ground and spaced approximately 350 feet apart (see Table 6 in Appendix A-2 for design characteristics of the feeder lines).

2.1.2 Project Activities

2.1.2.1 Environmental Clearances

Environmental clearance surveys and flagging/fencing of sensitive areas as outlined in resource protection and mitigation measures would be conducted prior to construction activities for sensitive resources.

2.1.2.2 Surveying and Engineering

Survey and engineering work would locate the transmission line centerline, determine accurate topographical profiles along the centerlines, and determine the exact location of structures. The substation site would be surveyed for design and drainage.

2.1.2.3 Access

UNSE would access each structure location using existing roads. Spur roads would be constructed where existing roads do not extend all the way to structure sites.

When existing access roads are not in a condition that would allow heavy construction equipment to pass, they may need to be made suitable (i.e., leveled, graded, drainage crossings fixed, etc.) and/or widened. All access roads to be used for construction, both existing and new, would require a travel lane approximately 12 feet wide. In some areas this may require a total road area up to 25 feet wide to accommodate turns, cut and fill, and the installation of culverts and other drainage control devices. Where roads are required on slopes above 12 percent, the total road prism could be 30 to 50 feet wide. This earthwork would occur only with approval from authorizing agencies and private landowners. Rock staining would be required on BLM-administered land where the visual contrast of the road exceeds visual resource management (VRM) objectives. After construction is complete, vehicle ways of approximately 12 feet in width would be left for future maintenance of the transmission line. The remaining disturbed area would be reclaimed.

Between structures where no access route exists, overland access within the ROW would be required for a vehicle driving along the transmission line ROW pulling ropes between each transmission line structure that would be used to pull in a cable which would ultimately be used to pull the conductors. This would not necessitate clearing of all vegetation and leveling the surface, as this vehicle would travel over vegetation in most cases. Alternatively, this may be performed using a helicopter.

2.1.2.4 Vegetation Clearing

For safety during construction, clearing of vegetation would be required at each structure site. A 60-foot-wide by 136-foot-long rectangular area would be leveled and cleared of vegetation to use as a workspace for vehicle movement, structure assembly, and necessary crane and equipment maneuvers. A larger cleared work area would be needed approximately every 10 structures for turning angles in the line. This area would be 150 feet in diameter (Figure 1, Appendix A-3). Pulling and tensioning sites, which would require an area

150 feet wide by 400 feet long, would also be cleared (Figure 2, Appendix A-3). However, UNSE would opt to leave as much vegetation as possible and to crush existing vegetation rather than remove it, which would allow for the resprouting at pulling and tensioning sites. A small, temporary access road up to 560 feet in length that would provide access to pulling and tensioning sites would be cleared as well. The Mineral Park Substation and area of expansion at the Harris Substation would be cleared of vegetation and graded for appropriate drainage.

2.1.2.5 Construction Yard and Material Handling Sites

Two temporary construction yards or staging areas, each about 3 to 5 acres in size, would serve as a reporting location for workers, parking area for vehicles, and storage area for equipment and material. Construction yards would be located on previously disturbed private land in Kingman or in close proximity to the project area on private land. The specific locations are not known at this time and would depend upon the alternative chosen. Prior to the notice to proceed, these sites would be inspected by both a qualified biologist and an archaeologist to ensure avoidance of sensitive resources. Construction materials would be hauled to the construction yards from the local highway network and then delivered to structure sites via approved access roads.

2.1.2.6 Fueling

Fuels anticipated to be used during construction of the project are petroleum hydrocarbons and the derivatives (e.g., oils, lubricants, and solvents) required to operate construction equipment. Fueling would only occur at approved areas outside the ROW and not on BLM-administered land. All hazardous materials used for this project would be contained within vessels engineered for safe storage. No fuels or hazardous materials would be stored within the ROW or located on BLM-administered land.

2.1.2.7 Structure Foundation Excavation and Installation

Vertical excavations for structure foundations would be made using power auguring equipment. The excavation depth would be approximately 15 to 40 feet depending on structure height and foundation type. A vehicle-mounted power auger or backhoe would be used. Spoil material (excavated soil) would be used for fill where suitable, and the remainder would be sidecast (i.e., placed beside the excavation area) around the new structure foundation.

For turning or dead-end structures (i.e., where the transmission line angles or provides reinforcement), concrete foundations would be installed. These foundations would include reinforced steel and a structure anchor bolt cluster at the top of the foundation hole.

Foundation excavation and installation would require construction equipment such as power augers or drill rigs, cranes, material trucks, crew trucks, and ready-mix concrete trucks. The largest equipment would have wheelbases of up to 70 feet. Water would be used for concrete footings. Concrete trucks would be cleaned on-site using approved wash-out equipment. Residual concrete would be cleaned up and removed from the site.

2.1.2.8 Structure Assembly and Erection

Structure placement activities include 1) mobilizing construction vehicles, equipment, and poles along new and existing access roads and 2) assembling and erecting the structures. Sections of the new structures and associated hardware would be delivered to each structure site by flatbed truck with wheelbases of approximately 70 feet. Erection crews would assemble new structures and work within the cleared work areas. Crews would position the assembled structures in the augured foundation holes using a large crane and would then backfill around each pole with soil and concrete. Where terrain prohibits direct burial and at turning and dead-end structures, structures would be bolted to the foundation.

2.1.2.9 Conductor Placement

UNSE would establish conductor pulling and tension sites along the proposed alignment; these sites would be approximately 150 feet by 400 feet (1.38 acres) and would be placed approximately every 2 to 3 miles along the alignment and at turning structures. Each pulling and tensioning site would consist of two separate sites, each in line with the transmission line's direction and located up to 560 feet from the structures. Equipment paths approximately 16 feet wide would be created for access between these sites and the proposed ROW. Reels of conductor and overhead shield wire would be delivered to these designated areas. Level locations would be selected, so little or no earth moving would be required. The conductors and shield wires would be pulled into place from these locations.

Crews would then install insulators and sheaves. Sheaves are rollers attached to the lower end of the insulators that allow crews to pull sock lines (i.e., rope or wire used to pull transmission line conductors into place). Once the equipment is set up, a lightweight vehicle or helicopter would pull the sock line from one supporting structure to the next (where access is available). The sock line would be hoisted and passed through the sheaves on the ends of the insulators at each structure and then used to pull the conductor through the sheaves. The conductors would next be attached to the sock line and pulled through each supporting structure under tension. After the conductors are pulled into place, they are pulled to a pre-calculated sag and then clamped to the end of each insulator. The final step is to install vibration dampers and accessories.

Prior to pulling and tensioning, workers would install temporary guard structures at road crossings and energized electric lines to prevent the sock line or conductors from sagging onto the roadway or other energized lines during the stringing operation.

All necessary safety requirements would be employed should helicopters be used. UNSE would locate landing zones on private land, but in the event UNSE would need landing zones on BLM-administered or state-owned land, they would obtain permission from the land jurisdiction agency prior to use.

Pulling and tensioning sites would be selected to avoid environmentally sensitive resources. On BLM-administered land outside of areas that would be used for future maintenance, pulling and tensioning would be reclaimed to their approximate former condition.

2.1.2.10 Optical Ground Wire Installation

UNSE proposes to install an Optical Ground Wire (OPGW) as the overhead ground wire. The OPGW cable contains fiber optics and provides a communication path along the newly constructed transmission line. Crews would attach the OPGW cable near the top of each electrical transmission line structure above the electrical conductors. The process of installing the OPGW cable would require the same or similar action as conductor installation and would occur in conjunction with conductor installation.

2.1.2.11 Substation Installation

Construction equipment would rough-grade the substation site and establish drainage for subsurface infrastructure (i.e., conduits and grounding grids). Conduits, foundations, and grounding grids would be installed and enclosed with a 12-foot-tall expanded metal security fence (75 percent opacity) with a 1-foot-diameter roll of razor wire at the top. The security fence would be painted an appropriate color, as directed by the BLM. Finally, the equipment and control building would be installed when the site is secure and the substation area is covered with gravel. Equipment used for the substation development would include graders, excavators, cement trucks, tractor trailers, bucket trucks, pickup trucks, and cranes.

2.1.2.12 Collocation of Existing UNSE 69-kV Transmission Line and 230-kV Transmission Line

UNSE owns and operates a 69-kV line that runs along an approximately 7.3-mile segment of the proposed 230-kV transmission line alignment shared by all proposed action alternatives. This segment is located on the southwest side of U.S. Route 93 (US-93) from the area just north of the intersection of State Route (SR)-68 and US-93 to the point where the 230-kV transmission line crosses US-93 near Mineral Park Road and the Proposed Mineral Park Substation. This segment of the 69-kV line would be moved to the new 230-kV transmission line structures, and the 69-kV structures would be removed. Another segment of this same 69-kV line is within the same alignment as a segment of the East Cerbat alternatives, and under those alternatives most of the 69-kV line would also be collocated with the proposed 230-kV line except for a portion within the City of Kingman, which would be parallel with the proposed 230-kV line. The proposed plan for this segment of the 69-kV line is described in Section 2.2.1.1.

2.1.2.13 Right-of-Way Cleanup and Restoration

UNSE would ensure construction sites, material storage yards, and access roads are kept in an orderly condition during the construction period. Crews would collect waste construction materials and debris from all construction areas and dispose of it at approved sites in a timely manner. Construction crews would not be allowed to have pets on-site. All structure assembly and erection pads not needed for normal maintenance would be returned to their original contour, and natural drainage patterns would be restored. The intent would be to restore all construction areas to their original condition, where feasible. Scarifying and seeding would be conducted as required by the BLM and ASLD. Any damaged gates and fences would be repaired immediately to at least their former condition.

2.1.2.14 Operation and Maintenance

Day-to-day operation of the line would be directed by system dispatchers in UNSE's power control center. These dispatchers would use communication facilities to control the transfer of electrical power through the line between the Harris and Mineral Park substations using utility communication infrastructure. UNSE's preventative maintenance program for transmission lines would include routine aerial and ground patrols. Maintenance includes inspection and repair or replacement of damaged conductors, structures, and insulators. It also includes vegetation management to meet North American Electric Reliability Corporation Standard safety clearances of the lines, per the Federal Energy Regulatory Commission order issued approving FAC-003-2. These standards are meant to prevent vegetation-caused outages and wildfires. Typically, encroaching vegetation will be removed within 20 to 25 feet of the conductors. Because of the arid, sparsely vegetated characteristics of the project area, minimal and infrequent measures would be necessary to control vegetation. Tree and shrub trimming and removal may be required at structures and along the permanent ROW to control vegetation that may jeopardize the maintenance, safety, or reliability of the line. Vegetation management will also aid in fire prevention.

UNSE would maintain their own gates and/or cattleguards on access roads. Maintenance and repair work would occur within the width of the granted ROW.

Transmission lines are sometimes damaged by storms, floods, vandalism, or accidents and require immediate repair. Emergency repair would involve prompt movement of crews to repair and replace damaged equipment. If UNSE damages access roads, UNSE would repair them as needed.

2.1.2.15 Abandonment

If in the future the proposed transmission line or related substations were no longer needed, they would be removed. If additional areas are needed outside the proposed ROW for removal of structures, a temporary use permit would be requested for BLM-administered land at that time. Shield wires, conductors, insulators, and hardware would be dismantled and removed. Structures would be removed by pulling the pole out of

the ground or removing from the concrete foundations. Cranes, large trucks, and pickup trucks, as well as earth-moving equipment (for a few of the steeper areas), would be required. Following removal of the transmission line, all disturbed areas would be restored to their original conditions as much as possible. Scarifying and seeding would be conducted, as required by BLM, the City of Kingman, and ASLD.

2.1.2.16 Personnel and Equipment

Table 7 (Appendix A-2) provides assumptions for the personnel and equipment required for construction of the transmission line and substation. The tasks would be conducted in stages; therefore, personnel and equipment would not work on all tasks simultaneously at a given location. Several of the same activities may be conducted on an as-needed basis for routine or emergency maintenance.

2.2 Proposed Action Alternatives

Six routes were analyzed for the possible alignment of the proposed Golden Valley 230-kV transmission line. These routes are shown on Maps 1 through 8 in Appendix A-1**.** Each of these routes would cross private, ASLD, and BLM-administered public land, and the East Cerbat alternatives would also cross City of Kingman land. A no action alternative (i.e., UNSE would not build the transmission line) is also being considered.

The six proposed action alternatives are split into two groups based on their respective positions in relation to the Cerbat Foothills Recreations Area (CFRA). The East Cerbat alternatives (E1 and E2) are generally in the eastern portion of the CFRA, and the West Cerbat alternatives (W1, W2, W3, and W4) run along the west side of the CFRA.

2.2.1 East Cerbat Alternatives

Both East Cerbat alternatives would originate at Harris Substation and follow US-93 through the CFRA. However, the E1 East Cerbat Alternative generally extends east out of the Harris Substation, whereas the E2 East Cerbat Alternative extends south when it exits the Harris Substation. After 1 or 2 miles, depending on which alternative is followed, the two East Cerbat alternatives share a common alignment.

2.2.1.1 Design Features Unique to the East Cerbat Alternatives

UNSE owns and operates a 69-kV transmission line that extends along US-93 and would be within the same corridor as the proposed 230-kV transmission line. Rebuilding and/or removal of most of the segments of the 69-kV transmission line where they occur along the same alignment as the proposed 230-kV transmission line would occur as a result of implementing both East Cerbat alternatives. This would occur along an approximate 4.3-mile-long segment of US-93 near Coyote Pass.

The following description is given as if travelling into Kingman on US-93 and is illustrated on Map 10 (Appendix A-1). The first approximate 2.5-mile segment of the 69-kV line in the same corridor as proposed for the new 230-kV transmission line is supported by wood poles. These wood poles would not be removed, but the 69-kV line would be moved to the new 230-kV structures and the wood poles would be topped at a height of approximately 35 feet. They would continue to support a distribution line. Two new wood poles would need to be installed near the Coyote Pass Trailhead to support the distribution line where it is currently attached to steel monopoles.

The next approximate 2 miles of the 69-kV transmission line were recently rebuilt; old wood poles were replaced with steel monopoles. This section of the alignment crosses US-93 twice. For the first approximate 0.7 mile of this segment, which is mostly on the north side of US-93, the steel monopoles would be removed and the 69-kV line would be moved to the new 230-kV transmission line structures. For the last approximate 1.2 miles of this segment from where it would turn south in the vicinity of Camp Beale Springs, cross US-

93, and continue east towards I-40 through the western part of Kingman, the 69-kV line would remain as is and the new 230-kV transmission line would be built next to the 69-kV line, as these 69-kV poles also support an electrical distribution line. The length between 230-kV structures is too long to accommodate the distribution line, and for this reason, the 69-kV line and electrical distribution line would not be moved to the 230-kV structures.

A communication line attached to a 0.6-mile segment of the 69-kV steel poles on the northeast side of US-93 is also located in this area. Because the 69-kV poles would be removed and the 230-kV line poles would be more widely spaced and too far apart to support the communication line, it is expected the communication line owner would install wood poles along the edge of UNSE's ROW to support the communication line. This communication line continues north along the northeast side of US-93 where it is supported on UNSE's wood poles. These wood poles would be topped at a height of approximately 25 feet and left in place to support the communication line.

2.2.1.2 E1 East Cerbat Alternative

The E1 East Cerbat Alternative is the shortest of all 6 proposed action alternatives, totaling 17 miles in length; it would cross the least amount of BLM-administered land. It would extend east from the Harris Substation to the base of mountainous terrain where it would turn and generally follow a northerly route through the mountainous terrain. The route would cross the Burlington Northern Santa Fe (BNSF) Railroad as well as Historic Route 66 (US-66) and then travel over the mesa between US-66 and Interstate 40 (I-40). It would then cross I-40 and head north towards US-93. Just prior to US-93, the alignment would turn northwest and travel along US-93. The alignment would cross and run along the northeast side of US-93 for a short distance before crossing back over and running along US-93 toward the Arizona Department of Transportation (ADOT) Port of Entry. The alignment would turn west for a short distance, continuing along the alignment of an existing 69-kV transmission line and extending away from US-93, before turning north at Kofa Road and remaining along the alignment of the 69-kV transmission line. Shortly after crossing SR-68, the alignment would run parallel to US-93 again, following the alignment of the existing 69-kV transmission line, and continue along US-93 to a point just south of Mineral Park Road. At this point, it would turn north, cross US-93, and terminate at the proposed location for a new substation.

2.2.1.3 E2 East Cerbat Alternative

The E2 East Cerbat Alternative is the longest alternative, at 17.9 miles. The E2 East Cerbat Alternative is very much the same as the E1 East Cerbat Alternative, with the exception of approximately the first 2 miles of the alignment. The E2 East Cerbat Alternative would travel south out of the Harris Substation rather than east like the E1 East Cerbat Alternative. After a short distance, it would turn north and travel into the same mountainous terrain discussed for the E1 East Cerbat Alternative. Just prior to crossing the Burlington Northern Santa-Fe Railroad, the E2 East Cerbat Alternative would follow the same alignment as described for the E1 East Cerbat Alternative. This alternative would parallel existing transmission line infrastructure for nearly 0.5 mile and the majority of it would run along the boundary of BLM land rather than cutting across BLM land like the E1 East Cerbat Alternative.

2.2.2 West Cerbat Alternatives

There are four West Cerbat alternatives, all of which would travel westerly from the origination point at the Harris Substation and generally follow Shinarump and Kirkland roads before turning north and following the boundary of the CFRA. The primary distinguishing feature of the four alternatives is the differing routes and land type traversed near the southwestern boundary of the CFRA. In this area, the W1 and W2 West Cerbat alternatives would be built on BLM-administered land, whereas the W3 and W4 alternatives would be built on a combination of BLM and private land. The first approximate 2 miles and the last approximate 12 miles would be the same for all four of the West Cerbat alternatives.

2.2.2.1 Design Features Unique to the West Cerbat Alternatives

There are no design features unique to the West Cerbat Alternatives.

2.2.2.2 W1 West Cerbat Alternative

The W1 West Cerbat Alternative would span the least amount of private land. It would travel north from Shinarump Road across BLM-administered land and would then enter the CFRA. The transmission line would follow the southern and western boundaries of the CFRA through Golden Valley. Just south of SR-68, the transmission line would turn east and follow the northern boundary of the CFRA for a short distance before turning north to extend along Kofa Road, where it would be within the existing alignment of a 69-kV transmission line which extends north and northwest to just south of the proposed Mineral Park Substation (this section of the alignment follows the same route as described for the E1 and E2 East Cerbat alternatives).

2.2.2.3 W2 West Cerbat Alternative

The W2 West Cerbat Alternative is nearly identical to the W1 Alternative but for a 1.3-mile segment, which would be constructed along the edge of the CFRA (i.e., on the border but inside the CFRA), whereas the W1 West Cerbat Alternative in this area would be built approximately 800 feet inside the CFRA. The W1 West Cerbat Alternative was designed to be deeper into the CFRA to minimize the effects to residences located close to the boundary. This alternative would cross the most BLM-administered land and one of the least amounts of private land.

2.2.2.4 W3 West Cerbat Alternative

The W3 West Cerbat Alternative varies from the W1 and W2 West Cerbat alternatives because it would be built along Shinarump Road for an additional 1 mile, extending across more privately owned land. It would turn north from Shinarump Road at Tooman Road and continue north on private land for 1 mile before it reaches the western boundary of the CFRA. At this point, all West Cerbat Foothill alternatives would follow the same route to the Mineral Park Substation.

2.2.2.5 W4 West Cerbat Alternative

The W4 West Cerbat Alternative would cross the most private land. The W4 West Cerbat Alternative would differ from the other three West Cerbat alternatives in that it has an approximate 2.5-mile segment that would be built south of Shinarump Road along the north side of the Western Area Power Administration (WAPA) Davis to Prescott 230 kV Transmission Line. It would follow the Davis to Prescott line for 1.5 miles; the other approximately 1-mile segment would follow residential roads. At one of the residential roads, Pine Road, it would turn north, extending across Shinarump Road and following the same route along Tooman Road as described for the W3 West Cerbat Alternative.

2.2.3 Right-of-Way Needs

2.2.3.1 Bureau of Land Management

For all proposed action alternatives, UNSE is requesting a long-term ROW with right of renewal. The transmission line ROW would be 125 feet wide for a specific number of miles depending on the proposed action alternative selected across BLM-administered land (Table 8, Appendix A-2). In addition, a 10-acre parcel of land would be needed for the proposed Mineral Park Substation, and additional ROW would be needed where access roads along the transmission line would be outside of the 125-foot-wide ROW. The length of access roads needed is summarized in Tables 9 and 10 in Appendix A-2.

UNSE is also requesting temporary use areas which would allow extra space for construction activities. Temporary use areas would be needed approximately every 10 structures to provide a larger work area to install the structure as well as at each pulling and tensioning site.

2.2.3.2 City of Kingman Lands

For the East Cerbat alternatives, UNSE would use an existing ROW easement in Section 15, Township 21 North, Range 17 West, Gila and Salt River Baseline and Meridian. where transmission line facilities exist across lands owned by the City of Kingman. UNSE would request an amendment to their ROW authorization to account for project upgrades.

2.2.3.3 State of Arizona Trust Lands

UNSE would use an existing State ROW easement in Sections 4 and 36, Township 22 North, Range 17 West and Section 8, Township 21 North, Range 17 West, all in G&SRM, where transmission line facilities exist across State of Arizona Trust land. UNSE would request an amendment to their ROW authorization to account for project upgrades.

2.2.3.4 Private

Once the final route is determined, UNSE would purchase private land rights through negotiations with landowners based on independent appraisals. Landowners would retain land titles, and landowner ROW use would be allowed for any purpose compatible with UNSE's rights, including safety-related requirements. If good faith negotiations are not successful, UNSE would acquire the additional ROW through condemnation under its eminent domain authority. All private land rights would be acquired in accordance with applicable laws and regulations.

2.2.4 Disturbance Acreages and Length of Access Roads and Proposed Action Alternatives

Table 8 (Appendix A-2) summarizes the length of each proposed action alternative across each land jurisdiction. Tables 9 and 10 (Appendix A-2) summarize the distance of access road needed to be built and improved. Tables 11 and 12 (Appendix A-2) summarize the permanent and temporary ROW needed for each land jurisdiction.

2.2.5 No Action Alternative

The no action alternative would result in the BLM not granting a ROW to UNSE; as a result, the transmission line and Mineral Park Substation would not be built. Improvement of reliability and support of the projected load increase of the electrical infrastructure near Golden Valley and Kingman would not occur. The no action alternative is analyzed in this EA to provide a baseline for comparison of environmental effects and to demonstrate the consequences of not meeting the purpose and need for the proposed action.

2.2.6 Preferred Alternative

Based on the analysis provided in Chapter 4 of this EA, the BLM has selected the E1 East Cerbat Alternative as the preferred alternative. This is the environmentally preferred alternative for the following reasons: both East Cerbat alternatives would be within designated utility corridors, would follow or be proximate to existing linear infrastructure more than the West Cerbat alternatives, would be proximate to less residential properties, and would have less impacts to the CFRA. While there are some resources which would be affected more from the E1 East Cerbat Alternative than some or all of the West Cerbat alternatives, in considering all impacts to all resources, the E1 East Cerbat Alternative would have less impacts than the others. This analysis considers unavoidable adverse impacts that would be anticipated from the alternative routes. Of primary consideration are affects to land use and socioeconomics. As noted above, this

alternative would have the shortest route length; however, it would have more surface-disturbing impacts to private land than the West Cerbat alternatives.

2.3 Alternatives Considered but Eliminated

During scoping, several alternatives were proposed for alternative alignments and the proposed transmission line's design which, after consideration, were eliminated from further consideration. Refer to Table 13 (Appendix A-2) for descriptions of these alternatives and the rationale as to why they were eliminated from further consideration.

2.4 Resource Protection Measures

As part of all the proposed action alternatives, resource protection measures are identified to lessen potential impacts to biological, cultural, visual, water, soils, noise, and public health and safety. See Appendix C for a description of the protection measures.

CHAPTER 3: AFFECTED ENVIRONMENT

This chapter describes the existing conditions of the environment within the project area and sets up the discussion of potential impacts upon this environment in Chapter 4. Table 14 (Appendix A-2) summarizes the resources and issues reviewed for this project. Resources not present within the project study area, as well as those present and not affected, are not discussed further. Those resources that are present and potentially affected are discussed in this and the following chapter.

3.1 Land Use

This section summarizes the lands within the project area in terms of ownership and jurisdiction, existing land use, zoning, and planned and proposed uses. The land use study area includes those areas where land use could be directly or indirectly affected by the proposed project. Specifically, for existing land use, the study area is 1 mile on either side of the proposed transmission line centerline. For ownership and jurisdiction, existing zoning, and planned and proposed land use, the study area is 2 miles on either side of the proposed transmission line centerline. Inventoried data was gathered through aerial photograph interpretation, field verification, and the review of various documents, including general plans and maps, zoning/land development codes, and master plans. In addition, jurisdictional websites were reviewed, and direct contact was made with federal, state, and local agency staff.

A separate discussion on properties with the potential to be directly affected is provided below in Section 3.2 *Socioeconomics*.

3.1.1 Land Ownership and Jurisdiction

Land ownership and jurisdiction defines the limits of administrative or jurisdictional control maintained by the major landholders located in the vicinity of the project (Figure 4, Appendix A-3). Land status designations are important to the siting of transmission lines because they influence or directly determine such things as expenditure of management funds, land use and zoning regulations, and administrative planning goals for particular parcels or districts. Table 15 (Appendix A-2) summarizes land ownership by alternatives.

Federally managed, BLM-administered, public land and private land comprise the majority of jurisdiction along proposed action alternatives. The federally managed land crossed by the proposed action alternatives is administered by the BLM Kingman Field Office. There are also several areas held in public trust and administered by the ASLD.

The entire study area is within Mohave County, Arizona. The City of Kingman, located in the southeastern portion of the project study area, is the county seat of Mohave County. Portions of the East Cerbat alternatives cross over lands administered by the City of Kingman. Golden Valley, located along the route common to all alternatives and the West Cerbat alternatives, is an unincorporated area and is administered directly by Mohave County.

3.1.2 Existing Land Use

There are a mix of existing land uses within the project study area. Existing land uses are depicted in Figure 5 (Appendix A-3).

3.1.2.1 Residential

Residential areas are categorized and depicted in Figure 5 (Appendix A-3) based on the density of dwellings within a given area. Rural residential areas are low-density housing areas, including ranchettes, rural residences, and other single-family dwellings on large rural and/or agricultural parcels. Much of Golden Valley falls within this category. Due to the relatively small population size within the City of Kingman

and Mohave County and the rural nature of much of the study area, residential areas with four or more dwelling units per acre are considered medium-high density residential. This category includes most developed subdivisions as well as high-density housing, such as condominiums, townhouses, and apartments. A count of residential properties adjacent to the proposed action alternatives is summarized in Table 16 (Appendix A-2).

Several subdivisions are within the project study area: So-Hi Estates, Walnut Creek Estates, Sacramento Valley Ranches, Golden Sage Ranchos, Sun West Acres, Golden Valley Ranches, Metcalfe Acres, and the Kingman New School House Addition.

3.1.2.2 Public and Quasi-Public

Public and quasi-public uses include schools, churches, cemeteries, airports, and other facilities generally associated with public use. There are no public or quasi-public facilities along the West Cerbat alternatives. Along the East Cerbat alternatives and within the City of Kingman, public and quasi-public land uses include the Mohave County Sheriff's Department, several Mohave County offices, Kingman Cerbat Justice Court, Mohave County Jail, Mohave County Juvenile Detention Center, Mohave Museum of History and Arts, Kingman Visitor Center, Lee Williams High School, Palo Christy Elementary School, and Grandview Public Pool. ADOT operates the Kingman Port of Entry and Weigh Station near the intersection of US-93 and SR-68. There are no airports within the study area.

3.1.2.3 Commercial

Commercial uses, which include business, office, and retail land uses, are generally located along the East Cerbat alternatives in or near the City of Kingman, specifically near the intersection of I-40 and US-93 and along major transportation corridors, including US-93 and SR-68. A variety of transportation services, such as truck stops, service stations, automobile repair facilities, vehicle sales, convenience stores, fast food and sit-down restaurants, and other related service businesses, are located along these transportation corridors. No commercial uses are located along the West Cerbat alternatives.

3.1.2.4 Industrial

Industrial land uses are found near the point of origin of all the proposed action alternatives at the Harris Substation along I-40 and also near the US-93 and SR-68 interchange. Industrial facilities near the E1 and E2 alternatives include Nucor Steel, Harris and McConnico electrical substations, a variety of warehouses and trucking distribution centers, and several vehicle scrap yards. The West Cerbat alternatives are near the Nucor steel plant and some warehouse/distribution facilities. Further west along the W4 alignment, there is a material extraction area south of Shinarump Road used by Mohave County. Another area along the West Cerbat alternatives near the US-93 and SR-68 interchange includes a disturbed area that is used for sand and gravel extraction.

3.1.2.5 Parks/Recreation/Preservation

Parks, recreation, and preservation uses include areas, sites, or facilities used for recreational purposes or formally designated by a governmental agency for conservation or protection purposes. Such areas within the project study area are depicted on Figure 5 in Appendix A-3 and include the CFRA, Camp Beale Springs, Locomotive Park, Charles Metcalfe Park, Hubbs Neighborhood Park, and the Grandview Public Pool.

The CFRA is the largest park located within the project area. The East Cerbat alternatives cross the CFRA as the alignment parallels US-93 within a BLM-designated utility corridor. The West Cerbat alternatives extend along BLM-administered land just within the westernmost boundary of the CFRA. The CFRA, jointly managed by the City of Kingman and BLM, is designated as an 11,300-acre Special Recreation

Management Area under the Kingman RMP (BLM 1993). The area consists of federal, state, county, and city land.

Recreational opportunities in the CFRA include hiking, mountain biking, equestrian activities, and a variety of other dispersed recreational activities. Four trailheads occur within 0.5 mile of the East Cerbat alternatives; none occur near the West Cerbat alternatives. Metwell Drive Trailhead is located about 0.5 mile north of the I-40 interchange in Kingman on the southwest side of US-93. Camp Beale Trailhead is located about 1.5 miles north of the I-40 interchange in Kingman on the north side of US-93. Coyote Pass Trailhead is located 1.5 miles north of Metwell Drive Trailhead on the southwest side of US-93. Badger Trailhead is located on the northeast side of the US-93 and SR-68 interchange. These trailheads are the 4 most accessible access points for approximately 38 miles of trails within the study area, including the Monolith Gardens, Foothills Rim, Rattler, Sidewinder, Camp Beale Loop, Badger, and Castle Rock trails.

In total, the CFRA has over 38 miles of non-motorized trails that receive year-round use from hikers, mountain bikers, and equestrian users. Visitation to the area has been documented using visitor sign-in boxes located strategically throughout the area and then recording that documented use in the Recreation Management Information System, a national BLM database. Since 2006, non-motorized annual visitation to the CFRA averages approximately 3,307 visits per year, while dispersed visitation (visitors participating in indirectly managed activities such as general recreational use) accounts for an average of about 1,407 visits per year.

Camp Beale Springs, a historic property, is located within the CFRA. It lies just southeast of a small segment of the common portion of East Cerbat alternatives that are proposed to be built on the east side of US-93. There are two historical markers memorializing the significance of this area as an outpost during the Hualapai War and later as a place of temporary resettlement for the Hualapai people. There are trails and picnic tables as well.

3.1.2.6 Range Land/Undeveloped

Large areas of undeveloped land are found throughout the majority of the study area, particularly west and south of the City of Kingman and north of Golden Valley along the US-93 corridor. Some of this land is used for livestock grazing, which primarily occurs on private land and open rangelands administered by the BLM and ASLD. Grazing allotments and leases issued by the BLM and ASLD within the study area are listed in Table 17 in Appendix A-2.

3.1.2.7 Transportation, Utilities, and Communication Towers

Transportation

Ground transportation features within the study area include I-40, US-93, and SR-68, as well as city and county jurisdictional roads and two railroads. There are numerous major local roadways within the study area, including Shinarump Road, Bacobi Road, and Mineral Park Road. There are no airports within the study area.

Utilities

Utilities inventoried include electrical transmission lines, electrical substations, major pipelines, fiber optic lines, communication lines, water lines, wells, and wastewater lines. Transmission lines are electric lines that transport electricity in bulk for long distances. Electrical transmission lines within the study area are operated by UNSE, Mohave Electrical Cooperative, and WAPA. UNSE operates several 69-kV transmission lines within the study area located primarily along major roadways. In addition, UNSE owns and operates several substations within the study area. These lines are built on varied structures such as lattice towers, steel monopoles, and wood poles. Electrical distribution lines are located throughout the study area, usually adjacent to roads.

A variety of fiber optic and telecommunication lines extend throughout the project study area, generally along the primary transportation routes.

Several public and private wells primarily associated with residential areas are also located within the study area. Water and wastewater pipelines are also found throughout the study area, generally within or adjacent to roads in developed areas.

Communication and Radio Towers

The KAAA 97.5 FM radio tower is located near the intersection of I-40 and US-66 in the southern portion of the project study area. It broadcasts 24-hour talk radio. A multi-use radio tower is located near the junction of US-93 and SR-68 in Golden Valley and primarily serves KYET 1170 AM radio broadcast. KYET broadcasts classic country.

There is also a major microwave tower located between the CFRA and I-40 in the southern part of the study area.

3.1.3 Zoning

Zoning is the single most commonly used legal device for implementing a land use plan or for controlling the type of development within a given area. Zoning is an exercise of police power. This police power resides with the state government, whose purpose is to promote the health, safety, and general welfare of the community. Most state legislatures delegate the power of zoning to local governments, and this is true of Arizona as well. The source of statutory authority for the Zoning Code is in the form of the State Enabling Act.

Zoning was inventoried and mapped for portions of Mohave County, City of Kingman, and all areas where land could be directly or indirectly affected by the proposed project (Figure 6, Appendix A-3). More details on zoning and residential information is found in Section 3.2 *Socioeconomics*.

3.1.4 Planned and Proposed Land Use

Planned land use information was obtained from general and comprehensive area plans adopted by federal, state, county, and municipal agencies. The primary purpose of general and comprehensive plans is defined in state law: "The comprehensive plan shall be developed to conserve the natural resources of the county (city), to ensure efficient expenditure of public funds, and to promote the health, safety, convenience, and general welfare of the public."

The Comprehensive Plan serves as a guide for decisions by the Planning and Zoning Commission and Board of Supervisors concerning growth and development, while also serving as a guide for the private sector in making informed investment decisions.

The planning efforts and information available from the BLM, State of Arizona, and Mohave County describe short- and long-term goals and expectations but vary substantially in complexity and level of accuracy. Planned land use designations have been generalized to incorporate different jurisdictional categories (Figure 7, Appendix A-3).

The primary planning documents with regulatory authority over the lands crossed by the alternatives include the Mohave County General Plan, City of Kingman General Plan Update 2030, and the RMP of the Kingman Field Office of the BLM.

3.1.4.1 BLM

The Kingman RMP (1995) designates two utility corridors within the study area: Davis-Prescott, a 2-mile-wide utility corridor extending east-west across the southern portion of the study area, and the Highway, a 1-mile corridor generally extending along US-93 northwest of Kingman and along I-40 both east and west of Kingman. These corridors are depicted in Figure 7 in Appendix A-3.

In addition, portions of the study area are managed for visual resources in accordance with the BLM's VRM objectives. Please refer to Section 3.5 *Visual Resources* for more information.

The BLM manages the area east of Tooman Road and northwest of the City of Kingman as part of the CFRA, referred to as the Kingman Regional Park Special Recreation Management Area in the RMP.

3.1.4.2 State of Arizona

Portions of the study area consist of undeveloped tracts of land administered by the ASLD. The State of Arizona does not have a Comprehensive Management Plan for lands in the vicinity of the study area. The majority of State of Arizona land in the study area is currently leased for grazing and no change is expected in the near future.

3.1.4.3 Mohave County

The Mohave County General Plan was adopted in September 2015. The primary purpose of the General Plan is to meet state requirements for future development of the county and provide the citizens of Mohave County an opportunity to incorporate their own ideas for the county into the plan. Most importantly, the 2015 General Plan is a public tool for the citizens of Mohave County to guide the growth they wish to see through the year 2035.

The county has been divided into a number of land use designations. The intent of these land use categories is to provide direction in determining the growth patterns for today and for the future. The General Plan Land Use Diagram is based on the goals, objectives, and policies developed through citizen, agency, and governmental participation and takes into consideration physical conditions and environmental constraints. None of the land use designations within the study area exclude an electrical transmission line.

3.1.4.4 City of Kingman

The City of Kingman General Plan was updated in 2014. Its goal is to guide long-term growth and development for the City of Kingman and its planning area. It calls for a balanced mix of land uses, improving traffic efficiency, and preserving air and water quality. None of the land use designations within the study area exclude an electrical transmission line.

3.1.4.5 Proposed Land Use

The proposed land use sub-category discusses specific land development proposals that have been identified by the land development departments of Mohave County and the City of Kingman as well as by the BLM. These jurisdictions were contacted in 2016 and 2017 in order to obtain information about current land use developments proposed in the study area. Proposed land uses are depicted in Figure 8 in Appendix A-3.

Western Wind, LLC has a lease for land next to its existing five-turbine Kingman project. The company has expressed interest in developing a similar number of turbines on this parcel. Additional small-scale solar energy-generating facilities are also a possibility in the vicinity of existing facilities.

For the purposes of this study, undeveloped areas are categorized as open space. These areas may also include subdivisions that have been platted and razed for development, but either no construction has taken place or the development appears to have been abandoned in portions or in its entirety. Known as "legacy

lots," thousands of lots in these subdivisions were platted and sold off in Mohave County as inexpensive land deals in the 1930s. Many of these lots remain vacant to this day. These lots are available for development pending permit approval.

ADOT and the Federal Highway Administration, in coordination with the BLM, have initiated a study to identify a preferred alternative for improving traffic flow at the I-40 and US-93 interchange in west Kingman. Alternatives for a new traffic interchange location, including possible improvements to the existing Beale Street traffic interchange, were evaluated for providing a free-flow connection between I-40 and US-93.

The Interstate 11 (I-11) and Intermountain West Corridor is envisioned to accommodate multiple modes and uses such as highway, rail, and utilities. The first phase of the project is underway between Nogales, Arizona and Wickenburg, Arizona. In the future, the north section of the project connecting Wickenburg to Las Vegas via US-93 and Interstate 515 will be revamped and replaced by I-11. Although construction has yet to commence, the northern extension of I-11 remains an integral part of the Intermountain West Corridor long range plan.

3.2 Socioeconomics

This section draws from some of the information provided above in *Land Use* to describe the environmental settings of the alternative routes in regard to the lands that are proximate to them. While this section concentrates on lands that are residential in nature, lands with other uses are mentioned where it is relevant to understand the context in which residential lands exist. The reason for this focus on residential lands is because where research has found effects to property values from transmission lines, these effects have mostly been to residential properties. In some instances, commercial and industrial property values could be affected; however, these effects appear to be limited to properties where a transmission line or its easement restricts the properties' ability to maximize revenue generation. To predict these effects is beyond the scope of this analysis. Refer to Appendix D for a discussion on the BLM's review of the research and its application for this analysis.

For purposes of this section, the affected environment is defined as those properties that have been developed for residential occupation or vacant lands where zoning would allow for residential development, except for the instances noted below where circumstances dictate otherwise. The comparisons between the alternative routes refer to the number of properties that are residential in nature and within 1,000 feet of the centerlines. This distance is used because the research shows that effects to residential properties most often occurred within 1,000 feet of transmission lines.

This analysis uses zoning and planning designations by Mohave County and the City of Kingman to consider which properties are residential. Properties that are zoned by Mohave County that may be used for residential uses and are within the affected environment are Single Family Residential/Manufactured Homes Prohibited (R-O), Residential Recreation (R-E), Agricultural-Residential (A-R), and General (A). In many cases properties zoned A are included if occupied residential properties and/or properties zoned for residential use are within their vicinity. There are a few vacant properties that have potential conflicts between their plan designation as commercial and their zone category as A. These conflicts arise when the surrounding land could be developed for either type of use. The A zone category acts as a placeholder until it becomes clear how the properties would be developed and the land could be rezoned. With zoning controlling the allowable use, there would be no legal conflicts with the planned designation should they be developed for residential use. Therefore, these properties have been included in the residential category for purposes of this analysis. Conversely, in a few limited instances, some properties are zoned A-R; however, their use is industrial in nature, as with properties occupied by railroads while their plan designations are industrial or commercial. In these cases, these would not be counted as residential properties.

Lands that are under the jurisdiction of the City of Kingman that may be used for residential uses and are within the Affected Environment are Residential, Multiple Family, Low Density (R-2); Residential, Single-Family, 6,000 square foot Lot Minimum (R-6); and Recreation/Open Areas (R-O) that are 5 acres or greater and have an approved variance for residential use.

In addition to those categories specifically for residential use, Table 16 in Appendix A-2 summarizes the number of residential properties within 1,000 feet of the centerline of each of the alternative routes. Table 18 identifies the number of miles of proposed power line that would be within 1,000 feet of properties zoned residential by alternative and Table 19 summarizes the number of these properties with habitable structures.

3.2.1 Descriptions of Properties Along the Proposed Action Alternative Routes

3.2.1.1 Route Common to All Alternatives

This common route runs parallel with and west of US-93, and the proposed common route would be the same as the existing Hoover-Kingman 69-kV transmission line, except for the short segment crossing the highway to the proposed substation in the vicinity of Mineral Park Road. Should the ROW be granted, the wires for the Hoover-Kingman 69-kV line would be hung on new and taller poles along with the proposed 230-kV transmission line wires.

The northern approximate 6 miles of this route passes through vacant private lands, as well as State Trust and BLM public lands. The private lands along this portion are subdivided into parcels mostly 40 acres or larger and are all zoned A-R, with the exception of one zoned R-E. South and east of the State Trust and BLM public lands the private lands north of West Chino Drive proximate to this proposed route are mostly vacant and generally vary in size from 2.5 acres to 40 acres. South of West Chino Drive the parcels are generally smaller, from 1 to 2.5 acres, and contain a mix of developed and vacant properties. The lands closer to the traffic interchange of US-93 and SR-68 are mixed with vacant and developed properties, mostly residential in nature, with some commercial properties predominately in the vicinity of these highways. These lands are mostly zoned A-R, with several zoned R-E and R-O, and a few as R-O/A. This route common to all alternatives runs a distance of approximately 5.5 miles where it is within 1,000 feet of residential properties.

The vacant private, State Trust, and BLM public lands in the northern portion of this common route are primarily used for livestock grazing (see Table 17, Appendix A-2 for grazing allotments).

3.2.1.2 East Cerbat Alternatives

Both East Cerbat 1 and 2 alternatives share a common route for most of their lengths. This route, along with the route common to all alternatives, are where residential properties exist in relation to the East Cerbat alternatives. No residential properties are proximate to the two East Cerbat alternatives south of where they diverge from the East Cerbat common alternative.

As described above with the route common to all alternatives, the properties proximate to this route in eastern Golden Valley in the vicinity of the traffic interchange of US-93 and SR-68 are characterized as low-density residential and are mostly zoned A-R, except for two that are commercial with frontages along SR-68. These parcels generally range in size from 1 to 2.5 acres. East of these properties are lands administered by ADOT for the Kingman Port of Entry and Weigh Station, and in between that and the developed properties within Kingman's city limits are predominantly BLM public lands and lands owned by the City of Kingman that are within the CFRA. Approximately 0.1 mile along this portion of the East Cerbat common route is within 1,000 feet of residential properties.

Proximate to the East Cerbat common route within the City of Kingman the development is relatively dense, and all but a handful of residential properties are larger than 2 acres. The 69-kV transmission line in this area would not be collocated on the 230-kV transmission line structures. Rather, it would remain in place and the 230-kV line would be built next to it. In this area the properties fronting US-93 are commercial, most of them providing highway services. Residential properties exist immediately behind these. In this area the proposed route lies almost entirely south of the developed properties, some of which are zoned commercial but appear to be used primarily for residences and therefore, are included for this analysis as residential. As this route approaches I-40, the properties within 1,000 feet of this route's centerline are almost all commercial, except for one area of vacant subdivided land south of Highway 93 and west of I-40 that contains 212 contiguous parcels. Taken as a whole, these properties are unlike others in the affected area. The majority of these are 0.25 acre or less, and these parcels do not appear to have means of ingress/egress. Approximately 1.5 miles along this portion of the East Cerbat common route are within 1,000 feet of residential properties.

The properties east of I-40 in the vicinity of the I-40/US-93 traffic interchange are mostly public properties and include the Mohave County Sheriff's Department, several Mohave County offices, Kingman Cerbat Justice Court, and Mohave County Jail. In between these properties and US-66, the lands are privately owned vacant and mostly zoned A-R, with the larger vacant parcels within Kingman's city limits zoned Recreation-Open Area. These properties' sizes generally range from 10 to 100+ acres. Approximately 1.5 miles along this portion of the East Cerbat common route are within 1,000 feet of residential properties.

Still further south in the vicinity of US-66, I-40, and the Burlington Northern and Santa Fe Railway, the private lands are largely commercial and industrial. A recreational vehicle park is also located along US-66 in this area. Approximately 1 mile south of this area, the East Cerbat 1 and 2 alternatives diverge for approximately 1.5 miles, and the lands through which they pass are similar, being BLM public lands and private lands. Some of these private lands are vacant, interspersed with lands developed for commercial and industrial uses and livestock grazing.

There are 228 residential properties[1] within 1,000 feet of the East Cerbat 1 and 2 alternatives, 142 of which have habitable structures.

The total length of the East Cerbat 1 Alternative is 17 miles and that of the East Cerbat 2 Alternative is 18 miles. The lengths of both these alternatives within 1,000 feet of residential lands aggregate 8.6 miles, 50.7 percent and 47.9 percent of the East Cerbat 1 and East Cerbat 2 alternatives, respectively.

3.2.1.3 West Cerbat Alternatives

A majority of the West Cerbat alternatives are on BLM public lands that are adjacent to private lands, most of which are zoned for residential uses, which makes them distinctly different from the route common to all alternatives and the East Cerbat alternatives. The route common to all alternatives—except for that segment parallel with US-93 where that highway separates BLM public and private lands—the East Cerbat alternatives, and the West Cerbat 3 and 4 alternatives south of where they diverge from the West Cerbat 1 and 2 alternatives typically are surrounded with properties of the same ownerships as those that run through them. Where residential development exists or there is the potential for it to exist, this development is or would be on both sides of these routes. With the BLM public lands being vacant and within the CFRA, there is no potential for residential development on them, and so in these segments, should a ROW be granted for this alternative, the proposed transmission line would be on the boundary between the residential properties and the BLM public lands.

[1] This number of residential parcels does not include the vacant subdivided land south of US-93 and west of I-40 that contains 212 contiguous parcels, as these parcels are undeveloped, appear to have no access, and do not seem to be developable.

Much of the private lands along this West Cerbat Common route are vacant and predominantly zoned A-R, except for the southern portion where developed parcels are more prevalent. This area is characterized with a mixture of developed and vacant properties that are generally 1 to 4 acres, with some in the 10- to 20-acre range. These are mostly zoned A-R except for some parcels closer to SR-68 that are zoned commercial. This West Cerbat common route is approximately 4.1 miles, all of which are within 1,000 feet of residential lands.

3.2.1.4 West Cerbat 1 and 2 Alternatives

The West Cerbat 1 and 2 and the West Cerbat 3 and 4 alternatives diverge near the intersection of South Tooman Road and West Unkar Drive. The West Cerbat 1 and 2 alternative turn east, following a common route on BLM public lands with private residential lands to the south. These private lands are mostly vacant, with some developed for residential use, and are zoned A-R. Approximately 600 feet east of the private lands the route turns southward and diverges into the West Cerbat 1 and 2 alternatives. The West Cerbat 1 Alternative continues south following a route roughly 600 to 900 feet east of the private properties. The West Cerbat 2 Alternative turns southwestward, where it follows the boundary of BLM public and private lands. This setting would have the same characteristics of those described above where this route is adjacent to private lands and, to a lesser extent, where they are further away but still within the viewshed of the private lands. These alternatives are within 1,000 feet of residential properties for approximately 2.2 miles (West Cerbat 1 Alternative) and approximately 2.4 miles (West Cerbat 2 Alternative). These alternative routes continue southwards through BLM public lands and turn southeast along Shinarump Road where they converge with the West Cerbat 3 Alternative and, after a short distance further southeast, the West Cerbat 4 Alternative.

The total length of the West Cerbat 1 Alternative is 17.6 miles. The length of this route within 1,000 feet of residential lands is 11.8 miles (67.1 percent of the total route). The total length of the West Cerbat 2 Alternative is 17.7 miles. The length of this route within 1,000 feet of residential lands is 12 miles, 67.6 percent of the total route.

There are 266 residential properties within 1,000 feet of the West Cerbat 1 Alternative, 76 of which have habitable structures. There are 267 residential properties within 1,000 feet of the West Cerbat 2 Alternative, 76 of which have habitable structures.

3.2.1.5 West Cerbat 3 and 4 Alternatives

From where the West Cerbat 3 and 4 alternatives diverge from the West Cerbat 1 and 2 alternatives, they continue south along a common route through private property where they diverge in the vicinity of West Shinarump Drive and South Pine Road. The West Cerbat 3 Alternative follows West Shinarump Drive through private lands and then onto BLM public lands. The West Cerbat 4 Alternative continues southward along South Pine Road, then turns southeast and follows the Davis-Prescott 230-kV transmission line onto BLM public lands. Except for some of the parcels along West Shinarump that are close to the private/BLM public lands boundary, most of the parcels are vacant. The private lands in this area are zoned A-R and range in size from approximately 2 to 40 acres. The lengths of the proposed action alternatives in this area where they are within 1,000 feet of residential properties are approximately 1.8 miles for the West Cerbat 3 Alternative and approximately 2 miles for the West Cerbat 4 Alternative.

After the four West Cerbat alternatives converge, they continue southeast towards McConnico and the Harris substation. The private lands in this area proximate to this alternative are a mixture of vacant lands and lands developed for commercial and industrial uses.

The total length of the West Cerbat 3 Alternative is 17.4 miles, 11.4 miles—or 65.6 percent—of which is within 1,000 feet of residential lands. The total length of the West Cerbat 4 Alternative is 17.6 miles, 11.6 miles—or 65.8 percent—of which is within 1,000 feet of residential lands.

There are 307 residential properties within 1,000 feet of the West Cerbat 3 Alternative, 87 of which have habitable structures. There are 343 residential properties within 1,000 feet of the West Cerbat 4 Alternative, 79 of which have habitable structures.

3.3 Biological Resources

A Biological Evaluation (BE) has been prepared for this project and is contained within Appendix E. A summary of the findings is provided below.

3.3.1 General Wildlife

A diverse array of wildlife species associated with the Mojave Desert Scrub vegetation community can be found within the project area. Fish and amphibian species are not found in the project area because of the desert environment and lack of perennial water sources. The largest mammals that could be found in the project area are mule deer (*Odocoileus hemionus*) and, less frequently observed, the mountain lion (*Puma concolor*). Some of the smallest include species of rodents and bats such as the Arizona pocket mouse (*Perognathus amplus)* and Harris's antelope squirrel (*Ammospermophilus harrisii*).

Many resident and migratory bird species frequent the area; examples include the red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), loggerhead shrike (*Lanius ludovicianus*), turkey vulture (*Cathartes aura*), mourning dove (*Zenaida macroura*), cactus wren (*Campylorhynchus brunneicapillus*), and the common raven (*Corvus corax*). As it is a desert environment, reptiles are common; several species of lizard, such as the spiny lizard (*Sceloporus* spp.), and snakes occur in the project area. Invertebrates such as insect species are also numerous. A list of wildlife species observed during field reviews can be found in Appendix C of the BE.

3.3.2 BLM Sensitive Wildlife Species

Five BLM-listed sensitive wildlife species have the potential to be impacted by the project. Condensed information extracted from the BE is presented below.

3.3.2.1 Sonoran Desert Tortoise (Gopherus agassizii)

All proposed action alternatives would pass through desert tortoise habitat known to support low densities of the Sonoran desert tortoise (see BE for a map of habitat as well as a detailed description of the species' protection status, occurrences, distribution, and habitat) (Peck 2007).

3.3.2.2 Golden Eagle (Aquila chrysaetos canadensis)

There is one potential nest approximately 1.25 miles south of all proposed action alternatives near their origination point. No other nest locations are known.

3.3.2.3 Western Burrowing Owl (Athene cunicularia)

No burrowing owls or signs of burrowing owls were identified, but suitable burrowing owl habitat was identified by biologists along proposed action alternatives (Table 20, Appendix A-2).

3.3.2.4 Greater Western Bonneted Bat (Eumops perotis californicus)

No known bat roosts are located along the proposed action alternatives, but potentially suitable cliff roosting habitat was identified along the East Cerbat alternatives.

3.3.2.5 Desert Kit Fox (Vulpes macrotis arsipus)

Suitable kit fox habitat overlaps the habitat of the western burrowing owl. Additionally, one potential kit fox den was observed along the W3 and W4 West Cerbat alternatives.

3.3.3 Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act

With the exception of domestic pigeons, house sparrows, and European starlings, all of the numerous species of birds in the project area are protected under the Migratory Bird Treaty Act of 1918, as amended (16 USC 703-712), and the Bald and Golden Eagle Protection Act.

3.3.4 Wildlife Linkages

The Arizona Wildlife Linkages Workgroup (2006) identified a potential wildlife linkage zone and a habitat block along both East Cerbat alternatives (ADOT 2010). Additionally, two wildlife movement corridors described in the BLM's 1995 RMP are found along the East Cerbat alternatives.

3.3.5 General Vegetation

Vegetation in the project area is classified as the Mojave Desert scrub/semi-desert grassland community. Low valley floors are generally dominated by a combination of creosote bush (*Larrea tridentata*), catclaw acacia (*Acacia greggii*), Mojave yucca (*Yucca schidigera*), and cholla (*Opuntia* spp.). Some mountainous areas are similar in species composition, but cacti and yucca are dominant. Other mountainous areas are dominated by canotia (*Canotia holacantha*), and others contain a mix of shrubs and cacti, some of which are generally not found in lower areas—ocotillo (*Fouquieria splendins*), oak (*Quercus* sp.), graythorn (*Ziziphus obtusifolia*), and palo verde (*Parkinsonia* sp.).

3.3.6 Noxious and Invasive Plants

No noxious weeds were identified during field reviews; however, it is common for diffuse knapweed (*Centaurea diffusa*), spotted knapweed (*Centaurea stoebe*) and yellow starthistle (*Centaurea solstitialis*) to grow in the area, and these plants or their seed may be located within the project area. Also, invasive plants such as red brome (*Bromus rubens*), Russian thistle (*Salsola iberica*), and Sahara mustard (*Brassica tournefortii*) are common in the area, and their seed may be located within the project area as well.

3.4 Cultural Resources

Transcon Environmental (Transcon) conducted surveys to determine if cultural resources which could potentially be affected by the proposed action alternatives are present within the project area. Important cultural resources may include historic or prehistoric archaeological sites or objects, historically or architecturally significant structures or buildings, or landscapes and traditional cultural properties that are eligible for inclusion in the National Register of Historic Places (NRHP). Section 106 of the National Historic Preservation Act and its implementing regulations (36 CFR Part 800) require federal agencies to account for the effects of their undertakings on historic properties and to give the State Historic Preservation Office and other interested parties the opportunity to comment on such undertakings.

The findings of this survey are detailed in the cultural resources survey report prepared for the project by Transcon (Tactikos 2019). In summary, a total of 25 sites (13 newly recorded sites and 12 re-evaluated/re-recorded sites) were identified within the project area. Of the 12 sites that had been previously recorded during prior surveys, the majority are historic sites related to transportation, with only one pre-historic site and one proto-historic site revisited. Ten sites were determined eligible or were recommended as eligible for inclusion in the NRHP. One of these previously discovered, eligible sites within City of Kingman jurisdiction lands (East Cerbat alternatives) includes an interpretive trail established around the ruins of a military camp that is important to the history of the temporary resettlement of the indigenous Hualapai people in this region after the Hualapai War of the 1860s. All 13 newly recorded sites are historic features,

and only 2 of these sites have been recommended as eligible for inclusion in the NRHP. The majority of these sites are Historic-period refuse scatters.

The distribution of eligible historic properties and ineligible cultural resource sites within the separate alternatives for this project is as follows: 15 eligible sites and 14 ineligible sites within the East Cerbat 1 and 2 alternatives, no eligible sites and 17 ineligible sites within the West Cerbat 1 and 2 alternatives, and no eligible sites and 15 ineligible sites within the West Cerbat 3 and 4 alternatives.

In addition to the 25 sites, 184 isolated occurrences were found; these are isolated finds consisting of one or very few artifacts. Only 11 of these isolated occurrences were prehistoric.

3.5 Visual Resources

The affected environment is described in terms of landscape character, which is a composite of the form, line, color, and texture of landform/water, vegetation, and the built environment as well as specific visual resources within the landscape such as landmarks. The existing landscape character will be used as the baseline for analyzing compliance with VRM objectives (measurement indicator 1); dominance of change in form, line, color, or texture (measurement indicator 2); and effects to scenic vistas (measurement indicator 4). The identified specific visual resources within the landscape will be used in analyzing damage to scenic resources (measurement indicator 3). A description of inventory methods can be found in Appendix F-1.

3.5.1 West Cerbat Alternatives

The area generally consists of natural-appearing landscapes around the base and up into the Cerbat Foothills, with scattered roads, infrastructure, residences, and commercial facilities south of and within Golden Valley. Features of note within the existing landscape are the dark maroon-purple-brown rocks on the surface of the hills that transition to browns and lighter colors of rock and soil in the valley (Photos 1 to 3, Appendix F-2), the visibility of light buff-colored soil in recently disturbed areas (Photo 3, Appendix F-2), the general lack of tall, vertical, geometric structures near the southwest end of the Cerbat Foothills (Photos 1 to 3, Appendix F-2), the general limited visibility of existing power poles and other development when viewing the larger landscape (Photos 1 to 3, Appendix F-2), and the generally contiguous pattern of vegetation across much of the foothills and valley (Photos 1 to 3, Appendix F-2). Detailed descriptions of existing form, line, color, and texture as seen from key observation points (KOPs) can be found in Section B in the contrast worksheets (Appendix F-4). Additional existing condition photographs can be found in the simulation panels (Appendix F-5).

No specific scenic resources or scenic vistas were identified in the area. US-66, a National Scenic Byway and All-American Road (FHWA 2019), passes near the south end of the West Cerbat alternatives. The West Cerbat alternatives follow the edge of the CFRA, a sensitive scenic area. Residents and visitors to the area would likely be able to view the project from local roads, residences, businesses, and a few limited locations within the CFRA.

3.5.2 East Cerbat Alternatives

The area consists of natural-appearing landscapes dissected by major roads and utility corridors, infrastructure, residences, and commercial facilities to the north, west, and south of Kingman. Features of note within the existing landscape are the presence of large infrastructure in close proximity to view locations (Photos 4 to 6, Appendix F-2), the dark maroon-purple-brown rocks on the surface of the hills that transition to browns and lighter colors of rock and soil (Photos 4 to 6, Appendix F-2), the visibility of light buff-colored soil and rock in recently disturbed areas (Photos 4 to 6, Appendix F-2), and the generally bisected pattern of vegetation across much of the visible area (Photos 4 to 6, Appendix F-2).

I-40 and US-66 are particularly sensitive view corridors, I-40 due to the number of viewers and US-66 due to the sensitivity of the viewer experience given the less developed and more historic nature of the corridor (Photos 6 and 8 [US-66] and Photos 4, 6, 7, and 9 [I-40], Appendix F-2). The East Cerbat alternatives cross I-40 near the highway's intersection with Beale Street and cross US-66 about 2 miles south of Beale Street. A few additional features to note within the existing landscape are the presence of large infrastructure in close proximity to view locations (Photos 7 to 9, Appendix F-2), the general lack of larger landscape views, and the visibility of existing power poles and other development (Photos 7 to 9, Appendix F-2). Detailed descriptions of existing form, line, color, and texture as seen from KOPs can be found in Section B of the contrast worksheets (Appendix F-4). Additional photographs can be found in the simulation panels (Appendix F-5).

No specific scenic resources or scenic vistas were identified in the area. US-66, a scenic byway, passes near the south end of the East Cerbat alternatives (Photos 6 and 8, Appendix F-2) and the East Cerbat alternatives pass through a portion of the CFRA, a Special Recreation Management Area with highly trafficked non-motorized trails where viewers may be more sensitive to visual change in the area.

3.6 Air Quality

The U.S. Environmental Protection Agency (EPA) Office of Air Quality Planning and Standards has established National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) for six pollutants considered harmful to public health and the environment: sulfur dioxide, carbon monoxide, ozone, lead, particulate matter less than 10 microns in aerodynamic diameter, particulate matter less than 2.5 microns in diameter, and nitrogen dioxide. NAAQS places limits on acceptable ambient concentrations of these pollutants. The EPA is authorized to designate areas exceeding the NAAQS limits as "non-attainment areas" and classify them according to their degree of severity (i.e., primary, moderate, or serious). The project area is in attainment for all criteria pollutants (EPA 2016).

According to the City of Kingman General Plan (City of Kingman 2014), air quality is generally good in the Kingman area, and it is noted that anecdotal evidence indicates the primary problem is dust from construction development sites and vehicles travelling on unpaved roads; a secondary source is regional brush and forest fires.

3.7 Water Resources

The project area is located within the Sacramento Valley surface water basin, which drains to the Colorado River (ADWR 2016). Within the project area there are only ephemeral desert washes; there are no perennial waters, including wetlands, ponds, and canals. The East Cerbat alternatives pass near two springs: Camp Beale Spring is located approximately 500 feet east of the alignment and an unnamed spring is located approximately 100 feet west of the alignment near I-40.

Surface water quality data is not available because of the ephemeral nature of the surface waters. The desert washes are often naturally turbid when they flow because of high amounts of surface runoff. There are no impaired waters in the project area based upon a review of Arizona Department of Environmental Quality's eMap (ADEQ 2016).

3.8 Soils

Soil data from the Natural Resources Conservation Service soil survey was gathered for the project area (NRCS 2016). Specifically, data was gathered to determine the erodibility of the soil and if there is any prime farmland or hydric soil. Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops with a suitable growing climate. There are no prime farmland soil types within the project area. Hydric soils indicate soils formed under wet conditions and are an indicator of wetlands. There are also no hydric soil types in the project area.

Table 21 in Appendix A-2 displays the wind erodibility rating (i.e. the soil's susceptibility to wind erosion) of the soil types within the project area. Wind erodibility is based on the assumption that the soil is bare, lacks a surface crust, occurs in an unsheltered position, and is subject to the weather at Garden City, Kansas (note: Garden City is where tests were performed to determine wind erodibility ratings) (Woodruff and Siddoway 1965).

Table 22 in Appendix A-2 displays the relative susceptibility of bare, cultivated soil to erosion by rainfall based on the soil's K factor, an index that quantifies the soil's susceptibility to sheet and rill erosion.

3.9 Noise

3.9.1 Noise Impacts

Noise impacts are analyzed using an A-weighting of sound intensities. Noise generated by humans is well represented by an equivalent A-weighted sound level over a given time period or by the average day-night noise averages (L_{dn}). Equivalent energy level (L_{eq}) is the average noise intensity over a given time period, typically 1, 8, or 24 hours; because it accounts for loudness and duration, it is often referred to as the exposure level. Day-night noise averages are the average A-weighted equivalent sound level during a 24-hour period obtained by adding 10 decibels to the hourly average measured during the night. A-weighted sound pressure level (dBA) is measured using the A-weighting filter on a sound meter which emphasizes the sounds audible to humans.

3.9.2 Audible Noise

Outdoor ambient noise levels vary depending on the land use. In wilderness areas, the L_{dn} noise levels typically average 35 dBA. In small towns, the L_{dn} averages 50 dBA; it is typically 75 dBA in downtown urban areas and 85 dBA near busy freeways or airports.

With the exception of the industrial area surrounding the origination point of all alternatives and the commercial area and Mohave County Jail along the common portion of the East Cerbat alternatives on Beale Street, the project is mostly within rural areas.

Sensitive noise receptors are generally defined as residences, schools, religious facilities, hospitals, and parks preserved for the outdoor experience (i.e., not city parks). Table 23 in Appendix A-2 summarizes sensitive noise receptors within 1,000 feet of the transmission line along all alternatives. All the noise receptors within Table 23 are residences, with the exception of the single religious facility approximately 500 feet from the shared portion of the West Cerbat alternatives. In addition to these facilities, all proposed action alternatives will also pass along and within the CFRA, a park utilized by hikers and bikers that provides a natural desert landscape. Both East Cerbat alternatives are within—or within a distance of 1,000 feet of—the CFRA for 4.7 miles. The W1 and W2 West Cerbat alternatives are within—or within a distance of 1,000 feet of—the CFRA for 7.3 miles, and the W3 and W4 West Cerbat alternatives are within—or within a distance of 1,000 feet of—the CFRA for 5.1 miles.

3.9.3 Radio Noise

Radio noise is a combination of radio interference and television interference and is measured in decibels; in this case, decibels is a measure of a weak electrical energy, not sound energy, propagated through the air. Radio interference primarily interferes with the 535- to 1605-kilohertz frequency range; this includes AM band operational frequencies and is in the range of the lowest end of amateur (ham) radio operational frequencies. Television interference refers to interference in the 54- to 88-megahertz (MHz) range. The location of broadcast towers is provided in *Land Use* (Section 3.1.2).

3.10 Environmental Justice

Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires federal agencies to determine if proposed actions have disproportionate and adverse environmental impacts on minority, low-income, and American Indian populations of concern. BLM policy, as contained in BLM Land Use Planning Handbook H-1601-1 provides direction on how to fulfill agency responsibilities for EO 12898.

Environmental justice refers to the fair treatment and meaningful involvement of people of all races, cultures, and incomes with respect to the development, implementation, and enforcement of environmental laws, regulations, programs, and policies (CEQ 1997).

Before determining if an environmental justice population of concern is present, the BLM must first determine the area of analysis for the issue. The area of analysis defined for the Golden Valley 230 kV Transmission Project is Mojave County, Arizona, which includes the communities of Kingman and Golden Valley. Tables 24 and 25 in Appendix A-2 provide the most recent available demographic and income data for the study area.

There are also three federally recognized Tribes within or adjacent to the area of analysis: the Hualapai Tribe, the Fort Mojave Indian Tribe, and the Colorado River Indian Tribe. Federally recognized Tribes are considered to be environmental justice populations of concern that must be considered for environmental justice impacts. The BLM, in coordination with the above listed Tribes, has determined that there are no disproportionate and adverse impact to the listed Tribes from the proposed action.

3.11 Health and Safety

3.11.1 Hazardous Materials

There are no clean-up sites or Superfund sites within the project area (EPA 2017a, 2017b).

3.11.2 Emergency Infrastructure

The project area is served by the Arizona Department of Public Safety, the Kingman Police Department, and the Mohave County Sheriff's Office. Residents in the project area also receive fire protection services from the Golden Valley Fire Department and Kingman Fire Department. There are medical centers located in Golden Valley and Kingman. Emergency transport services to medical facilities include ambulance and air transport, via helicopter, to the Western Regional Medical Center in Bullhead City.

3.11.3 Public and Worker Safety

Electrical hazards exist to residents, employees, and others within the ROW. Hazards could include vegetation or equipment fires, electrical burns, or electrocutions of humans or animals. These electrical hazards could occur anywhere near energized conductors or facilities, although they are primarily a concern for construction and maintenance workers.

3.11.4 Electric and Magnetic Fields

Electric fields are related to voltage and are generated by electrons. A higher voltage results in a stronger electric field. A cord of an appliance will generate an electric field regardless of whether the appliance is turned on. Electric field strength can be greatly reduced by things that act as a screen, such as a building or trees. Electric fields are measured in volts per meter or kV per meter.

Magnetic fields are generated by electric current (i.e., the movement of electrons). As soon as an appliance is turned on, it generates a magnetic field. Magnetic fields are not blocked by barriers. Magnetic fields are measured in microteslas (μT).

Electric and magnetic fields (EMF) are everywhere; they occur naturally in every atom of matter. The Earth's surface has a natural electric field which is created by electric charges in the upper atmosphere. The Earth also has a strong magnetic field which is evidenced by our use of a compass for navigation. The magnetic field is created by electric currents in the magma of the Earth's core.

Use of electricity in residences and other facilities produces EMFs. In the United States, the average household background magnetic field away from appliances is about 0.055 to 0.11 μT, and the background electric field is approximately 0.003 to 0.03 kV per meter. EMFs are stronger closer to appliances, and the fields drop rapidly as the distance increases from the source (Table 26, Appendix A-2). (EPA 1992)

Electric transmission lines produce EMFs. The EMFs are usually strongest directly underneath the transmission line and are reduced as one moves away from the transmission line. Actual field strengths vary depending on the height of the conductors from the point of measurement (Figure 9, Appendix A-2). On average, EMFs for a 230-kV transmission line are near typical background levels experienced in homes at a distance of approximately 200 feet from the transmission line.

CHAPTER 4: ENVIRONMENTAL CONSEQUENCES

This chapter describes the impacts that can be expected from implementing the proposed action alternatives and the no action alternative. The effects will be analyzed in terms of their duration, intensity, and scale.

The terms "effects" and "impacts" are used synonymously in this document. Effects include ecological effects (i.e., effects on natural resources and on the components, structures, and functions of the affected ecosystems) as well as aesthetic, historic, cultural, economic, social, and health effects—whether direct or indirect. Effects may also include actions that could have beneficial or adverse consequences. Environmental effects that may occur are described using the following terms:

- *Beneficial Effect*—A change that would improve the resource condition, use, or value compared to its current condition, use, or value
- *No Effect*—No change to a resource condition, use, or value
- *Negligible Adverse Effect*—A localized degradation to a resource condition, use, or value that is not measurable or perceptible
- *Minor Adverse Effect*—A measurable or perceptible and localized degradation of a resource's condition, use, or value that is of little consequence or significance
- *Moderate Adverse Effect*—A localized degradation of a resource condition, use, or value that is measurable and has consequences
- *High Adverse Effect*—A measurable degradation of a resource condition, use, or value that is large and/or widespread and could have permanent consequences for the resource
- *Short-term or Temporary Effect*—An effect that would result in the change of a resource condition, use, or value lasting less than 1 year
- *Long-term Effect*—An effect that would result in the change of a resource condition, use, or value lasting more than 1 year and probably much longer
- *Direct Effect*—An effect that is caused by the action and occurs at the same time and place as the action
- *Indirect Effect*—An effect that is caused by the action but occurs later in time or at a different location but is still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate and related effects on air and water and other natural systems, including ecosystems

4.1 Land Use

The impact assessment for land use is based on four general factors: resource sensitivity, resource quantity or duration of impact, resource quality, and resource or project compatibility. The combination of these four variables, along with consideration of resource protection measures (RPMs) where applicable, were used to determine the level of impact.

Resource sensitivity is a measure of how the proposed action would make various land use characteristics susceptible to change and is based on regulatory guidelines and professional judgment. Resource quantity is measured by the number of individual occurrences or area of a given impact type; duration of impact is the period of time over which the resource would be affected. Resource quality represents the present condition of the potentially affected resource. Resource compatibility is the level to which the proposed project facilities are harmonious with specific land uses.

4.1.1 Proposed Action Alternatives

4.1.1.1 Land Ownership and Jurisdiction

Negligible changes to BLM and ASLD jurisdiction would occur as a result of project implementation. Easements are nonpossessory and do not change land ownership or jurisdiction. UNSE would be granted

rights to operate and maintain the transmission line on federal- and state-managed lands, but the BLM and ASLD would maintain ownership.

Minor adverse effects to private land ownership are expected as a result of the project. UNSE must obtain legal authorization (i.e., by securing an easement or less frequently through purchase) to access private property. The easement is expected to be for a width of 125 feet, and the landowner would be compensated for the easement. The easement would allow UNSE the right to access the transmission line at any time for construction, maintenance, or operation. Easements are nonpossessory and therefore do not change land ownership or jurisdiction. By granting an easement, the private land owner would most likely be prohibited from developing the land within the easement in a manner that would damage or interfere with UNSE's legally defined right to access the easement for construction, operation, and maintenance of the transmission line. Some examples of typical restrictions include no construction of houses or other substantial structures or buildings, planting of trees and shrubs that exceed a certain height, or placement of any type of obstruction within a certain distance of transmission line towers within the easement.

For some private land, the impacts to land ownership would be expected to be negligible because there is already an existing UNSE transmission line easement on these lands. Depending on the alternative selected, there is existing UNSE transmission line easement on approximately 45 to 70 percent of the land (Table 27, Appendix A-2). Some of the existing easements may need to be expanded in width to allow for a higher voltage transmission line. Each individual easement would need to be reviewed to determine changes, if any, that would be necessary.

4.1.1.2 Existing Land Use

Residential

Residential land would be impacted regardless of the alternative selected (see Table 28 in Appendix A-2, which shows the lengths of each alternative that are within 1,000 feet of residential properties). No alternative would displace a residence.

The impacts upon residential land would be similar to those described is Section 4.1.1.1 for privately owned land. Granting UNSE an easement would restrict development within the easement, resulting in minor adverse effects to residential land use.

Temporary, short-term, and minor adverse impacts may result from obstruction of access during construction as driveways are temporarily blocked by construction equipment and vehicles. These indirect impacts would be short-term, temporary, and minimized through the application of the RPMs described in Appendix C.

Public/Quasi Public

There would be no effect to public/quasi-public land uses along the West Cerbat alternatives because there are no such facilities along these alternatives. Negligible impacts to existing public/quasi-public uses of land are expected along the East Cerbat alternatives. None of the facilities identified in Section 3.1.2 will be displaced. Negligible to minor adverse indirect impacts to some of the public/quasi-public areas may arise temporarily during construction if access is temporarily restricted.

Commercial

There would be no effect to existing commercial land uses along the West Cerbat set of alternatives because there are no such facilities along these alternatives. Negligible impacts to existing commercial uses are expected along the East Cerbat alternatives. None of the facilities identified in Section 3.1.3 will be displaced. Negligible to minor adverse impacts to some of the commercial facilities may arise temporarily during construction if access is temporarily restricted.

Industrial

There is expected to be no effect or minor, adverse, short-term effects for any alternatives from travel restrictions on local roads to the Nucor Steel, Harris and McConnico electrical substations, a variety of warehouses and trucking distribution centers, the material extraction pit near US-93 and SR 68, and the several vehicle scrap yards found within the project area. There could be minor adverse effects to the material extraction pit along the W4 alignment located south of Shinarump Road resulting from short-term restrictions on access to the pit, but this alternative would not be expected to interfere with future operation of the pit.

Parks, Recreation, and Preservation

Both sets of alternatives pass within the CFRA. Impacts to recreation within the CFRA would vary depending upon the alternative selected. There is currently no trailhead or other means of access (e.g., trail, road, etc.) to the area of the CFRA affected by the West Cerbat alternatives. The Foothill Rims Trail, the nearest trail, is over 1.5 miles to the east and on top of the mesa in the CFRA. The transmission line would be visible for a short duration and at a long distance from some points along the trail and may result in minor adverse effects to recreational users of the area who are seeking natural settings and views.

Additionally, long-term impacts resulting from implementation of the West Cerbat alternatives would include creating a new transmission line corridor and access road within with CFRA where none currently exists. The resulting effects would have minor, long-term, adverse impacts to the CFRA because the road and utility corridor development would change a portion of the CFRA that currently has characteristics of undeveloped open space. Negative impacts to the CFRA would be minimized because the transmission line and access road would be built along the western edge of the CFRA and, therefore, would not fragment the park. This corridor would conflict with the utility corridor designation through the CFRA outlined in the BLM Kingman RMP.

The East Cerbat alternatives would have short-term, minor to moderate, adverse impacts on recreational use of the CFRA during project construction. These alternatives would both pass near to the Metwell and Coyote Pass trailheads and access could be temporarily disrupted during certain construction activities. During construction of the 230-kV power line located adjacent to the Metwell and Coyote Pass trailheads, construction crews would be working at each trailhead for an estimated time of twelve (12) days and recreational access to the trailheads would only be limited, not restricted. There would also be short-term, minor to moderate impacts to the recreation experience (e.g., potential displacement of users) because of the elevated activity and noise levels associated with construction. These impacts would lessen as users move further into the park. RPMs have also been developed to further minimize impacts and outline coordination with BLM.

Once built, the East Cerbat alternatives would be expected to result in long-term, minor, adverse impacts to recreation users of the CFRA. While these two alternatives extend through the most frequented area of the CFRA, they cross trails and are close to two trailheads and across the highway from a third trailhead, the alignment of the alternatives is within a BLM-designated utility corridor which already has a UNSE 69-kV transmission line constructed on similar compositional structures. Thus, while visitors participating in activities such as hiking, mountain biking, and equestrian riding would be affected by more prominent views of the new transmission line, the views would be similar to that which currently exists, just more pronounced. Additionally, this utility corridor also contains US-93, which is a busy highway. Thus, users are accustomed to the setting of a built environment near the trailheads and traffic noise associated with being near US-93. Views of the transmission line would dissipate as users travel further from the trailhead, deeper into the park.

The impacts described for the East Cerbat alternatives would be the same for the Camp Beale Springs area of the CFRA, which would only be affected by the East Cerbat alternatives.

Range Land/Undeveloped

All proposed action alternatives cross several BLM- and state-administered grazing allotments. Only minor adverse effect on grazing are expected. The loss of vegetation for grazing livestock where towers and access roads are built would be a minor adverse effect, and the effects of clearing vegetation for construction would be short term, but the amount of grazing vegetation or land lost to grazing would not affect the number of animal unit months that the allotments could support. Temporary impacts to grazing area access points may occur during project construction, but these would be minor and short term.

Implementation of all proposed action alternatives would have long-term, minor, adverse effects to undeveloped land. Undeveloped land would be converted to a developed transmission line ROW. On undeveloped private land, impacts would restrict future development within the easement as discussed in Section 4.1.1.1.

Transportation, Utilities, and Communication Towers

Short-term, minor adverse impacts to traffic would be expected along all alternatives. Based on the current level of service, roads in the Kingman area would be expected to be able to accommodate construction traffic associated with construction of the project. There is no level of service data for Golden Valley but approximately 10 vehicles on average would be expected to commute to the project area daily, and these would be expected to be accommodated by the existing roads. During the peak of construction, as many as 25 to 30 vehicles may commute to the project area daily, but the existing road network in both Mohave County and Kingman is expected to be able to accommodate the increase in traffic. Temporary delays may be caused by large, slower-moving vehicles. No lane closures are anticipated. To ensure emergency response vehicles have adequate access during construction, UNSE would notify emergency responders of any temporary road closures or restrictions. During project operation, impacts to traffic would be negligible because there would be very little traffic associated with operation and maintenance of the transmission line. In regard to infrastructure interfering with roads or road ROWs, the project infrastructure is not expected to affect roads or road ROWs. In the event UNSE wishes to place infrastructure within a road ROW, they would have to seek approval and negotiate terms of use with the ROW holder.

Project construction, operation, and maintenance of all alternatives will not affect air traffic patterns. The project is not in proximity to any airports.

Short- and long-term negligible effects to utilities are expected to result from the project. Construction, operation, and maintenance of all project alternatives would be expected to generate some construction waste, which would end up in landfills, and the workforce would use waste facilities, water, and electricity for normal living purposes, but such use would not necessitate an expansion of wastewater treatment, electricity, communication service, or water services, nor would it necessitate an expansion of landfill facilities.

Radio and television interference from the transmission line is addressed in Section 4.9.1.2. The East Cerbat alternatives are about 500 feet from the KYET radio tower and 1,300 feet from the KAAA 97.5 FM radio tower. AM radio antenna systems are sensitive to tall structures made of conductive material. Tall conducting structures, such as steel transmission line towers, can reradiate the AM signal, modifying the radiation patterns of the broadcast signals. UNSE has been in conversations with the radio tower owners and effects to the KAAA radio tower are unlikely because of the proposed height of the structures and distance between the radio tower and transmission line. Nonetheless, UNSE has committed to mitigating any impacts to the broadcast if they were to occur. The KYET radio tower is closer; therefore, there could be adverse effects to the broadcast. The effects, if there are any, will not be known until the project is

constructed. UNSE has committed to working with the KYET radio tower owners to ensure that no interference results from construction or operation of the transmission line. In the event that any interference results from construction and operation of the transmission line, UNSE will be required to follow mitigation outlined in Section 4.13. With such mitigation, no long-term effects to radio towers and their broadcast are expected. No effects to radio broadcast towers are expected to result from any of the West Cerbat alternatives because they do not pass near any radio towers.

The microwave tower located between the CFRA and I-40 in the southern part of the study area is 3,300 feet from any of the alternatives; therefore, it is not expected to be impacted.

4.1.1.3 Zoning

Mohave County and the City of Kingman have designated zoning classifications for the project area. These classifications are particularly relevant because approximately two-thirds of the East Cerbat alternatives and half of the West Cerbat alternatives are located on private land. The majority of lands within the study area are zoned as Agricultural-Residential, Heavy Manufacturing, and General. None of these categories, or other categories crossed by proposed action alternatives, restrict transmission lines or transmission line ROWs; therefore, no impacts to zoning would be expected as a result of implementation of any of the project alternatives.

4.1.1.4 Planned and Proposed Land Use

Planned Land Use

BLM

Alternatives are within BLM-designated utility corridors (Table 29, Appendix A-2). The entirety of the East Cerbat alternatives are within BLM-designated utility corridors; this includes the portions that extend through the CFRA. As such, no effects to planned BLM-administered land use are expected to result from implementation of the East Cerbat alternatives.

Nearly three-quarters of the West Cerbat alternatives are within a BLM-designated utility corridor. They depart from the designated utility corridors mainly where they pass along the western boundary of the CFRA. This segment of the alignment would conflict with the planned location of utility corridors on BLM-administered land. As such, all West Cerbat alternatives would result in moderate, long-term, adverse effects to the planned BLM-administered land use (see Section 4.5 for a description of visual resources impacts on the Class II VRM area in the project study area).

Arizona State Land

While no land use plans have been formally adopted for land managed by the ASLD in the project area, it is likely that most of the ASLD lands within the project area would maintain similar land use characteristics for the foreseeable future. As a result, impacts to use of ASLD land along any of the proposed action alternatives would be negligible.

Mohave County

No proposed action alternative would conflict with management goals outlined in the Mohave County General Plan.

City of Kingman

None of the proposed action alternatives would result in a General Plan Amendment, so impacts to planned land use would not occur.

Proposed Land Use

For all proposed action alternatives, the construction, operation, and maintenance of the proposed project facilities are expected to have no or negligible impacts to the majority of proposed land uses. Two proposed land uses, development of a subdivision and expansion of a wind farm, could have minor adverse impacts resulting from the construction of the project.

The vacant Legend Ranch in the Golden Valley Subdivision is located west of US-93 along the proposed alignment for the East and West Cerbat alternatives, but no development plans have been proposed in the area. In addition, an existing transmission line is already built in this area and the 230-kV transmission line would be built in the same ROW; therefore, minor adverse impacts to any future residential development in this area would be expected.

An expansion of Western Wind Energy's wind turbine farm is proposed approximately 1,000 feet east of the E2 East Cerbat Alternative in the southern portion of the study area near the Harris Substation. The wind turbine farm currently consists of five turbines and the proposal suggests doubling this number in its expansion. The E2 East Cerbat Alternative is located along the section line between the wind farm property and BLM-administered land, approximately 750 feet east of the closest existing wind turbine. Depending upon the location of the future turbines, potential indirect impacts may exist if the E2 East Cerbat Alternative is constructed. Because there would be no direct impacts to the wind farm and indirect impacts would be most likely related to access or changes to wind flow, only minor impacts to the proposed wind farm expansion would result.

4.1.2 No Action Alternative

No direct or indirect adverse impacts on land use would result through implementation of the no action alternative. Under this alternative, UNSE would not construct, operate, or maintain a 230-kV transmission line as proposed, and the BLM and ASLD would not issue ROWs for the project. Because the project would not be constructed as proposed, the land uses of the area would remain unchanged and no effects adverse effects would be expected.

4.2 Socioeconomics

This section describes the potential impacts to residential property values from the proposed action. While the research is not wholly conclusive, it indicates that there is potential effect for the proposed undertaking to impact residential property values. Conclusions from the research have been mixed and findings range from no effects to negative effects. The research also stresses that there is no way to predict whether or how a particular transmission line would impact property values, and conclusions have only been drawn after construction. Based on this research, the BLM cannot speculate whether the Proposed Golden Valley 230 kV Transmission Line would affect property values, or to what degree. The BLM acknowledges there is potential for impacts to property values. This section summarizes the numbers of residential properties and the numbers of habitable structures within 1,000 feet of each alternative as a proxy for estimating levels of impact. The BLM assumes that the greater the number of residential properties in the area of analysis for each alternative would equate to a greater potential for impacts, should impacts be realized. The figures provided for each of the alternatives not only include the properties in their particular section, but also include the properties proximate to the route(s) common to each of these.

The research also indicates that any adverse impacts to property values that may result from the presence of a transmission line in proximity to residential property would most probably be from individual perceptions of visual impacts. Impacts to VRM is a separate area of analysis and is addressed in Section 3.5 and 4.6.

4.2.1 East Cerbat Alternatives

A total of 228 properties that are residential in nature are proximate to both of the East Cerbat alternatives and could be devalued as a result of selecting either of the East Cerbat alternatives

4.2.2 West Cerbat Alternatives

There are 266 residential properties proximate to the West Cerbat 1 alternative that could be devalued as a result of selecting the West Cerbat 1 alternative.

There are 267 residential properties proximate to the West Cerbat 2 alternative that could be devalued as a result of selecting the West Cerbat 2 alternative.

There are 307 residential properties proximate to the West Cerbat 3 alternative that could be devalued as a result of selecting the West Cerbat 3 alternative.

There are 343 residential properties proximate to the West Cerbat 4 alternative that could be devalued as a result of selecting the West Cerbat 4 alternative.

If the BLM assumption of greater numbers of residential properties equals greater potential for impact is valid, then Table 30, Appendix A-2 illustrates the relative potential for impacts to residential properties from each proposed alternative route.

4.2.3 No Action Alternative

No direct or indirect adverse socioeconomic impacts would result through implementation of the no action alternative. Under this alternative, UNSE would not construct, operate, or maintain a 230-kV transmission line as proposed, and the BLM and ASLD would not issue ROWs for the project. Because the project would not be constructed as proposed, the area would remain unchanged, and no effects would be expected.

4.3 Biological Resources

Below is a summary of the analysis outlined in the BE.

4.3.1 Proposed Action Alternatives

4.3.1.1 General Wildlife

All proposed action alternatives would have similar direct impacts. Direct impacts would include the potential for direct strikes or crushing animal species by equipment and negative biophysical responses (e.g., modification to feeding or reproductive behavior) to increased noise, human activity, and ground vibrations. Activities would also temporarily displace wildlife from the construction area and during periodic maintenance activities. While these impacts to individuals could be lethal or reduce individual fitness, impacts to the populations of general wildlife are expected to be minor and adverse and would not result in a threat to the species at the population level.

All proposed action alternatives would have similar indirect impacts and would include the loss or modification of habitat which could displace species or remove forage or shelter for wildlife species. The amount of habitat that would be impacted is outlined in Section 4.3.5. These impacts to general wildlife populations are expected to be minor, adverse, and both short and long term.

4.3.2 Bureau of Land Management Sensitive Wildlife Species

4.3.2.1 Sonoran Desert Tortoise

All proposed action alternatives would result in disturbance to desert tortoise habitat categorized as Class III habitat (note: Class III is the lowest quality of habitat) (Table 31, Appendix A-2). USNE would be required to mitigate permanent or long-term disturbances to all Class III habitat. All proposed action alternatives would result in short- and long-term, minor, adverse impacts to desert tortoise habitat.

Other direct impacts include increased potential for a vehicle or equipment to crush a tortoise, potential entrapment within excavations, and negative biophysical responses (e.g., modification to feeding or reproductive behavior) resulting from elevated disturbance levels. These impacts would be common to all proposed action alternatives and short term. Impacts would be reduced through the implementation of RPMs. These impacts would be expected to have minor adverse impacts on the population of Sonoran desert tortoises.

Long-term, minor, adverse, indirect impacts resulting from all proposed action alternatives could include localized reductions in foraging habitat or quality by fragmenting habitat through the construction of access roads and/or spreading of noxious and invasive plants. Fragmentation of habitat would be more severe along the West Cerbat alternatives because habitat is already fragmented along the East Cerbat alternatives, which cross the BNSF Railroad, US-66, and I-40 and run parallel to US-93. The West Cerbat alternatives pass along the base of the Cerbat Foothills where there is more intact habitat with less development and major arterial roads/highways.

4.3.2.2 Golden Eagle

No impacts to golden eagles are expected to result from any of the proposed action alternatives. Spatial and seasonal buffer zones are a regularly used means to protect individual nest sites/territories to ensure successful breeding. The only known potential golden eagle nest is located over 1 mile from any of the proposed action alternative alignments. Generally, a 0.5-mile buffer is applied to protect golden eagles at their nest site from construction disturbance. Thus, the potential golden eagle nest is not expected to be impacted by construction activities. In the event a new golden eagle nest is discovered, the RPM which states all construction avoids a radius of up to 0.5 mile of any active nests between December 15 and August 1 will be implemented.

4.3.2.3 Western Burrowing Owl

While no burrowing owls, burrows, or signs of burrowing owl have been found within the project vicinity, there is habitat that could be suitable. Because of the mountainous terrain, there is no suitable habitat for burrowing owls within the areas south of the CFRA along the East Cerbat alternatives except for the area immediately around the Harris Substation. There is also no suitable habitat where the East Cerbat alternatives pass through the mountainous terrain in the CFRA. Suitable habitat occurs north of the CFRA where the East and West Cerbat alternatives share the same alignment. Along the West Cerbat alternatives, there is suitable habitat from the Harris Substation to where the alternatives start to run along the western border the CFRA and north of the CFRA where the East and West Cerbat alternatives share the same alignment. The total number of miles of burrowing owl habitat identified along each alternative is presented in Table 32 in Appendix A-2.

No burrowing owls or their sign have been found within the project area during reconnaissance surveys. If burrowing owls occur within the project footprint or project area, potential direct impacts from project activities could include increased potential for a strike and/or mortality resulting from excavations, potential entrapment within burrows (partial burrow collapse), and negative biophysical response (e.g., modification to feeding or reproductive behavior) to elevated disturbance levels (e.g., human presence, elevated noise and ground vibration levels, etc.). These impacts would be limited to the period of construction and to

intermittent maintenance activities. The potential for impacts to this species will be reduced through the implementation of RPMs outlined in Appendix C. RPMs include a preconstruction survey to detect burrowing owls, measures to reduce impacts if owls are found, a training program to help construction workers identify and avoid the burrowing owl and their burrows, and reclamation of disturbed habitat. With implementation of RPMs, all alternatives would potentially result similar minor, adverse, short- and long-term effects to burrowing owls.

4.3.2.4 Greater Western Bonneted Bat

Minor adverse impacts to the greater western bonneted bat could result from implementation of the East Cerbat alternatives. If bats are roosting in the cliffs found along the routes, they could be disturbed by noise and vibration from installation of transmission line structures. These impacts would be temporary and limited to the construction period. No suitable roosting cliffs were identified in proximity to the West Cerbat alternatives.

4.3.2.5 Desert Kit Fox

Minor adverse effects to the kit fox could result from all alternatives. One potential kit fox den was observed along the W3 and W4 alternatives. If the W3 or W4 alternatives are selected as the alternatives to be built, or if previously undiscovered kit fox dens are found during preconstruction surveys, there could be potential impacts to kit foxes. Impacts could result from destruction of the den, entrapment of individuals within the den, and negative biophysical responses (e.g., foraging, reproductive behavior, rest, etc.). RPMs will be implemented to ensure impacts to kit fox are reduced. These include determining if there is an occupied kit fox den and minimizing work activities near active kit fox dens, especially during periods when young are being raised. Surveys for kit fox dens will also be documented during preconstruction surveys for the burrowing owl. If any kit fox dens are identified, they will be reported to the BLM biologist and consultation with the BLM biologist will occur to determine RPMs necessary to avoid impacts to kit foxes.

4.3.3 Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act

Minor adverse impacts to migratory birds are expected to result from implementation of any of the proposed action alternatives. RPMs will be implemented to identify active bird nests and restrict construction activities occurring during the breeding season. No impacts to bald eagles are expected. Golden eagles were previously discussed.

Construction activities occurring during the breeding season (February 1 to August 15) could potentially impact nesting migratory birds through indirect or direct take resulting from bird sensitivity to noise and human activity that causes them to abandon the nest or through nest destruction. In order to minimize impacts to migratory birds, RPMs will be implemented as outlined in the section above.

4.3.4 Wildlife Linkages

Minor adverse impacts to the potential linkage zone, wildlife habitat block, and BLM wildlife corridors are expected to result from implementation of the East Cerbat alternatives; no impacts to potential linkage zones, blocks, or corridors would result from the West Cerbat alternatives because none are found along these alternatives. Unlike highways, canals, railroads, and urbanization, electric transmission lines are porous and therefore are not expected to impede wildlife movement within the potential wildlife linkage zone, habitat block, or BLM wildlife corridors. New transmission line access roads are expected to have minimal impact on wildlife movement because of their small road surface area, unimproved surface, and the low volume of traffic that will use these roads once the transmission line is constructed.

4.3.5 General Vegetation

Short- and long-term direct impacts to general vegetation would result from areas cleared to create temporary workspace and where permanent infrastructure is built (e.g., structures, roads, and substations) (Table 33, Appendix A-2). Temporarily disturbed vegetation will re-establish both/either naturally and/or when aided by revegetation efforts, but this process could take several years. Common vegetation along all proposed action alternatives could be indirectly impacted by the introduction of noxious weeds.

4.3.6 Noxious and Invasive Plants

No or minor adverse impacts resulting from the introduction or spread of noxious weeds are expected from any proposed action alternative. RPMs such as washing construction equipment prior to entering the work site would reduce the spread of noxious and invasive plants.

4.3.7 No Action Alternative

No direct or indirect adverse impacts to biological resources would result through implementation of the no action alternative. Under this alternative, UNSE would not construct, operate, or maintain a 230-kV transmission line as proposed, and the BLM and ASLD would not issue a ROW for the project. Because the project would not be constructed as proposed, the biological resources of the area would remain unchanged, and no effects would be expected.

4.4 Cultural Resources

4.4.1 Proposed Action Alternatives

All the proposed action alternatives are expected to have no direct effects to historic properties if NRHP-eligible sites are avoided or recommended RPMs (see Appendix C for RPMs) are employed. Indirect effects could result from implementation of all proposed action alternatives due to increased pedestrian and vehicular use of the area where newly developed access is created. The increase of vehicles driving over and through the sites may cause damages to surface features, including the crushing and destruction of diagnostic artifacts. These indirect effects may also include the collecting or redistribution of artifacts and vandalism to features by pedestrians visiting the sites. Additionally, there is a chance that undiscovered sites could be encountered during project activities. If cultural remains or human burials are identified during construction, excavation at that location must cease and the appropriate land agency archaeologist must be contacted.

4.4.2 No Action Alternative

The no action alternative would have no effect on cultural resources. The BLM would not grant a ROW and UNSE would not be authorized to build the project as proposed.

4.5 Visual Resources

4.5.1 Proposed Action Alternatives

Efforts have been made to incorporate design features intended to reduce the overall visual impact of the project, including limited disturbance, placement of roads to limit cut and fill, restoration of natural contours to the extent possible, softening of the edges of cleared work spaces by selectively removing vegetation toward the edges and rounding corners, use of non-specular conductors, use of naturally weathering poles, use of self-weathering steel through plates for attachments of the insulator bases to the poles, and use of matte gray insulators.

The purpose of this analysis is to determine if any proposed action alternative would result in a significant impact to visual resources. The following is a summary of the analysis of potential impacts based on four

measurement indicators (Note: Appendices F-1 and F-3 contain a description of inventory and analysis methods):

1. Compliance with BLM VRM objectives: There will be no adverse effect with the incorporation of resource protection measures. All proposed action alternatives crossing BLM VRM Class IV are in compliance with VRM objectives to limit impact to visual resources where possible. Where the East Cerbat alternatives cross VRM Class III, they are also in compliance with VRM objectives to not dominate the view. Portions of the W1, W2, west common, and east common alternatives cross BLM VRM Class II areas where compliance will be obtained with the following resource protection measures (see contrast worksheets in Appendix F-4 and Tables 1 and 3 in Appendix F-3 for detailed analysis):
    a. W1, W2, West common—Overland travel only (for W1 and W2 alternatives), monitor disturbed soil and cut and fill slopes, apply BLM-approved soil colorants where soil color does not match existing conditions, and powder coat poles with BLM-approved standard environmental color selected by the BLM
    b. East common—Monitor disturbed soil and cut and fill slopes, apply BLM-approved soil colorants where soil color does not match existing conditions, perform seeding and/or reclamation of access roads, and powder coat poles with BLM-approved standard environmental color selected by the BLM
2. Dominant visual change in form, line, color, or texture: There will be a moderate adverse effect from the proposed Mineral Park Substation and minor adverse effect from the transmission line. Based on the contrast analysis (see contrast worksheets in Appendix F-4), no proposed action alternative would result in a dominant visual change to form, line, color, or texture. Some alternatives like W1 and W2 West Cerbat alternatives would be more dominant given the proximity to homes/rural roads and the generally undeveloped setting. The development of the Mineral Park Substation would be visible by people driving US-93 in either direction; however, the substation is not likely to represent a dominant visual change to the landscape
3. Substantial damage to a scenic resource: There would be a minor adverse effect. US-66 and the CFRA were identified as scenic resources. No proposed action alternative would result in substantial damage to either resource
4. Substantial effect on a designated scenic vista: There would be no effect. No designated scenic vistas are present

Based on the viewshed analysis (Appendix F-1), the contrast analysis from KOPs (Appendix F-4), and the use of visual simulations (Appendix F-5), it is not anticipated that any proposed action alternative would result in a significant impact to visual resources requiring further analysis in an environmental impact statement.

4.5.2 No Action Alternative

The no action alternative would have no effect on visual resources. The BLM would not grant a ROW and UNSE would not be authorized to build the project as proposed.

4.6 Air Quality

4.6.1 Proposed Action Alternatives

Impacts associated with air quality for all proposed action alternatives are anticipated to be minor, adverse, and short-term. As discussed in Chapter 3.5, the project area is in attainment for all criteria pollutants. Emissions will result primarily from the operation of construction vehicles and equipment. These emissions will result in a direct, short-term, minor, adverse effect that is not expected to affect ambient air quality or expose sensitive receptors to detrimental pollution concentrations. Additionally, implementation of a Stormwater Pollution Prevention Plan which prevents soil loss is also expected to minimize air pollution

from dust. Once constructed, the transmission line and substation will not be sources of emissions. Emissions from long-term operation and maintenance would be less than those resulting during construction and are expected to have short-term, negligible, adverse effects on air quality.

4.6.2 No Action Alternative

The no action alternative would have no effect on air quality. The BLM would not grant a ROW and UNSE would not be authorized to build the project as proposed.

4.7 Water Resources

4.7.1 Proposed Action Alternatives

There are no wetlands within the entire project area; therefore, there will be no effect to wetlands. No surface waters will be lost; transmission line structures and the substation will not be constructed in drainages. Along all proposed action alternatives, construction of access roads has potential to temporarily increase runoff and sedimentation, but because of the small scale of impacts and the already turbid nature of desert washes, the impacts are expected to be minor adverse. Additionally, implementation of a Stormwater Pollution Prevention Plan would further minimize impacts to water quality. Concrete truck wash-out will be performed at designated areas so that it does not impact surface waters. During operation of the transmission line, impacts would be similar to those described for construction and would result when access road maintenance occurs.

4.7.2 No Action Alternative

The no action alternative would have no effect on water resources. The BLM would not grant a ROW and UNSE would not be authorized to build the project as proposed.

4.8 Soils

4.8.1 Proposed Action Alternatives

The impacts to soil would be similar for all proposed action alternatives. All alternatives would have short-term, minor, adverse, direct effects to soil as a result of erosion. Construction activities (e.g., excavation, road construction, etc.) create potential for soils to be lost through erosion as they are exposed to wind and water and no longer bound in place. The greatest potential for soil loss from erosion is where ground disturbance would occur in soils that are classified as having a high susceptibility to erosion from wind or water. As presented in Chapter 3, there is little difference between the susceptibility of erodible soils amongst the alternatives. That is, no alternative will impact soils that have a high susceptibility to either wind or water erosion, and all alternatives would cross soil that has moderately high susceptibility to wind erosion; the distances of soil categorized as having a moderately high susceptibility to wind erosion crossed by each alternative is very similar. Soil erosion will be controlled during and after construction according to erosion and sediment controls outlined in a project-specific Stormwater Pollution Prevention Plan which will be prepared for the project. No soil classified as prime farmland will be impacted.

Top layers of soil which are most suitable to vegetation growth can also be lost if they are not excavated and stored separately. When not stored separately, the topsoil is mixed in with the subsurface layers of soil. Layers below the topsoil typically have less organic matter and have been leached of mineral and nutrients, which makes the soil less able to support vegetation. To minimize this long-term, direct, minor, adverse effect, the topsoil will be stored separately and replaced as the top layer of soil following excavation.

In addition to soil loss, soils could also be compacted where roads are constructed and equipment is driven. Compaction can reduce water infiltration, soil activity, and root growth. Soils typically take several years to return to pre-disturbance functions after compaction. To avoid unnecessary compaction, construction

activities will use access roads where feasible, and off-road travel will be limited to the minimum necessary to complete construction activities.

Soil compaction is expected to result in a short-term, minor, adverse, direct effects and will be similar along all proposed action alternatives since the alternatives are similar in length.

4.8.2 No Action Alternative

The no action alternative would have no effect on soils. The BLM would not grant a ROW and UNSE would not be authorized to build the project as proposed.

4.9 Noise

4.9.1 Proposed Action Alternatives

4.9.1.1 Audible Noise

During construction, noise will be generated from the use of construction equipment and vehicles used to transport crews and materials. Uncontrolled noise levels for typical construction equipment are displayed in Table 34 in Appendix A-2 (FHWA 2017). The maximum noise levels will range between 80 to 85 dBA at 50 feet from construction equipment. As a general rule of thumb, noise levels drop 6 dBA every time the distance from a point source is doubled.

Mohave County has a general noise ordinance that prohibits loud and disturbing noise. There is an exemption for reasonable construction noise as long as it occurs between the hours of 6:00 a.m. and sunset; however, neither Mohave County nor the City of Kingman has a detailed noise standard that directly dictates impact assessment criteria in decibels. In lieu of such standards, construction criteria used by the U.S. Department of Transportation (USDOT) were used for this assessment (Table 35, Appendix A-2). These criteria are not standardized, but they are considered reasonable guidelines for determining construction noise impacts (USDOT 2012). The acceptability standards are given in terms of the 1-hour equivalent noise level (L_{eq}), the 8-hour equivalent noise level (L_{eq}), and the weighted day-night average (L_{dn}) noise level.

Existing land uses are detailed in *Land Use* (Section 3.1) of this EA. Sensitive noise receptors within 1,000 feet of the transmission line were discussed in Section 3.9. In summary, there are nearly double the noise receptors along the East Cerbat alternatives. There is no difference in the amount of noise receptors between the two East Cerbat alternatives, but there is difference among the West Cerbat alternatives. The W3 West Cerbat Alternative has the most noise receptors along it. Parks are also sensitive noise receptors, and both the East and West Cerbat alternatives would affect the CFRA. The East Cerbat alternatives would have the least amount of transmission line within 1,000 feet of the park, 2.7 miles less than the W1 and W2 alternatives, which would have the most transmission line within 1,000 feet of the east CFRA. Based on typical usage factors, the average construction noise level is conservatively estimated to be 83 dBA at 50 feet from the centerline of the transmission line. The noise levels are anticipated to decrease according to typical point source distance attenuation (Table 36, Appendix A-2). As such, at a distance over 100 feet, noise is expected to be within suitable limits. Within 100 feet from the transmission line, construction noise levels would slightly exceed the USDOT 8-hour L_{eq} standards for construction in residential areas. Impacts would be similar amongst all alternatives since the number of noise receptors within 100 feet is similar amongst all alternatives (i.e., approximately 10 noise receptors). Construction noise impacts will be temporary. Construction is focused around structures. Construction of transmission line structures can take anywhere from several days to several weeks, depending on various factors. This makes the duration of noise impacts within 100 feet of noise receptors brief, and thus, direct impacts are expected to be temporary and moderately adverse. To reduce noise impacts whenever a receptor is within approximately 100 feet of the active transmission construction area, any idling equipment should be parked as far away as possible from the receptor.

The majority of noise impacts (i.e., those beyond 100 feet) are expected to have minor, adverse, short-term, direct, impacts. The noise levels will be below the USDOT standards for construction. It is expected that the majority of the work will occur during the daytime in accordance with the Mohave County guidelines. No nighttime work is planned, but in the event nighttime work is necessary, UNSE will notify residents who would be affected. In order to further limit noise impacts in general, equipment not in use for a reasonable amount of time should be turned off when possible.

Operation of the transmission line and substation is expected to have long-term, minor, adverse effects. According to U.S. Department of Housing and Urban Development standards, permanent noise levels of 65 dBA or less are considered normally acceptable (HUD 2009). Noise from the transmission line is expected to be less than 25 dBA and in certain weather conditions could be as high as 50 dBA. The vast majority of the time, the noise from the transmission line will be inaudible outside the ROW. The transmission line will generate noise from the corona effect, a phenomenon that can cause a tiny electric discharge that can ionize air close to the conductors, creating a humming noise. During dry weather, corona effect noise from a double-circuit 230-kV transmission line is generally less than 25 dBA, and when the conductors are wet or during heavy rain, noise can be as high as 50 dbA (CPUC 2010). Corona effects are typically not a design concern for transmission lines operating at 230 kV or less. Operation of the Mineral Park Substation would result in long-term, negligible impacts. Noise would be generated in the Mineral Park Substation in the range of 65 to 80 dBA, primarily by the transformers, reactors, and circuit breakers. There are no residences or sensitive noise receptors within 1,000 feet of the substation.

Maintenance of the transmission line is expected to result in negligible noise impacts. Routine inspections of the transmission line will occur infrequently. Assuming these inspections are performed by a small crew in a single vehicle during daylight hours, the magnitude of any noise impacts will be likely be less than 65 dBA at the edge of the ROW. Additionally, due to the infrequency of the routine patrols and the minimal noise level, these impacts are considered negligible.

4.9.1.2 Radio Noise

Federal Communications Commission (FCC) Part 15 regulations govern radio and television noise, which is frequently generated by electric utility facilities and lines. Under this regulation, utility companies are required to rectify the problem creating the radio or television noise. For an electrical transmission line, radio noise is most frequently caused by an equipment defect or an incidental emission. When there is a defect, sparking or gap discharge (i.e., sparking or arcing of electricity across transmission line hardware) has potential to impact radio frequencies into the ultrahigh frequency range (above 300 MHz).

Short-term moderately adverse effects resulting from radio noise are expected. The FCC mandates that incidental emitters must not cause harmful interference; therefore, all effects resulting from the transmission line must be rectified. When UNSE receives a complaint about radio interference, they will go through the process of identifying the source, and if the source is determined to be their equipment, they will take corrective actions.

4.9.2 No Action Alternative

The no action alternative would have no effect on noise. The BLM would not grant a ROW and UNSE would not be authorized to build the project as proposed.

4.10 Environmental Justice

4.10.1 Proposed Action Alternatives

None of the proposed action alternatives would cause disproportionately high or adverse environmental effects on minority populations and/or low-income populations. Temporary and long-term project impacts

would not be restricted to a single population in the area. Although minority and low-income populations may experience impacts from the project, impacts would not be borne solely, or in their majority, by these populations.

4.10.2 No Action Alternative

The no action alternative would have no effect on environmental justice. The BLM would not grant a ROW and UNSE would not be authorized to build the project as proposed.

4.11 Health and Safety

4.11.1 Proposed Action Alternatives

4.11.1.1 Hazardous Materials

There are no clean-up sites or superfund sites within the project area and thus, no effects to existing sites are expected. The project is not expected to introduce any hazardous materials into the environment.

4.11.1.2 Emergency Infrastructure

All proposed action alternatives are expected to have a short-term, minor, adverse impact to emergency infrastructure. Construction activities are not expected to hinder or alter emergency service access. Construction activities for crossing roads would require road closure for a short period of time. UNSE would maintain the flow of public traffic along alternate access routes.

4.11.1.3 Public and Worker Safety

During construction, standard health and safety practices would be implemented in accordance with the Occupational Safety and Health Administration's policies and procedures and UNSE's safety standards, which would reduce worker safety risks. Project implementation would not affect any local or regional emergency response plan or evacuation plan. Construction of the W1 and W2 West Cerbat alternatives would necessitate construction of an access road near homes in Golden Valley. There is concern that the road could give access to the backside of private properties and aid people with criminal intent. If the W1 or W2 West Cerbat alternative is selected, UNSE will gate and lock the access road in this area in order to prevent its use by the public. No impacts to the public or the safety of workers would be anticipated.

4.11.1.4 Electric and Magnetic Fields

There is a large body of scientific research regarding potential human health risks associated with exposure to EMFs. The most thorough, authoritative, and scientifically accepted review of the health impacts resulting from EMFs is the Environmental Health Criteria on Extremely Low Frequency Fields (EHC-ELF) document of the World Health Organization (WHO 2007). The EHC-ELF found that scientific evidence is not strong enough to be considered causal that daily, chronic, low-intensity power frequency magnetic field exposure increases the risk of childhood leukemia but is sufficiently strong to remain a concern. They also noted that several other diseases have been scientifically investigated for possible association with ELF magnetic field exposure. These include cancers, depression, suicide, reproductive dysfunction, developmental disorders, immunological modifications, and neurological disease. The scientific evidence supporting an association between ELF magnetic fields and these diseases is much weaker than for childhood leukemia and in some cases (e.g., cardiovascular disease or breast cancer), the evidence is sufficient to give confidence that magnetic fields do not cause the disease. The EHC-ELF report states that because of the weak scientific evidence, the health benefits of reducing exposure to extremely low frequency are unclear; therefore, policies for adopting arbitrary low extremely low frequency EMF limits are unnecessary. A few of the recommendations from the report are:

- Policymakers should establish guidelines for exposure and recommends the use of international guidelines to establish exposure limits for short-term, high-level ELF fields. The current recommended limit is 83–900 μT. These limits are rarely encountered by the public
- Policymakers and community planners should implement low-cost precautionary measures when designing new facilities and appliances to reduce exposure
- Local authorities should improve planning of ELF EMF-emitting facilities, including better consultation between industry, local government, and citizens when siting major ELF EMF-emitting sources

4.11.2 No Action Alternative

The no action alternative would have no effect on health and safety. The BLM would not grant a ROW and UNSE would not be authorized to build the project as proposed.

4.12 Cumulative Impacts

Cumulative impacts are additive or interactive effects that would result from the proposed action's incremental impact when added to past, present, and reasonably foreseeable future actions. Council of Environmental Quality guidelines limit cumulative impacts analysis to "important issues of national, regional, or local significance" (CEQ 1997); not all direct and indirect impacts are analyzed for cumulative impacts. A project could have a significant cumulative impact if a change in the environment resulted from the incremental impact of the proposed action when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time.

For this project, the cumulative impacts study area was defined as a 3-mile buffer surrounding the project facilities. Within the cumulative impacts study area, past, present, and future actions were identified.

4.12.1 Past Actions

Several past actions have affected the cumulative impacts study area. Table 37 in Appendix A-2 summarizes past actions within the cumulative impacts study area.

4.12.2 Ongoing Actions

Besides routine maintenance of existing facilities and infrastructure, no ongoing actions were identified.

4.12.3 Reasonably Foreseeable Future Actions

A few reasonably foreseeable future actions were identified within the cumulative impacts study area (Table 38, Appendix A-2).

Past project effects were considered earlier in Chapter 4 when direct and indirect effects were analyzed for the proposed action. These past effects, coupled with the effects of the proposed action and present and future projects, are expected to result in no or negligible cumulative effects on the following resources: cultural, water, soil resources, noise, public health and safety, and environmental justice. These resources are not further analyzed for cumulative impacts. An analysis of potential cumulative effects to the remaining resources follows.

4.12.3.1 Land Use

Long-term impacts resulting from implementation of all the West Cerbat alternatives would include creating a new transmission line corridor and access road along the western boundary of the CFRA where none currently exists or is designated by the BLM. Although no future linear infrastructure projects such as

a transmission line or pipeline have been identified in this area, it is known that identifying the locations of existing infrastructure to parallel is a criterion used to identify potential routes. As such, the West Cerbat alternatives could attract new linear infrastructure along the western boundary of the CFRA. Because no such future linear infrastructure projects have been identified, there is currently no cumulative effect to analyze, but it is recognized that infrastructure ROWs can attract other infrastructure ROWs. This same effect is not expected along the East Cerbat alternatives because these alignments are within a BLM-designated corridor and mostly follow existing transmission lines.

On their own, the East Cerbat alternatives would be expected to result in long-term, minor, adverse impacts to recreation users of the CFRA, and these impacts could act additively (i.e., the effects of the projects add together to make up a cumulative effect) with the effects of ADOT's future I-11 corridor project. While these two projects could act additively, they would both be modifications/expansions to existing infrastructure, and thus, their effects would result in the increased prominence of infrastructure to recreation users but not an outright modification that would introduce recreationists to built features not already present. This would occur within an area already designated as a utility corridor. The effects would be expected to be minor to moderate adverse to recreation and views and would dissipate as users travel further from the trailhead, deeper into the park.

If construction of the US-93 and I-40 interchange and the proposed action overlap, all project alternatives could act additively with the US-93 and I-40 interchange project to negatively affect traffic in the Kingman area. If the two projects' construction periods overlap, the increased traffic associated with the construction of transmission line would add to traffic delays likely to be associated with construction of the new traffic interchange. Because the transmission line project at its peak is expected to result in an additional 25 to 30 vehicles on the roadways, the effects are expected to be minor to moderate and they will be short term. Such effects would only be expected if the two construction periods overlap.

4.12.3.2 Biological Resources

Impacts to biological resources such as loss of habitat, modification of habitat, temporary and permanent displacement of wildlife, disturbance to routine wildlife behaviors resulting in increased stress, removal of vegetation, etc. have resulted from past projects and would continue to result from future projects. The proposed action alternatives would result in similar impacts and these impacts are expected to have only minor adverse impacts upon biological resources. While biological resources have been, and will continue to be, affected by development projects, combined with the effects from all known past, present, and future projects the effects resulting from this proposed transmission line project are minor adverse impacts and would not be expected to act cumulatively in a manner with other projects that would lead toward more adverse impacts to biological resources.

4.12.3.3 Visual Resources

Many of the past actions described in Table 37 happened long enough ago that they are generally considered part of the affected environment baseline condition. The following have happened more recently, visually overlap with the proposed project, and are considered in the cumulative analysis for visual resources:

- A 190-foot radio tower was constructed in 2012 near Coyote Pass
- A five-turbine wind farm was constructed in 2011 east of the Nucor Steel Plant and Harris Substation
- Recent development and expansion along I-40

Reasonably foreseeable future actions that may overlap in time and space with the visual impacts of the proposed project include the following:

- Additional turbines and additional small-scale solar energy farm in the vicinity of the existing wind turbines
- The I-11 and Intermountain West Corridor
- The traffic interchange between US-93 and I-40
- The proposed UNSE Coyote Breaker Relocation
- The UNSE Distribution Substation near the Shinarump Drive and I-40 intersection

Based on analysis of cumulative effects, at no point would the proposed action alternatives combined with past and proposed future actions represent a significant impact to visual resources based on the four measurement indicators above, provided future development conforms to VRM requirements and implements visual resources protection measures.

4.13 Mitigation Measures and Residual Impacts

RPMs have been incorporated into the proposed action and thus, are considered design features of the project. These have been considered in the analysis of the project. With the exception of land use, no mitigation measures are proposed for resources analyzed in this EA. Land use impacts to be mitigated are related to radio towers and the potential to interfere with the broadcast signal. The following mitigation measure will be implemented to reduce potential impacts:

- UNSE shall make every reasonable effort to promptly investigate, identify, and correct, on a case-specific basis, all complaints of interference with radio signals from operation of the project, and where such interference is caused by the project, take reasonable measures to mitigate such interference. In addition, implementation of either of the East Cerbat alternatives will require that UNSE notify the owners of the KYET radio tower at least 1 month in advance of commencing construction within 1,500 feet of the radio tower

With incorporation of the mitigation measure, no high adverse impacts to land use are expected. With proper study and design the impact to the radio towers will be mitigated such that interference is not expected.

CHAPTER 5: LIST OF PREPARERS

5.1 Transcon Specialists

- Osmer Beck, Visual Resources
- Heather Breakiron, Biological Resources
- Heather Duncan, Project Coordinator
- Nicole Dunlap, Project Coordinator
- Greg Gryniewicz, Project Manager, NEPA Compliance
- George Miller, Land Use, NEPA Compliance, QA/QC Review
- John Papageorgiou, GIS and Mapping
- Joanne Tactikos, Cultural Resources

5.2 BLM Specialists

- Joelle Acton, Wildlife Biologist
- Trevor Buhr, Assistant Field Manager
- Jim Collis, Archaeologist
- Amanda Dodson, Field Manager
- Matt Driscoll, Outdoor Recreation Planner
- Mike Johnson, Socioeconomics
- Angelica Rose, Planning and Environmental Coordinator
- Tom Thompson, Archaeologist
- Andy Whitefield, Environmental Protection Specialist

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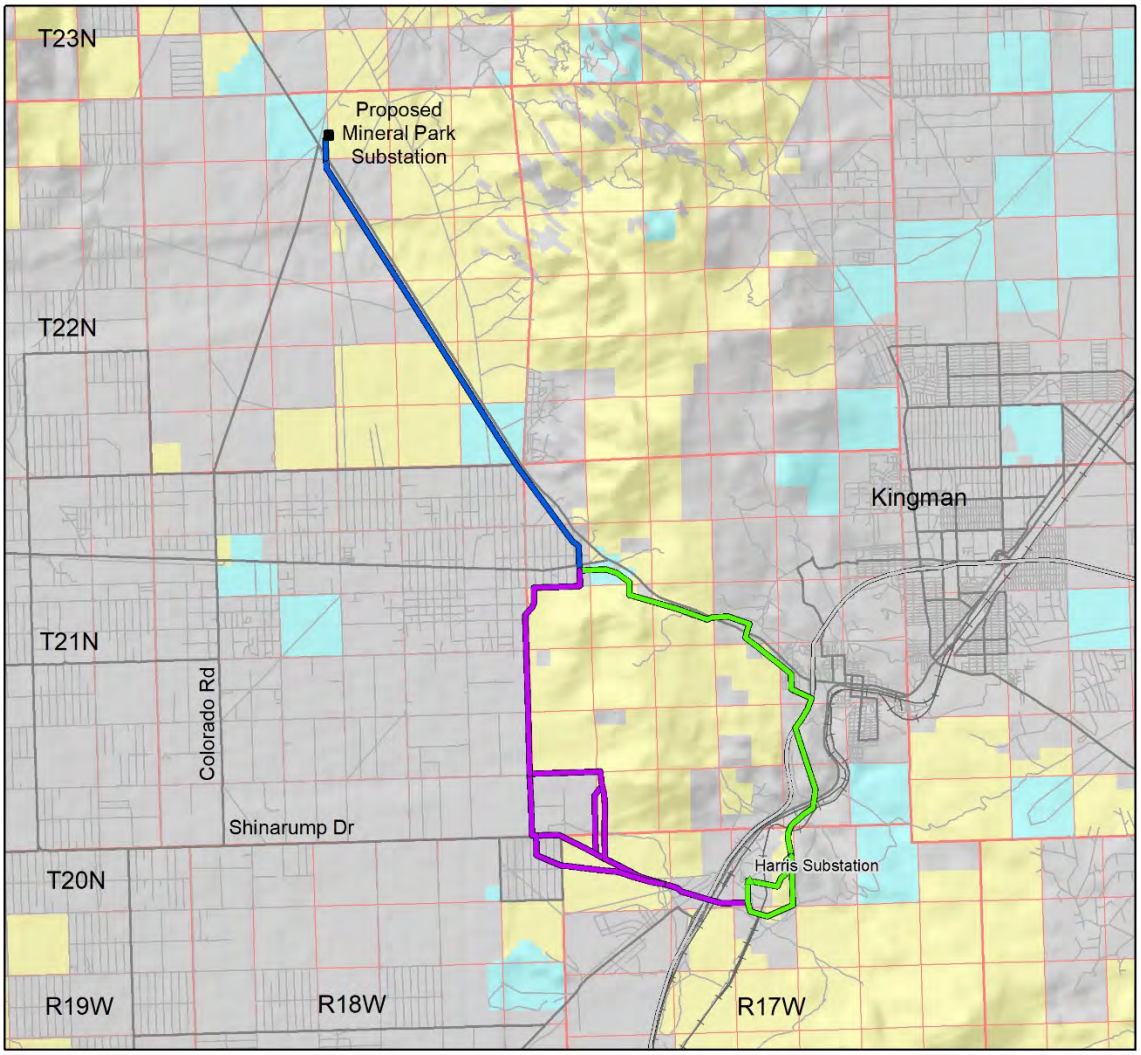
APPENDIX A
MAPS, TABLES, AND FIGURES

APPENDIX A-1

MAPS

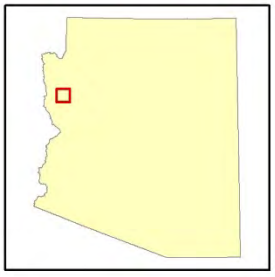


Project Vicinity

Golden Valley 230kV Transmission Line Project

Legend

- Common to East and West Cerbat Alternatives
- East Cerbat Alternatives
- West Cerbat Alternatives



Map 1

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N

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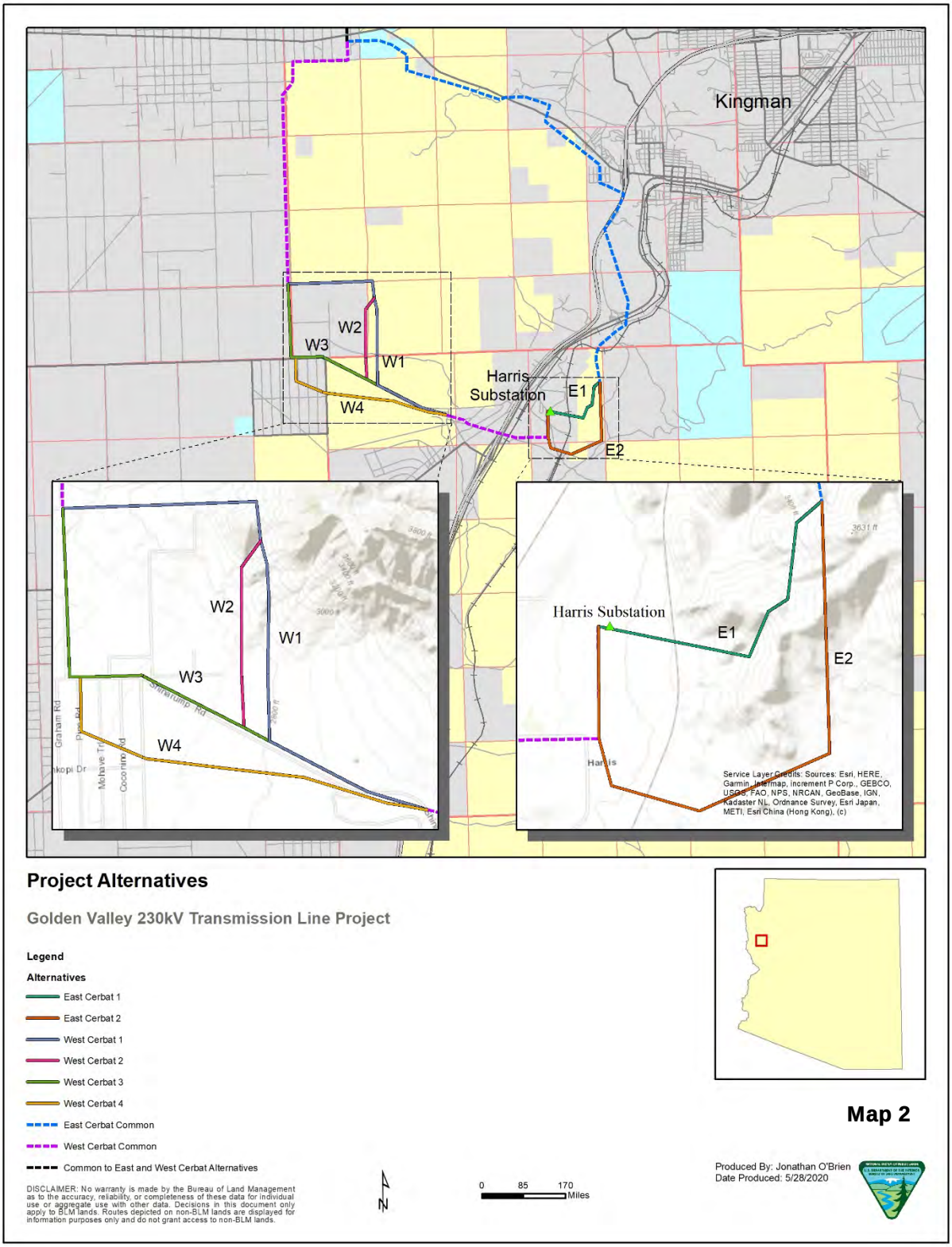
Date Produced: 5/28/2020



Project Alternatives

Golden Valley 230kV Transmission Line Project

Legend

Alternatives

- East Cerbat 1
- East Cerbat 2
- West Cerbat 1
- West Cerbat 2
- West Cerbat 3
- West Cerbat 4
- East Cerbat Common
- West Cerbat Common
- Common to East and West Cerbat Alternatives

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N

0 85 170 Miles

Map 2

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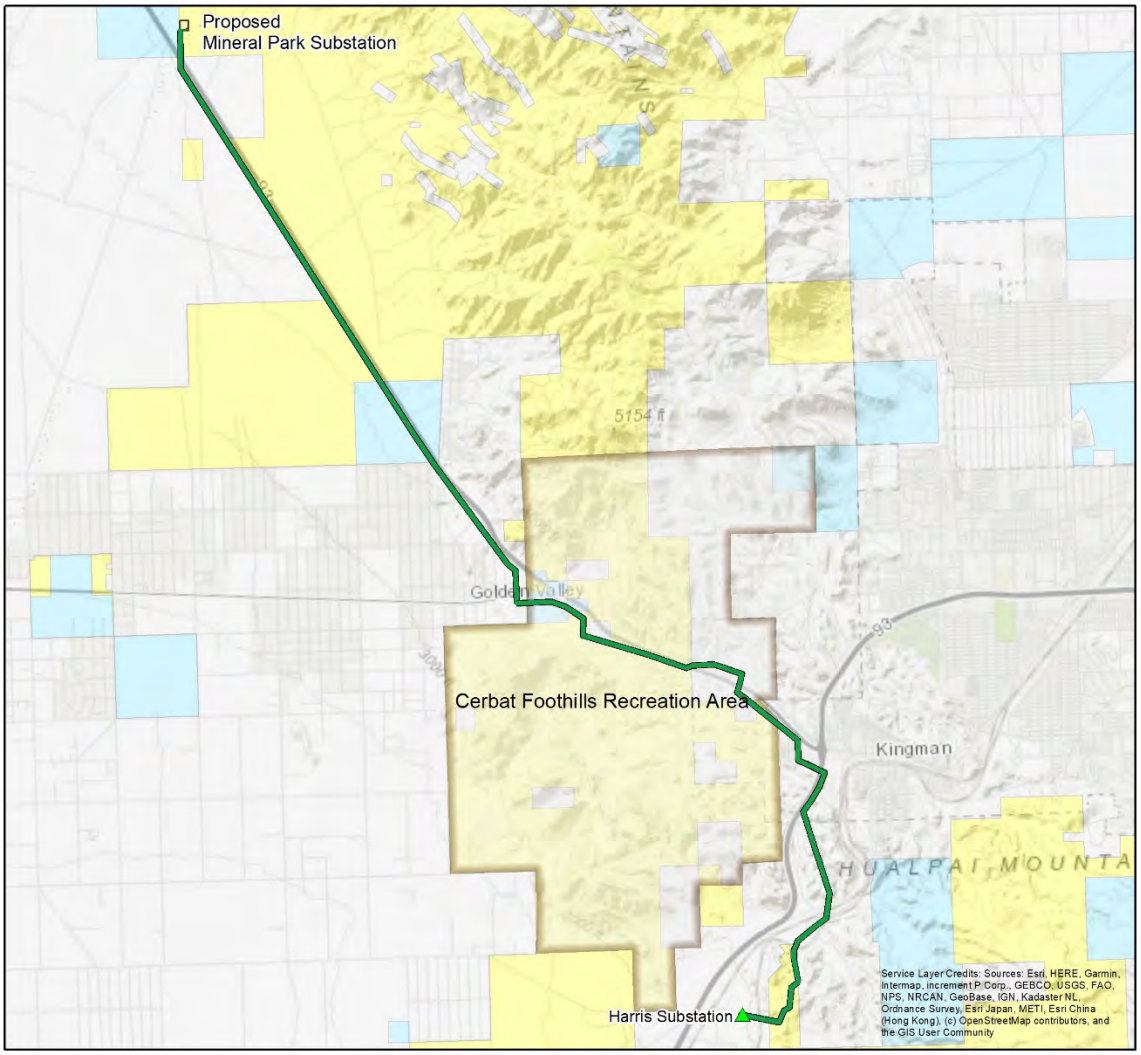


East Cerbat 1 Alternative

Golden Valley 230kV Transmission Line Project

Legend

East Cerbat 1 Alternative

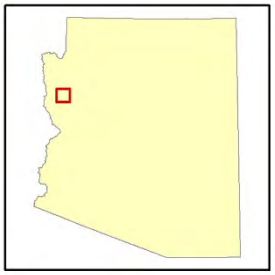
Ownership

Bureau of Land Management

Arizona Game and Fish Department

Private Land

ASLD



Map 3

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N

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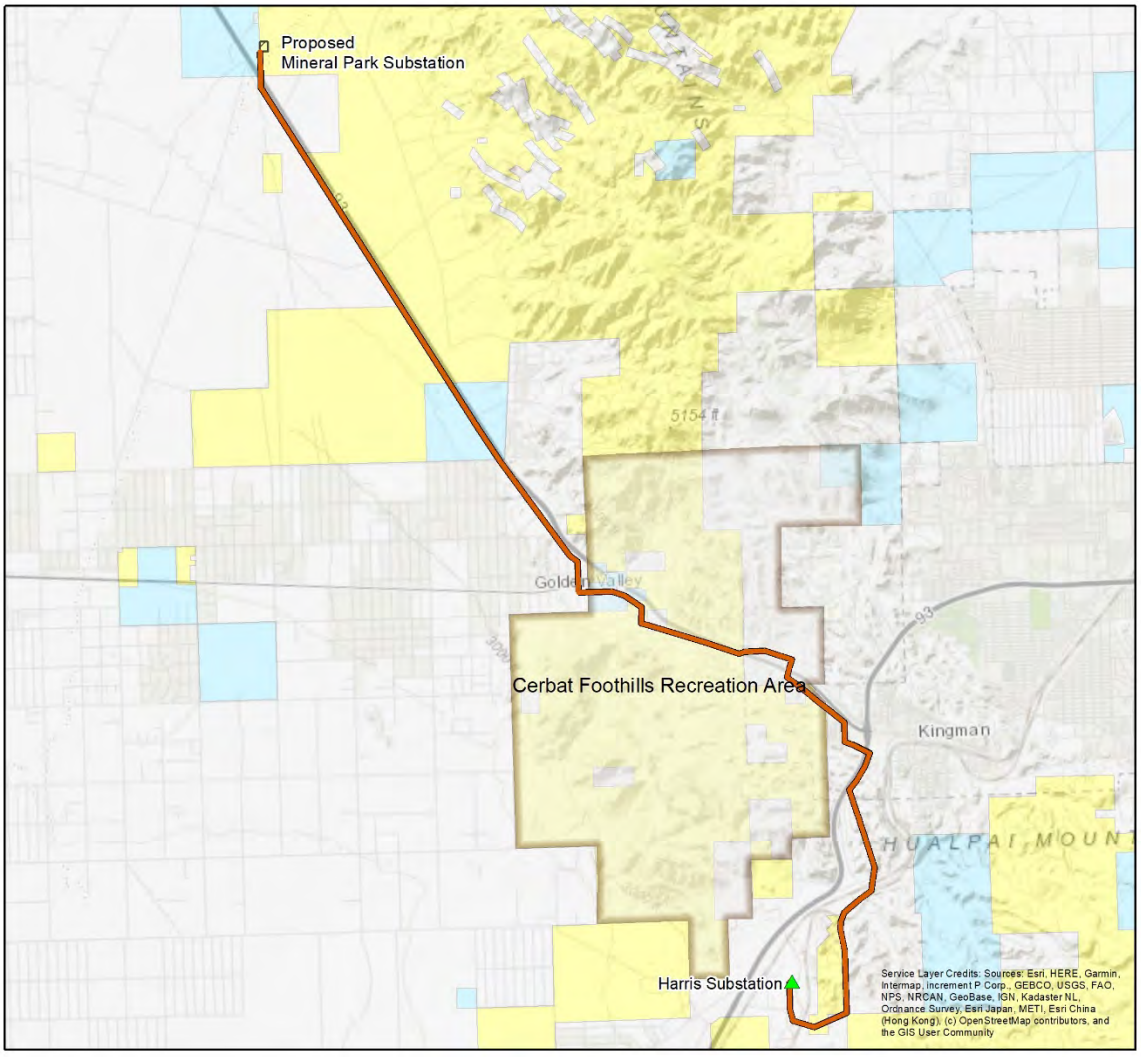
Date Produced: 6/1/2020



East Cerbat 2 Alternative

Golden Valley 230kV Transmission Line Project

Legend

East Cerbat 2 Alternative

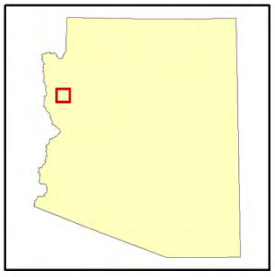
Ownership

Bureau of Land Management

Arizona Game and Fish Department

Private Land

ASLD



Map 4

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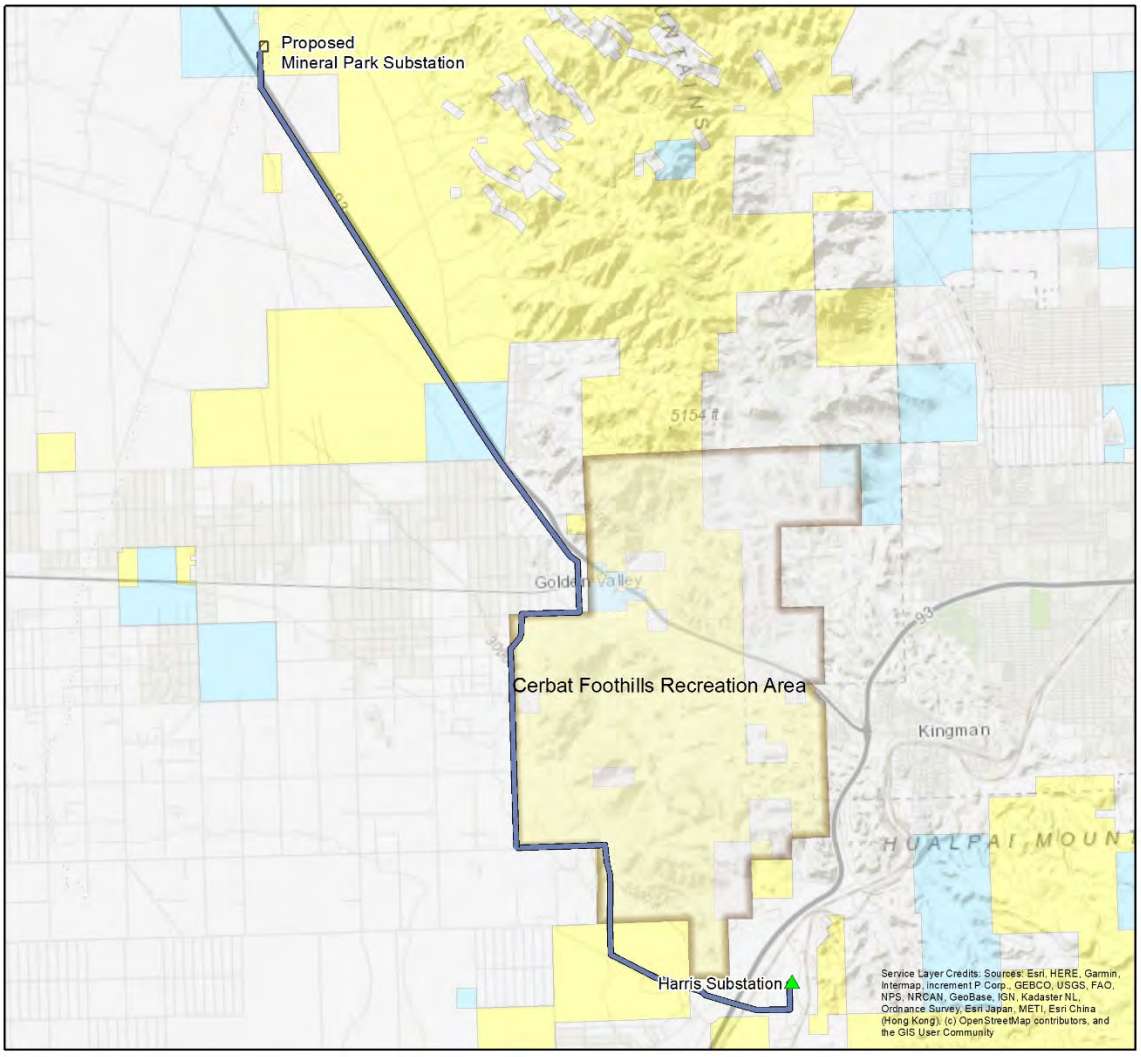
Date Produced: 6/1/2020



West Cerbat 1 Alternative

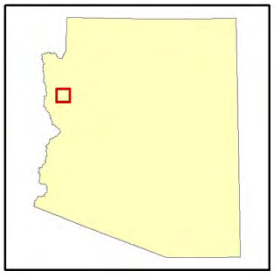
Golden Valley 230kV Transmission Line Project

Legend

West Cerbat 1 Alternative

Ownership

- Bureau of Land Management
- Arizona Game and Fish Department
- Private Land
- ASLD



Map 5

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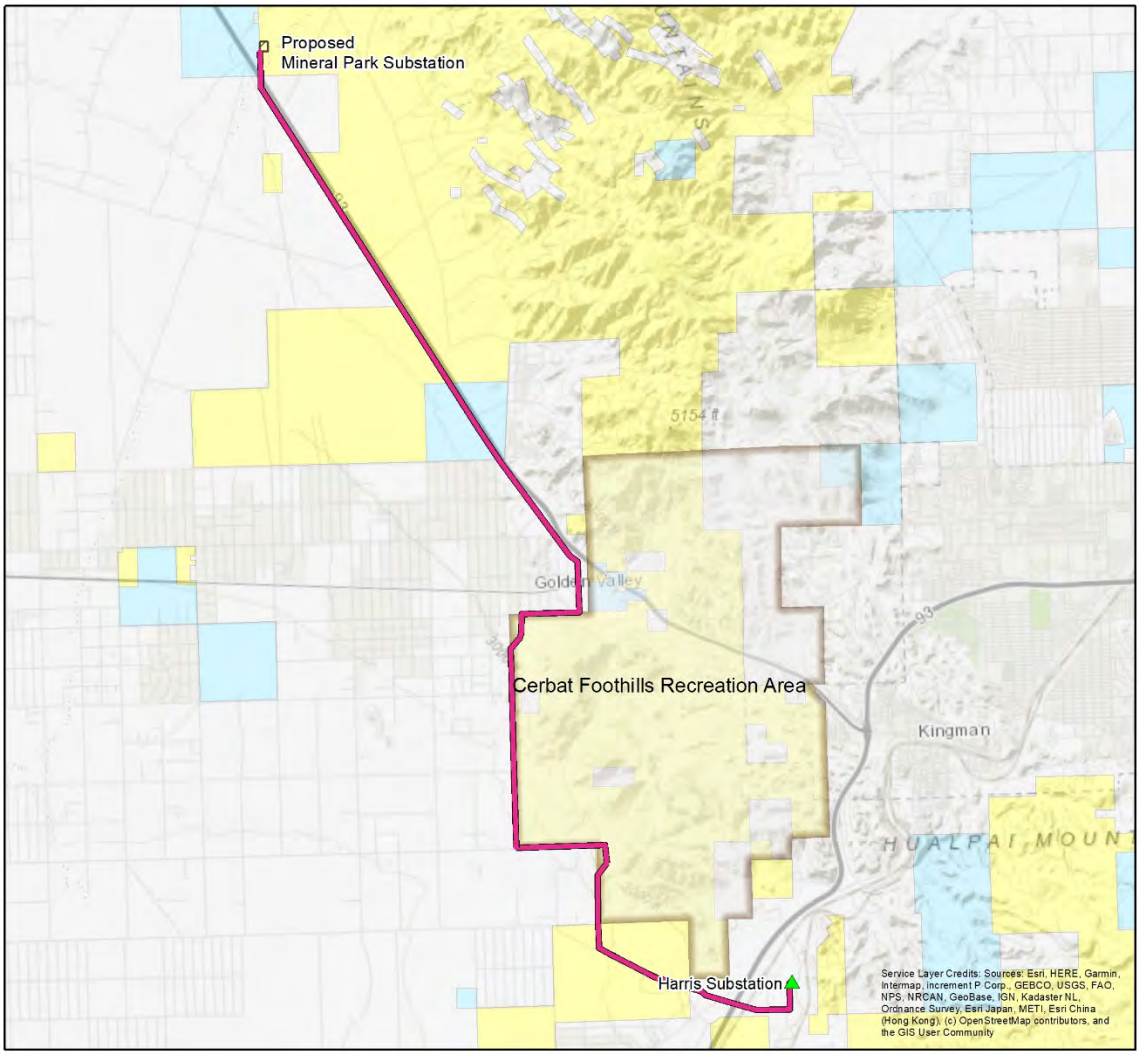


West Cerbat 2 Alternative

Golden Valley 230kV Transmission Line Project

Legend

West Cerbat 2 Alternative

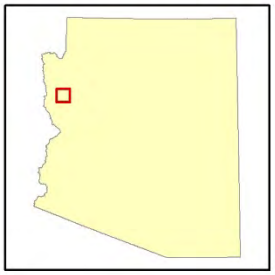
Ownership

Bureau of Land Management

Arizona Game and Fish Department

Private Land

ASLD



Map 6

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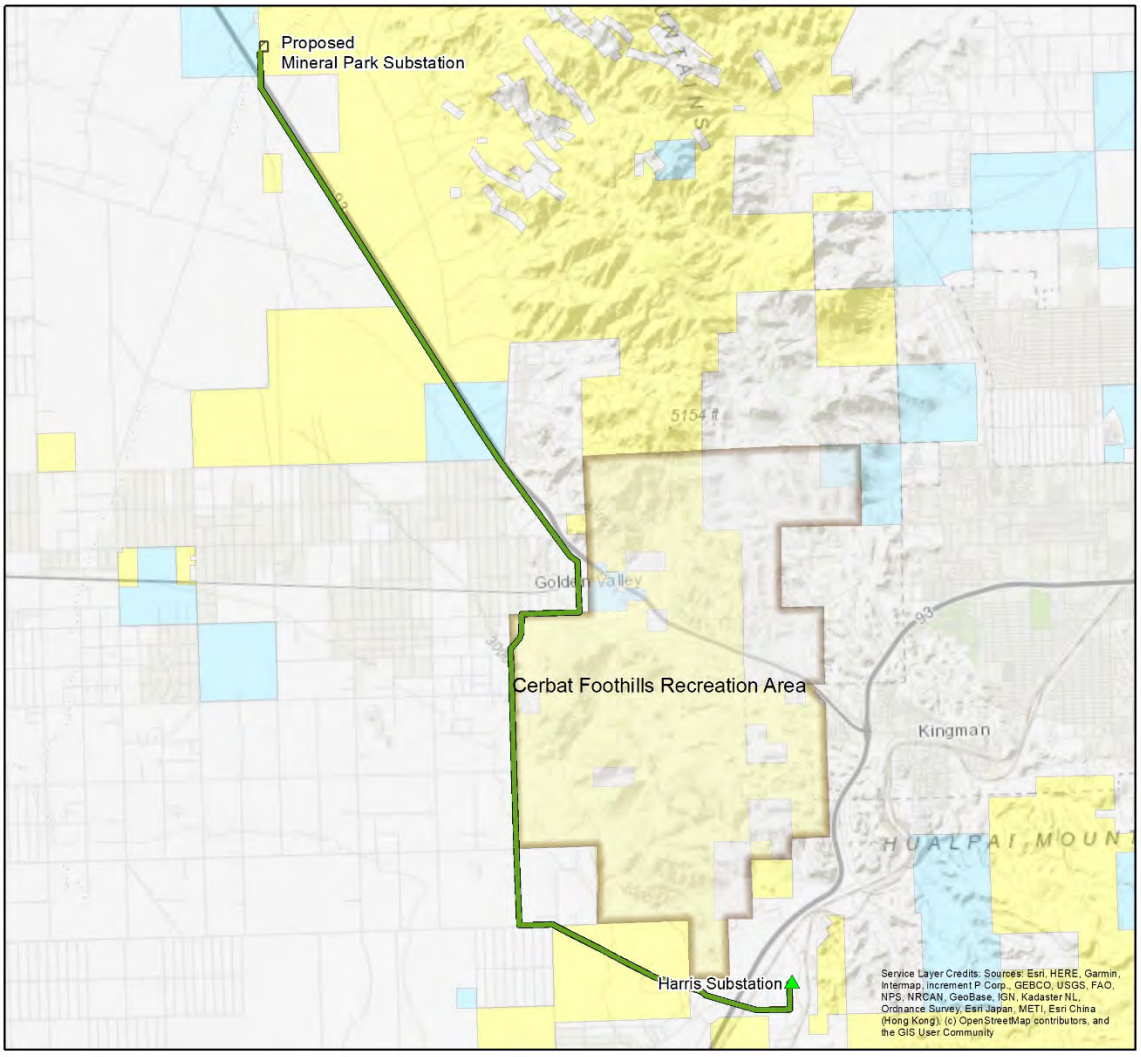


West Cerbat 3 Alternative

Golden Valley 230kV Transmission Line Project

Legend

West Cerbat 3 Alternative

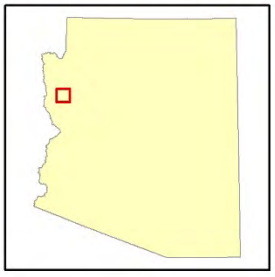
Ownership

Bureau of Land Management

Arizona Game and Fish Department

Private Land

ASLD



Map 7

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N

0 85 170 Miles

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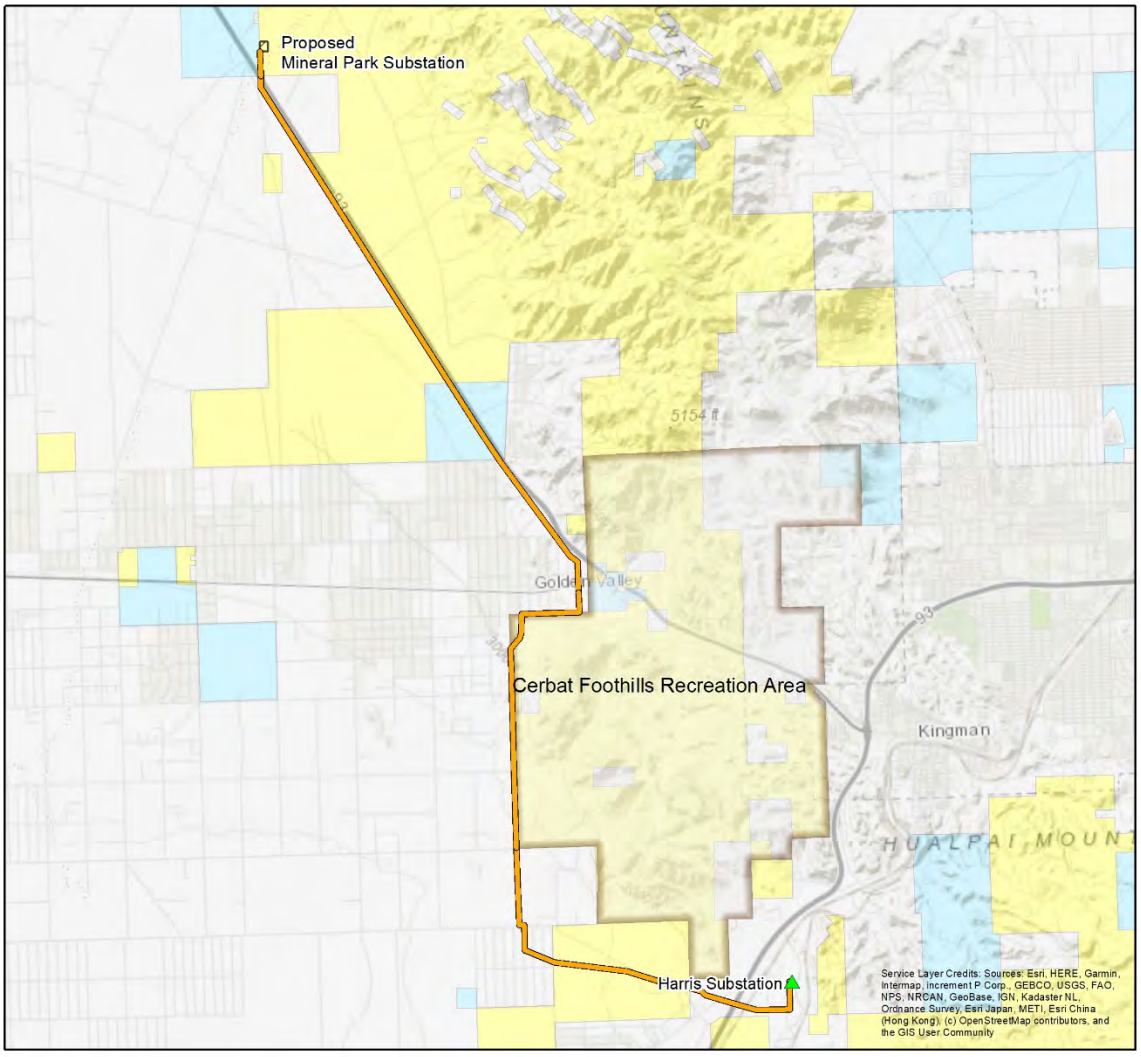


West Cerbat 4 Alternative

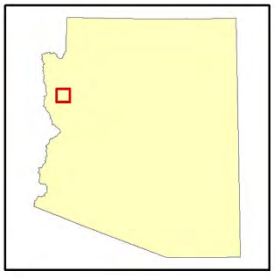
Golden Valley 230kV Transmission Line Project

Legend

West Cerbat 4 Alternative

Ownership

- Bureau of Land Management
- Arizona Game and Fish Department
- Private Land
- ASLD



Map 8

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N

0 85 170 Miles

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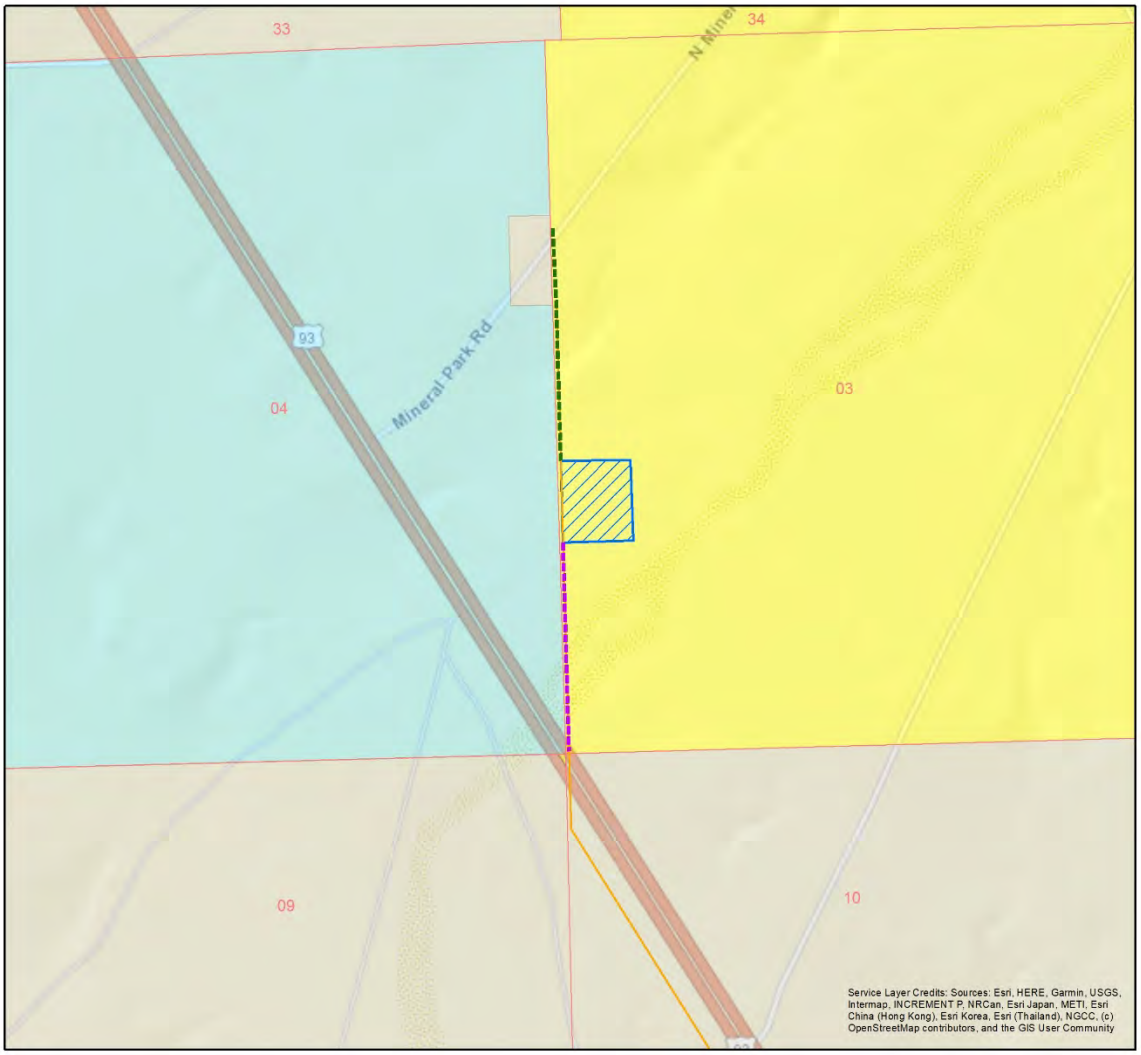
Date Produced: 6/1/2020

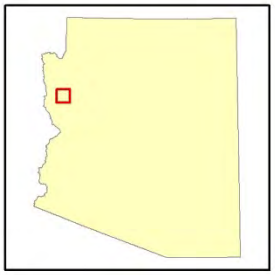


Proposed Mineral Park Substation and 69kV Feeders

Golden Valley 230kV Transmission Line Project

Legend

- 69kV Feeder 1
- 69kV Feeder 2
- Proposed Golden Valley 230kV Transmission Line
- Mineral Park Substation
- Bureau of Land Management
- Private
- ASLD



Map 9

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N

0 85 170 Miles

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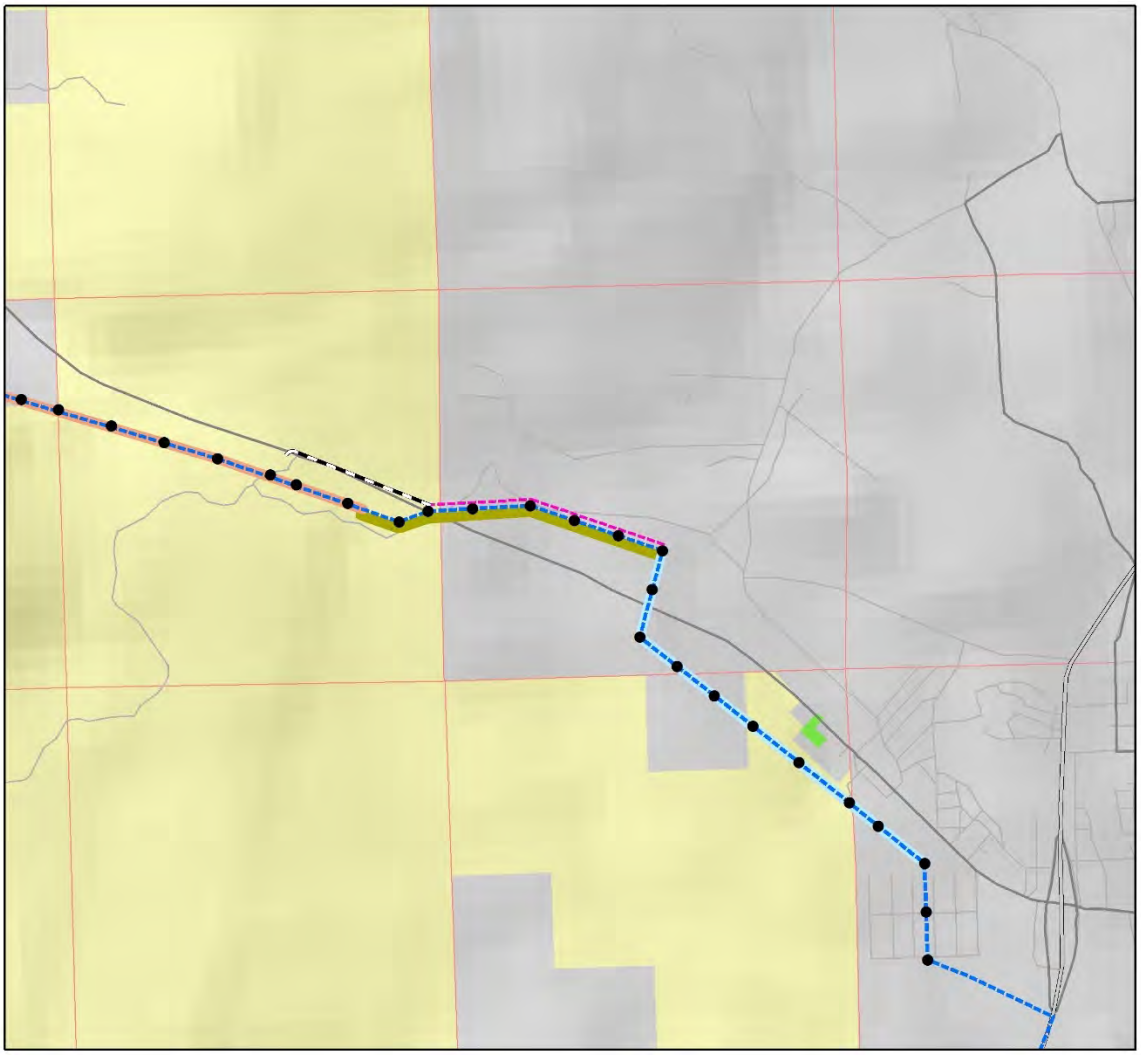
Date Produced: 6/1/2020



Existing Infrastructure and Proposed 230kV Transmission Line Near Coyote Pass - East Cerbat Alternatives

Golden Valley 230kV Transmission Line Project

Legend

- 230kV structure locations (approximate)

Alternatives

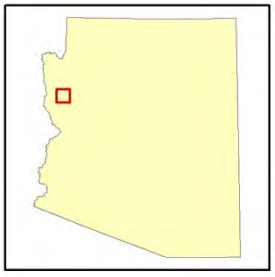
- East Cerbat Common Alternatives

69kV Pole Improvements

- No changes to 69kV line/230kV line to parallel 69kV line
- 69kV poles to be topped and 69kV moved to new 230kV structures
- 69kV line poles to be removed/69kV moved to new 230kV structures
- Communication line
- Distribution line to be topped

Land Ownership

- Bureau of Land Mgmt.
- Game and Fish
- Private Land



Map 10

Produced By: John Papageorgiou
Date Produced: 6/29/2020

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N

0 85 170 Miles

APPENDIX A-2

TABLES

TABLE 1 LEGAL DESCRIPTION BY ALTERNATIVE*		
Section(s)	**Township**	**Range**
E1 East Cerbat Alternative		
3, 4	20 North	17 West
7, 8, 15, 16, 17, 22, 23, 26, 35	21 North	17 West
1	21 North	18 West
22	22 North	17 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
23	23 North	17 West
E2 West Cerbat Alternative		
3, 4, 9, 16	20 North	17 West
7, 8, 15, 16, 17, 22, 23, 26, 35	21 North	17 West
1	21 North	18 West
22	22 North	17 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
23	23 North	17 West
W1 West Cerbat Alternative		
4, 5, 6, 8, 9	20 North	17 West
6, 7, 18, 19, 20, 28, 29, 30, 31, 32	21 North	17 West
1, 24	21 North	18 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
W2 West Cerbat Alternative		
4, 5, 6, 8, 9	20 North	17 West
6, 7, 18, 19, 20, 28, 29, 30, 31, 32	21 North	17 West
1, 24	21 North	18 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
W3 West Cerbat Alternative		
4, 5, 6, 8, 9	20 North	17 West
6, 7, 18, 19, 20, 28, 29, 30, 31, 32	21 North	17 West
1, 24, 36	21 North	18 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
W4 West Cerbat Alternative		
4, 5, 6, 8, 9	20 North	17 West
1	20 North	18 West

TABLE 1 LEGAL DESCRIPTION BY ALTERNATIVE*		
Section(s)	**Township**	**Range**
6, 7, 18, 19, 20, 28, 29, 30, 31, 32	21 North	17 West
1, 24, 36	21 North	18 West
1, 2, 3, 4, 9, 10, 11, 14, 15, 22, 23, 24, 25, 26, 27, 33, 34, 35, 36	22 North	18 West
***Note:** Gila and Salt River Baseline and Meridian, Arizona.		

TABLE 2 SUMMARY OF APPLICABLE LAWS AND REGULATIONS	
Law / Regulation	**Applies to:**
American Indian Religious Freedom Act	Archaeological resources and Tribal consultation
Antiquities Act of 1906	Archaeological resources and Tribal consultation
Archaeological Resources Protection Act	Archaeological resources and Tribal consultation
Clean Air Act	Air pollution prevention and control; emission levels of regulated pollutants
Clean Water Act (Sections 401/402/404)	Surface water quality; discharge, dredge, or fill materials into jurisdictional Waters of the United States
Endangered Species Act (ESA)	Threatened and endangered species
EO 11593	Protection and enhancement of the cultural environment
EO 11988/11990 (10CFR 1022 DOE)	Floodplains and wetlands
EO 12898	Environmental justice
EO 13112	Noxious weeds
EO 13175	Consultation and coordination with Tribal government
EO 13212	Energy policy
Farmland Protection Policy Act	Prime and unique farmlands
Federal Land Policy and Management Act (FLPMA)	Management of public lands
Migratory Bird Treaty Act	Protection of selected bird species
National Environmental Policy Act	Federal undertakings/Department of Energy NEPA regulations
National Historic Preservation Act	Historic properties and traditional cultural properties
Native American Graves Protection and Repatriation Act of 1990	Archaeological resources and Tribal consultation
Noise Control Act of 1972, as amended	Noise protection
Occupational Safety and Health Act	Health and safety standards
Pollution Prevention Act of 1990	Reducing potential for pollution sources
Secretarial Order 3206	ESA and Tribal Trust responsibilities

TABLE 3 SUMMARY OF PERMITS AND AUTHORIZATION	
Permitting Agency	**Permit/Authorization**
BLM Kingman Field Office	FLPMA ROW authorization
U.S. Army Corps of Engineers	Section 404 Clean Water Act
Arizona Department of Environmental Quality	Arizona Pollutant Discharge Elimination System Permit for construction activities and Section 401 water quality certification
ADOT	Encroachment Permit, Oversized Load Permit
ASLD/Arizona State Museum	Arizona Antiquities Act
Arizona Corporation Commission	CEC
Arizona Department of Agriculture	Native Plant Law; Notice of Intent to Clear Land
ASLD	ROW amendment
Mohave County	Mohave County General Plan conformance
City of Kingman	City of Kingman General Plan conformance
BNSF Railroad	Railroad encroachment easement
Private landowners	Property easements

TABLE 4 SCOPING COMMENT SUMMARY	
Resource	**Comment Summary**
Air Quality	Comment(s) regarding the possibility of depleting air quality. See Chapter 4.6 for analysis.
Alternatives	Comment(s) stating the eastern route would be a better option because it already uses existing utility ROWs. See Chapter 4.1.1.4 for analysis.
	Comment(s) stating the eastern route would be a better option because there are fewer residents and homes along that route. See Chapter 4.1 and 4.2 for analysis.
	Comment(s) stating less BLM-administered land would be used if the eastern route was chosen. See Chapter 3.1 and 4.1 for analysis.
	Comment(s) stating preference for the western alternatives because property owners along the eastern alternatives have been affected by the construction of I-40. See Chapters 4.1 and 4.2 for analysis.
Biological Resources	Concern(s) about harming animal life. See Chapter 4.3 and **Appendix F** for analysis.
	Concern(s) about harming plant life. See Chapter 4.3 and **Appendix F** for analysis.
	Need to consider impacts to species with legal protections as well as to make the transmission line raptor safe. See Chapter 4.3 and **Appendix F** for analysis.
	Concern(s) about harming the environment, ecosystems, and wildlife. See Chapter 4.3 and **Appendix F** for analysis.
	Concern(s) about the destruction of animal habitat. See Chapter 4.3 and **Appendix F** for analysis.
	Concern(s) about protected and endangered species, particularly golden eagle and desert tortoise. See Chapter 4.3 and **Appendix F** for analysis.

TABLE 4 SCOPING COMMENT SUMMARY	
Resource	**Comment Summary**
Cultural Resources	The Hopi and Chemehuevi Tribes each had a concern about possibly encountering any cultural resources during surveys in the proposed project area. The Yavapai-Apache Nation of Camp Verde had no concerns or comments other than to defer to the Hualapai Tribe regarding any cultural issues. See Chapter 4.4 for analysis.
Cumulative Effects	Concern(s) regarding the cumulative effects of new corridors. See Chapter 4.12.3.1 for analysis.
Environmental Justice	Concern(s) about the potential financial effects this proposed project will have on someone living on social security checks. See Chapter 4.10 for analysis.
Health and Safety	Concern(s) about health and safety issues that may arise from living near transmission lines, for both people and their pets, including disease, electrocution, and overall well-being. See Chapter 4.11 for analysis.
	Concern(s) specifically about the effects of electromagnetic radiation and how it would impact those living near power lines. See Chapter 4.11 for analysis.
	Concern(s) regarding potential crime construction of the proposed project would bring as a result of traffic in the area. See Chapter 4.11 for analysis.
	Comment(s) about the transmission line potentially negatively affecting the tourism industry in Golden Valley. See Chapter 4.1.1.2 for analysis.
Land Use	Concern(s) about disrupting operations of Cameron Broadcasting (or KAAA) radio tower. See Chapter 4.1.1.2 and 4.9 for analysis.
	Comment(s) about disrupting operations of the KYET-AM radio tower. See Chapter 4.1.1.2 and 4.9 for analysis.
	Comment(s) stating neither of the routes would affect the radio towers. See Chapter 4.1.1.2 and 4.9 for analysis.
	Concern(s) about interfering with other electronics, including the radio, and the impact this would have on those who enjoy listening to the radio. See Chapter 4.9 for analysis.
	Concern(s) about impacts to the CFRA and recreation uses. See Chapter 4.1.1.2 for analysis.
	Concern(s) about impacts to private property owners. See Chapter 4.1.1.2 and 4.2 for analysis
	Concern about the project affecting Mohave County's rights pertaining to roads. See Chapter 4.1.1.2 for analysis.
	Concern about the W4 alternative affecting Mohave County's material source pit off of Shinarump Road. See Chapter 4.1.1.2 for analysis.
Noise	Concern(s) raised about noise the transmission line would bring. See Chapter 4.9 for analysis
	Concern(s) raised about noise the construction process would bring. See Chapter 4.9 for analysis.
Purpose and Need	Comment(s) stating they understand the need for this proposed project. See Chapter 1.3 for information.
	Comment(s) stating they do not understand the need for the proposed project and that it is only to expand industrialization. See Chapter 1.3 for information.
Socioeconomics	Concern(s) about the transmission line decreasing the property/home value and other homes in Golden Valley, as well as hindering the potential to make money with future development. See Chapter 4.2 for analysis.

TABLE 4 SCOPING COMMENT SUMMARY	
Resource	**Comment Summary**
	Comment(s) about the transmission line negatively affecting the Golden Valley real estate market. See Chapter 4.2 for analysis.
	Comment(s) regarding potential compensation for this proposed project, some stating they deserve significant compensation, and some disappointed they will not be compensated for the loss or depreciation of their land. See Chapters 2.2.3, 4.1, and 4.2 for analysis.
Soil	Comment regarding potential soil erosion and the effect this would have on farmers and gardeners. See Chapter 4.8 for analysis.
Visual Resources	Concern(s) of visual impacts to the CFRA, highly visible areas, and to BLM-administered land managed to conserve visual quality. See Chapter 4.5 and **Appendix F** for analysis.
	Comment(s) about the proposed transmission line obstructing views from private properties. See Chapter 4.5 and **Appendix F** for analysis.
	Comments about degrading the natural beauty of Golden Valley. See Chapter 4.5 and **Appendix G** for analysis.

TABLE 5 DESIGN CHARACTERISTICS OF 230-KV TRANSMISSION LINE	
Feature	**Description**
Structure type	Tubular, weathering-steel monopole structures
Structure height (above ground)	Monopole structures averaging 85 to 195 feet*
Structure width	Monopole is approximately 2.5 to 5.5 feet at its base* and approximately 1 foot wide at its top.
Span length	Approximately 700 to 900 feet
Number of structures per mile	Approximately 6.5 per mile
230-kV conductor size	954 circular mils (1.163-inch diameter) non-specular, aluminum conductors, steel supported, minimum of 24 feet above the ground
69-kV conductor size	477 aluminum conductor steel-supported conductor that is 0.858 inch diameter non-specular, steel reinforced, minimum of 24 feet above ground
Structure foundations	Tangent structures would be direct buried or cast-in-place concrete foundations; turning structure foundations would be cast-in-place concrete
Static wire	OPGW with 96 single mode fiber with a 0.502 inch diameter
***Note:** Depends on double-circuit structure, location, and terrain.	

TABLE 6 69-KV FEEDER LINES DESIGN CHARACTERISTICS	
Feature	**Description**
Structure type*	Tubular, weathering-steel monopole structures
Structure height (above ground) *	Monopole structures averaging 65 to 75 feet
Structure width*	Monopole is approximately 31 to 36 inches at its base and approximately 9 inches wide at its top

TABLE 6 69-KV FEEDER LINES DESIGN CHARACTERISTICS	
Feature	**Description**
Span length*	Approximately 350 feet
Conductor size	477 aluminum conductor steel-supported conductor that is 0.858 inch diameter, non-specular, steel reinforced, minimum of 24 feet above ground
Structure foundations*	Tangent structures would be direct buried or cast-in-place concrete foundations; turning structure foundations would be cast-in-place concrete
Static Wire*	Optical ground wire with 96 single mode fibers with 0.502 inch diameter
***Note:** Only applies to Feeder 1. Feeder 2 would be collocated with the Golden Valley 230-kV transmission line towers.	

TABLE 7 PERSONNEL AND EQUIPMENT REQUIRED		
Tasks	**Staffing**	**Equipment**
Access roads, fencing, gates, and clearing	2 to 4 laborers/equipment operators	1 motor grader, 1 to 2 pickup trucks, 1 bulldozer, 1 backhoe
Preparing structure and substation sites, construction yard, wire handling site	4 to 8 laborers/equipment operators	1 dozer or motor grader, 2 mixer trucks, 2 pickup trucks, 2 flatbed trucks
Materials hauling	4 to 8 laborers/equipment operators	1 to 2 tractor trailers, 1 to 2 tractor-mounted cranes, 1 to 2 pickup trucks, 1 to 2 flatbed trucks
Foundation excavation	2 to 4 laborers/equipment operators	2 diggers with augers, 2 pickup trucks, 1 backhoe, 1 compressor
Foundation setting	4 to 6 laborers/equipment operators	2 flatbed trucks, 2 crew pickup trucks, 1 air compressor, 1 flatbed truck with boom
Concrete placement	4 to 5 laborers	2 mixer trucks, 2 pickup trucks
Structure assembly and substation equipment placement	4 to 8 linesmen/groundsmen and crane operators	1 to 3 hydraulic cranes, 4 to 6 pickup trucks, 1 to 3 flatbed trucks, 1 compressor
Structure erection	5 to 8 linesmen/groundsmen and crane operators	1 crane 50 to 100-ton capacity, 2 pickup trucks
Wire stringing	10 to 15 linemen/ groundsmen	2 pullers, 2 tensioners, 4 reel-stringing trailers, 1 materials truck, 2 dozers, 5 to 6 pickup trucks
Cleanup	2 to 4 laborers	1 bulldozer with ripper, 1 grader, 1 front-end loader, 1 tractor/harrow/disk, 1 pickup truck

TABLE 8 LENGTH OF ALTERNATIVES BY LAND OWNERSHIP*					
Action Alternatives	**Length (miles) and Land Jurisdiction**				**Total Length**
	Private	**BLM**	**ASLD**	**City of Kingman**	
West Cerbat Alternatives					
W1	7.5	8.9	1.2	0.0	17.6
W2	7.5	9.0	1.2	0.0	17.7
W3	9.0	7.2	1.2	0.0	17.4

TABLE 8 LENGTH OF ALTERNATIVES BY LAND OWNERSHIP*					
Action Alternatives	Length (miles) and Land Jurisdiction				Total Length
	Private	BLM	ASLD	City of Kingman	
W4	9.3	7.0	1.2	0.0	17.5
East Cerbat Alternatives					
E1	8.0	4.1	1.8	3.0	16.9
E2	8.6	4.5	1.8	3.0	17.9
***Note:** Alternative length is measured from the Harris Substation to the Mineral Park Substation, inclusive of all common or overlapping segments.					

TABLE 9 LENGTH OF NEW ACCESS NEEDED BY ALTERNATIVES AND BY LAND OWNERSHIP					
Action Alternatives	Access Road Length (miles) by Land Jurisdiction				Total Miles
	Private	BLM	ASLD	City of Kingman	
West Cerbat Alternatives					
W1	1.6	5.3	0.0	0.0	6.9
W2	0.7	5.8	0.0	0.0	6.5
W3	1.7	4.1	0.0	0.0	5.7
W4	1.7	3.3	0.0	0.0	5.0
East Cerbat Alternatives					
E1	2.1	2.5	0.5	1.1	6.2
E2	2.3	2.3	0.5	1.1	6.2

TABLE 10 LENGTH OF EXISTING ACCESS NEEDING IMPROVEMENTS BY ALTERNATIVES AND BY LAND OWNERSHIP					
Action Alternatives	Access Road Length (miles) by Land Jurisdiction				Total Miles
	Private	BLM	ASLD	City of Kingman	
West Cerbat Alternatives					
W1	3.6	2.5	1.2	0.0	7.3
W2	3.8	2.5	1.2	0.0	7.5
W3	3.4	2.5	1.2	0.0	7.1
W4	3.4	2.5	1.2	0.0	7.1
East Cerbat Alternatives					

TABLE 10 LENGTH OF EXISTING ACCESS NEEDING IMPROVEMENTS BY ALTERNATIVES AND BY LAND OWNERSHIP					
Action Alternatives	Access Road Length (miles) by Land Jurisdiction				Total Miles
	Private	BLM	ASLD	City of Kingman	
E1	2.9	1.2	1.2	0.0	5.3
E2	2.9	1.2	1.2	0.0	5.3

TABLE 11 TEMPORARY DISTURBANCE BY ALTERNATIVES AND LAND OWNERSHIP					
Action Alternatives	Temporary Disturbance (acres) by Land Jurisdiction				Total Acres
	Private	BLM	ASLD	City of Kingman	
West Cerbat Alternatives					
W1	32.1	35.0	3.8	0.0	70.9
W2	33.6	34.0	3.8	0.0	71.4
W3	39.0	23.0	4.0	0.0	66.0
W4	40.3	20.1	4.0	0.0	64.4
East Cerbat Alternatives					
E1	34.2	26.9	7.0	24.6	92.7
E2	40.2	19.3	7.0	24.6	91.1

TABLE 12 PERMANENT DISTURBANCE BY ALTERNATIVES AND LAND OWNERSHIP					
Action Alternatives	Permanent Disturbance (acres) by Land Jurisdiction				Total Acres
	Private	BLM	ASLD	City of Kingman	
West Cerbat Alternatives					
W1	3.4	15.6	0.0*	0.0	19.0
W2	3.6	16.7	0.0*	0.0	20.3
W3	5.0	14.3	0.0*	0.0	19.3
W4	5.1	13.2	0.0*	0.0	18.3
East Cerbat Alternatives					
E1	5.9	11.9	0.7	1.6	20.1
E2	5.9	11.6	0.7	1.6	19.8
*Estimated acreage is 0.01 but numbers in the table are rounded to the tenth of an acre					

TABLE 13 ALTERNATIVES CONSIDERED BUT ELIMINATED	
Alternative Description	**Rationale for Elimination**
Use lattice structures instead of monopole steel structures	Preliminary evaluations on potential visual impacts suggest a viewer's tolerance for visual change in the landscape and a reduced level of contrast for any type of line; the difference between monopole structures and lattice structures in many instances is not meaningful; adds new structure type to existing UNSE network; lattice structures are more difficult to acquire.
Bury the transmission line underground	Burying the transmission line has significant costs for installation and repair. It is many times more expensive than overhead lines; adds considerable time for maintenance and repair; there would be considerable environmental impacts versus overland pole placement as proposed.
Interconnection to Griffith Substation	Griffith Substation is located further from the alignment by approximately 5 miles; would result in additional environmental impacts and impacts to private landowners.
Interconnection to Hilltop Substation	This would require the transmission line to be built through the City of Kingman, an area with greater population and existing infrastructure. It would result in additional impacts to businesses and private landowners within the City of Kingman.
Follow private land alignments within Golden Valley (i.e., following Bacobi Road, Shipp Drive, Chino Drive, Agua Fria Drive, etc.)	This would result in additional impacts to private landowners; multiple initial routes through Golden Valley were evaluated during project development; overwhelming public input from residents on any potential alternatives through private land in Golden Valley was not favorable.
Follow existing transmission infrastructure within the CFRA	This alternative would cross directly through the CFRA, causing impacts to the environment and recreation users; public input expressed concern about encroachment onto the CFRA. This alternative could result in additional visual intrusion and contrast to the landscape.
Follow western topography of the Cerbat Foothills further east of Tooman Road property boundary, bringing the line closer to the Cerbat Foothills	This would cross directly through the CFRA, causing impacts to the environment and recreation users; public input expressed concern about encroachment onto the CFRA; could result in additional visual intrusion and contrast to the landscape.
Build the transmission line between the US-93 median	Prohibited by ADOT roadway standards; presented potential safety issues.
Build an approximate 0.75-mile segment of the transmission line on the southwest side of US-93 further away from Fort Beale	This line would deviate from the path of an existing 69-kV transmission line, resulting in transmission lines on both sides of US-93 rather than building the transmission line where it would replace the structures of the 69-kV line and place the 69-kV line on the new transmission line structures.
Use 69-kV transmission line corridor from West Golden Valley Substation along Colorado Road	This would result in additional impacts to private landowners; public input on new 230-kv transmission line through Golden Valley was not favorable.
Follow BNSF Railroad from Harris Substation to I-40 Crossing	Railroad rejected the proposal of paralleling their tracks.
Build within the I-40 ROW	Rejected based on ADOT's guidelines for accommodating utilities in highway ROWs.
Build along the southeast corner of the CFRA, northwest of I-40	Based on existing topography, this segment would be visually intrusive; generally does not follow along existing corridor infrastructure or property boundaries.

TABLE 13 ALTERNATIVES CONSIDERED BUT ELIMINATED	
Alternative Description	**Rationale for Elimination**
Build segment from south of Beale Street to further west of I-40 and existing 44-kV line	Based on existing topography, this segment would be visually intrusive; generally does not follow along existing corridor infrastructure or property boundaries.
Alternatives north of US-93	Corridors and compatible linear infrastructure or property lines were not favorable or opportunities did not exist; public lands were located in difficult terrain and new transmission lines were not consistent with planning documents.
Place existing distribution facilities on the transmission structures	Span length differences prohibit co-placement of distribution lines on the same structures as 230-kV transmission facilities; typical span length of distribution facilities is several hundred feet, whereas the proposed transmission facilities would have a span that is approximately 800 feet.

TABLE 14 RESOURCES AND ISSUES CONSIDERED				
Determination*	**Resource**	**Rationale for Determination**	**Signature**	**Date**
PI	Air Quality	Potential impacts are discussed in Chapters 3 and 4		
NP	Areas of Critical Environmental Concern	None present in the vicinity		
PI	Biology—Vegetation	Potential impacts are discussed in Chapters 3 and 4		
PI	Biology—Wildlife	Potential impacts are discussed in Chapters 3 and 4		
PI	Cultural Resources	Potential impacts are discussed in Chapters 3 and 4		
PI	Environmental Justice	Potential impacts are discussed in Chapters 3 and 4		
NP	Floodplains	None present within the APE.		
PI	Soils	Potential impacts are discussed in Chapters 3 and 4		
PI	Invasive Species/Noxious Plants	Potential impacts are discussed in Chapters 3 and 4		
PI	Lands/Access	Potential impacts are discussed in Chapters 3 and 4		
PI	Livestock Grazing/ Rangeland	Potential impacts are discussed in Chapters 3 and 4		
NP	Paleontology	None present		
PI	Recreation	Potential impacts are discussed in Chapters 3 and 4		
PI	Socioeconomics	Potential impacts are discussed in Chapters 3 and 4		
NI	Threatened and Endangered Species	No wildlife or plant species listed under the ESA are within the project area nor is there any designated critical habitat for any listed species. Also, it is unlikely the California condor would occur in the project area.		
NP	BLM Sensitive Plant Species	None present		
NP	Water Resources/Quality (drinking/surface/ground)	None present		
NP	Wetlands/Riparian Zones	None present		
NP	Wild and Scenic Rivers	None present		
NP	Wilderness (designated) and Wilderness Study Areas	None present		
PI	Visual Resources	Potential impacts are discussed in Chapters 3 and 4		
NI	Wild Horses and Burros	Portions of the route common to all action alternatives would be within the Black Mountain Herd Management Area (HMA) and the Cerbat Herd Area (HA). These locations are		

TABLE 14 RESOURCES AND ISSUES CONSIDERED				
Determination*	**Resource**	**Rationale for Determination**	**Signature**	**Date**
		proximate to US-93 where wild burros in the Black Mountain HMA and wild horses in the Cerbat HA rarely, if ever, are present in the project area.		
NP	Areas with Wilderness Characteristics	None Present		
*NP = Not present in the area impacted by the proposed or alternative actions NI = Present but not affected to a degree that detailed analysis is required PI = Present with potential for relevant impact that need to be analyzed in detail in the EA				

TABLE 15 MILES OF ALTERNATIVES BY LAND OWNERSHIP*				
Action Alternatives	Land Jurisdiction			Total Length
	Private**	BLM	ASLD	
West Cerbat Alternatives				
W1	7.5	8.9	1.2	**17.6**
W2	7.5	9.0	1.2	**17.7**
W3	9.0	7.2	1.2	**17.4**
W4	9.3	7.0	1.2	**17.5**
East Cerbat Alternatives				
E1	10.8	4.4	1.8	**17.0**
E2	11.4	4.8	1.8	**18.0**
*Note: Alternative length is measured from the Harris Substation to the Mineral Park Substation, inclusive of all common or overlapping segments				

TABLE 16 RESIDENTIAL PROPERTIES WITHIN 1,000 FEET OF ALTERNATIVES					
E1	E2	W1	W2	W3	W4
228	228	266	267	307	343
Note: These figures differ from those in Table 19 because this table contains data on residential property and Table 19 provides data on actual residential buildings.					

TABLE 17 GRAZING LEASES (ASLD) AND PERMITS (BLM)			
Administered By	Location within Study Area (alternative)	Lease Number	Name/Owner
BLM	Far north; alternative alignments do not cross this allotment	00055	Mineral Park
BLM	West of US-93; near northern extent of the shared portion of all alternatives	00060	Pine Springs
BLM	East of US-93 and due north of Golden Valley; near northern extent of shared portion of all alternatives	00087	Mud Springs (Little Cane)
BLM	East of US-93, near the intersection of US-93 and SR-68; northeast of shared portion of all alternatives	00018	Castle Rock
BLM	West of US-93 and immediately north of Golden Valley; southwest of shared portion of all alternatives	00027	Curtain
BLM	Covers some of the CFRA and surrounded by East/West Cerbat alternatives; W1 and W2 West Cerbat alternatives cross over western portion of allotment	00024	Cook Canyon
BLM	Southeastern portion of project study area; portions of East Cerbat alternatives cross this allotment	00052	Lazy Yu
BLM	Far eastern portion of the project study area, south of Kingman; no alternatives cross this allotment	00047	Hualapai Peak
ASLD	No alternatives cross this allotment	908	Overson Revocable Trust

TABLE 17 GRAZING LEASES (ASLD) AND PERMITS (BLM)			
Administered By	**Location within Study Area (alternative)**	**Lease Number**	**Name/Owner**
ASLD	No alternatives cross this allotment	908	Overson Revocable Trust
ASLD	The East and West Cerbat alternatives cross this allotment	91730	Gross Family Limited Partnership
ASLD	No alternatives cross this allotment	91730	Gross Family Limited Partnership

TABLE 18 MILES OF ALTERNATIVES WITHIN 1,000 FEET OF PROPERTIES ZONED RESIDENTIAL						
Alternative	**E1**	**E2**	**W1**	**W2**	**W3**	**W4**
Miles	8.6	8.6	11.8	12.0	11.4	11.6

TABLE 19 RESIDENCES WITHIN 100 AND 1,000 FEET OF TRANSMISSION LINE ALTERNATIVES			
Alternative	**Inhabitable Residential Structures (distance from centerline)**		**Total**
	Within 100 feet	**100 to 1,000 feet**	
E1 Alternative	9	133	**142**
E2 Alternative	9	133	**142**
W1 Alternative	10	66	**76**
W2 Alternative	10	66	**76**
W3 Alternative	11	76	**87**
W4 Alternative	10	70	**80**

TABLE 20 MILES IN BURROWING OWL HABITAT PER EACH ALTERNATIVE						
Alternative	**E1**	**E2**	**W1**	**W2**	**W3**	**W4**
Miles	8.5	9.0	11.5	10.6	12.0	13.2

TABLE 21 WIND ERODIBILITY OF SOILS						
Susceptibility to Wind Erosion	**Percent of Alternative within each Wind Erosion Group**					
	East Cerbat Alternatives		**West Cerbat Alternatives**			
	E1	**E2**	**W1**	**W2**	**W3**	**W4**
High	0%	0%	0%	0%	0%	0%
Moderate High	15%	14%	14%	14%	18%	16%

TABLE 21 WIND ERODIBILITY OF SOILS						
Susceptibility to Wind Erosion	**Percent of Alternative within each Wind Erosion Group**					
	East Cerbat Alternatives		**West Cerbat Alternatives**			
	E1	**E2**	**W1**	**W2**	**W3**	**W4**
Moderate Low	46%	43%	15%	15%	17%	16%
Low	36%	40%	22%	23%	16%	15%
Not Rated	3%	3%	4%	4%	4%	5%

TABLE 22 SUSCEPTIBILITY OF SOIL TO EROSION BY WATER						
Soil Erosion Susceptibility	**Percent of Alternative within each Soil Erosion Group**					
	East Cerbat Alternatives		**West Cerbat Alternatives**			
	E1	**E2**	**W1**	**W2**	**W3**	**W4**
High	0%	0%	0%	0%	0%	0%
Moderate	10%	10%	13%	13%	13%	13%
Low	74%	73%	78%	78%	77%	78%
Not Rated	16%	17%	9%	9%	9%	9%

TABLE 23 SENSITIVE NOISE RECEPTORS WITHIN 1,000 FEET OF TRANSMISSION LINE ALTERNATIVES			
Alternative	**Structure Count**		
	Residences	**Public Facilities**	**Total**
East Cerbat Alternative			
E1	142	2	**144**
E2	142	2	**144**
West Cerbat Alternative			
W1	76	2	**78**
W2	76	2	**78**
W3	87	2	**89**
W4	80	2	**82**

TABLE 24 RACE AND ETHNICITY IN STUDY AREA				
Population	**Kingman City**	**Golden Valley CDP**	**Mohave County**	**Arizona**
Total Population, 2018*	29,244	8,673	206,064	6,946,685
Hispanic or Latino (of any race)	4,017	1,300	33,481	2,163,312

TABLE 24 RACE AND ETHNICITY IN STUDY AREA				
Population	**Kingman City**	**Golden Valley CDP**	**Mohave County**	**Arizona**
Not Hispanic or Latino	25,227	7,373	172,583	4,783,373
White	22,892	7,047	159,907	3,825,886
Black or African American	515	14	2,030	286,614
American Indian	748	24	4,344	271,946
Asian	332	99	2,427	222,477
Native Hawaiian/Other Pacific Islander	20	17	446	12,523
Some other race	101	0	159	9,177
Two or more races	619	172	3,270	154,750
Percent of Total				
Hispanic or Latino (of any race)	13.7%	15.0%	16.2%	31.1%
Not Hispanic or Latino	86.3%	85.0%	83.8%	68.9%
White	78.3%	81.3%	77.6%	55.1%
Black or African American	1.8%	0.2%	1.0%	4.1%
American Indian	2.6%	0.3%	2.1%	3.9%
Asian	1.1%	1.1%	1.2%	3.2%
Native Hawaiian/Other Pacific Islander	0.1%	0.2%	0.2%	0.2%
Some other race	0.3%	0.0%	0.1%	0.1%
Two or more races	2.1%	2.0%	1.6%	2.2%
Source: https://headwaterseconomics.org/tools/economic-profile-system/, checked April 2020. *Data is derived from 2018 American Community Survey/U.S. Census Bureau information.				

TABLE 25 POVERTY PREVALENCE IN STUDY AREA				
Population	**Kingman City**	**Golden Valley CDP**	**Mohave County**	**Arizona**
People, 2018*	27,683	8,659	201,965	6,788,985
Families, 2018*	7,200	2,244	54,107	1,648,126
People below poverty	4,852	2,084	35,296	1,092,192
Families below poverty	763	303	6,277	190,407
Percent of Total				

People below poverty	17.5%	24.1%	17.5%	16.1%
Families below poverty	10.6%	13.5%	11.6%	11.6%
Source: https://headwaterseconomics.org/tools/economic-profile-system/, checked April 2020. *Data is derived from 2018 American Community Survey/U.S. Census Bureau information.				

TABLE 26
TYPICAL 60-HERTZ MAGNETIC FIELD LEVELS FROM SOME COMMON HOME APPLIANCES

Appliance	Mean Magnetic Field 6 inches from Appliance (μT)	Mean Magnetic Field 2 feet from Appliance (μT)
Refrigerator	0.2	0.1
Coffee maker	0.7	—
Dishwasher	2.0	0.4
Electric range	3.0	0.2
Fluorescent lights	4.0	0.2
Garbage disposal	8.0	0.2
Copy machine	9.0	0.7
Electric shaver	10.0	—
Microwave oven	20.0	1.0
Power saw	20.0	0.5
Hairdryer	30.0	—
Vacuum Cleaner	30.0	1.0
Source: EPA 1992		

TABLE 27
EXISTING UNSE TRANSMISSION LINE EASEMENT ON PRIVATE LANDS FOR EACH ALTERNATIVE

Alternative	Total Miles of Private Land Crossed by Alternative (miles)	Miles of Existing UNSE Transmission Line Easement on Private Land (miles)	Percent of Existing UNSE Transmission Line Easement on Private Land (percent)
E1	10.8	7.3	67.6
E2	11.4	7.3	64.0
W1	7.5	4.3	57.3
W2	7.5	4.3	57.3
W3	9.0	4.3	47.8
W4	9.3	4.3	46.2

TABLE 28 AMOUNT OF RESIDENTIAL LAND PROXIMATE TO ALTERNATIVES		
Alternative	**Lengths within 1,000 Feet of Residential Land (miles)**	**Percent of Alternative within 1,000 Feet of Residential Land (percent)**
E1	8.6	50.7
E2	8.6	47.9
W1	11.8	67.1
W2	12.0	67.6
W3	11.4	65.6
W4	11.6	65.8

TABLE 29 PERCENT OF ALTERNATIVE WITHIN A BLM-DESIGNATED UTILITY CORRIDOR	
Alternative Segment	**Percent of Alternative**
West Cerbat Alternatives	
W1	68
W2	68
W3	75
W4	75
East Cerbat Alternatives	
E1	100
E2	100

TABLE 30 NUMBER OF RESIDENTIAL PROPERTIES POTENTIALLY IMPACTED FOR EACH ALTERNATIVE	
Route Section/Alternative	**Number of Residential Properties**
East Cerbat 1 and 2	228
West Cerbat 1	266
West Cerbat 2	267
West Cerbat 3	307
West Cerbat 4	343

TABLE 31 ESTIMATED GROUND DISTURBANCE IN DESERT TORTOISE CATEGORY III HABITAT*				
Alternative	Type of Disturbance (acres)			Total
	Short Term	Long Term	Permanent	
E1	13.8	8.1	9.1	31
E2	13.8	10.3	11.6	35.7
W1	11.5	10.9	12.2	34.6
W2	12.7	10.8	12.1	35.6
W3	9.2	7.5	8.4	25.1
W4	10.4	7.5	8.4	26.3
***Note:** All calculations are based on preliminary engineering data				

TABLE 32 MILES OF ALTERNATIVES IN BURROWING OWL HABITAT						
Alternative	E1	E2	W1	W2	W3	W4
Miles	8.5	9.0	11.5	10.6	12.0	13.2

TABLE 33 ESTIMATED GROUND DISTURBANCE			
Alternative	Type of Disturbance (acres)		Total
	Temporary	Permanent	
E1	89.8	31.9	121.7
E2	90.6	31.2	121.8
W1	62.1	34.7	96.8
W2	68.1	35.3	103.4
W3	61.9	31.7	93.6
W4	67.4	32.4	99.8
*Note: All calculations are based on preliminary engineering data			

TABLE 34 TYPICAL NOISE LEVELS FOR CONSTRUCTION EQUIPMENT	
Equipment	Typical Maximum Noise Levels (dBA at 50 feet)
Front loader	80
Backhoe, excavator	80
Tractor, dozer	85
Grader, scraper	85

TABLE 34 TYPICAL NOISE LEVELS FOR CONSTRUCTION EQUIPMENT	
Equipment	**Typical Maximum Noise Levels (dBA at 50 feet)**
Dump truck	84
Pick-up truck	55
Concrete mixer truck	85
Crane (movable)	85
Pump	77
Generator	82
Compressor (air)	80
Pneumatic tools	85
Compactor (ground)	80
Auger drill rig	85
Source: FHWA 2017	

TABLE 35 GENERAL CONSTRUCTION NOISE ASSESSMENT CRITERIA – ACCEPTABLE LIMITS (USDOT 2012)					
Land Use	**One-hour L_{eq} (dBA)**		**8-hour L_{eq} (dBA)**		**Weighted L_{dn} (dBA)**
	Day	**Night**	**Day**	**Night**	**30-day average[1,2]**
Residential	90	80	80	70	75
Commercial	100	100	85	85	80
Industrial	100	100	90	90	85

[1]Note: In urban areas with very high ambient noise levels (L_{dn} > 65 dBA), L_{dn} from construction operations should not exceed existing ambient plus-10 decibels
[2]Note: 24-hour L_{eq}, not L_{dn}

TABLE 36 CONSTRUCTION NOISE LEVEL ESTIMATES*		
Distance from centerline (feet)	**Estimated Construction Noise Levels L_{eq} (dBA)**	**Estimated L_{dn} (dBA)**
50	83	78
100	77	72
150	74	69
200	71	67
300	68	64
400	65	61
800	59	57

TABLE 36 CONSTRUCTION NOISE LEVEL ESTIMATES*		
Distance from centerline (feet)	**Estimated Construction Noise Levels L_{eq} (dBA)**	**Estimated L_{dn} (dBA)**
*Note: A background nighttime noise level of 45 dBA is assumed		

TABLE 37 PAST ACTIONS	
Category	**Past Actions**
Agriculture	To date, approximately 10,000 acres in the Hualapai Valley have been put under cultivation for hay production.
	Grazing allotments in the study area include Cook Canyon, Lazy Yu, Curtain, Pine Springs, and Mud Springs.
Communications	Three communication towers exist: 1) a 195-foot radio tower constructed in 2007 east of the Nucor Steel Plant; 2) a 190-foot radio tower constructed in 2012 near Coyote Pass; and 3) a communication tower built at an unknown date in the past east of US-66 and just south of Kingman.
	An AT&T telecommunications line crosses US-93 near Sohi Boulevard.
Development	Lewis Kingman platted the community bearing his name in 1882. The town was designed as a work camp, watering station, and railhead for the railroad. The designation of the Old Trails Highway in the 1920s (later the route of US-66) brought more people into the area. The construction of the Boulder (Hoover) Dam in the early 1930s was an additional magnet for growth; however, the activities at the Kingman Army Airfield during and after World War II led to a rapid expansion of the Kingman area population. Following the war, Kingman quickly became a regional center for highway service (US-66), ranching, and mining, as well as government administration. To capitalize on this new growth, Kingman expanded primarily in response to the ease of availability of utilities, transportation corridors, and topographic constraints.
	The community of Golden Valley was developed primarily following a development company's division and sale of the land primarily south of US-68 into 2.5-acre parcels of land.
Energy	A five-turbine wind farm constructed in 2011 is east of the Nucor Steel Plant and Harris Substation.
	The Boulder to Kingman 69-kV transmission line, constructed in 1949, runs northwest-southeast along US-93.
	WAPA's Davis to Prescott 230 kV Transmission Line Project runs northwest-southeast just south of Shinarump Road and the Nucor Steel Plant.
	WAPA's Davis to Kingman 69-kV transmission line runs west to east across Golden Valley and the CFRA.
	The Transwestern Pipeline runs approximately 1.5 miles south of the Harris Substation.
	A gas pipeline is located approximately 3.5 miles south of Kingman near the southern boundary of the study area.
Government Facilities	There is an old Mohave County Landfill which operated from 1965 to 1988 near Shipp and Tooman roads in Golden Valley.
	The City of Kingman Wastewater Treatment Plant is located just south of Kingman off of US-66.
	A port of entry was reconstructed in the late 1990s and is near US-93 and SR-68.
	A former BLM burro processing center is located north of Shinarump Road.

TABLE 37 PAST ACTIONS	
Category	**Past Actions**
	There are various government office/services/administrative buildings within Kingman.
Industry	The Nucor Steel plant, constructed in the early 1990s, is located adjacent to the Harris Substation.
Mining	The Mineral Park Mine, which opened in 1963, is a copper and molybdenum open pit mine located in the north of the study area 15 miles north of Kingman.
	There are two mineral material pits and an old stone quarry in the study area. The old stone quarry is just south of the Kingman wastewater treatment plant. One approximate 25-acre mineral materials pit is located approximately 2 miles southwest of Kingman and another is an approximate 40-acre pit located off of Aztec Road midway between SR-68 and Shinarump Road.
Recreation	The Seven Mile Shooting Range is approximately 2 miles southwest of Kingman.
	The Cerbat Foothills trail system has been developed throughout the CFRA and is used by hikers, bikers, and horseback riders.
	A historic site, Fort Beale Spring, is located just east of US-93 outside of Kingman, and today visitors can hike and picnic in the area.
Residential and Commercial Development	There has been ongoing development of the Kingman and Golden Valley areas for many years, including the development of many homes and businesses.
Transportation	Several highways have been constructed in the study area, including US-93, SR-68, US-66, and I-40, as well as many local streets.
	The BNSF Railroad runs along I-40 through the study area.

TABLE 38 REASONABLY FORESEEABLE FUTURE ACTIONS	
Category	**Future Action**
Energy	UNSE plans to upgrade their Coyote Breaker. The breaker is located near Coyote Pass off of US-93 within the CFRA. The upgrade will involve moving the breaker approximately 400 feet northwest. Equipment is expected to be similar to what is currently present at the existing breaker site with the addition of two new pole structures to be used as dead-end structures for an existing 69-kV transmission line. The site will be secured with a 7-foot-high fence with a strand of razor wire at the top. The existing Coyote Breaker site would be reclaimed.
	Western Wind has a lease for land next to its existing five-turbine Kingman Project and has expressed interest in developing a similar number of additional turbines, as well as considering additional small-scale, solar energy in the vicinity of the existing facilities.
	UNSE is planning to build a new 2-acre electrical distribution substation on BLM land near I-40 and Shinarump Road by 2022 in order to better facilitate electrical distribution between two different electrical distribution networks.
Transportation	The I-11 and Intermountain West Corridor is envisioned to accommodate multiple modes and multiple uses such as highway, rail, and utilities. The project area falls within the northern Arizona/southern Nevada section of the I-11 and Intermountain West Corridor. US-93 has been identified as the corridor recommended for this section.
	ADOT and the Federal Highway Administration have identified the traffic interchange between US-93 and I-40 as a future project. This project, known as the West Kingman Traffic Interchange Project, would redesign and rebuild this interchange, creating a new

TABLE 38 REASONABLY FORESEEABLE FUTURE ACTIONS	
Category	**Future Action**
	traffic interchange on westbound I-40 to northbound US-93 and southbound US-93 to eastbound I-40. The project is currently budgeted for the 2024 fiscal year.

APPENDIX A-3

FIGURES

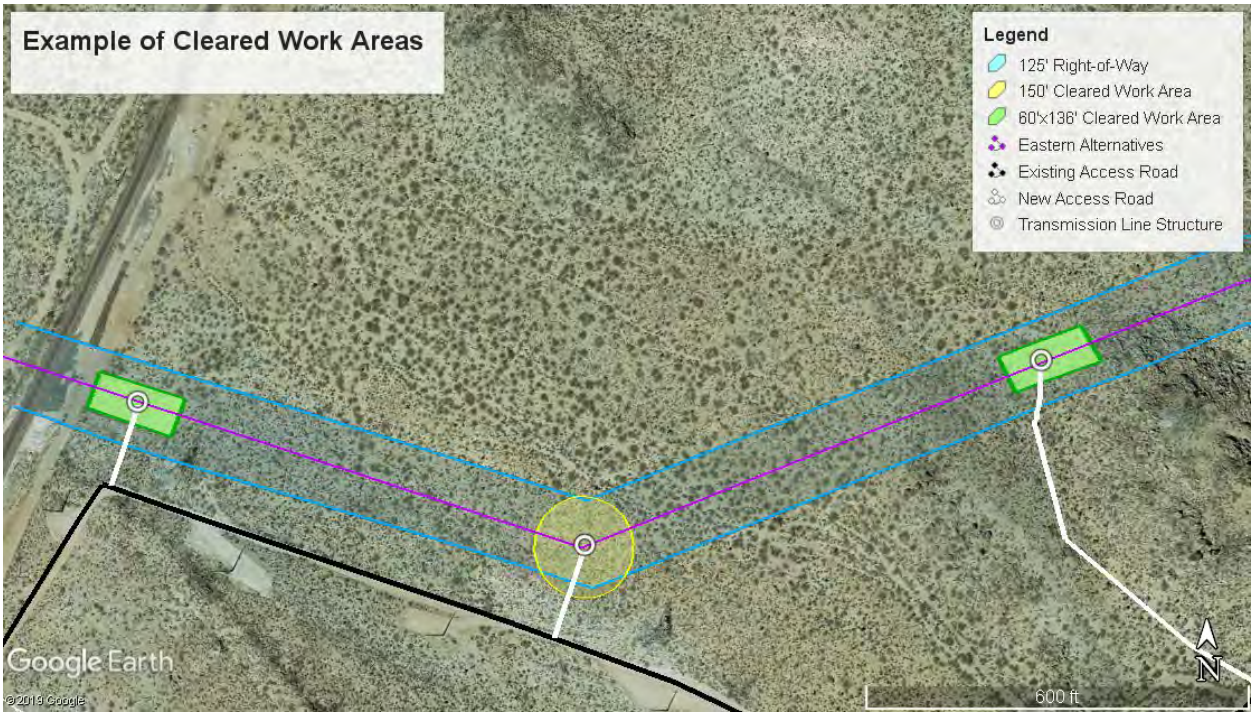


Figure 1. Example of work area around structures.

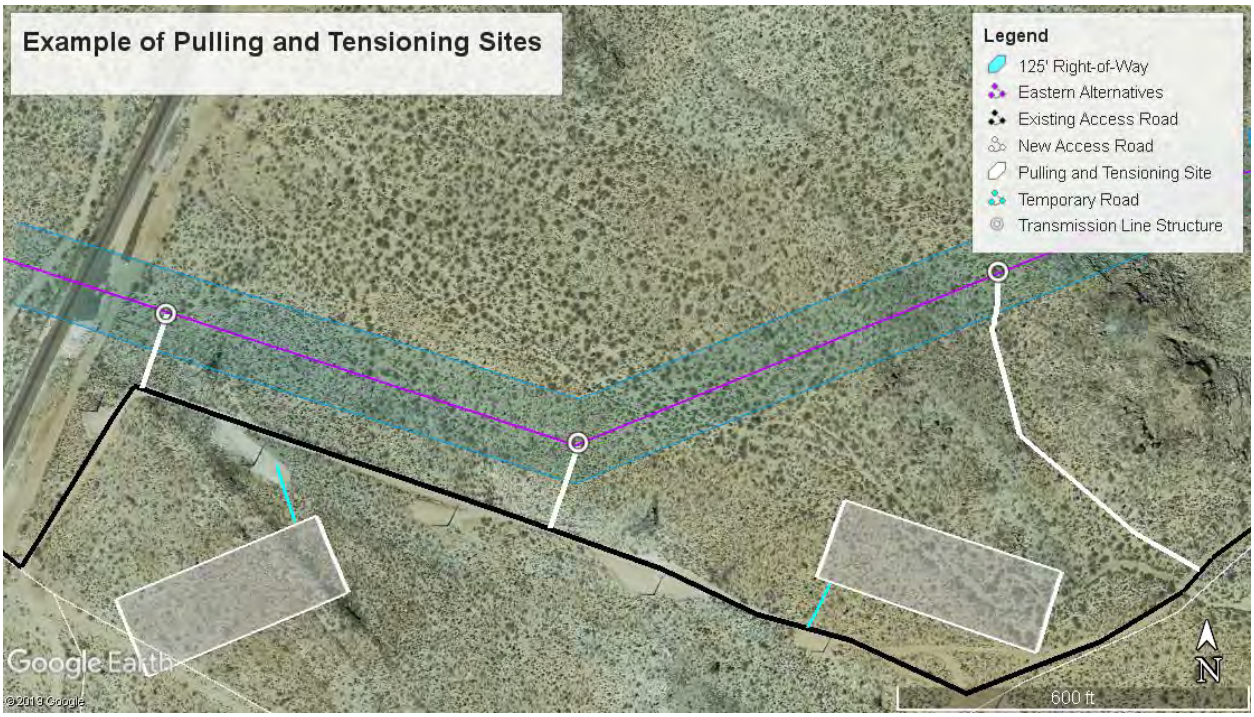


Figure 2. Example of pulling and tensioning sites.

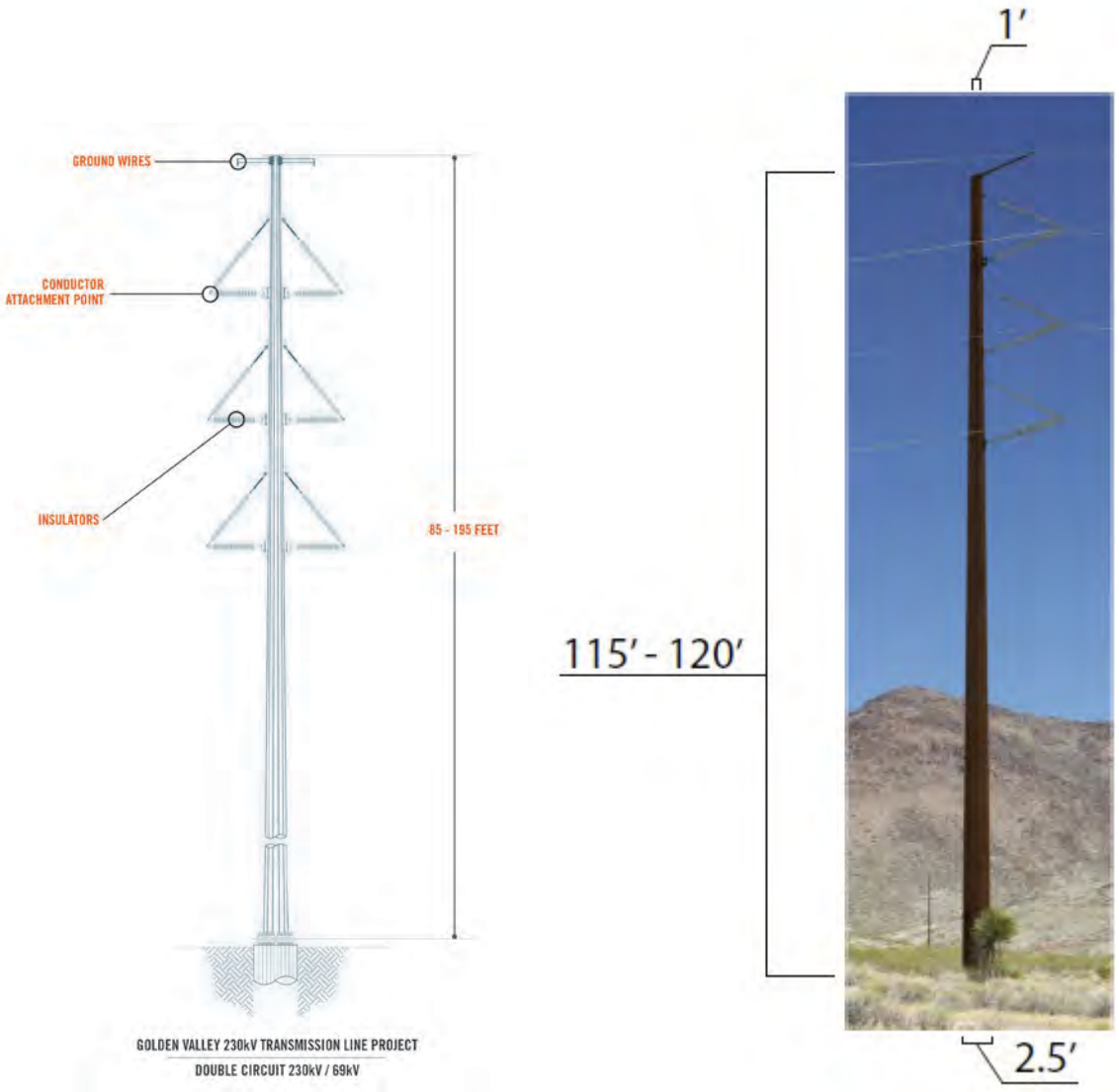
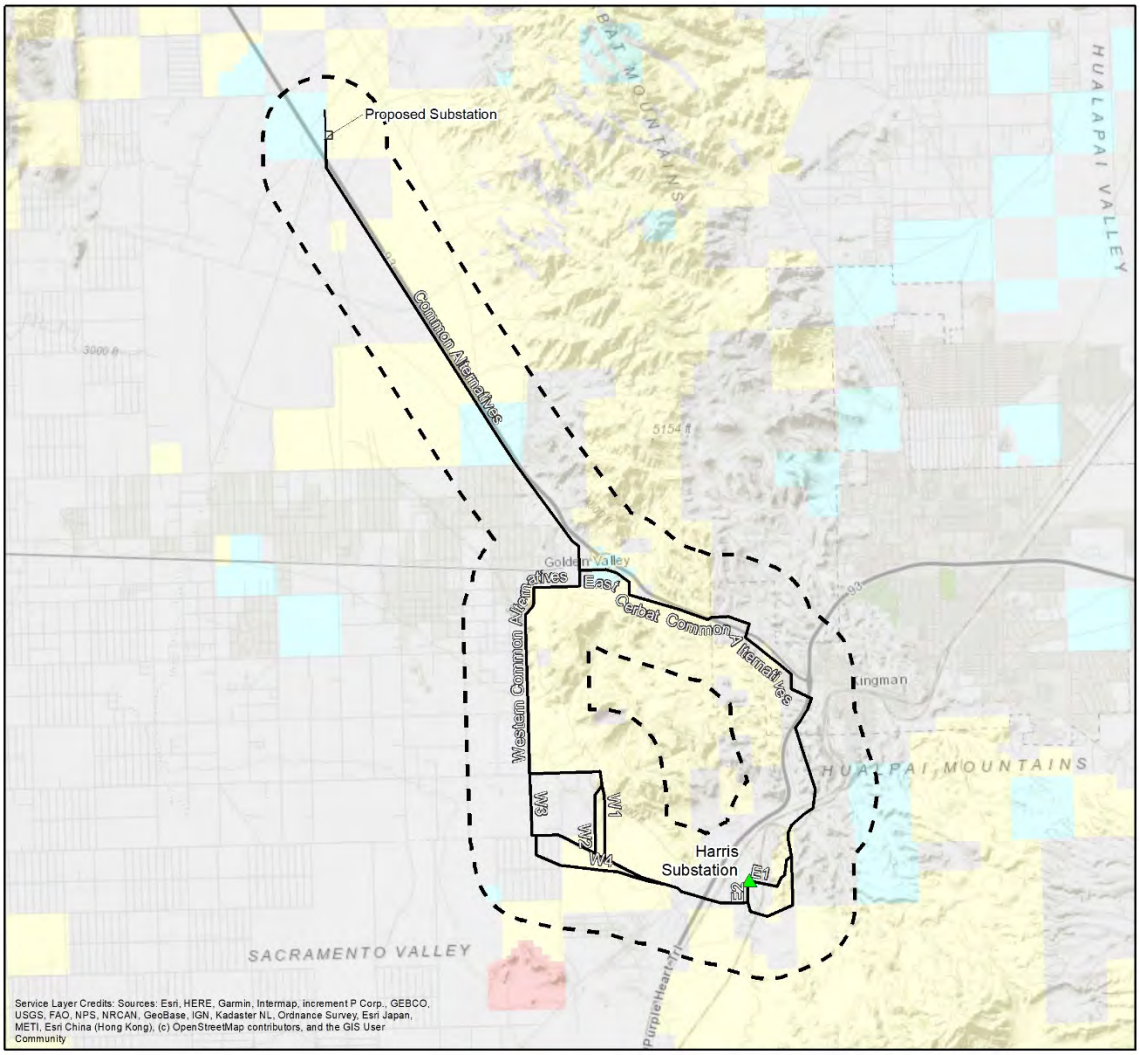


Figure 3. Concept structure diagram and simulation of typical 230-kV structure.



Land Jurisdiction & Ownership

Golden Valley 230kV Transmission Line Project

Legend

- Existing Substation
- Project Alternatives
- Proposed Substation
- One-Mile Buffer
- Arizona State Land Department
- Arizona Game and Fish
- Bureau of Land Management
- Private Land

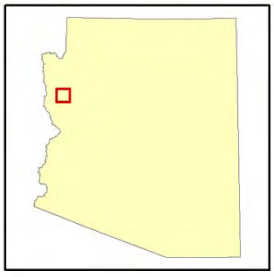


Figure 4

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N

0 85 170 Miles

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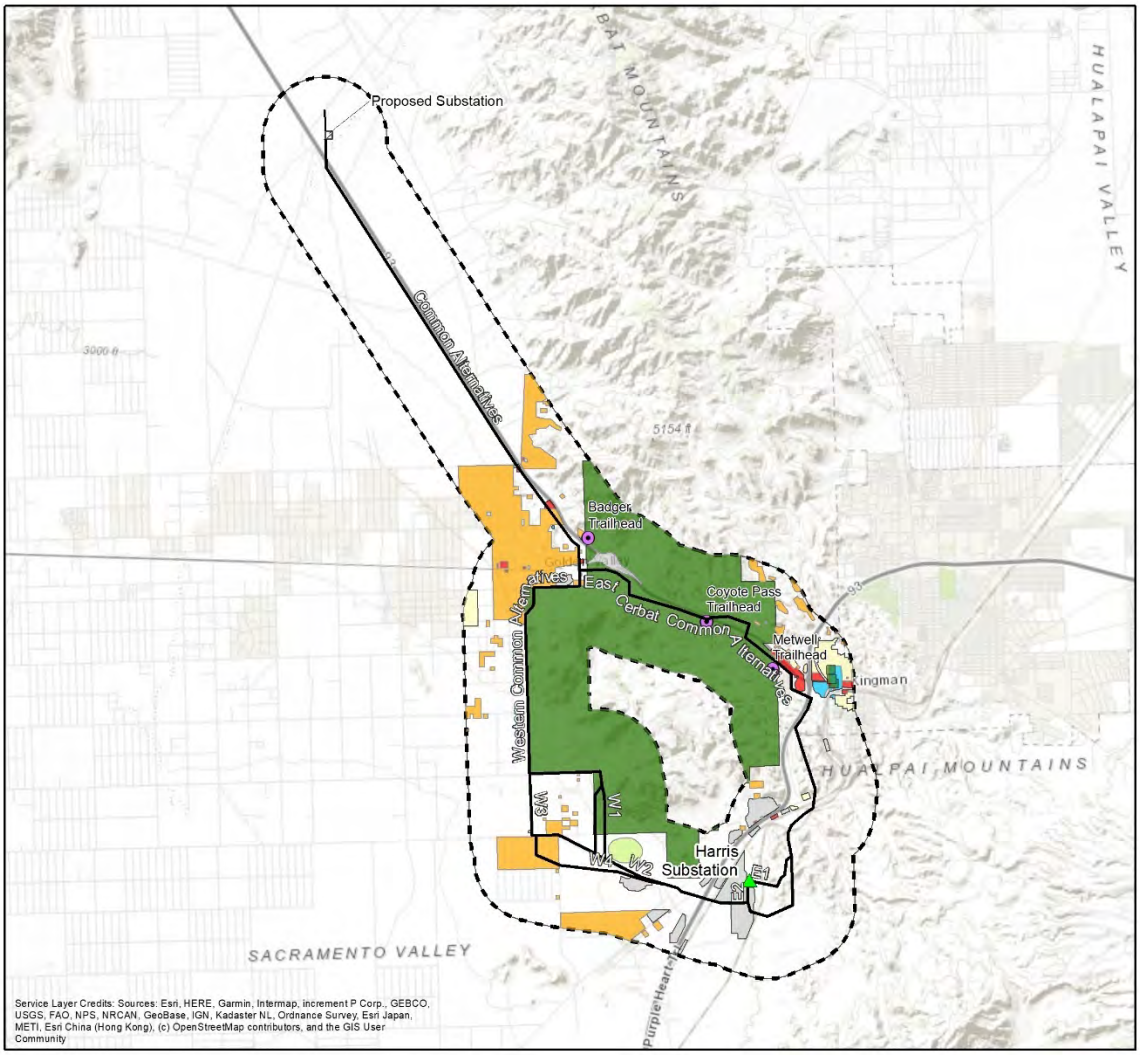

Existing Land Use

Golden Valley 230kV Transmission Line Project

Legend

- Existing Substation
- Project Alternatives
- Park
- Trailhead
- Proposed Substation
- One-Mile Buffer
- Rural Residential
- Medium/High Density Residential
- Commercial
- Public/Quasi Public
- Industrial
- Parks/Recreation/Preservation
- Wild Burro Processing Center
- Rangeland/Undeveloped

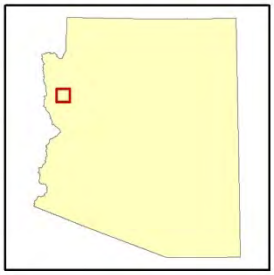

Figure 5

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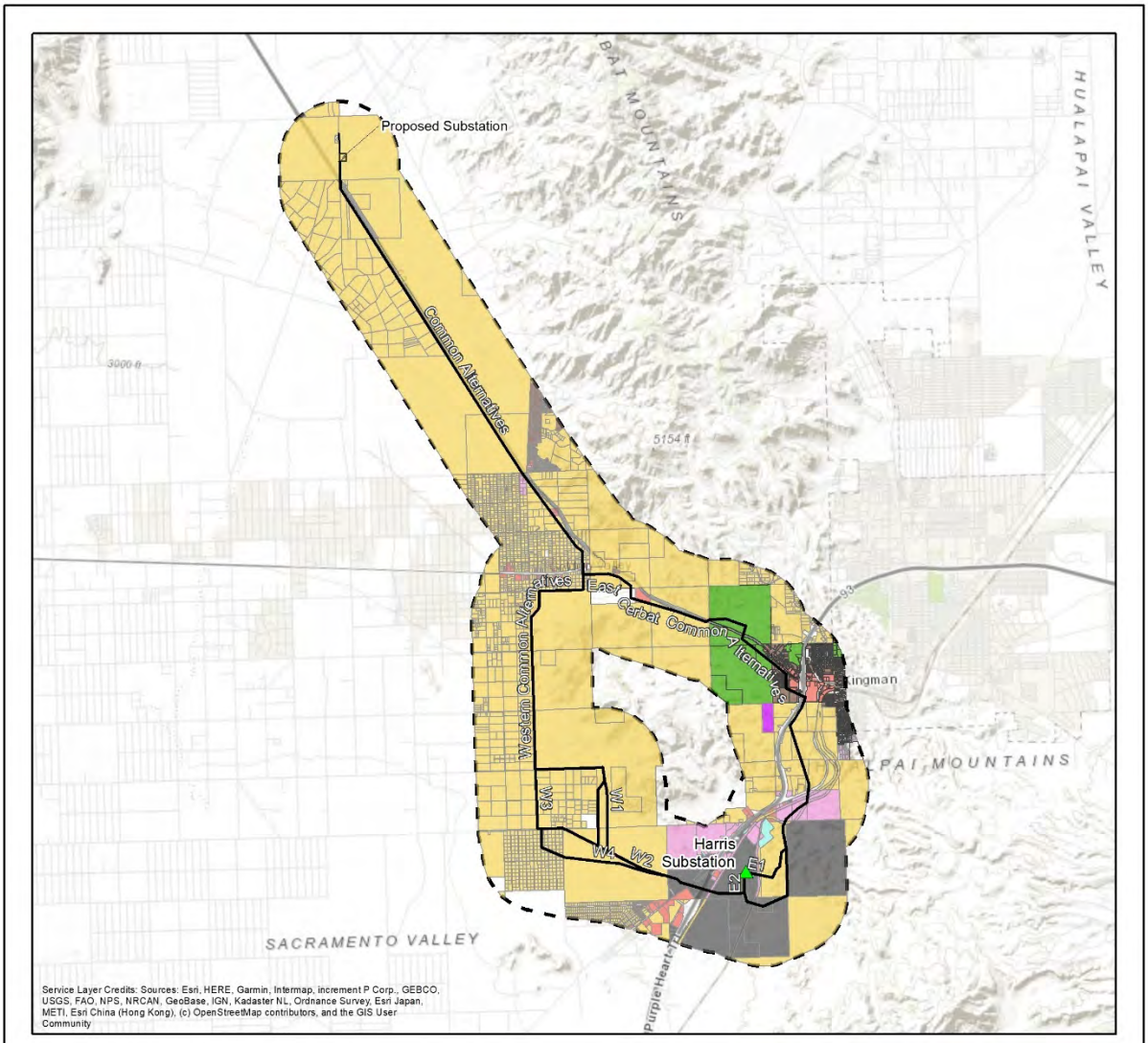
N

0 85 170 Miles



Zoning

Golden Valley 230kV Transmission Line Project

Legend

- Existing Substation
- Project Alternatives
- Proposed Substation
- One-Mile Buffer

Zoning

- Agricultural/Residential
- City
- Commercial
- General
- Heavy Industrial
- Industrial
- Mixed Use
- Not Assigned
- Recreation/Open area
- Residential

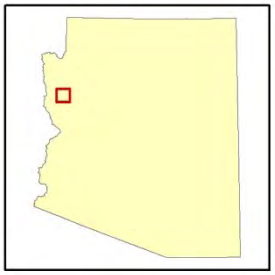


Figure 6

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N

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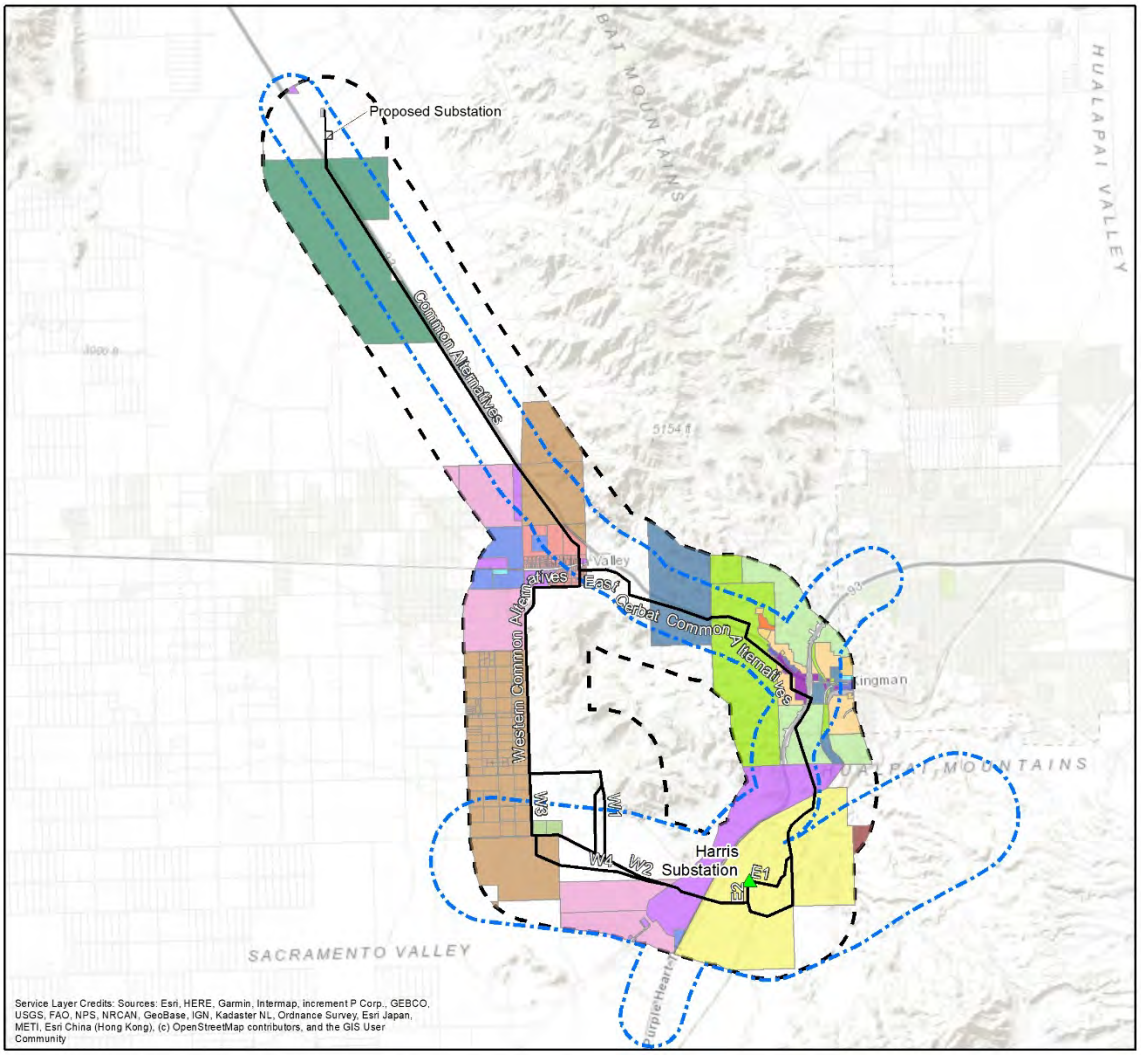

Planned Land Use

Golden Valley 230kV Transmission Line Project

Legend

- Existing Substation
- Project Alternatives
- Golden Valley Utility Corridors
- Proposed Substation
- One-Mile Buffer

Planned Land Use

- Alternative Energy
- Cane Springs Land Exchange
- Commercial Recreation
- Community Commercial
- General Commercial
- Heavy Industrial
- High Density Residential
- Highway Service Commercial
- Intermediate Density Residential
- Light Industrial
- Low Density Residential
- Medium Density Residential
- Neighborhood Commercial
- Parks/Open Space
- Public Lands
- Public/Quasi-Public
- Resort
- Rural Density Residential
- Rural Development Area
- Suburban Development Area
- Suburban Residential
- Urban

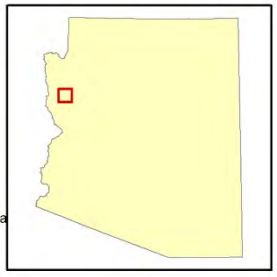

Figure 7

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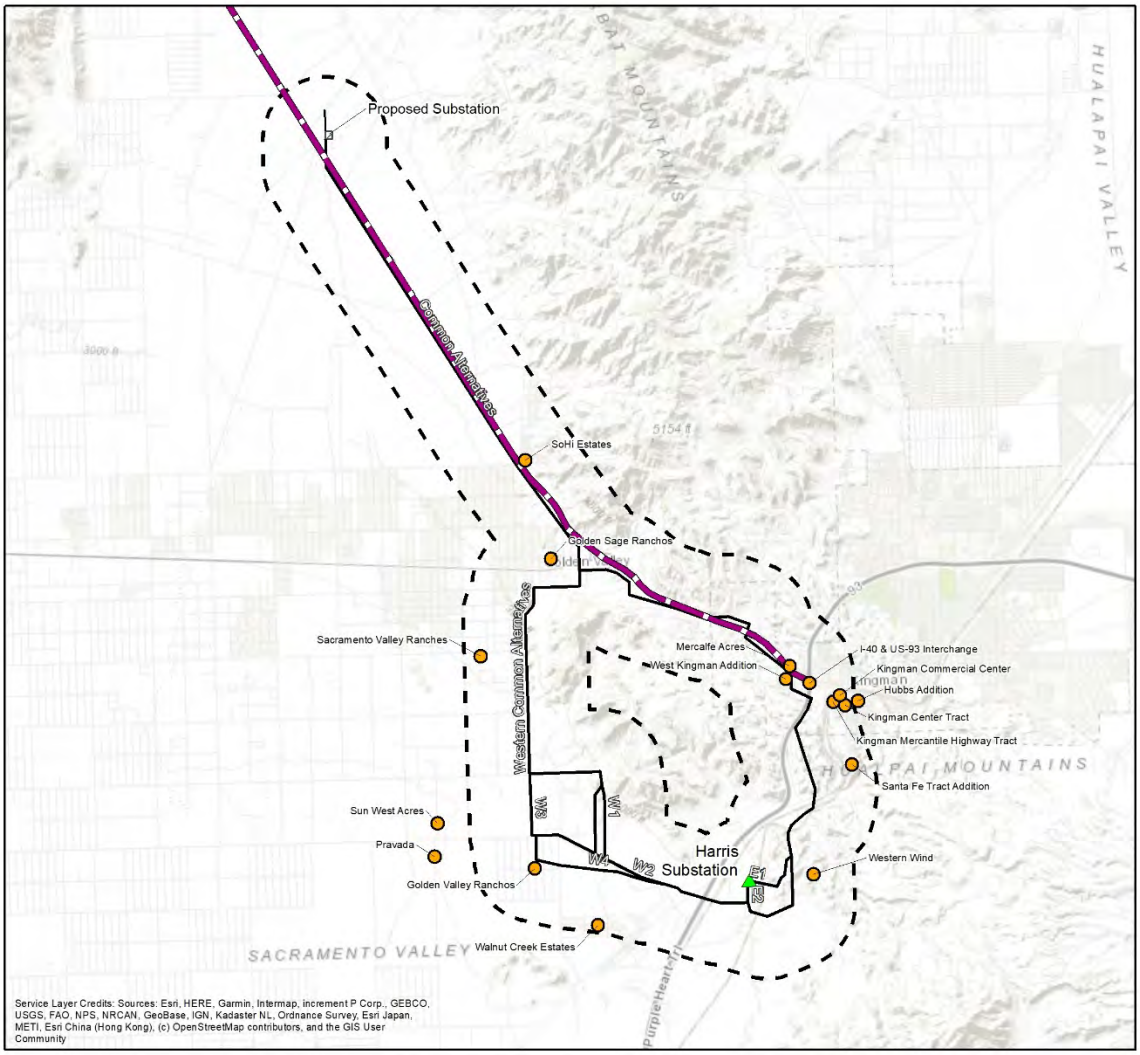
N

0 85 170 Miles



Proposed Land Use

Golden Valley 230kV Transmission Line Project

Legend

- Proposed Project
- Existing Substation
- I-15 Corridor
- Project Alternatives
- Proposed Substation
- One-Mile Buffer

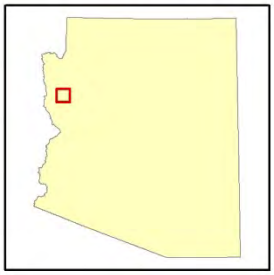


Figure 8

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N

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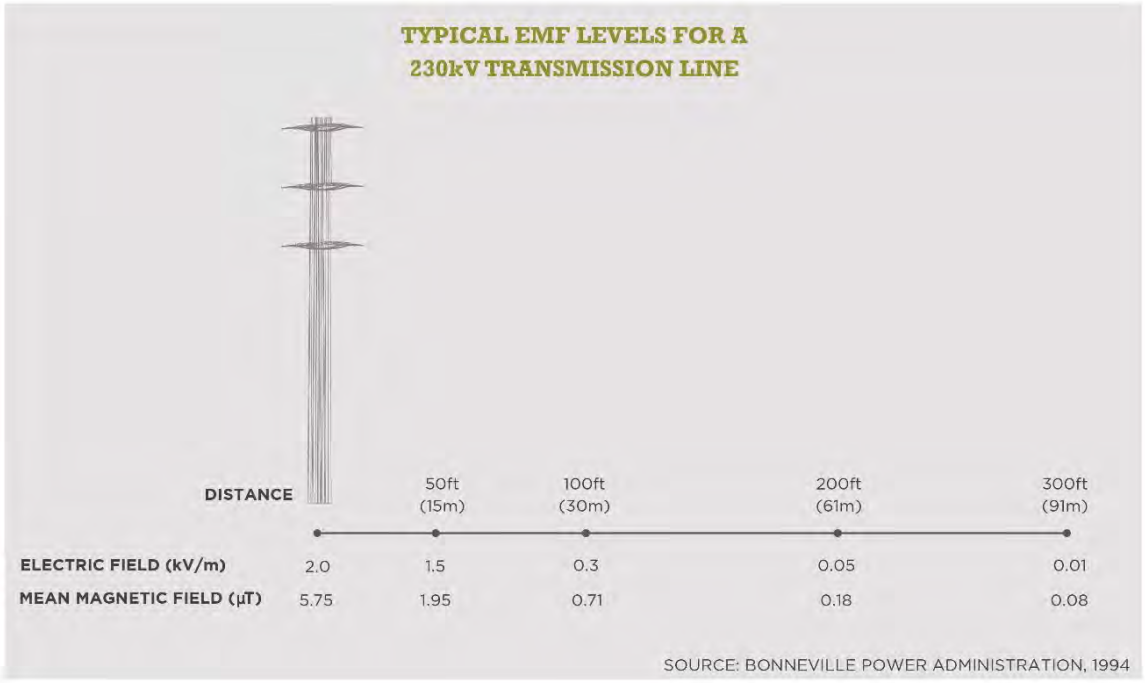

Figure 9. Typical EMF Levels for a 230-kV transmission line (NIEHS 2002).

C. EXHIBIT C—BIOLOGICAL WEALTH

As stated in Arizona Administrative Code R14-3-219:

> *Describe any areas in the vicinity of the proposed site or route which are unique because of biological wealth or because they are habitats for rare and endangered species. Describe the biological wealth or species involved and state effects, if any, the proposed facilities will have thereon.*

EXHIBIT	CONTENTS
C-1	Biological Evaluation

A BE describing the biological wealth of the Project area as well as the Project's potential effects to this wealth has been prepared for this Project and is included as **Exhibit C-1**. Content of the BE specific to biological wealth and rare and endangered species is summarized in this exhibit.

C.1 Endangered Species Act Protected Species

There is no unique habitat in the Project area to support species listed under the ESA. The Project area is proximate enough to a California condor (*Gymnogyps californianus*) population reintroduced at the Grand Canyon that they could occur in the Project area. However, this is not expected, as extensive studies of the condors' movements show that they are not known to frequent the Project area. No effects to California condors or any species listed under the ESA are expected to result from the Project.

All alternatives will be constructed through Sonoran desert tortoise (*Gopherus morafkai*) habitat in the foothills of the Cerbat and Hualapai mountains (**Figure C-1**). The species is currently a candidate for listing as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS). All alternatives would result in impacts to Category III desert tortoise habitat (the categories are explained in the BE). In total, approximately 25 to 35 acres of habitat would be impacted by construction of the transmission line depending on the alternative selected. The W3 and W4 alternatives would impact the least amount of desert tortoise habitat (~25 percent less than the other alternatives). Construction activities could result in both direct and indirect impacts (e.g., potential for crushing, entrapment, negative biophysical responses resulting from elevated disturbance levels, and reduction in habitat quantity and quality) to the species. Impact to the tortoise would be minimized by implementation of avoidance and minimization measures (AMMs) developed for the Project and outlined in the BE. Additionally, impacts to habitat would be mitigated, as all Category III habitat that is subject to activities resulting in long-term or permanent disturbance would be mitigated at a 1:1 ratio.

C.2 Bureau of Land Management Sensitive Species

There is potentially suitable habitat for four BLM listed sensitive species. One BLM sensitive species, the Arizona necklace (*Sophora arizonica*), was subject to surveys but none were found, and the habitat was determined to lack suitable constituent elements for this species

A potential golden eagle (*Aquila chrysaetos canadensis*) nest was found south of the origination point of all Project alternatives at the Harris Substation. This nest is not on the Biological Resources Map due to its sensitive nature. No impacts to golden eagles are expected to result from the Project because spatial and seasonal buffer zones will be implemented as necessary to protect individual nest sites/territories.

There is suitable habitat for burrowing owls (*Athene cunicularia*) along all alternatives (**Figure C-1**). Between approximately 8 and 13 miles of suitable habitat were identified along alternatives. The East Cerbat alternatives would pass through fewer acres of suitable burrowing owl habitat (~25 percent less than the West Cerbat alternatives). While direct and indirect impacts similar to those described for the desert tortoise could also occur to burrowing owls and their habitat, impacts to this species will be reduced through the implementation of AMMs outlined in the *Avoidance and Minimization Measures* section of the BE.

The East Cerbat alternatives would encounter potential greater western bonneted bat (*Eumops perotis californicus*) roost habitat in cliffs found in the southern sector of the Project area. An evaluation of cliff habitat performed within the Project area identified five cliffs where there is potential suitable roosting habitat (**Figure C-1**). Minor adverse impacts (e.g., disturbance from noise and vibration from installation of transmission line structures) to this species could result if the East Cerbat alternatives are implemented and bats are roosting in the identified cliffs. These impacts would be temporary and limited to the construction period. No impacts would result from implementation of the West Cerbat alternatives.

The habitat along all Project alternatives is suitable for the desert kit fox (*Vulpes macrotis arsipus*). One potential kit fox den was observed along the W3 and W4 alternatives, but observation of the den by biologists to determine if it was occupied was not performed. No impacts to desert kit fox are expected along any of the alternatives because AMMs have been developed for protection of this species.

C.3 Wildlife Linkages and Bureau of Land Management Wildlife Corridors

The East Cerbat alternatives would cross a wildlife linkage, habitat block, and two BLM wildlife corridors but are expected to have minor impacts on these areas since the transmission lines generally do not obstruct the movement of wildlife. The West Cerbat alternatives would not impact these areas.

C.4 Arizona State Native Protected Plants

Several species of Arizona native protected plants were identified during field review of the Project area. No Highly Safeguarded plants (i.e., plants whose survival is threatened and no collection is allowed) are known to exist or were observed along the proposed Project alignment. UNSE will adhere to the procedures for clearing land related to Arizona's Native Plant Law.

C.5 Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act

Impacts to migratory birds will be similar among all alternatives and reduced by implementing AMMs which include pre-construction nest surveys, nest monitoring of active nests, and practices outlined in *Suggested Practices for Avian Protection on Power Lines: State of the Art in 2006* manual (APLIC 2006).

C.6 Conclusion

Two sets of alternatives (the East Cerbat alternatives and West Cerbat alternatives) for the Golden Valley 230 kV transmission line were analyzed. Impacts resulting from the Project would be similar for all alternatives, but there are slight variations.

- None of the alternatives are expected to result in impacts to species listed or proposed to be listed as threatened, endangered, or candidates for listing under the ESA. None of the alternatives would impact USFWS-designated critical habitat
- The W3 and W4 alternatives would impact the least amount of habitat for desert tortoise (~25 percent less than the other alternatives), which is a candidate for listing under the ESA
- None of the alternatives are expected to impact the golden eagle
- The East Cerbat alternatives would pass through less potential burrowing owl habitat (~25 percent less than the West Cerbat alternatives)
- The East Cerbat alternatives would encounter potential greater western bonneted bat roost habitat in cliffs, whereas the West Cerbat alternatives would not
- No impacts to desert kit fox are expected along any of the alternatives if the AMMs are adhered to
- Impacts to migratory birds will be similar among all alternatives and reduced by implementing AMMs. No important bird areas will be impacted
- The East Cerbat alternatives would cross a wildlife linkage, habitat block, and two BLM wildlife corridors but are expected to have minor short-term and long-term impacts on these areas. The West Cerbat alternatives would not impact these areas
- No noxious and invasive plant populations were identified along any alternative

Through the implementation of Project AMMs, impacts to species potentially occurring in the Project area are expected to be minimized and result in no effect or minor adverse effects to species.

C.7 Exhibit C Reference

Avian Power Line Interaction Committee (APLIC). 2006. *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C. and Sacramento.

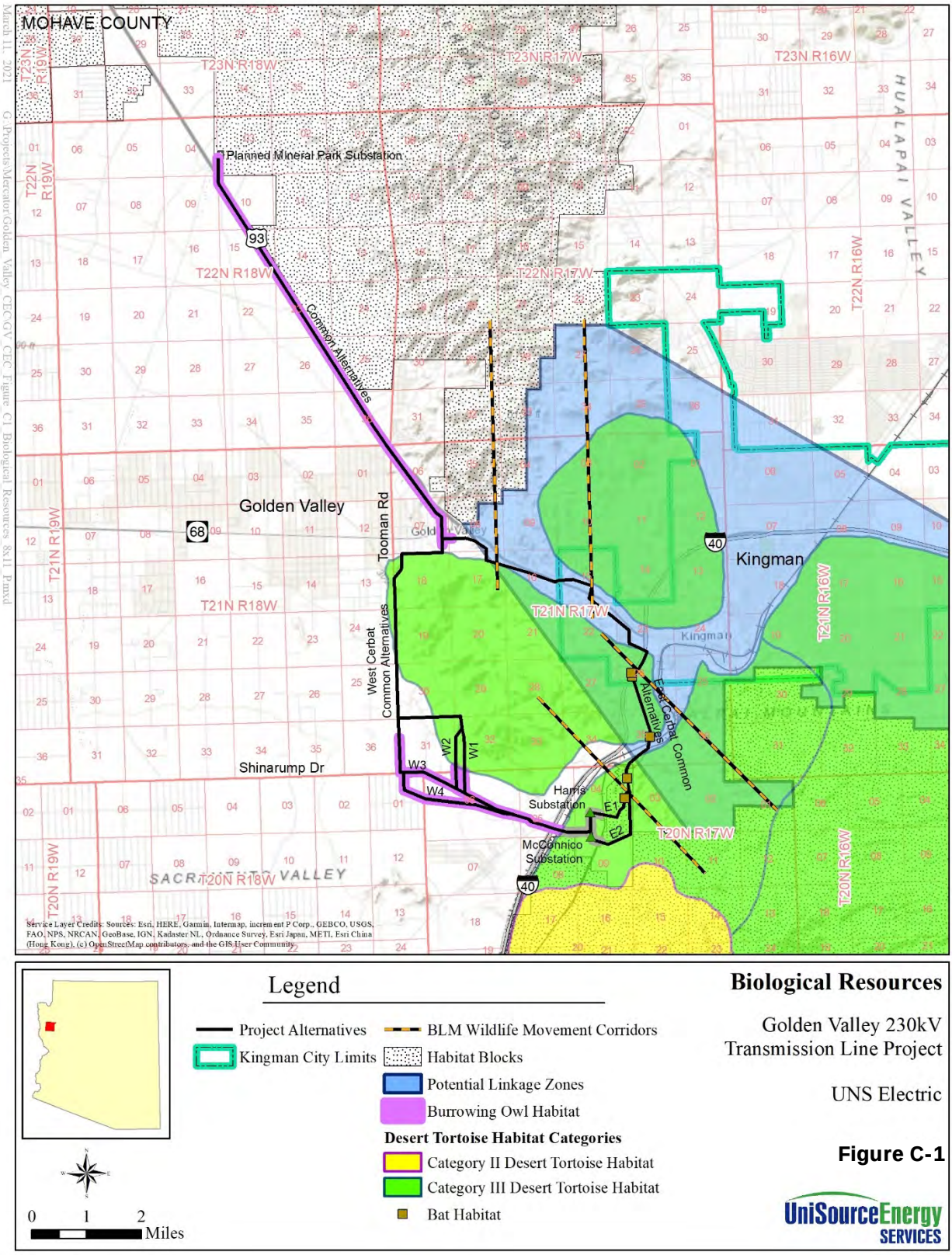
MOHAVE COUNTY
Planned Mineral Park Substation
Common Alternatives
Golden Valley
Tooman Rd
Gold Valley
Kingman
Shinarump Dr
West Cerbat Common Alternatives
East Cerbat Common Alternatives
W1
W2
W3
W4
E1
E2
Harris Substation
McConnico Substation
T23N R18W
T23N R17W
T23N R16W
T22N R19W
T22N R18W
T22N R17W
T22N R16W
T21N R19W
T21N R18W
T21N R17W
T21N R16W
T20N R19W
T20N R18W
T20N R17W
T20N R16W
HUALAPAI VALLEY
SACRAMENTO VALLEY
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Legend
Project Alternatives
Kingman City Limits
BLM Wildlife Movement Corridors
Habitat Blocks
Potential Linkage Zones
Burrowing Owl Habitat
Desert Tortoise Habitat Categories
Category II Desert Tortoise Habitat
Category III Desert Tortoise Habitat
Bat Habitat
0 1 2 Miles
Biological Resources
Golden Valley 230kV Transmission Line Project
UNS Electric
Figure C-1
UniSourceEnergy SERVICES

EXHIBIT C-1
BIOLOGICAL EVALUATION

APPENDIX E
BIOLOGICAL EVALUATION

PRELIMINARY DRAFT BIOLOGICAL EVALUATION

Golden Valley 230kV Transmission Line Project, Mohave County, Arizona

Prepared for:
UNS Electric

For submittal to:
U.S. Department of the Interior, Bureau of Land Management, Kingman Field Office

Prepared by:
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Mesa, Arizona 85210
(480) 807-0095

January 2020

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INTRODUCTION

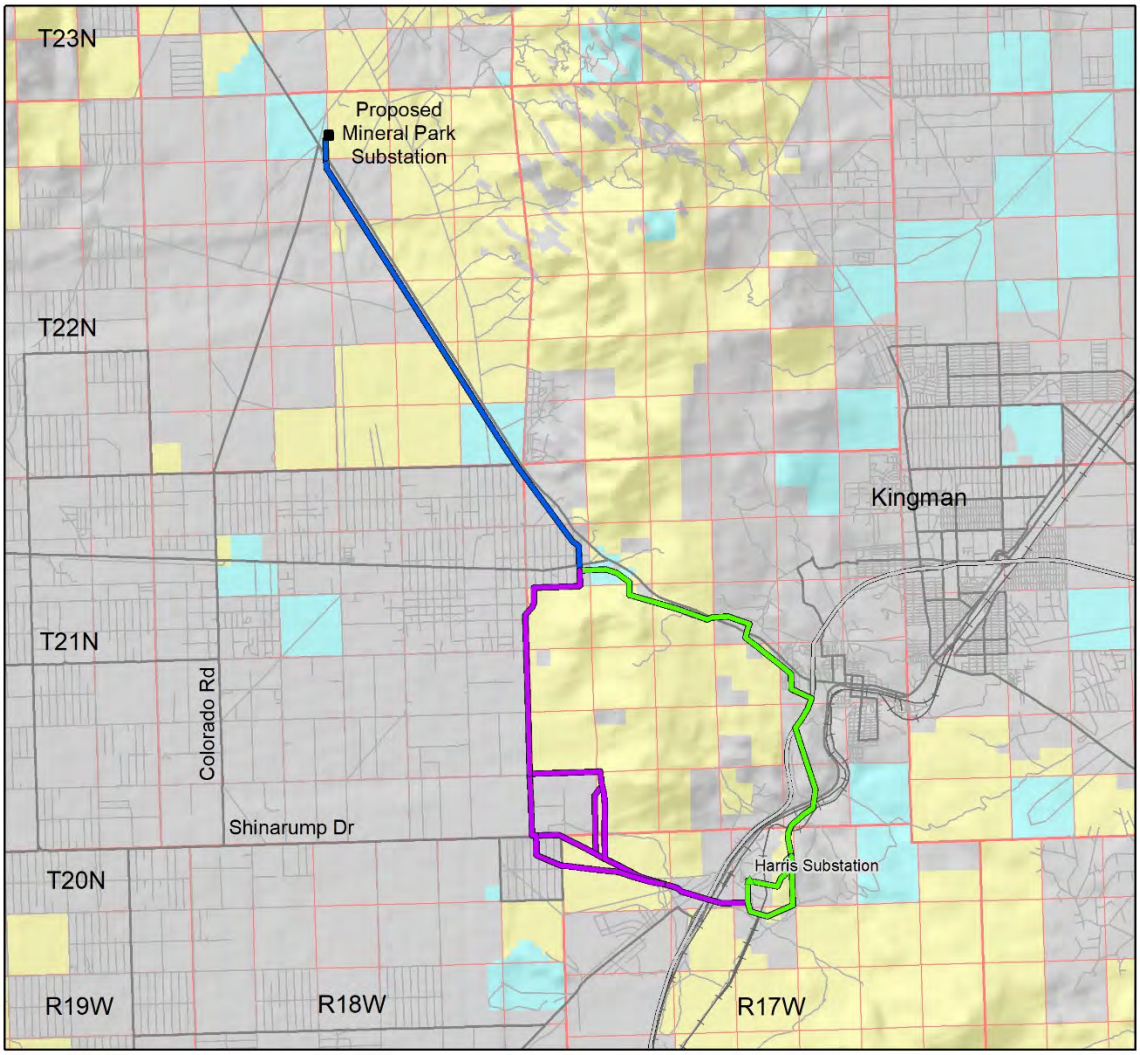
This Biological Evaluation (BE) was prepared in order to convey results of an assessment on potential impacts to protected biological resources resulting from the construction, operation, and maintenance of the proposed Golden Valley 230-kilovolt (kV) Transmission Line Project.

The U.S. Department of the Interior Bureau of Land Management (BLM) is leading environmental compliance activities related to the National Environmental Policy Act and Endangered Species Act (ESA). This BE is designed to assist BLM resource managers in evaluating possible impacts to protected biological resources resulting from the proposed project.

Throughout this document, the term "project footprint" represents the area where construction and staging activities will occur (i.e., the area of direct disturbance), while the term "project area" is defined as a larger area than just the project footprint.

Project Location

The project is located in Mohave County in and near Kingman and Golden Valley, both in Arizona (**Figure 1**). There are six alternatives being considered in detail (**Figure 2**). The alternatives fall into one of two groups: the East Cerbat alternatives and the West Cerbat alternatives. There are two East Cerbat alternatives, E1 and E2, and four West Cerbat alternatives, W1, W2, W3, and W4. All alternatives start at the Harris Substation, which is located adjacent to the Nucor Steel Plant approximately 3 miles southwest of Kingman, and end just south of Mineral Park Road, which is approximately 10 miles northwest of Kingman.



Project Vicinity

Golden Valley 230kV Transmission Line Project

Legend

- Common to East and West Cerbat Alternatives
- East Cerbat Alternatives
- West Cerbat Alternatives

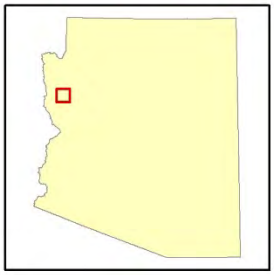


Figure 1

DISCLAIMER: No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Decisions in this document only apply to BLM lands. Routes depicted on non-BLM lands are displayed for information purposes only and do not grant access to non-BLM lands.

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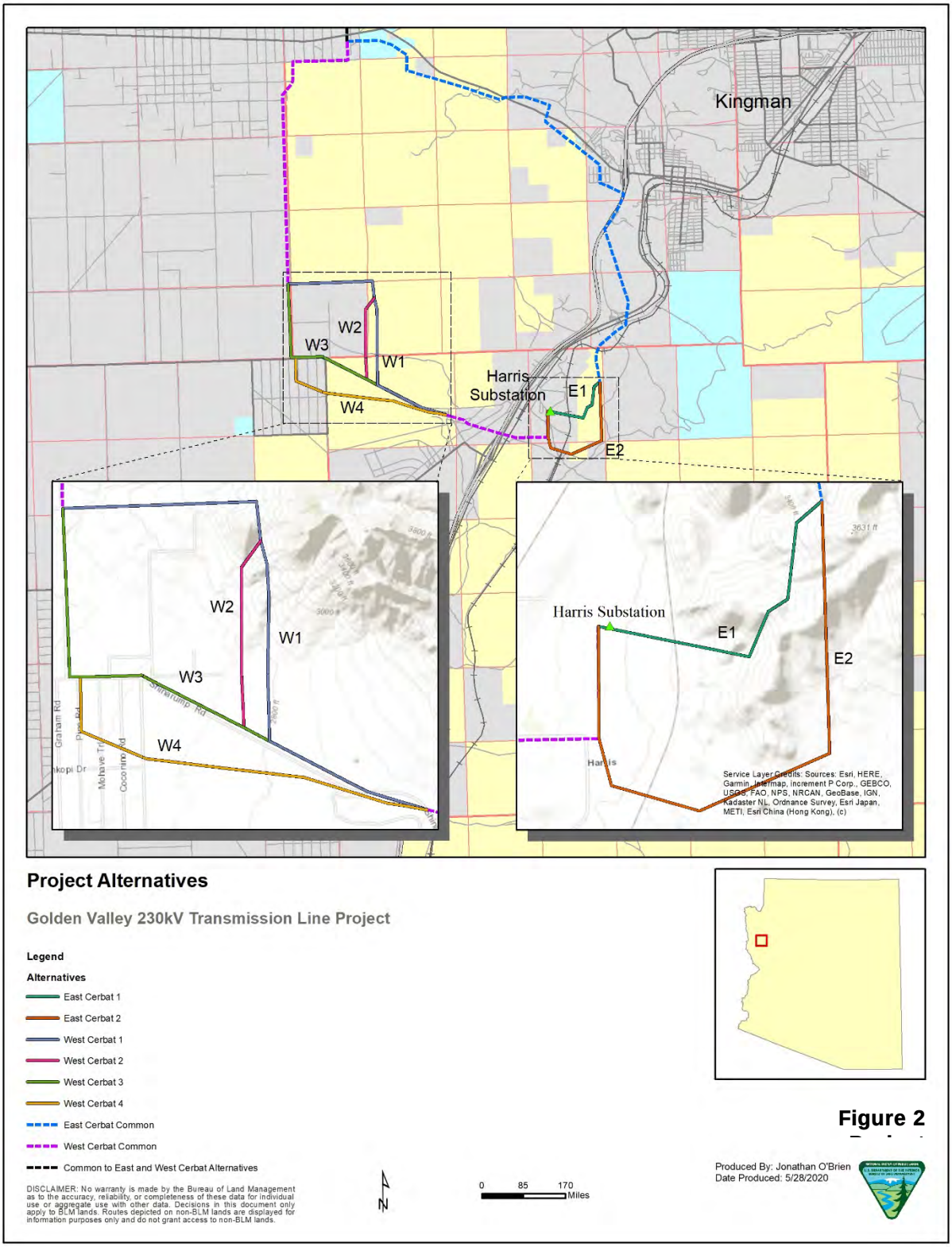
Date Produced: 5/28/2020


Kingman
W2
W3
W1
W4
Harris
Substation
E1
E2
Harris Substation
E1
E2
W2
W1
W3
W4
Graham Rd
Pine Rd
Mohave Trl
Coconino Rd
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c)
Project Alternatives
Golden Valley 230kV Transmission Line Project
Legend
Alternatives
East Cerbat 1
East Cerbat 2
West Cerbat 1
West Cerbat 2
West Cerbat 3
West Cerbat 4
East Cerbat Common
West Cerbat Common
Common to East and West Cerbat Alternatives
DISCLAIMER: No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Decisions in this document only apply to BLM lands. Routes depicted on non-BLM lands are displayed for information purposes only and do not grant access to non-BLM lands.
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Date Produced: 5/28/2020

Figure 2

PROPOSED ACTION

The proposed action is to build a 230kV electric transmission line and an electrical substation which would require a 125-foot-wide grant of right-of-way (ROW) from the BLM for the transmission line and approximately 10 acres of land for the substation. Project facilities and construction methods are detailed in the Golden Valley 230kV Transmission Line Project EA (2019) and are summarized in **Table 1**.

TABLE 1
DESIGN CHARACTERISTICS

Feature	Description
Structure type	Tubular-weathering steel monopole structures
Structure height (above ground)	Monopole structures averaging 85 to 195 feet*
Structure width	One monopole is approximately 2.5 to 5.5 feet at its base* and approximately 1 foot wide at its top
Span length	Approximately 700 to 900 feet
Number of structures per mile	Approximately 6.5 per mile
Structure foundations	Tangent structures would be direct buried or cast-in-place concrete foundations; turning structure foundations would be cast-in-place concrete
Harris Substation (existing)	Substation will be expanded by five acres.
Mineral Park Substation (proposed)	The proposed 10-acres substation site will be fenced. Two 69kV feeder transmission lines would be built to tie into existing 69kV lines.
Access Roads	Between 3.5 to 7-miles of new, permanent access roads would be built, 7 to 8 miles of existing access would be improved, and approximately 1 mile of new, temporary, access roads would be built.
*Depends on double circuit structure, location, and terrain	

ENVIRONMENTAL SETTING

The project area is located at the northwestern edge of Arizona's Basin and Range province and the main landforms within the project area are the Cerbat and Hualapai Mountain foothills and the Sacramento Valley. The project area is located between 2,700 feet and 3,900 feet above sea level and encompasses a mix of developed and undeveloped lands.

Land in this area is broken up into patches by the development of transportation infrastructure and cities/communities. The main population areas are the community of Golden Valley and the City of Kingman. The transmission line alternatives pass along the edges of these communities. Main linear infrastructure within the project area includes: Interstate (I-) 40, U.S. Route (US-) 93, State Route (SR) 68, Historic Route 66, and the BNSF railroad. One large habitat block of undeveloped land is found throughout the project area, the Cerbat Foothills Recreation Area (CFRA). The West Cerbat alternatives run along the western boundary of the CFRA while the East Cerbat alternatives pass through the recreation area via the US-93 corridor.

Based upon field surveys and review of existing maps and aerial photographs, there are no wetlands, riparian areas or perennial waters within the project footprint. Camp Beale Springs is the closest known perennial water source; it is approximately 500 feet west of the East Cerbat Foothills alternative. There are several small, ephemeral drainages within the project area.

STUDY METHODS

Target species lists were compiled using relevant agency data. The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) online system provided a list of the latest threatened and endangered species for the project area (**Appendix A**). The Arizona Game and Fish Department (AGFD) HabiMap online tool was accessed to provide information for species occurrences in the project area, including BLM sensitive species. Copies of the results of the database search are included in **Appendix B**.

Transcon biologists conducted reconnaissance level surveys of the project area in June 2007 and August and October 2008 and a focused survey in January 2017. Joelle Acton, acting BLM Wildlife Biologist, reviewed the project area on October 9, 2019. Reconnaissance surveys were performed to document vegetation communities and evaluate potential habitat for special status species. Suitable habitat was determined by the presence of diagnostic habitat elements. Reconnaissance surveys consisted of both walking and driving the proposed project alignment. Specifically, areas of unique interest, such as mountainous areas, or where changes in vegetation occurred were walked. Vegetation types were classified and described according to Brown (1994). A list of vegetation species observed within the project area is included in **Appendix C**. A focused survey was requested by the BLM for Arizona necklace (*Sophora arizonica*) and the desert kit fox (*Vulpes macrotis arsipus*). Biologists performed pedestrian surveys by walking the ROW where suitable habitat was identified. Presence of Arizona necklace and signs of desert kit fox (i.e., dens and/or live observations) were documented with GPS points and photographs.

STUDY RESULTS

Common Flora and Fauna

The project area is in a semi-arid climate between the Colorado Plateau and the Lower Colorado River Valley, and therefore has a unique climate with diverse flora and fauna. The vegetation community consists of Mojave Desert scrub/semi-desert grassland. There are slight variations in vegetative species composition among the project area which are most pronounced between mountainous terrain and the valley (**Figures 3–4**). The Mojave desert scrub of the valley is generally dominated by a combination of creosotebush (*Larrea tridentata*), catclaw acacia (*Acacia greggii*), Mohave yucca (*Yucca schidigera*), and cholla (Opuntia spp.) of which certain species may be more or less abundant depending upon the area. Some mountainous areas are similar in species composition to that of the valley, but rather than shrubs being the dominant vegetation cover, cacti and yucca are dominant. Other areas are dominated by Conotia (*Conotia holacantha*) and yet other areas may contain a mix of shrubs and cacti, some of which are generally not found in lower areas such as ocotillo (*Foquieria splendins)*, oak (*Quercus* sp.), greythorn (*Ziziphus obtusifolia*), and palo verde (*Parkinsonia* sp.). A list of plant species observed during field reviews is found in **Appendix C**.

Figure 3. Habitat typical of low valley lands of the project

Figure 4. Vegetation sometimes typical in mountainous areas

Impacts to Common Flora and Fauna

Impacts to common flora would include removal of vegetation where areas would be cleared to create workspace. Vegetation would be cleared to create temporary workspaces during construction that would be used to erect the transmission line structures as well as at pulling and tensioning sites where equipment will be set up to pull and create the proper tension on the conductors strung along the transmission line towers. These areas would not be needed following construction and thus impacts will be temporary as vegetation will reestablish over time. At the direction of the BLM, these areas would be aided by active revegetation activities such as seeding. Permanent loss of vegetation would occur where new features are built and existing vegetation is removed. This would occur where new permanent access roads are constructed, transmission line structures are installed, and where the substations are expanded/built. The acreage of vegetation permanently and temporarily disturbed along each alternative is provided in **Tables 2-8**.

TABLE 2
EAST CERBAT ALTERNATIVE 1 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES

Vegetation Community	Type of Disturbance (acres)		Total
	Temporary	Permanent	
Acacia-Desert Willow-Live Oak	4.8	0.2	**5.0**
Crucifixion Thorn	5.0	0.6	**5.6**
Creosote Bush-White Bursage	48.7	9.1	**57.8**
Mojave Yucca	1.4	0	**1.4**
Shrub-Grass Disclimax	29.9	22.0	**51.9**
Total	**89.8**	**31.9**	
***Note:** All calculations are based on preliminary engineering data			

TABLE 3
EAST CERBAT ALTERNATIVE 2 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES

Vegetation Community	Type of Disturbance (acres)		Total
	Temporary	Permanent	
Acacia-Desert Willow-Live Oak	4.8	0.2	**5.0**
Crucifixion Thorn	5.0	0.6	**5.6**
Creosote Bush-White Bursage	44.5	8.3	**52.8**
Mojave Yucca	6.4	0.1	**6.5**
Shrub-Grass Disclimax	29.9	22.0	**51.9**
Total	**90.6**	**31.2**	
***Note:** All calculations are based on preliminary engineering data			

TABLE 4
WEST CERBAT ALTERNATIVE 1 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES

Vegetation Community	Type of Disturbance (acres)		Total
	Temporary	Permanent	
Creosote Bush-White Bursage	36.1	12.3	**48.4**
Mojave Yucca	4.8	1.0	**5.8**

Shrub-Grass Disclimax	21.2	21.4	**42.6**
Total	**62.1**	**34.7**	
***Note:** All calculations are based on preliminary engineering data			

TABLE 5
WEST CERBAT ALTERNATIVE 2 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES

Vegetation Community	Type of Disturbance (acres)		Total
	Temporary	Permanent	
Creosote Bush-White Bursage	42.4	12.9	**55.3**
Mojave Yucca	4.8	1.0	**5.8**
Shrub-Grass Disclimax	21.2	21.4	**42.6**
Total	**68.1**	**35.3**	
***Note:** All calculations are based on preliminary engineering data			

TABLE 6
WEST CERBAT ALTERNATIVE 3 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES

Vegetation Community	Type of Disturbance (acres)		Total
	Temporary	Permanent	
Creosote Bush-White Bursage	35.9	9.3	**45.2**
Mojave Yucca	4.8	1.0	**5.8**
Shrub-Grass Disclimax	21.2	21.4	**42.6**
Total	**61.9**	**31.7**	
***Note:** All calculations are based on preliminary engineering data			

TABLE 7
WEST CERBAT ALTERNATIVE 3 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES

Vegetation Community	Type of Disturbance (acres)		Total
	Temporary	Permanent	
Creosote Bush-White Bursage	35.9	9.3	**45.2**
Mojave Yucca	4.8	1.0	**5.8**
Shrub-Grass Disclimax	21.2	21.4	**42.6**
Total	**61.9**	**31.7**	
***Note:** All calculations are based on preliminary engineering data			

TABLE 8
WEST CERBAT ALTERNATIVE 4 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES

Vegetation Community	Type of Disturbance (acres)		Total
	Temporary	Permanent	
Creosote Bush-White Bursage	39.6	10.0	**49.6**

TABLE 8 WEST CERBAT ALTERNATIVE 4 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES			
Vegetation Community	**Type of Disturbance (acres)**		**Total**
	Temporary	**Permanent**	
Mojave Yucca	6.6	1.0	**7.6**
Shrub-Grass Disclimax	21.2	21.4	**42.6**
Total	**67.4**	**32.4**	
***Note:** All calculations are based on preliminary engineering data			

Common vegetation would also be adversely impacted if noxious and invasive plant species were introduced or spread by construction activities. Noxious and invasive plants frequently outcompete native plants and proliferate, thereby changing the composition of native vegetation communities and not allowing native flora the ability to reestablish.

Avoidance and minimization measures (AMMs) will be implemented to minimize impacts to common flora. To avoid the introduction of noxious and invasive plants, all equipment will be washed prior to entering the work site for the first time. To promote the reestablishment of native vegetation, areas identified by BLM resource managers as requiring seeding following construction will be seeded with a BLM-approved seed mixture. Additionally, a Vegetation Salvage Plan will be prepared and submitted, as required by BLM.

Impacts to common fauna would include both direct and indirect effects. Direct effects could be lethal where animals are crushed or struck by construction equipment. Direct effects could also result in negative biophysical responses (e.g., modification to feeding or reproductive behavior) resulting from elevated disturbance levels (e.g., human presence, elevated noise and ground vibration levels, etc.) as well as displacement from the project area. Indirect impacts resulting from the project could include a reduction in the quality and/or quantity of habitat. Habitat could be altogether lost where it is converted to a built feature or modified and thereby result in losses to certain habitat features that support certain animal species, (e.g., forage, shelter, etc.).

Endangered Species Act Protected Species

Species Identification

ESA protected species potentially occurring in the project area were identified using the USFWS iPaC online project planning tool. ESA protected species, as used here, are those listed by the USFWS as threatened or endangered, are proposed or candidates for such listing, or have a candidate conservation agreement. Specifically, a total of eight ESA protected species with the potential to occur within the project study area were identified. In the analysis summarized in **Table 9**, those species whose preferred habitat and known range are different than those associated with the project area were eliminated from further consideration for the rationale provided. Those species that were determined to have potential to occur within the project area were retained for further consideration and analysis.

TABLE 9 HABITAT SUITABILITY ASSESSMENT FOR ESA-PROTECTED SPECIES IDENTIFIED USING IPAC			
Species	**Status**	**Suitable Habitat**	**Rationale of Habitat Assessment[1]**
Yellow-billed Cuckoo *Coccyzus americanus*	T	No	This species is mainly found within streamside cottonwood-willow galleries, salt cedar, and large mesquite bosques. Dense understory vegetation appears to be an important habitat component. Found in southern, central, and extreme northeastern Arizona. No suitable riparian habitat is found within the project area.
Desert Tortoise (Sonoran Population) *Gopherus morafkai*	CCA	Yes	See analysis following this table.
California Condor *Gymnogyps californianus*	E	Yes	See analysis following this table.
California Least Tern *Stema antillarum browni*	E	No	Least terns are found along seacoasts, beaches, bays, estuaries, lagoons, lakes, and tidal rivers where small fish are abundant. They nest on bare or sparsely vegetated flat substrates along lagoon or estuary margins. Current nesting sites are found on isolated or specially protected sand beaches or on natural or artificial open areas in remnant coastal wetlands. They occasionally breed in Arizona, although migrants occur more frequently. No suitable perennial water source that would support this species occurs the project area.
Northern Mexican Gartersnake *Thamnophis eques megalops*	T	No	In Arizona, this snake is found in the middle and upper Verde River drainage, middle and lower Tonto Creek, Cienega Creek, Bill Williams River, and the Santa Maria Rivers. This species is found in lowland riparian forests and woodlands, generally within ponds, earthen cattle tanks, rivers, streams and cienegas within desert grassland or lower oak woodland communities. This snake can be found at elevations up to 8,500 feet but is frequently found at elevations between 3,000 and 5,000 feet. It uses the banks of waterbodies as foraging habitat and feeds primarily upon native fish and adult and larval leopard frogs. Suitable aquatic and riparian habitat that would support this species is not present within the project area.

FWS categories: **Endangered (E)—**Taxa in danger of extinction throughout all or a significant portion of its range; **Threatened (T)/Proposed Threatened (PT)—**Taxa likely to become endangered within the foreseeable future throughout all or a significant portion of its range; **Candidate (C)—**Species for which the FWS has sufficient information on biological vulnerability and threats to support proposals to list as Endangered or Threatened. Candidate species, however, are not protected legally because proposed rules have not been issued. **Candidate Conservation Agreement (CCA) –** Formal, voluntary agreements between the FWS and one or more parties to address the conservation needs of one or more candidate species or species likely to become candidates in the near future.

1 Source: FWS database (http.//ifw2es.fws.gov/EndangeredSpecies/lists/)

Species Analysis

Based on review of the federally-listed special status species, two species, the California condor and the Sonoran desert tortoise have potential to occur within the project footprint. The potential project related impacts are discussed in detail below.

Based on the review of the USFWS critical habitat mapper, no critical habitat occurs within the project area.

California Condor

Status

The California condor was listed as endangered on March 11, 1967. Critical habitat was designated in 1976 but no critical habitat has been designated outside of California. California condors were reintroduced to Arizona at the Vermillion Cliffs in 1996. The reintroduction is carried out under a special provision of the ESA, which allows for the designation of a "nonessential experimental" population. This provision allows for relaxed protections of an endangered species in a designated area, often referred to as the 10(j) area, in order to provide more flexibility for management of the reintroduced species. The Arizona non-essential population designated 10(j) area is bounded by I-40 on the south, US 191 on the east, I-70 on the north, and I-15 to US 93 on the west. Within this area, condors are considered a proposed species under the ESA for the purposes of Section 7 consultation unless it is within a National Park System or National Wildlife Refuge System, where they are considered as threatened under the ESA. Outside of this 10(j) area, the California condor receives full protection under the ESA as an endangered species.

Distribution and Habitat

Currently, California condors are only found in Arizona, California, and are sometimes observed in southern Utah. In Arizona, their range is concentrated around the Grand Canyon and areas within 100 miles of the Grand Canyon as they can travel up to 100 miles a day scavenging for food. Condors utilize habitat throughout Grand Canyon National Park; concentrated activity is known from areas in Marble Canyon, Desert View to the Village on the South Rim, and the Village on the South Rim to Hermits Rest. Condors have been observed outside of the Grand Canyon as far south as the San Francisco Peaks near Flagstaff, Arizona.

Condors roost along cliffs and tall trees and nest in rock formations (e.g., caves, crevices, overhung ledges, and potholes). In Arizona, California condors forage in open and forested areas along the rims of the Grand Canyon (USFWS 2009).

Species Assessment

Within the experimental range (i.e., 10[j] area) federal agencies must evaluate actions to determine if the actions will jeopardize the continued existence of the California condor. The project alternatives fall both within the 10(j) area and outside the 10(j) area, but mainly outside of the 10(j) area. All but the last approximate 0.3 mile of the West Cerbat alternatives are outside of the 10(j) area and all but approximately 1 mile of the East Cerbat alternatives fall outside of the 10(j) area. Despite a slight difference between East and West Cerbat alternatives regarding the 10(j) area, all impacts discussed below are common to all alternatives; there is no difference in anticipated impacts associated with the different alternatives.

Upon completion of construction activities, the transmission line could pose a risk to the species due to electrocution. This risk is low because condors are not expected to utilize the Kingman area. The transmission line design will be in accordance with the *Suggested Practices for Avian Protection on Power Lines: State of the Art in 2006* manual (APLIC 2006). However, the large wingspan of the condor is not considered in the design requirements of transmission lines within this manual. Collisions with power lines

and electrocution resulted in several condor deaths shortly following their re-introduction into the wild, but as a result, a "power line aversion" training of captive-reared condors was implemented to train condors to avoid perching on power line poles. Because of this training, condor deaths caused by power line electrocution have dramatically decreased.

In conclusion, the proposed project will not jeopardize the continued existence of the California condor experimental non-essential population. The California condors are not expected to be encountered within the project area; in Arizona they are typically found near the Grand Canyon and are not known to occur in the Kingman area. Outside of the experimental range, the species receives full protection but because condors are not known to use the Kingman area, the project is expected to have no effect upon the California condor.

Sonoran Desert Tortoise

Status

The Sonoran Desert tortoise was listed as a candidate species on the ESA, but in 2015, the USFWS determined the Sonoran Desert tortoise did not warrant protection. A candidate conservation agreement (CCA) has been developed as a collaborative and cooperative effort among land and resource management agencies to facilitate implementation of conservation measures for the Sonoran Desert tortoise in Arizona (USFWS 2015a). CCAs are primarily developed for federal agencies to cover species conservation on federal lands. The goal of the CCA for the Sonoran desert tortoise is to guide implementation of conservation measures and efforts that will make the listing under the ESA unnecessary.

The BLM participates in the CCA for the Sonoran desert tortoise. The BLM has designated three management categories for the desert tortoise on BLM lands. Category I habitat is designated to "maintain stable, viable populations and protect existing tortoise habitat values and increase populations where possible" (AIDTT 1996). Category II habitat is designated to "maintain stable, viable populations, and halt further declines in tortoise habitat values" (AIDTT 1996). Category III habitat is designated to "limit tortoise habitat and population declines to the extent possible by mitigating impacts" (AIDTT 1996).

Distribution and Habitat

Sonoran desert tortoises primarily inhabit the Arizona upland and lower Colorado subdivisions of Sonoran desert scrub at elevations from approximately 900 to 4,200 feet (USFWS 2015b). The Sonoran desert tortoise is most often associated with the paloverde-mixed cacti vegetation association of the Sonoran Desert (Barrett 1990). Tortoises spend majority of their life within burrows and thus an important habitat characteristic is the presence of loose soil where they can excavate burrows under rocks or boulders, beneath vegetation, on semi-open slopes, and within caliche caves of washes; they also can take refuge in rocky crevices (Burge 1979 and 1980, Barrett 1990, Averill-Murray et al. 2002, Grandmaison et al. 2010). Shelter sites are used to escape extreme heat during active periods and are rarely found in shallow soils. Sonoran desert tortoises forage on herbs, woody plants, grasses, and succulents; they will consume some nonnative plants (Nagy et al. 1998) and avoid other nonnative plants (Gray and Steidl 2015).

Sonoran desert tortoises are most surface-active in spring months (i.e., Mid-February to June) and again during the Arizona monsoon season (i.e., July to November); their highest activity is during the Arizona monsoon season, which is also the breeding season for the desert tortoise (Averill-Murray et al. 2002). They are generally dormant and reside in their burrows the remainder of the year, although they may be found outside their burrow at any time of the year during favorable conditions.

Species Assessment

All alternatives will be constructed through desert tortoise habitat in the foothills of the Cerbat and Hualapai Mountains in the southern half of the project (see Biological Resources Map in **Appendix E**). Category III habitat will be impacted. The tortoise habitat in the project area is highly fragmented. The largest block of habitat is contained within the CFRA which is bordered on the north by SR 68, east by US-93, south by I-40 and the BNSF railway, and west by the community of Golden Valley.

All alternatives would result in impacts to Category III habitat. A breakdown of short-term, long-term, and permanent disturbance to Category III habitat is provided in **Table 10**. Short-term disturbance is defined as areas that would be temporarily disturbed but where no scraping/blading of the ground would occur that would result in barren, exposed soil (e.g., areas where equipment will run over and trample/crush vegetation). Long-term disturbance is defined as areas where vegetation would be removed by scraping/blading the ground and would require a period of time to return back to their original condition through natural processes or aided by seeding, planting, or other reclamation activities. Permanent disturbance is defined as areas where habitat would be permanently lost or altered, such as structure locations and new access roads.

All Category III habitat that is permanently disturbed or falls within the long-term disturbance category, would be mitigated at a 1:1 ratio (pers. comm. R. Peck 2008). The actual amount of desert tortoise habitat would be calculated by the project proponent once construction is complete. A mitigation plan would be submitted to the BLM for approval prior to initiating mitigation and the start of construction activities.

TABLE 10
ESTIMATED GROUND DISTURBANCE IN DESERT TORTOISE CATEGORY III HABITAT*

Alternative	Type of Disturbance (acres)			Total
	Short-term	Long-term	Permanent	
E1	13.8	8.1	9.1	31
E2	13.8	10.3	11.6	35.7
W1	11.5	10.9	12.2	34.6
W2	12.7	10.8	12.1	35.6
W3	9.2	7.5	8.4	25.1
W4	10.4	7.5	8.4	26.3

***Note:** All calculations are based on preliminary engineering data

Previous surveys in the Cerbat foothills designated Category III habitat found a low density of desert tortoises (pers. comm. R. Peck 2007). No desert tortoises or their sign were observed during reconnaissance surveys of the project area.

While tortoises are present in only in low numbers they could still be impacted by the proposed project. If a desert tortoise is encountered, potential direct impacts from project activities include increased potential for crushing a tortoise resulting from vehicle and equipment operation, potential entrapment within open holes, and negative biophysical responses (e.g., modification to feeding or reproductive behavior) resulting from elevated disturbance levels (e.g., human presence, elevated noise and ground vibration levels, etc.). These impacts would be common to all alternatives and limited to the period of construction and to intermittent maintenance activities. Impacts would be reduced through the implementation of AMMs such

as preconstruction surveys to identify tortoises in harm's way and implementation of temporal and spatial construction buffers. All field personnel will be trained on guidelines for handling desert tortoises from the AGFD before construction begins.

Indirect impacts resulting from the project could include localized impacts to foraging habitat or modifications to forage quality. The project would result in removal of vegetation for a narrow linear strip to create access roads and also vegetation removal around the base of poles; the impacts would be small and localized and would not be expected to adversely affect tortoise foraging. Tortoise foraging habitat could be adversely affected by the introduction or spread of non-native plants. Non-native plants often out-compete native vegetation, becoming the dominant plants on the landscape, and, thus, the impacts can affect large areas. Non-native plants can affect tortoise foraging when tortoises don't prefer or won't consume these plants. This impact would be common to all alternatives. Conservation measures will be adhered to during construction and maintenance to ensure the introduction and spread of non-native plants is minimized. To avoid the spread of noxious and invasive plants, all equipment will be washed prior to entering the work site for the first time.

Indirect impacts could also include fragmentation of habitat resulting from the construction of new access roads. Under present conditions, habitat is generally more fragmented along the East Cerbat alternatives which cross the BNSF railroad, Historic Route 66, and I-40, and then run parallel to US-93. The West Cerbat alternatives pass along the base of the Cerbat Foothills where there is more intact habitat with less development and major arterial roads/highways cutting habitat into patches, but the alternatives are generally along the edge of habitat and, thus, fragmentation would be minimized. Impacts resulting from the construction of roads will be reduced by only constructing roads where they are necessary and by limiting public access on roads.

Bureau of Land Management Sensitive Species

Species Identification

There are six sensitive species listed by the BLM for the four U.S. Geological Survey quadrangle maps this project occurs in (i.e., Kingman NW Quadrant, Kingman Quadrant, Cerbat Quadrangle, and Stockton Hill Quadrangle). These species and their preferred habitat were examined to assess their potential to occur within the project area. Additionally, two species that the BLM Kingman Field Office requested to be surveyed, Arizona necklace and desert kit fox, are also included in **Table 11**. In the analysis summarized in **Table 11**, those species whose preferred habitat and known range are different than those associated with the project area were eliminated from further consideration for the rationale provided. Those species that were determined to have potential to occur within the project area were retained for further consideration and analysis.

TABLE 11
SUMMARY OF BLM-LISTED SENSITIVE SPECIES FOR THE KINGMAN NW, KINGMAN, CERBAT, AND STOCKTON HILL QUADRANGLE MAPS

Species	Suitable Habitat Present/Species Affected by Project	Rationale of Habitat Assessment
Gila Longfin Dace *Agosia chrysogaster chrysogaster*	No	This species is primarily found in the Gila and Bill Williams river drainages, but has also been introduced into the Virgin River Basin. The dace occupies a wide range of streams from low desert streams to high mountain streams. The aquatic habitat known to support this species is not found within the project area.

TABLE 11 SUMMARY OF BLM-LISTED SENSITIVE SPECIES FOR THE KINGMAN NW, KINGMAN, CERBAT, AND STOCKTON HILL QUADRANGLE MAPS		
Species	**Suitable Habitat Present / Species Affected by Project**	**Rationale of Habitat Assessment**
Golden Eagle *Aquila chrysaetos canadensis*	Yes	See golden eagle analysis section following this table.
Western Burrowing Owl *Athene cunicularia*	Yes	See western burrowing owl analysis section following this table.
Greater western bonneted bat *Eumops perotis californicus*	Yes	See greater western bonneted bat analysis section following this table.
Bald eagle *Haliaeetus leucocephalus*	No	The bald eagle inhabits areas with large trees or cliffs near water (reservoirs, rivers, and streams) associated with abundant prey. This species occurs throughout Arizona primarily as a winter resident or migrant. Nest locations are generally concentrated along perennial rivers such as the Agua Fria, Bill Williams, Gila, Salt, San Pedro, Verde, and associated reservoirs. Nests are generally found on cliff edges, rock pinnacles, in cottonwood trees and other large trees within a mile of a large water source. There is no suitable aquatic habitat that would attract this species.
Allen's lappet-browed bat *Idionycteris phyllotis*	No	This species is mainly found among the Colorado Plateau, the Mogollon Rim and adjacent mountain ranges. This bat is known from the Black Mountains, located adjacent to the Cerbat Mountains and may occupy the Cerbat Mountains. It roosts in caves and abandoned mine shafts. It is believed to feed on soft-bodied insects. No potential roost locations were observed within the project area.
Arizona necklace *Sophora arizonica*	Yes	See the Arizona necklace analysis section following this table.
Desert kit fox *Vulpes macrotis arsipus*	Yes	See the desert kit fox analysis section following this table.

Species Analysis

Based on review of the BLM listed sensitive species, the golden eagle, burrowing owl, greater western bonneted bat, Arizona necklace, and desert kit fox all have the potential to occur within the project area. Potential impacts to these species from the proposed project are discussed below.

Golden Eagle

Description

Golden eagles build nests on cliffs or in the largest trees of forested stands that provide a clear view of the surrounding habitat; they re-use nests year after year. They will avoid nesting in urban environments and do not generally nest in densely forested habitat. Golden eagles have large territories; they can be as large as 60 square miles (National Geographic 2016). They can be found during all seasons in Arizona. They nest

from February to July. In Arizona, little is known about the population size, habitats, habits or basic vital rates.

Occurrences

A potential golden eagle nest was found on October 17, 2017 south of the project alignments near their origination point at the Harris Substation. This occurrence is 1.25 miles from the proposed alignments. A map of this location was not provided due to its sensitive nature. No other golden eagle nests were observed during field reviews and no other nesting occurrences are known from the project area.

Species Assessment

No impacts to golden eagles are expected to result from the project. Spatial and seasonal buffer zones are a regularly used mean to protect individual nest sites/territories to ensure successful breeding. The only known potential golden eagle nest is located over one mile from any of the project alignments. Generally, a 0.5-mile buffer is applied to protect golden eagles at their nest site from construction disturbance. Thus, the potential golden eagle nest is not expected to be impacted by construction activities. In the event a new golden eagle nest is discovered, the AMM which states all construction avoids a radius of up to 0.5 mile of any active nests between December 15 and August 1 will be implemented. Also, to prevent electrocution of golden eagles and other raptors, the transmission line design will be in accordance with the *Suggested Practices for Avian Protection on Power Lines: State of the Art in 2006* manual or the most current version of the manual (APLIC 2006).

Western Burrowing Owl

Description

The western burrowing owl is a small, ground dwelling owl that inhabits abandoned burrows of prairie dogs, ground squirrels, and other burrowing mammals. In Arizona, their distribution is widespread, at elevations between 650 and 6,140 feet. Their preferred habitat is open, well-drained grasslands, steppes, deserts, prairies, and agricultural lands. They may also occur in developed areas with open habitat (e.g., golf courses and grassy areas in airports). Western burrowing owls lay eggs from March through June and the eggs are incubated for 27 to 30 days prior to hatching (AGFD 2001).

Occurrences

There are no known nesting locations of burrowing owls within the project area and no burrowing owls, suitable burrows, or signs thereof were observed by biologists during reconnaissance level field surveys. Multiple burrowing owls were found on land cleared for a housing development approximately one mile west of the West Cerbat Alternatives. There is one burrowing owl record in the eBird database for Mohave County; this occurrence is approximately 40 miles southwest of the project area (eBird 2016).

Species Assessment

While no burrowing owls, burrows, or signs of burrowing owl have been found within the project vicinity, there is habitat that could be suitable (see Biological Resources Map in **Appendix E**). Because of the mountainous terrain, there is no suitable habitat for burrowing owls within the areas south of the CFRA along the East Cerbat alternatives except for the area immediately around the Harris Substation. There is also no suitable habitat where the East Cerbat alternatives pass through the mountainous terrain in the CFRA. Suitable habitat occurs north of the CFRA where the East and West Cerbat alternatives share the same alignment. Along the West Cerbat alternatives, there is suitable habitat from the Harris Substation to where the alternatives start to run along the western border the CFRA and north of the CFRA, where the East and West Cerbat alternatives share the same alignment. The total number of miles of burrowing owl habitat identified along each alternative is presented in **Table 12**.

TABLE 12 MILES OF ALTERNATIVES IN BURROWING OWL HABITAT						
Alternative	**E1**	**E2**	**W1**	**W2**	**W3**	**W4**
Miles	8.5	9.0	11.5	10.6	12.0	13.2

No burrowing owls or their sign have been found within the project area during reconnaissance surveys. If burrowing owls occur within the project footprint or project area, potential direct impacts from project activities could include increased potential for a strike and/or mortality resulting from excavations, potential entrapment within burrows (partial burrow collapse), and negative biophysical response (e.g., modification to feeding or reproductive behavior) to elevated disturbance levels (human presence, elevated noise and ground vibration levels, etc.). These impacts would be limited to the period of construction and to intermittent maintenance activities. The potential for impacts to this species will be reduced through the implementation of AMMs outlined in the "Avoidance and Minimization Measures" section. AMMs include a preconstruction survey to detect burrowing owls, measures to reduce impacts if owls are found, a training program to help construction workers identify and avoid the burrowing owl and their burrows, and reclamation of disturbed habitat.

Greater Western Bonneted Bat

Description

The greater western bonneted bat has been found throughout Arizona during all months of the year except January. Within its range, it is geomorphically distributed because of its roosting preference for cliffs with abundant crevices but it has also been found in crevices in large boulders and buildings. Roost crevices need to have enough ground clearance to allow this large bat to take flight, generally no less than 12 feet. Maternity roosts typically have less than 100 individuals and are usually found under exfoliating rock slabs. They appear to mate in late-winter/early spring. This bat also doesn't undergo prolonged hibernation and appears to be active year-round but is less active during winter months. It may seek winter refugia which are protected from colder temperatures. They can fly long distances to forage; in Arizona roost to forage distances were greater than 30 kilometers.

Occurrences

There is no specific bat occurrence information for this species in the project vicinity. Most captures of these high-flying bats occur over bodies of water where they were foraging. Surveys for this species are difficult because they roost high in cliffs. An evaluation of cliff habitat performed within the project area identified five cliffs where there is potential suitable roosting habitat (see Biological Resources Map in **Appendix E**).

Species Assessment

Minor adverse impacts to the greater western bonneted bat could result from the project. The greatest impact which would result from removal of roosting habitat is not expected because none of the potential suitable cliff habitat will be removed. If bats are roosting in the cliffs they could be disturbed by noise and vibration from installation of transmission line structures. These impacts would be temporary and limited to the construction period.

Arizona Necklace

Description

Arizona necklace is a native evergreen shrub that is endemic to Arizona. It has a restricted range that includes eight populations in the eastern and southern foothills of the Hualapai Mountains of Mojave

County, four populations in Graham County and two populations in northern Cochise County. This species generally grows at elevations between 2,000 and 4,000 feet. It can be found on substrate consisting of basalt, granite, limestone, and gypsum (AGFD 1998). Habitat consists of chaparral and pinyon-juniper woodland. Associated species include desert oak (*Quercus turbinella*), bloodberry barberry (*Berberis haematocarpa*), Utah juniper (*Juniperus osteosperma*), ceanothus (*Ceanothus* sp.), singleleaf pinyon (*Pinus monophylla*), and crucifixion thorn (*Canotia holacantha*).

Occurrences

One occurrence of Arizona necklace was found using Seinet, a plant database, within a two-mile buffer of the project area. This occurrence was taken in 1985 without GPS coordinates and was therefore placed in the general area it was believed to be found. Biologists went to the location identified on the map but no plant was seen. A survey of suitable habitat was performed for this plant within the project footprint. No Arizona necklace was found.

Species Assessment

Marginal habitat for this plant was identified along the Eastern Alternative but Arizona necklace was not identified during a survey for this plant. Habitat identified for this plant in the project area is at an elevation where there is an ecotone between high desert vegetation and pinyon-juniper woodlands. Majority of the records of this species are from areas dominated by pinyon-juniper woodlands; the project area is likely just below an elevation at which this plant may occur. No impacts to this species are expected to occur.

Desert Kit Fox

Description

The desert kit fox can be found throughout most of the Sonoran Desert and grassland communities of Arizona. They prefer open habitat, creosote bush flats, and sand dunes. They are generally found in habitat that consists of 30-percent vegetation or less. Kit fox reside in dens they construct themselves. The den entrances may be in open areas or they may be near cover.

Occurrences

A survey was performed to identify kit fox dens within the project footprint. The pedestrian survey was conducted along portions of the Western Cerbat Alternatives where creosote bush habitat existed. One potential den was located north of Shinarump Road and east of Tooman Road. This den was located on private land and was not able to be examined up close. The den was observed from afar and no kit fox activity was noted but an exhaustive effort to monitor the den was not performed. The den is at the edge of the right-of-way along a shared segment of the W3 and W4 alternatives. No other dens of sign of kit fox were identified during the survey.

Species Assessment

One potential kit fox den was observed along the W3 and W4 alternatives. If the W3 or W4 alternatives are selected as the alternatives to be built or if previously undiscovered kit fox dens are found during pre-construction surveys, there could be potential impacts to kit foxes. Impacts could result from destruction of the den, entrapment of individuals within the den, and negative biophysical responses (i.e., foraging, reproductive behavior, rest, etc.). Avoidance and minimization measures will be implemented to ensure impacts to kit fox are reduced. These include determining if there is an occupied kit fox den and minimizing work activities near active kit fox dens, especially during periods when young are being raised. Surveys for kit fox dens will also be documented during pre-construction surveys for the burrowing owl. If any kit fox dens are identified they will be reported to the BLM biologist and consultation with the BLM biologist will occur to determine AMMs necessary to avoid impacts to kit foxes.

Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act

With the exception of domestic pigeons, house sparrows, and European starlings, all birds in the project vicinity are protected under the Migratory Bird Treaty Act of 1918, as amended (16 USC 703-712) and the Bald and Golden Eagle Protection Act. Activities that result in take of migratory birds or eagles are prohibited without authorization from the USFWS. A query of iPaC identified the following birds of conservation concern as potentially breeding in the project area:

- Bell's vireo (*Vireo bellii*)
- Bendire's thrasher (*Toxostoma bendirei*)
- Burrowing owl (*Athene cunicularia*)
- Costa's hummingbird (*Calypte costae*)
- Gila woodpecker (*Melanerpus uropygialus*)
- Gilded flicker (*Colaptes chrysoides*)
- Golden eagle (*Aquila chrysaetos*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Lucy's warbler (*Vermivora luciae*)
- Peregrine falcon (*Falco peregrinus*)
- Prairie falcon (*Falco mexicanus*)
- Sonoran yellow warbler (*Dendroica petechia* ssp. *sonorana*)

Construction activities occurring during the breeding season (March 15–August 15) could potentially impact nesting migratory birds through indirect or direct take resulting from bird sensitivity to noise and human activity causing them to abandon the nest or nest destruction. In order to minimize impacts to migratory birds, a preconstruction survey to identify active bird nests will be conducted if construction occurs during the breeding season. Additionally, the power line will be designed according to the suggested practices for reducing avian electrocutions.

Important Bird Areas

The National Audubon Society created an Important Bird Area (IBA) Technical Review Group that identifies sites they deem essential habitat (e.g., nesting areas, crucial migration stop-over sites, or wintering groups) to one or more species of birds during some portion of the year. For a place to qualify as an IBA, it must either support a large concentration of birds, provide habitat for threatened or rare species, or provide habitat for a bird with a very limited or restricted range (National Audubon Society 2015).

There are no IBAs within the project area. The nearest IBA is approximately 22 miles northwest of the project area along the Colorado River near Laughlin, Nevada (IBA 2015).

Wildlife Linkages and BLM Wildlife Corridors

The Arizona Wildlife Linkages Workgroup (AWLW) was established to identify large blocks of potential wildlife movement corridors, factors that could possibly disrupt wildlife movement corridors, and opportunities for conservation. This group was founded by Arizona Department of Transportation (ADOT), Federal Highway Administration, AGFD, BLM, Northern Arizona University, The Sky Island Alliance, U.S. Forest Service, USFWS, and the Wildlands Project (AWLW 2006). The AWLW uses the information they have gathered regarding wildlife connectivity to integrate into transportation and regional development planning.

Arizona HabiMap was used to identify wildlife linkage zones that occur in the project area. Wildlife linkage zones are corridors between areas of relatively undisturbed land and protected natural habitat (habitat blocks) that are threatened by fragmentation. A habitat block is an area of land that provides habitat for important wildlife and can reasonably be expected to remain wild for at least 50 years. Without corridors between habitat blocks, ecological balance regulated by large predators cannot function (ADOT 2010). A potential linkage zone is a portion or subset of a habitat block or fracture zone under threat, and is identified as being critical to wildlife movement. A fracture zone is an area of reduced permeability between habitat blocks that consists of transportation corridors as well as state-, and privately-owned lands that tend to need significant restoration to function as reliable linkages (AWLW 2006).

The West Cerbat alternatives do not cross any wildlife linkages or habitat blocks. Both East Cerbat alternatives run through 5.8 miles of a potential linkage zone called "Linkage 20 Hualapai Mountains – Cerbat Mountains" (AGFD 2015). I-40, the BNSF railroad, and urbanization are identified as threats to this potential linkage zone. The East Cerbat Alternative also runs through approximately 3.1 miles of a wildlife habitat block (see Biological Resources Map in **Appendix E**).

The BLM's 1995 Resource Management Plan (RMP) identified several wildlife movement corridors, two of which are within the project area (see Biological Resources Map in **Appendix E**) along US-93 where it passes through the CFRA and along I-40, just south of US-93. Both of these are found along the East Cerbat Alternatives. The BLM RMP states that "these corridors would be managed to maintain, develop, or reestablish natural movement of wildlife species while minimizing death to these animals. Construction of overpasses or underpasses, culvert modification and fencing designed to allow wildlife movement would be requested of the Arizona Department of Transportation".

Minor adverse impacts to the potential linkage zone, wildlife habitat block, and BLM wildlife corridors are expected to result from implementation of the East Cerbat alternatives; the West Cerbat alternatives would not impact identified linkage zones, blocks, or corridors. Unlike highways, canals, railroads, and urbanization, electric transmission lines are porous to most wildlife movement, and are not expected to impede wildlife movement within the potential wildlife linkage zone, habitat block, or BLM wildlife corridors. Unlike highways, canals, railroads, and urbanization, electric transmission lines are porous to most wildlife movement, and are not expected to cause impacts to the potential wildlife linkage zone or habitat block.

Arizona State Native Protected Plants

The Arizona Department of Agriculture oversees the protection of various native plants as classified under the Arizona Native Plant Law (ARS 3-904). The Arizona Native Plant law was enacted to protect rare plants and prevent other plants from being overharvested. A list of protected plants identified during field review of the project area, and the type of protection required, is presented in **Table 13**. No Highly Safeguarded plants (i.e., plants whose survival is threatened and no collection is allowed) are known to exist or were observed along the proposed project alignment.

TABLE 13
ARIZONA NATIVE PROTECTED PLANTS OBSERVED IN THE PROJECT AREA

Species	Protection*
Mesquite and palo verde	Harvest Restricted; Salvage Assessed
Yucca	Harvest Restricted

TABLE 13 ARIZONA NATIVE PROTECTED PLANTS OBSERVED IN THE PROJECT AREA	
Species	**Protection***
All cacti (cholla, barrel cacti, pincushion, etc.)	Salvage Restricted
***Note: Salvage Restricted** – Plants are subject to vandalism; collection by permit only. **Harvest Restricted** – Plants subject to excessive harvesting because of the use of their wood or fiber; permits required to remove plant by-products. **Salvage Assessed** – Plants have enough value if salvaged to warrant salvage; permits required for plant removal and salvage	

Noxious and Invasive Plants

Noxious and invasive plants are non-native or invasive pests that grow and spread rapidly and out-compete native species. The BLM maintains a national noxious and invasive plants list. Additionally, the Arizona Department of Agriculture has compiled an "Arizona Noxious Weed List" and the ADOT also has a list of noxious and invasive plants. Weeds that occur on these lists were given special attention during the field review. No noxious and invasive plants were identified during field reviews; however, it is common for diffuse knapweed (*Centaurea diffusa*), spotted knapweed (*Centaurea stoebe*), yellow starthistle (*Centaurea solstitialis*), and red brome (*schismus barbatus*) to grow in this type of habitat and, therefore, these species may be located within the project area. Avoidance and minimization measures such as washing construction equipment prior to entering the work site would reduce the spread of noxious and invasive plants.

AVOIDANCE AND MINIMIZATION MEASURES

The following avoidance and minimization measures are recommended to reduce potential impacts to special status species and their habitat:

General

- Prior to the commencement of construction activities, a worker education program will be conducted to inform workers of sensitive species with potential to occur in the project area. Photographs of the Sonoran Desert tortoise, golden eagle, desert kit fox, and western burrowing owl will be given to workers to aid their identification. Workers will be instructed on avoidance and minimization measures for these species.
- Areas identified by BLM resource managers as requiring seeding following construction will be seeded with a BLM-approved seed mixture, including areas subject to long-term disturbance in identified desert tortoise habitat.
- No pets or firearms will be allowed on the construction site.
- To avoid the spread of noxious and invasive plants, all equipment will be washed prior to entering the work site for the first time.
- To avoid unnecessary disturbance, construction activities shall use access roads where feasible, and travel off of access roads shall be limited to the minimum necessary to complete construction activities.
- A Vegetation Salvage Plan will be prepared and submitted, as required by BLM. UNS Electric will obtain the necessary permits from the Arizona Department of Agriculture and BLM for required plant species prior to construction.
- All trash will be disposed of in proper containers and removed from the work site at the end of each day. If trash is not removed at the end of each day, it should be contained in a trash container with a secure lid.

- Open holes will be covered or filled at the end of each workday. All open holes would be inspected daily prior to the commencement of work and all wildlife that is trapped in the hole will be removed.
- All work shall be confined to the smallest area necessary to complete the project.

Sonoran Desert Tortoise

- Desert tortoise fencing will be permanently erected around the Mineral Substation. The fence should be constructed with durable materials (i.e., 16-gauge wire or heavier) suitable to resist desert environments, alkaline and acidic soils, wind, and erosion. Fence material should consist of 1-inch horizontal by 2-inch vertical galvanized welded wire, 36 inches in width. Fence installation shall follow the latest guidelines found within the most recent version of the U.S. Fish and Wildlife Service Desert Tortoise Field Manual (USFWS 2009) (Appendix F of the Biological Evaluation)
- If construction is to occur during the desert tortoise active period (February 15–November 15), a preconstruction survey will be performed within identified desert tortoise habitat and washes exhibiting incised banks of caliche no earlier than within 48 hours prior to construction to identify desert tortoises or burrows. If construction occurs during the dormant season for the tortoise (November 16–February 14), then a preconstruction survey will be conducted to identify tortoise burrows.
- If tortoises are identified, they would be moved to an appropriate location outside of harm's way. Desert tortoise handling guidelines will be adhered to as outlined in the "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects" compiled by AGFD. Handling guidelines will be part of the worker education program for environmental protection measures.
- The BLM Kingman Field Office biologist will be notified at (928) 718-3727 if a tortoise is encountered and/or moved.
- In the event that a desert tortoise needs to be moved from the project alignment, the tortoise should be moved at least 500 feet from but no more than 0.25 mile from where it was found. The tortoise shall be moved less than 48 hours before disturbance to prevent the tortoise from returning to the area.
- If tortoise burrows are found within the project alignment and they will be disturbed by construction activities, they shall be cleared of tortoises and then collapsed by a qualified biologist. The tortoise from the burrow is to be moved to a safe location and placed in a natural or artificial burrow.
- If tortoise burrows are found adjacent to the project alignment in a location that will not be directly impacted, burrow entrances may be temporarily blocked off by a qualified biologist using fencing so that tortoises present within the burrow do not wander onto the project alignment.
- In identified desert tortoise habitat, if construction is to occur during the active period for the desert tortoise (February 15–November 15), equipment will be inspected when equipment is parked overnight to ensure that no tortoises have moved under the equipment.
- Vehicles operating on secondary roads within desert tortoise habitat should limit vehicle speeds to 15 miles per hour or less.
- Once construction is complete, the actual amount of disturbance (classified as permanent, long-term and short-term) to identified desert tortoise habitat will be determined by the project proponent by visiting the project site and mapping the disturbance areas no more than one month after completion of construction activities. The actual disturbance to identified desert tortoise habitat will be mitigated by compensation in land or money on an acre for acre basis.
- Prior to the start of construction, a Desert Tortoise Mitigation Implementation Plan will be prepared for approval by the BLM. The plan will detail how mitigation is to be implemented for permanent and long-term impacts to identified desert tortoise habitat.

Golden Eagle

- If an active golden eagle nest is discovered, no construction activities will occur within a radius of 0.5 mile of the active nest between December 15 and August 1, or until it has been determined by a qualified biologist that nesting is complete.

Western Burrowing Owl

The following measures are based on the Burrowing Owl Project Clearance Guidance for Landowners (2008) prepared by AGFD:

- A preconstruction survey for burrowing owls will be conducted throughout suitable habitat within a 300-foot-buffer (150 feet on each side of the centerline) of the project alignment and facilities, according to the Burrowing Owl Project Clearance Guidance for Landowners (2008) protocol.
- All construction related disturbances will be limited to the extent possible within 100 feet of occupied burrows. A biologist will monitor activities and will have the authority to employ additional avoidance and minimization measures if negative impacts to the species are observed.
- If destruction of occupied burrows cannot be avoided, new artificial burrows will be created on adjacent land by a qualified biologist. The proponent will be responsible for relocating owls to suitable habitat. Any owl relocation or artificial burrow construction will be coordinated with the BLM biologist.

Desert Kit Fox

- Kit fox dens will be surveyed for during the burrowing owl survey
- If construction is to occur along the W3 or W4 alternatives, a potential kit fox den located at (note: coordinates withheld due to sensitive nature of location information) will be investigated a minimum of 30 days prior to construction by observing the den to determine if it is occupied by kit fox.
- If a den is determined to be active, then the BLM will be immediately notified, and the following will occur:
    - The den(s) will be fenced off.
    - Construction activities will avoid directly impacting the den.
    - Construction activities within 500 feet of the den will be planned so that they can be completed within a period of no more than two consecutive days. If more than two consecutive days are needed to complete the work, then a period of two days shall elapse prior to commencing an additional two-day construction period.
- Kit fox will be highlighted in the environmental awareness training for the crew members. In the event they are identified, a biologist will be notified, and work will stop until the biologist gives permission for work to proceed.

Migratory Birds

- If construction occurs during the breeding season (i.e., February 1 through August 31), a preconstruction nest survey by a qualified biologist would be required along the proposed route. The following would occur:
    - Three different survey buffers would be applied to the project area: 50, 100, and 1,200 feet (ft). Within the work areas and the 50-ft buffer the survey would include a search for all nests, within the 100-ft buffer the survey would include a search for ground-nesting birds and raptor nests, and within the 1,200 ft. buffer the survey would include a search for raptor nests.

    - The surveys would be conducted by walking transects 30 feet apart looking for nests, eggs, and birds. At the start of each transect and every 300 feet, the survey area would be scanned for raptors and raptor nests using binoculars. While walking across the survey area along each survey transect, vegetation would be searched for nests. All nests found would be examined to determine whether they were active or inactive. Inactive nests, those with no eggs or nestlings, would be dismantled so that they could not be re-used while project activities are occurring at the project site.
- If an active nest is found and a buffer cannot be reasonably placed around the nest, a biological monitor would monitor the nests and order work to be stopped if the birds show signs of disturbance as a result of the proposed activities. All active nests would be reported to the BLM biologist. If work must proceed while the nest is active, and it is determined by the biologist that potential nest failure is a risk, the biologist will consult with the BLM biologist regarding removal or relocation of the nest. If construction occurs outside of the migratory bird breeding season, then a preconstruction nest survey would not be necessary.
- If construction starts before breeding/nesting season, non-active nests, with the exception of raptor nests, could be removed and flagging may be placed to detour birds from re-nesting.
- The design of the power line will be in compliance with current standards and practices that reduce the potential for raptor fatalities and injuries. The commonly referenced source of such practices is found within the *Suggested Practices for Avian Protection on Power Lines: State of the Art in 2006* manual, or the most current version of the manual (APLIC 2006).

CONCLUSION

Two sets of alternatives for the Golden Valley 230kV Transmission Line were analyzed in this BE. Impacts resulting from the project would be similar for all alternatives but there are slight variations.

- None of the alternatives are expected to result in impacts to species listed or proposed to be listed as threatened, endangered, or candidates for listing under the ESA. None of the alternatives would impact USFWS-designated critical habitat.
- The W3 and W4 alternatives would impact the least amount of desert tortoise habitat (~25 percent less than the other alternatives).
- None of the alternatives are expected to impact the golden eagle
- The East Cerbat alternatives would pass through less potential burrowing owl habitat (~25 percent less than the West Cerbat alternatives).
- The East Cerbat alternatives would encounter potential greater western bonneted bat roost habitat in cliffs whereas the West Cerbat alternatives would not.
- No impacts to desert kit fox are expected along any of the alternatives if the AMMs are adhered to.
- Impacts to migratory birds will be similar among all alternatives and reduced by implementing AMMs. No important bird areas will be impacted.
- The East Cerbat alternatives would cross a wildlife linkage, habitat block, and two BLM wildlife corridors but are expected to have minor impacts on these areas. The West Cerbat alternatives would not impact these areas.
- No noxious and invasive plant populations were identified along any alternative.

Through the implementation of project AMMs, impacts to species potentially occurring in the project area are expected to be minimized and result in no effect or minor adverse effects to species.

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APPENDIX A

USFWS-LISTED SPECIES IN THE PROJECT AREA

APPENDIX B

BLM-LISTED SPECIES IN THE PROJECT AREA

APPENDIX C

PLANTS AND WILDLIFE OBSERVED IN THE PROJECT STUDY AREA

PLANTS AND WILDLIFE OBSERVED IN THE PROJECT STUDY AREA DURING HABITAT FIELD SURVEYS	
Plants	**Wildlife**
Flattop buckwheat (*Eriogonum fasciculatum* var *polifolium*)	Common raven (*Corvus corax*)
Banana yucca (*Yucca baccata)*	Red-tailed hawk (*Buteo jamaicensis*)
Beavertail cactus (*Opuntia basilaris)*	Turkey vulture (*Cathartes aura*)
Broom Snakeweed (*Gutierrezia sarothrae*)	Mourning dove (*Zenaida macroura*)
Catclaw acacia (*Acacia greggii*)	White-crowned sparrow (*Zonotrichia leucophrys*)
Buckhorn cholla (*Cylindropuntia acanthocarpa*)	Cactus wren (*Campylorhynchus brunneicapillus*)
Hedgehog cacti (*Echinocereus* spp.)	Coyote (*Canis latrans*)
Jimmyweed (*Isocoma wrightii*)	Cottontail (*Sylvilagus auduboni*)
Nevada Mormon tea (*Ephedra trifurca*)	Black-tailed jackrabbit (*Lepus californicus*)
One-seeded juniper (*Juniperus monosperma*)	American kestrel (*Falco sparverius*)
Prickly pear (*Opuntia engelmannii*)	Spiny lizard (*Sceloporus* spp.)
Fluffgrass (*Erioneuron pulchellus*)	Loggerhead shrike (*Lanius ludovicianus*)
Desert needlegrass (Achnatherum speciosum)	Ornate tree lizard (*Urosaurus ornatus*)
Hedgehog (*Echinocereus* spp.)	Gambel's quail (*Callipepla gambelii*)
Triangle bursage (*Ambrosia deltoidea*)	Red-tailed Hawk (*Buteo jamaicensis*)
Beargrass (*Nolina microcarpa*)	Verdin (*Auriparus flaviceps*)
Blackbrush (*Coleogyne ramosissima*)	Harris's antelope squirrel (*Ammospermophilus harrisii*)
Sideoats grama (*Bouteloua curtipendula*)	
Barrel cacti (*Ferocatus* spp.)	
Desert ceanothus (*Ceanothus greggii*)	
Yerba de pasmo (*Baccharis pteronioides*)	
Seep willow (*Baccharis salicifolia*)	
Gray felt thorn (*Tetradymia canescens*)	
Box-thorn (*Lycium andersonii*)	
Brittlebush (*Encelia farinosa*)	
Russian thistle (*Salsola kali*)	
Trailing Four O'Clock (*Allionia incarnata*)	
Desert trumpet (*Eriogonum inflatum*)	
Ephedra (*Ephedra trifurca*)	
Crucifixion thorn (*Castela emoryi*)	
Desert marigold (*Baileya multiradiata*)	
Turpentine bush (*Ericameria laricifolia*)	
Sand dropseed (*Sporobolus cryptandrus*)	
Cheesebush (Hymenoclea salsola)	
Bush muhly (*Muhlenbergia porter*)	

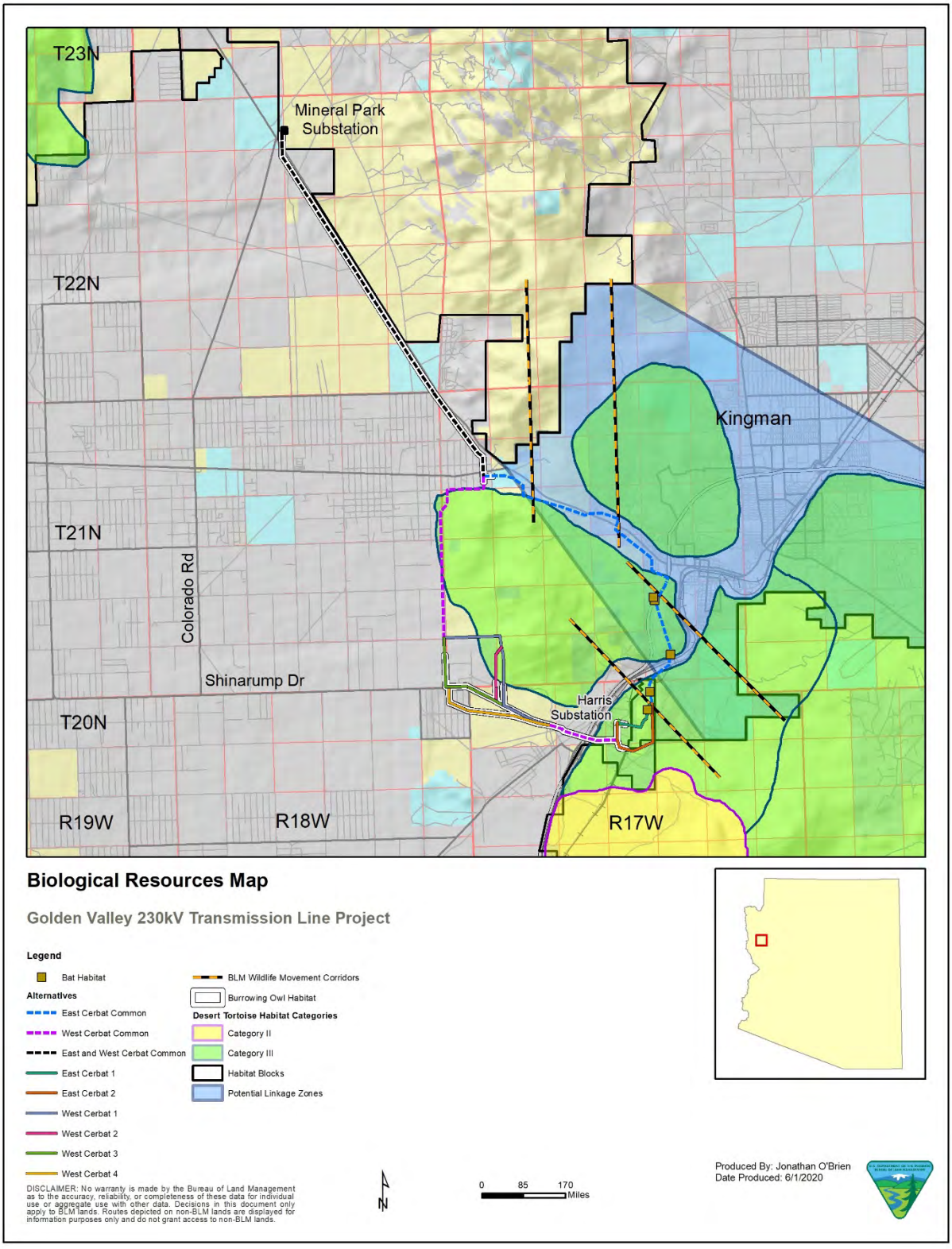
PLANTS AND WILDLIFE OBSERVED IN THE PROJECT STUDY AREA DURING HABITAT FIELD SURVEYS	
Plants	**Wildlife**
Velvet mesquite (*Prosopis velutina*)	
Mexican bladder sage (*Scutellaria* mexicana)	
Big galleta (*Hilaria rigida*)	
Creosotebush (*Larrea tridentate*)	
Chia (*Salvia columbariae*)	
Desert globemallow (*Sphaeralcea ambigua*)	
Aristida (*Aristada* spp.)	
Rayless goldenhead (*Acamptopappus sphaerocephalus*)	
Eastern Mojave buckwheat (*Eriogonum fasciculatum*)	
White-stem paper-flower (*Psilostrophe cooperi*)	
Low wollygrass (*Dasyochloa* spp.)	
Brownfoot (*Acourtia wrightii*)	

APPENDIX D

COPY OF BURROWING OWL HANDLING GUIDELINES

APPENDIX E

BIOLOGICAL RESOURCES MAP


T23N
Mineral Park Substation
T22N
Kingman
T21N
Colorado Rd
Shinarump Dr
Harris Substation
T20N
R19W
R18W
R17W
Biological Resources Map
Golden Valley 230kV Transmission Line Project
Legend
Bat Habitat
Alternatives
East Cerbat Common
West Cerbat Common
East and West Cerbat Common
East Cerbat 1
East Cerbat 2
West Cerbat 1
West Cerbat 2
West Cerbat 3
West Cerbat 4
BLM Wildlife Movement Corridors
Burrowing Owl Habitat
Desert Tortoise Habitat Categories
Category II
Category III
Habitat Blocks
Potential Linkage Zones
DISCLAIMER: No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Decisions in this document only apply to BLM lands. Routes depicted on non-BLM lands are displayed for information purposes only and do not grant access to non-BLM lands.
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Produced By: Jonathan O'Brien
Date Produced: 6/1/2020

APPENDIX F

USFWS DESERT TORTOISE FIELD MANUAL

D. EXHIBIT D—BIOLOGICAL RESOURCES

As stated in Arizona Administrative Code R14-3-219:

> *List the fish, wildlife, plant life, and associated forms of life in the vicinity of the proposed site or route and describe the effects, if any, the proposed facilities will have thereon.*

D.1 Existing Conditions

D.1.1 Fish

There are no fish, perennial waters, or wetlands within the Project footprint.

D.1.2 General Wildlife

A diverse array of terrestrial wildlife species associated with the Mojave Desert Scrub vegetation community can be found within the Project area. The Project area encompasses a mix of developed and undeveloped lands. Two main population areas are encountered in the community of Golden Valley and the City of Kingman, and there are major transportation routes developed through the Project area. Wildlife habitat is broken up into patches by these transportation infrastructures and cities/communities. One large habitat block of undeveloped land is found in the CFRA. The West Cerbat alternatives run along the western boundary of the CFRA while the East Cerbat alternatives pass through the recreation area via the US 93 corridor.

All areas of the Project, both developed and undeveloped, support wildlife but the less developed and larger the contiguous block of habitat, the more wildlife is supported. Because the Project area is a desert environment, reptiles are common. Typical desert mammals can also be found, the largest of which are mule deer (*Odocoileus hemionus*) and, less frequently, the mountain lion (*Puma concolor*). Some of the smallest include species of rodents and bats such as the Arizona pocket mouse (*Perognathus amplus*) and Harris's antelope squirrel (*Ammospermophilus harrisii*). Many resident and migratory bird species frequent the area. Invertebrates such as insect species are also numerous. A list of wildlife species observed during field reviews can be found in Appendix C of the BE (**Exhibit C-1**).

D.1.3 General Vegetation

Vegetation in the Project area is classified as the Mojave Desert scrub/semi-desert grassland community. There are slight variations in vegetative species composition among the Project area which are most pronounced between mountainous terrain and the valley. The Mojave desert scrub of the valley is generally dominated by a combination of creosote bush (*Larrea tridentata*), catclaw acacia (*Acacia greggii*), Mohave yucca (*Yucca schidigera*), and cholla (*Opuntia* spp.), of which certain species may be more or less abundant depending upon the area. Some mountainous areas are similar in species composition to that of the valley, but rather than shrubs being the dominant vegetation cover, cacti and yucca are dominant. Other areas are dominated by conotia (*Conotia holacantha*) and yet other areas may contain a mix of shrubs and cacti, some of which are generally not found in lower areas, such as ocotillo (*Foquieria splendins*), oak (*Quercus* sp.), greythorn (*Ziziphus obtusifolia*), and palo verde (*Parkinsonia* sp.). A list of plant species observed during field reviews is found in Appendix C of the BE (**Exhibit C-1**).

D.2 Potential Project Effects

D.2.1 Fish

No fish or perennial waters will be affected by the proposed transmission line alignments.

D.2.2 General Wildlife

All proposed alternatives will have similar direct impacts. Impacts to general wildlife will include both direct and indirect effects. Direct effects could be lethal if animals are crushed or struck by construction equipment. Direct effects could also result in negative biophysical responses (e.g., modification to feeding or reproductive behavior) resulting from elevated disturbance levels (e.g., human presence, elevated noise and ground vibration levels, etc.) as well as displacement from the Project area. Indirect impacts resulting from the Project could include a reduction in the quality and/or quantity of habitat. Habitat could be altogether lost where it is converted to a built feature or modified and thereby result in losses to certain habitat features that support certain animal species, (e.g., forage, shelter, etc.). While these impacts to individuals could be lethal or reduce individual fitness, impacts to the populations of general wildlife are expected to be minor and adverse and will not result in a threat to the species at the population level.

D.2.3 General Vegetation

Impacts to common flora will include removal of vegetation where areas will be cleared to create work space. Many of these areas will not be needed following construction and thus, impacts will be temporary, as vegetation will reestablish over time. These areas will be aided by active revegetation activities such as seeding, as agreed to by UNSE as part of the NEPA process. Permanent loss of vegetation will occur where new features are built and existing vegetation is removed. The acreage of vegetation permanently and temporarily disturbed along each alternative is provided in **Tables 1 through 6**.

TABLE D-1
EAST CERBAT ALTERNATIVE 1 ESTIMATED GROUND DISTURBANCE
SORTED BY VEGETATION COMMUNITIES

Vegetation Community	Type of Disturbance (acres)		Total
	Temporary	Permanent	
Acacia-Desert Willow-Live Oak	4.8	0.2	**5.0**
Crucifixion Thorn	5.0	0.6	**5.6**
Creosote Bush-White Bursage	48.7	9.1	**57.8**
Mojave Yucca	1.4	0	**1.4**
Shrub-Grass Disclimax	29.9	22.0	**51.9**
Total	**89.8**	**31.9**	

Note: All calculations are based on preliminary engineering data.

TABLE D-2 EAST CERBAT ALTERNATIVE 2 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES			
Vegetation Community	**Type of Disturbance (acres)**		**Total**
	Temporary	**Permanent**	
Acacia-Desert Willow-Live Oak	4.8	0.2	**5.0**
Crucifixion Thorn	5.0	0.6	**5.6**
Creosote Bush-White Bursage	44.5	8.3	**52.8**
Mojave Yucca	6.4	0.1	**6.5**
Shrub-Grass Disclimax	29.9	22.0	**51.9**
Total	**90.6**	**31.2**	
Note: All calculations are based on preliminary engineering data.			

TABLE D-3 WEST CERBAT ALTERNATIVE 1 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES			
Vegetation Community	**Type of Disturbance (acres)**		**Total**
	Temporary	**Permanent**	
Creosote Bush-White Bursage	36.1	12.3	**48.4**
Mojave Yucca	4.8	1.0	**5.8**
Shrub-Grass Disclimax	21.2	21.4	**42.6**
Total	**62.1**	**34.7**	
Note: All calculations are based on preliminary engineering data.			

TABLE D-4 WEST CERBAT ALTERNATIVE 2 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES			
Vegetation Community	**Type of Disturbance (acres)**		**Total**
	Temporary	**Permanent**	
Creosote Bush-White Bursage	42.4	12.9	**55.3**
Mojave Yucca	4.8	1.0	**5.8**
Shrub-Grass Disclimax	21.2	21.4	**42.6**
Total	**68.1**	**35.3**	
Note: All calculations are based on preliminary engineering data.			

TABLE D-5 WEST CERBAT ALTERNATIVE 3 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES			
Vegetation Community	**Type of Disturbance (acres)**		**Total**
	Temporary	**Permanent**	
Creosote Bush-White Bursage	35.9	9.3	**45.2**
Mojave Yucca	4.8	1.0	**5.8**
Shrub-Grass Disclimax	21.2	21.4	**42.6**
Total	**61.9**	**31.7**	
Note: All calculations are based on preliminary engineering data.			

TABLE D-6 WEST CERBAT ALTERNATIVE 4 ESTIMATED GROUND DISTURBANCE SORTED BY VEGETATION COMMUNITIES			
Vegetation Community	**Type of Disturbance (acres)**		**Total**
	Temporary	**Permanent**	
Creosote Bush-White Bursage	39.6	10.0	**49.6**
Mojave Yucca	6.6	1.0	**7.6**
Shrub-Grass Disclimax	21.2	21.4	**42.6**
Total	**67.4**	**32.4**	
Note: All calculations are based on preliminary engineering data.			

Short- and long-term direct impacts to general vegetation will result from areas cleared to create temporary workspace and where permanent infrastructure is built (e.g., structures, roads, and substations). Temporarily disturbed vegetation will reestablish both/either naturally and/or when aided by revegetation efforts, but this process could take several years. Common vegetation along all Project alternatives could be indirectly impacted by the introduction of noxious weeds. Noxious and invasive plants frequently outcompete native plants and proliferate, thereby changing the composition of native vegetation communities and not allowing native flora the ability to reestablish. AMMs outlined in the BE, such as washing construction equipment prior to entering work sites, will reduce the spread of noxious and invasive plants.

D.3 Conclusion

While mortality of individual common wildlife could result from Project activities for all routes, this impact is expected to be at limited to low levels. Thus, impacts to the populations of general wildlife are expected to be minor and adverse and will not result in a threat to the species at the population level. Short- and long-term direct impacts to general vegetation will result from areas cleared to create temporary work space and where permanent infrastructure is built. Between approximately 60 to 90 acres of vegetation will be temporarily impacted and 30 to 35 acres permanently affected depending upon the alternative selected.

E. EXHIBIT E—SCENIC AREAS, HISTORIC SITES, AND ARCHAEOLOGICAL SITES

As stated in Arizona Administrative Code R14-3-219:

> *Describe any existing scenic areas, historic sites and structures or archaeological sites in the vicinity of the proposed facilities and state the effects, if any, the proposed facilities will have thereon.*

EXHIBIT	CONTENTS
E-1	Visual Contrast Rating Worksheets

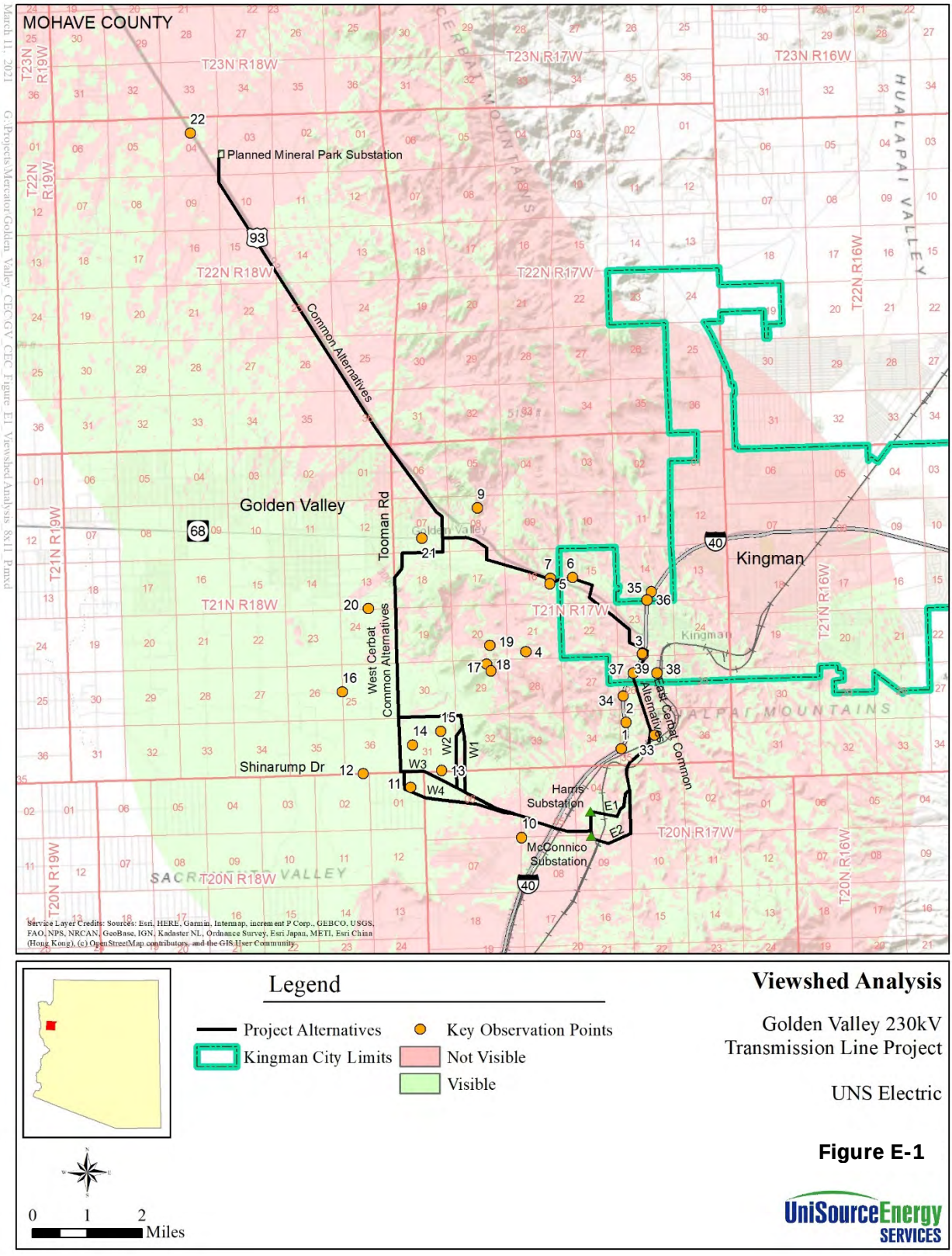
Exhibit E includes summaries of existing visual (scenic) resources, historic sites and structures, and cultural resources, as well as the potential impacts the proposed Project may have on each resource.

E.1 Scenic Areas and Visual Character

E.1.1 Overview

This portion of Exhibit E addresses the scenic and visual resources in the Project area. Visual resource inventory data were collected based on a review of existing and future land use plans, aerial photography, field reconnaissance, and visual simulations to compare the visual impact of the proposed facilities with the existing conditions. The narrative that follows provides a description of the visual resource inventory and characterization of impacts to the landscape setting and the associated sensitive viewers.

Transcon performed a viewshed analysis of the Project area (**Figure E-1)**. In 2016, BLM representatives evaluated all the possible locations within 3 miles of the Project alternatives where the Project may be visible, including roads, trails, residences, and commercial facilities, and they visited the Project area on multiple occasions to identify and photograph representative viewpoints. Transcon and BLM representatives reviewed all of the preliminary viewpoint locations and corresponding photographs and selected key observation points (KOPs) from which further analysis should be performed based on the most representative and the most sensitive view locations.


MOHAVE COUNTY
Planned Mineral Park Substation
Common Alternatives
Golden Valley
Tooman Rd
West Cerbat Common Alternatives
East Cerbat Common Alternatives
Shinarump Dr
Harris Substation
McConnico Substation
Kingman
T23N R18W
T23N R17W
T23N R16W
T22N R18W
T22N R17W
T22N R16W
T21N R19W
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HUALAPAI VALLEY
HUALAPAI MOUNTAINS
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Legend
Project Alternatives
Kingman City Limits
Key Observation Points
Not Visible
Visible
0 1 2 Miles
Viewshed Analysis
Golden Valley 230kV Transmission Line Project
UNS Electric
Figure E-1
UniSourceEnergy SERVICES

E.2 Existing Conditions

The southern portion of the East Cerbat alternatives generally extends along the eastern side of the Cerbat Foothills where visual characteristics vary but are mostly characterized by uninterrupted views of the dominant desert mountain range. At higher elevations, vast views can be achieved of the valleys below and mountains ranges in the far background. Contrast in the natural landscape exists near transportation corridors from building, utility, road, and other infrastructure improvements.

The southern portion of the West Cerbat alternatives follows along the western and southern portions of the Cerbat Foothills where minimal disturbance exists near Shinarump Drive in the south. There are no improvements located along the proposed route, providing an uninterrupted view of the natural landscape of the western Cerbat Foothills. Views from the alignment are of the vast, flat, and open Sacramento Valley to the south, east, and north, containing sparse to moderate contrast from low-lying development (homes and roads).

Where the East and West Cerbat alternatives join near SR-68 and Kofa Road, the visual characteristics are also varied. There are improvements (homes, utilities, roads, etc.) that exist in the immediate area. Views of the Cerbat Foothills and Mountains and Sacramento Valley are obstructed in minor ways by these improvements. North to the planned Mineral Park Substation, the visual characteristics are dominated by the Sacramento Valley on the west and Cerbat Mountains on the east, with minor contrast from existing infrastructure.

The existing conditions for visual resources are described in terms of landscape character, which is a composite of the form, line, color, and texture of landform/water, vegetation, and the built environment, as well as specific visual resources within the landscape such as landmarks. The existing landscape character considers Visual Resource Management (VRM) objectives; changes in form, line, color, or texture; and scenic areas or vistas.

E.2.1 East Cerbat Alternatives

The area consists of natural-appearing landscapes dissected by major roads and utility corridors, infrastructure, residences, and commercial facilities north, west, and south of Kingman. Features of note within the existing landscape are the presence of large infrastructure in close proximity to view locations (**Figures E-2 to E-4**), the dark maroon-purple-brown rocks on the surface of the hills that transition to browns and lighter colors of rock and soil (**Figures E-21 to E-4**), the visibility of light buff-colored soil and rock in recently disturbed areas (**Figures E-2 to E-4**), and the generally bisected pattern of vegetation across much of the visible area (**Figures E-2 to E-4**).

I-40 and US 66 are particularly sensitive view corridors, I-40 due to the number of viewers and US 66 due to the sensitivity of the viewer experience given the less developed and more historic nature of the corridor (**Figures E-4 and E-6** [US 66] and **Figures E-2, E-3, E-5, and E-7** [I-40]). The East Cerbat alternatives cross I-40 near the highway's intersection with Beale Street and cross US 66 about 2 miles south of Beale Street. A few additional features to note within the existing landscape are the presence of large infrastructure in close proximity to view locations (**Figures E-5 to E-7**), the general lack of larger landscape views, and the visibility of existing power poles and other development (**Figures E-5 to E-7**). Detailed descriptions of

existing form, line, color, and texture as seen from KOPs can be found in Section B of the contrast worksheets (**Exhibit E-1**). Additional photographs can be found in the simulation panels (**Exhibits G-5 to G-30**).

US 66, a scenic byway, passes near the south end of the East Cerbat alternatives (**Figures E-4 and E-6**), and the East Cerbat alternatives pass through a portion of the CFRA, a Special Recreation Management Area with highly trafficked non-motorized trails where viewers may be more sensitive to visual change in the area. UNSE owns and operates a 69 kV transmission line through the CFRA.

The Project would also pass through the viewshed of the Camp Beale Springs site marker and the Camp Beale Loop trail, a historic site with an interpretive trail. The scenic backdrop provides context to the site, although it is not specifically protected as part of the site's eligibility.

E.2.2 West Cerbat Alternatives

The area generally consists of natural-appearing landscapes around the base and up into the Cerbat Foothills, with scattered roads, infrastructure, residences, and commercial facilities south of and within Golden Valley. Features of note within the existing landscape are the dark maroon-purple-brown rocks on the surface of the hills that transition to browns and lighter colors of rock and soil in the valley (**Figures E-7 to E-9**); the visibility of light buff-colored soil in recently disturbed areas (**Figure E-9**); the general lack of tall, vertical, geometric structures near the southwest end of the Cerbat Foothills (**Figures E-7 to E-9**); the general limited visibility of existing power poles and other development when viewing the larger landscape (**Figures E-7 to E-9**); and the generally contiguous pattern of vegetation across much of the foothills and valley (**Figures E-7 to E-9**). Detailed descriptions of existing form, line, color, and texture as seen from KOPs can be found in Section B in the contrast worksheets (**Exhibit E-2**). Additional existing condition photographs can be found in the simulation panels (**Exhibits G-5 to G-30**).

US 66, a National Scenic Byway and All-American Road (FHWA 2019), passes near the south end of the West Cerbat alternatives. The West Cerbat alternatives follow the edge of the CFRA, a sensitive scenic area. Residents and visitors to the area would likely be able to view the Project from local roads, residences, businesses, and a few limited locations within the CFRA.

Figure E-2. Looking north from I-40 south of Kingman.

Figure E-3. Looking southeast from US 93 west of northwest Kingman. Within VRM Class II area.

Figure E-4. Looking east from I-40 (left of fence) and US 66, south of Kingman. Private land.

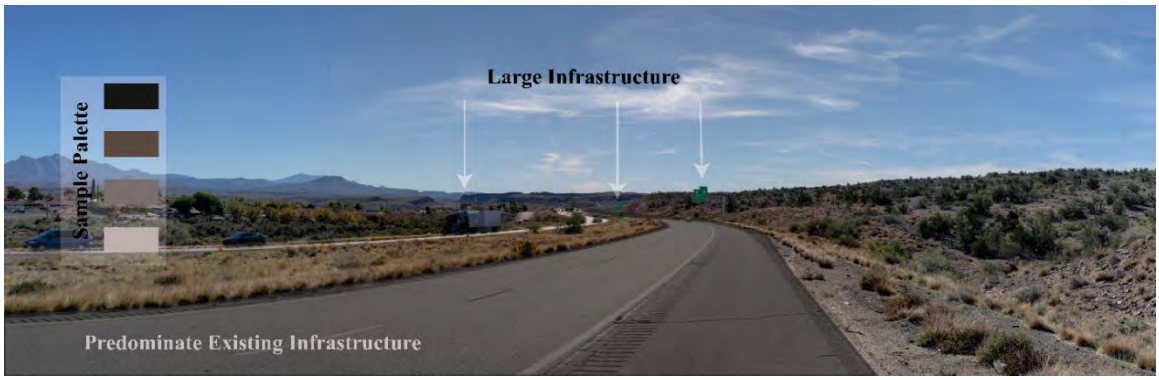

Figure E-5. Looking south along US 40. Kingman is situated east of US 40 (left in picture).

Figure E-6. Looking north along US 66. Kingman is situated north of US 66.

Figure E-7. Looking north along US 40. Kingman is situated north of the picture.

Figure E-8. Looking northeast from private property north of Shinarump Drive.

Figure E-9. Looking east from private road east of Bacobi Road.

Figure E-10. Looking southwest from a non-motorized trail from within the CFRA.

E.2.3 Visual Simulations Methods

Fieldwork was conducted to photograph the existing conditions from various locations throughout the study area. Twenty-six (26) KOPs were selected which best captured the view that could be impacted by construction of the new facilities (**Figure E-10**).

A georeferenced three-dimensional model was created using the preliminary transmission line design, structure locations, types, pole finish, and heights. Structure locations and heights may change from that represented upon final design. Note that only UNSE's standard pole finish, which is self-weathering steel, was simulated and analyzed. The model included the proposed 230 kV transmission lines and poles. The visual simulations were created of the proposed condition to illustrate what the Project may look like to viewers in the study area. Refer to **Exhibit G** for simulations of the proposed facilities.

E.2.4 Visual Assessment Results

The visual resources impact assessment conducted for this Project evaluated the level of visual change, or contrast, that the proposed transmission lines would introduce into each landscape setting in conjunction with effects to associated sensitive viewers. The components of the visual assessment include:

1) Compliance with BLM VRM objectives
2) Dominant visual change in form, line, color, or texture
3) Substantial damage to a scenic resource
4) Substantial effect on a designated scenic vista

The following features of the proposed transmission line would potentially be visible along all alternative routes:

- Dark, self-weathering, 115- to 125-foot monopoles
- Non-specular conductors
- Dull gray insulators and other pole hardware treated with Natina or similar product
- New, permanent, 12-foot-wide access roads and associated cut-and-fill slopes in cross-slope areas
- 100- by 100-foot temporary workspaces, including associated cut-and-fill slopes
- Permanent removal of tall vegetation along the ROW
- Temporary presence of workers and equipment on the ROW

UNSE has indicated that they will incorporate design features intended to reduce the overall visual impact of the Project, including limited disturbance, placement of roads to limit cut and fill, restoration of natural contours to the extent possible, softening of the edges of cleared workspaces by selectively removing vegetation toward the edges and rounding corners, use of non-specular conductors, use of naturally weathering poles, use of self-weathering steel thru plates to allow attachment of the insulator bases to the poles, and use of matte gray insulators.

Visual impacts for both the E1 and E2 East Cerbat alternatives are similar, and both alternatives would result in minor adverse visual effects. These alternatives are generally screened by topography from typical view locations. As illustrated in the simulation for KOP 01 (**Exhibit G-5**), the Project would be visible from US 66, which is designated as a National Scenic Byway and All American Road (FHWA 2019); however, no damage would be done to specifically identified special features. Additionally, no special features within the CFRA or other specific scenic resources would be damaged.

The East Cerbat alternatives would be visible from the historic Camp Beale Springs site marker and Camp Beale Loop trail, which are managed by the City of Kingman (City of Kingman 2014). However, no damage would be done to specifically identified special features such as the historic structures, iconic landforms or vegetation, or historic markers. There are no specifically managed views or setting. The simulation for KOP 06 (**Exhibit G-9**) is representative of the anticipated visual changes that would be visible from the Camp Beale Springs site marker and along the Camp Beale Loop trail. The associated KOP 06 contrast sheet illustrates the anticipated level of contrast.

For the West Cerbat alternatives, the Project would result in minor adverse visual impacts. The West Cerbat alternatives would be located in a generally undeveloped or low-density residential areas with natural-appearing landscape from the point where the line turns north from Shinarump Drive to approximately Shipp Drive, a distance of roughly 5 miles. The use of the self-weathering structures and other measures would reduce contrast levels, allowing structures to somewhat blend into the characteristic landscape; however, poles would be visible at close distances. The structures in general would not be against the skyline, but some of them would be placed on the lower portion of the CFRA. Contrast levels for structures in this area are expected to be moderate at close distances. The placement of access roads would be visible in certain locations; however, most of the roads would follow existing alignments to limit impacts.

For the common alignment portion of the West Cerbat alternatives, the proposed Project would be visible from US 66, which is designated as a National Scenic Byway and All American Road (FHWA 2019); however, no damage would be done to special features viewed from the roadway (refer to KOP 01 in **Exhibit G-5**). Additionally, no special features within the CFRA or other specific scenic resources would be damaged.

Where the East and West Cerbat alternatives share a common alignments along US 93, extending to the transmission lines' terminus at the planned Mineral Park substation, contrast levels would have negligible effects. Replacement of the existing transmission line would be a minor change in the existing infrastructure.

In summary, the CFRA, US 66, and Camp Beale Springs are the primary scenic areas. All Project alternatives pass through the viewshed of these locations. The West Cerbat alternatives would generally have more contrast viewed at a close to moderate distance by more sensitive casual observers for a longer duration. In comparison, the East Cerbat alternatives would generally have less contrast viewed at a variety of distances by less sensitive casual observers for short to moderate durations. The W1 and W2 segments present the greatest potential for contrast, and they would require the greatest amount of resource protection measures (RPMs) to reduce impacts. Regardless of the alternative, the Project would have a minor, adverse, direct or indirect impact on scenic areas. Implementation of RPMs would further reduce impacts. The RPMs agreed to by UNSE include:

- Limited disturbance/vegetation removal and seeding of disturbed surfaces
- Placement of roads to limit cut and fill
- Restoration of natural contours to the extent possible
- Softening of the edges of cleared work spaces by selectively removing vegetation toward the edges and rounding corners
- Use of self-weathering poles unless otherwise specified
- Use of non-specular conductors
- Use of dull gray insulators and other pole hardware treated with Natina or similar product

Visual impacts as a result of Project construction and operation is expected to be minimal and implementation of RPMs would further reduce impacts.

E.3 Historic and Archaeological Sites

E.3.1 Overview

This portion of **Exhibit E** addresses the historic and archaeological sites—otherwise known as cultural resources—in the Project area. Cultural resources are places usually categorized as sites, objects, buildings, structures, or districts that are of archeological, ethnohistorical, historical, architectural, cultural, or scientific importance. Various federal laws and other regulations protect such resources, while others require impacts to such resources to be considered during planning.

Transcon was contracted by UNSE to conduct Class III (Intensive Field Inventory) cultural resources surveys for alternative routes and realignments associated with the proposed Golden Valley 230 kV transmission line and auxiliary facilities located on federal, state, municipal, and private lands in Mohave County, Arizona. The intensive pedestrian survey covered approximately 1,548.48 acres.

Two previous cultural reports documenting cultural resource inventories in 2007 and 2008 have been produced and submitted to the BLM KFO and the ASM for draft review and curation. Because these reports were never finalized and submitted to the Arizona State Historic Preservation Office (SHPO), BLM KFO requested that the results of cultural resource inventories occurring in 2007, 2008, 2017, and 2019 be submitted in a single document. The following survey results include the reporting from all four cultural resource inventories, including alternatives and realignments no longer being considered for the construction of the proposed transmission line and facilities.

The regulations implementing Section 106 of the NHPA (36 C.F.R. § 800) require the definition of the area of potential effect (APE) for any undertaking subject to Section 106 compliance. The regulations further define the APE as the geographic area or areas within which an undertaking may directly or indirectly alter the character or use of historic properties. Ground disturbing activities associated with the construction and maintenance of the proposed transmission line have the potential to affect historic properties; therefore, the APE for direct effects is considered to include all temporary and long-term ROW areas. In addition, all potential alternative alignments are included in the APE for this Project. The APE for this Project includes a 200- to 400-foot corridor around the alignment centerline for the 2007, 2008, and 2017 surveys. The APE for the 2019 survey includes a 200-foot corridor around the alignment centerline and a 100-foot corridor around the proposed access roads.

E.3.2 Existing Conditions

Intensive background research and pedestrian field surveys were conducted for the Project alternatives to determine if cultural resources which could potentially be affected by the are present within the Project area. Important cultural resources may include historic or prehistoric archaeological sites or objects, historically or architecturally significant structures or buildings, or landscapes and traditional cultural properties that are eligible for inclusion in the National Register of Historic Places (NRHP). Section 106 of the NHPA and its implementing regulations (36 CFR Part 800) require federal agencies to account for the effects of their undertakings on historic properties and to give the SHPO and other interested parties the opportunity to comment on such undertakings.

The findings of this survey were detailed in the cultural resources survey report prepared for the Project by Transcon (Tactikos 2019). In summary, a total of 25 sites (12 newly recorded sites and 13 reevaluated/rerecorded sites) were identified within the Project area. **Table E-1** summarizes these sites.

TABLE E-1
ARCHAEOLOGICAL SITES IDENTIFIED WITHIN THE PROJECT AREA

Site No.	Site Type	NRHP Eligibility*	Alternative(s)
AZ F:12:20(ASM)	Trash dump	E	None (in area previously under consideration)
AZ F:12:29(ASM)/ Arizona–Utah Railroad	Railroad	E	All alternatives
AZ F:12:30 (ASM)/ Old Kingman to Chloride Road	Road segment	NE	All alternatives
AZ F:12:31 (ASM)	Telephone line	NE	All alternatives
AZ F:12:63 (ASM)	Trash scatter	NE	All alternatives
AZ F:12:64 (ASM)	Road segment	NE	None (in area previously under consideration)
AZ F:12:105 (ASM)	Road segment	NE	All alternatives
AZ F:16:1/Camp Beale Springs (ASM)	Occupation/military camp/ ranch site	E	Both East Cerbat alternatives
AZ F:16:21	Rock features with artifacts	E	Both East Cerbat alternatives
AZ F:16:33 (ASM)	Multi-component artifact scatter	E	Both East Cerbat alternatives
AZ F:16:36 (ASM)/ US 93	Road/alignment	E	Both East Cerbat alternatives
AZ F:16:37 (ASM)	Road/alignment	E	Both East Cerbat alternatives
AZ F:16:61 (ASM) / NA14462	Train depot/Harris site	E	E2 East Cerbat Alternative
AZ F:16:90 (ASM)	Trash scatter	NE	None (in area previously under consideration)
AZ F:16:91 (ASM)	Trash scatter	NE	None (in area previously under consideration)
AZ F:16:92 (ASM)	Trash scatter	NE	None (in area previously under consideration)
AZ F:16:93 (ASM)	Trash scatter	NE	W2 and W3 West Cerbat alternatives
AZ F:16:94 (ASM)	Mining site	NE	All West Cerbat alternatives
AZ F:16:95 (ASM)	Habitat/mining site	E	Both East Cerbat alternatives
AZ F:16:97 (ASM)	Historic-era trash scatter/ trash dump	NE	None (in area previously under consideration)
AZ F:16:100 (ASM)	Historic-era trash scatter/ trash dump	NE	Both East Cerbat alternatives

TABLE E-1
ARCHAEOLOGICAL SITES IDENTIFIED WITHIN THE PROJECT AREA

Site No.	Site Type	NRHP Eligibility*	Alternative(s)
AZ F:16:101 (ASM)	Ranch complex	E	None (in area previously under consideration)
AZ F:16:120 (ASM)	Trash scatter	NE	All West Cerbat Alternatives
AZ I:14:334 (ASM)	Historic railroad	NE	All alternatives
AZ I:15:156 (ASM) / US 66	Historic road/US 66	NE	All alternatives

*Recommended NRHP Eligibility: E=eligible, NE=not eligible, I=indeterminate.
Eligibility status is the recommendation of the recorder and has not been reviewed by AZ SHPO for concurrence.

In summary, a total of 25 sites (13 newly recorded sites and 12 reevaluated/rerecorded sites) were identified within the Project area. The 12 previously identified sites that were revisited and reevaluated include 4 Historic-period road segments (AZ F:12:30, F:16:36, F:16:37, and I:15:156 [ASM]), 2 Historic-period railroad segments (AZ F:12:29 and I:14:334 [ASM]), 1 Historic-period train depot (AZ F:16:61 [ASM]/NA 12,642 [MNA]), 1 Historic-period trash dump (AZ F:12:20 [ASM]), 1 Historic-period telephone line (AZ F:12:31 [ASM]), 1 Protohistoric/Historic-period rock feature site (AZ F:16:21[ASM]), 1 Historic-period occupation/military camp/ranch site (AZ F:16:1[ASM]), and 1 multi-component artifact scatter (AZ F:16:33[ASM]). Five of the previously identified sites (AZ F:16:33, F:16:36, F:16:37, I:14:334, and I:15:156[ASM]) have been considered eligible by SHPO for listing on the NRHP. Four previously recorded sites have been recommended eligible for listing on the NRHP but have not yet been evaluated by their federal managing agency: AZ F:12:29, F:16:1, F:16:21, and F:16:61(ASM). Three previously recorded sites were recommended ineligible for listing on the NRHP: AZ F:12:20, F:12:30, and F:12:31(ASM).

The 13 newly recorded sites include 6 Historic-period trash scatters (AZ F:12:63, F:16:90, F:16:91, F:16:92, F:16:93, and F:16:120 [ASM]); 2 Historic-period trash dumps (AZ F:16:97 and AZ F:16:100 [ASM]); 2 Historic-period mining sites (AZ F:16:94 and F:16:95 [ASM]); 1 Historic-period ranching complex (AZ F:16:101 [ASM]); and 2 Historic-period road segments (AZ F:12:64 [ASM]) and JCT-1). Two of the newly recorded sites have been recommended eligible for listing on the NRHP: AZ F:16:95 and F:16:101(ASM). The remainder of the newly recorded sites were recommended ineligible for listing on the NRHP.

It is important to note that 7 (2 eligible sites and 5 ineligible sites) of the 25 total identified sites are associated with portions of the Project area that are no longer being considered for the Project.

In addition to the 25 sites, 184 isolated occurrences were found during pedestrian surveys; these are isolated finds consisting of one or very few artifacts. Only 11 of these isolated occurrences were prehistoric.

E.3.3 Potential Project Effects

The survey results include the reporting from all four cultural resource inventories, including alternatives and realignments no longer being considered for the construction of the proposed transmission line and facilities. A total of 25 previously and newly recorded sites were identified during surveys, although 7 sites are associated with portions of the proposed Project that have since been eliminated or rerouted. The

remaining 18 sites were evaluated for their eligibility to be listed on the NRHP, and the resulting evaluations and treatment recommendations are presented below (**Table E-2**).

TABLE E-2
IMPACTS/RESOURCE PROTECTION MEASURES FOR
ARCHAEOLOGICAL SITES IDENTIFIED WITHIN THE PROJECT AREA

Site No.	Alternative(s)	Impacts and Proposed Protection Measures
AZ F:12:29 (ASM)/ Arizona–Utah Railroad	All East and West Cerbat alternatives	It is recommended that the site be avoided by all ground disturbing activities. If avoidance is not possible, a Historic Properties Treatment Plan to minimize and/or mitigate adverse effects should be developed and implemented.
AZ F:12:30 (ASM)/Old Kingman to Chloride Road	All East and West Cerbat alternatives	This site is recommended as not eligible for inclusion on the NRHP. Therefore, no mitigation is recommended at this time.
AZ F:12:31 (ASM)	All East and West Cerbat alternatives	This site is recommended as not eligible for inclusion on the NRHP. Therefore, no mitigation is recommended at this time.
AZ F:12:63 (ASM)	All East and West Cerbat alternatives	This site is recommended as not eligible for inclusion on the NRHP. Therefore, no mitigation is recommended at this time.
AZ F:12:105 (ASM)	All East and West Cerbat alternatives	This site is recommended as not eligible for inclusion on the NRHP. Therefore, no mitigation is recommended at this time.
AZ F:16:1/Camp Beale Springs (ASM)	E1 and E2 alternatives	This site is recommended to be avoided. If avoidance is not possible, and to ensure that the site is not directly affected by construction efforts, proposed protection efforts include locating new pole structures outside of the site boundaries by spanning the site to avoid any disturbance to cultural material. No ground disturbing activities should occur within the site boundaries. Furthermore, only rubber-tired vehicles should be permitted to travel through the site within the ROW corridor. If the site cannot be spanned, the development and implementation of a test and data recovery plan will be necessary.
AZ F:16:21	E1 and E2 alternatives	It is recommended that the disturbed portion of the site within the Project area is eligible but not contributing to the site's eligibility; therefore, no historic properties will be affected by this undertaking and no further work is needed.

TABLE E-2
IMPACTS/RESOURCE PROTECTION MEASURES FOR
ARCHAEOLOGICAL SITES IDENTIFIED WITHIN THE PROJECT AREA

Site No.	Alternative(s)	Impacts and Proposed Protection Measures
AZ F:16:33 (ASM) Kingman-Mineral Park Road	E1 and E2 alternatives	It is recommended that the aspects of the site that contribute to its eligibility should be avoided by all ground disturbing activities associated with the proposed transmission line. If avoidance is not possible, and to ensure that the site is not directly affected by construction efforts, proposed protection efforts include locating new pole structures outside of the site boundaries by spanning the site to avoid any disturbance to cultural material. Prior to the beginning of construction activities, the site boundaries would need to be flagged by an archaeologist. Monitoring by an archaeologist is recommended to ensure that construction activities avoid cultural resources associated with the site. Furthermore, only rubber-tired vehicles under dry conditions should be permitted to travel through the site within the ROW corridor.
AZ F:16:36 (ASM)/US 93	E1 and E2 alternatives	This alignment has already been disturbed by an access road in at least one location. In order to avoid further damage to the site at these locations and to ensure that the site is not directly affected by construction efforts, aspects of the site that contribute to its potential eligibility will need to be avoided. If avoidance is not possible, proposed protection efforts include locating new pole structures outside of the site boundaries by spanning the site to avoid any disturbance to cultural material. In addition, the site boundaries would need to be flagged by an archaeologist. Monitoring by an archaeologist is recommended to ensure that construction activities avoid cultural resources associated with the site. Furthermore, only rubber-tired vehicles under dry conditions should be permitted to travel through the site within the ROW corridor.
AZ F:16:37 (ASM)	E1 and E2 alternatives	This alignment has already been disturbed by an access road in at least one location. In order to avoid further damage to the site at these locations and to ensure that the site is not directly affected by construction efforts, aspects of the site that contribute to its eligibility will need to be avoided. If avoidance is not possible, proposed protection efforts include locating new pole structures outside of the site boundaries by spanning the site to avoid any disturbance to cultural material. In addition, the site boundaries would need to be flagged by an archaeologist. Monitoring by an archaeologist is recommended to ensure that construction activities avoid cultural resources associated with the site. Furthermore, only rubber-tired vehicles under dry conditions should be permitted to travel through the site within the ROW corridor.
AZ F:16:61 (ASM)/ NA14462	E1 and E2 alternatives	It is recommended that the site be avoided. If avoidance is not possible, and to ensure that the site is not directly affected by construction efforts, proposed protection efforts include locating new pole structures outside of the site boundaries by spanning the site to avoid any disturbance to cultural material. No ground disturbing activities should occur within the site boundaries. Furthermore, only rubber-tired vehicles should be permitted to travel through the site within the ROW corridor. If the site cannot be spanned, the development and implementation of a test and data recovery plan will be necessary.
AZ F:16:93 (ASM)	W2 and W3 alternatives	This site is recommended as not eligible for inclusion on the NRHP. Therefore, no mitigation is recommended at this time.

TABLE E-2
IMPACTS/RESOURCE PROTECTION MEASURES FOR
ARCHAEOLOGICAL SITES IDENTIFIED WITHIN THE PROJECT AREA

Site No.	Alternative(s)	Impacts and Proposed Protection Measures
AZ F:16:94 (ASM)	W1, W2, W3, and W4 alternatives	This site is recommended as not eligible for inclusion on the NRHP. Therefore, no mitigation is recommended at this time.
AZ F:16:95 (ASM)	E1 and E2 alternatives	It is recommended that the site be avoided. If avoidance is not possible, and to ensure that the site is not directly affected by construction efforts, proposed protection efforts would include full avoidance of the Historic-era site during construction-related activities. The site would require flagging by an archaeologist along the northern site boundary to keep construction equipment from impacting the northernmost features. New poles should be easily located outside of the site boundaries.
AZ F:16:100 (ASM)	E1 and E2 alternatives	This site is recommended as not eligible for inclusion on the NRHP. Therefore, no mitigation is recommended at this time.
AZ F:16:120 (ASM)	W1, W2, W3, and W4 alternatives	This site is recommended as not eligible for inclusion on the NRHP. Therefore, no mitigation is recommended at this time.
AZ I:14:334 (ASM)	All East and West Cerbat alternatives	This site is recommended as not eligible for inclusion on the NRHP, and Transcon recommends no further preservation treatment is necessary.
AZ I:15:156 (ASM)	All East and West Cerbat alternatives	In order to avoid any damage to the site at these locations and to ensure that the site is not directly affected by construction efforts, aspects of the site that contribute to its eligibility will need to be avoided. Project construction activities that would not affect the location or function/design of elements of the site would be evaluated as having no adverse effect. If such activities affected any related roadway features (such as culverts, headwalls, and perhaps, cuts and fills), they would be documented with photographs and a tabular summary of their physical attributes. These procedures will expeditiously "clear" many routine maintenance and minor upgrades. Proposed Project activities that would affect the location or function/design of an element of the site would result in determinations of adverse effect, and Section 106 procedures for addressing such effects would need to be followed. If avoidance is not possible, proposed resource protection efforts include locating new pole structures outside of the site boundaries by spanning the site to avoid any disturbance to cultural material. In addition, the site boundaries would need to be flagged by an archaeologist. Monitoring by an archaeologist is recommended to ensure that construction activities avoid cultural resources associated with the site.

None of the proposed Project alternatives are expected to have direct effects to historic properties if NRHP-eligible sites are avoided or recommended RPMs are employed. Indirect effects could result from implementation of all Project alternatives due to increased pedestrian and vehicular use of the area where newly developed access is created. The increase of vehicles driving over and through the sites may cause damages to surface features, including the crushing and destruction of diagnostic artifacts. These indirect effects may also include the collecting or redistribution of artifacts and vandalism to features by pedestrians visiting the sites. Additionally, there is a chance that undiscovered sites could be encountered during Project activities. If cultural remains or human burials are identified during construction, excavation at that location must cease and the appropriate land agency archaeologist must be contacted.

Six of the previously recorded sites have been considered eligible by SHPO for listing on the NRHP. These include F:16:33, F:16:36, F:16:37, I:14:334, and I:15:156(ASM). One of the newly recorded sites has been recommended eligible for listing on the NRHP: AZ F:16:95. Although this site has not yet been evaluated by federal managing agencies, it is to be treated as a historic property and avoided. If avoidance is not possible, then the proposed treatment described in **Table E-2** should be considered to minimize and/or mitigate adverse effects should be developed and implemented. The remainder of the newly recorded sites were recommended ineligible for listing on the NRHP. No further archaeological work is recommended for these sites.

None of the 184 identified isolated occurrences are eligible for listing on the NRHP, and no further archaeological work is needed for them.

E.4 Exhibit E References

City of Kingman. 2014. City of Kingman, General Plan Update 2030. City of Kingman Planning and Zoning Department, Kingman, Arizona. http://www.cityofkingman.gov/Portals/0/docs/cok/depts/pz/gp2030.pdf. Accessed January 2017.

Federal Highway Administration (FHWA). 2019. Scenic Byways. https://www.fhwa.dot.gov/byways./ Accessed November 2019.

Tactikos, Joanne. 2019. Class III Cultural Resources Surveys: A Compilation of Three Class III Cultural Resources Reports for the UNSE Golden Valley 230 kV Transmission Line Project, Mohave County, Arizona. Transcon Environmental, Inc. On file with the Bureau of Land Management Kingman Field Office and the Arizona State Land Department.

EXHIBIT E-1

VISUAL CONTRAST RATING WORKSHEETS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/8/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 01
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 35
5. Location Sketch: See Appendix VRM Map Panels for KOP 01

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat in foreground with irregular formed ledges and amorphous hills	Short indistinct to tall spherical	Geometric, blocky, tall narrow
LINE	Horizontal, irregular, wavy	Irregular	Vertical, horizontal, angular, irregular
COLOR	Tan, cream, dark brown	Light yellow, a range of greens, blues	Full range of colors
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow structures along the ridge-line
LINE	Same	Same	Same with new additional vertical lines along the ridge-line
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project as seen from this location is on private land and would come from the right side of the photo in the middleground, cross the highway, and be slightly behind and near the top of the hills on the left. The poles would not attract the attention of the casual observer under most circumstances due to the developed nature of the area, the existing infrastructure, the use of dark weathered poles, and the inferior view angle.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 02
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 35
5. Location Sketch: See Appendix VRM Map Panels for KOP 02

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, and trapezoidal shaped road cuts	Short indistinct to medium indistinct	Geometric, blocky, tall narrow, recalinear
LINE	Horizontal, irregular, wavy	Irregular	Vertical, horizontal, angular, irregular, curvilinear road
COLOR	Tan, cream, dark brown	Light yellow, a range of greens, blues	White, gray, brown, green, blue
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, smooth, scattered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same, with additional tall narrow structures along the ridge-line
LINE	Same	Same	Same, with new additional vertical lines along the ridge-line
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project as seen from this location is on private land and would be on the right side of the highway near the top and just behind the hills on the right of the photo. The poles would not attract the attention of the casual observer under most circumstances due to the developed nature of the roadway, the existing infrastructure, the use of dark weathered poles, and the inferior view angle.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 03
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 23
5. Location Sketch: See Appendix VRM Map Panels for KOP 03

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, and trapezoidal shaped road cuts	Short indistinct	Geometric, tall narrow, rectilinear
LINE	Irregular, wavy	Irregular	Vertical, horizontal, angular, irregular, curvilinear road and guard rail
COLOR	Tan, cream, dark brown, gray	Light yellow, a range of greens, blues	White, gray, brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, scattered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same, with additional tall narrow structures along the ridgeline
LINE	Same	Same	Same, with new additional vertical lines along the ridgeline and faintly visible curved conductor lines between poles
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project as seen from this location is on private land and would be on the left side and parallel to the freeway. The poles would not attract the attention of the casual observer under most circumstances due to the developed nature of the roadway, the existing infrastructure, the use of dark weathered poles, and the inferior view angle.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 04
3. VRM Class: II
4. Location: Township 21 N; Range 17 W; Section 21
5. Location Sketch: See KOP Map for KOP 04

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills	Short indistinct	Geometric, tall narrow in the distance
LINE	Irregular, horizontal dipping down to the north	Irregular	Vertical, horizontal
COLOR	Tan, cream, dark brown, gray	Light yellow, a range of greens, gray	White, gray, brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, scattered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same, with a few more pronounced structures in the distance
LINE	Same	Same	Same, with a few more pronounced vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class II near the middle of the photo where a lighter color horizontal shape is. The poles would not attract the attention of the casual observer under most circumstances due to the distance, association with the roadway, the existing infrastructure, and the use of dark weathered poles, therefore meeting the VRM II objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
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VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 05
3. VRM Class: II
4. Location: Township 21 N; Range 17 W; Section 16
5. Location Sketch: See KOP Map for KOP 05

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, hard edged road cuts	Short indistinct	Geometric, tall narrow, curved cylinders for conductors
LINE	Irregular, jumbled	Irregular	Vertical, horizontal, curved conductors
COLOR	Tan, cream, pinkish-red, dark brown, gray	Light yellow, a range of greens, gray	Dark brown, white, gray, sliver, light brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, scattered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same, with a few more pronounced structures in the foreground
LINE	Same	Same	Same
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x			x	
	Line				x				x				x
	Color				x				x				x
	Texture				x				x				x

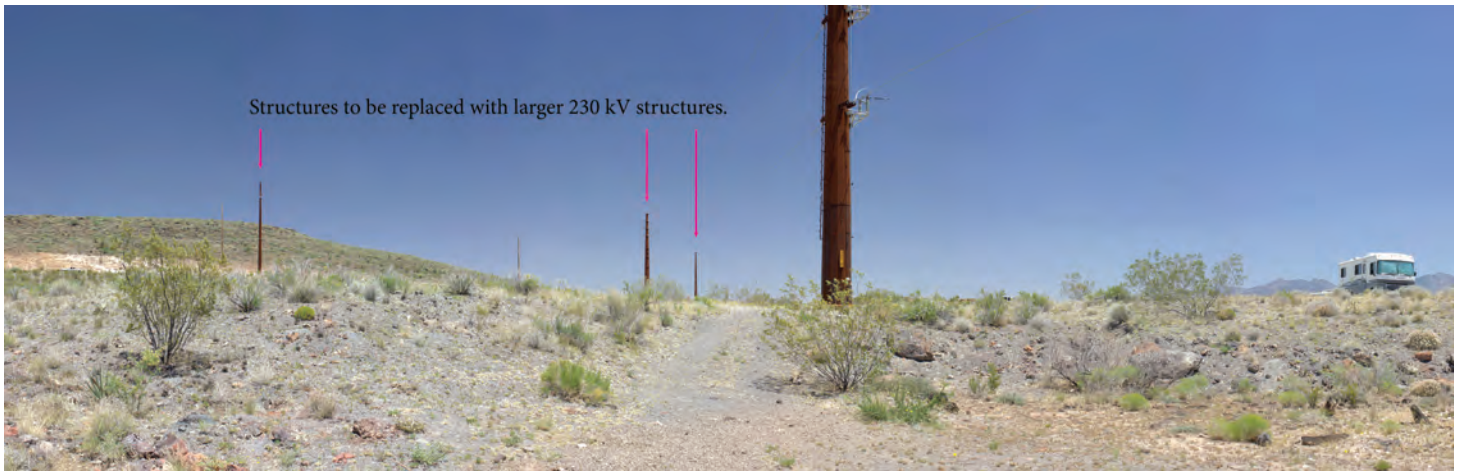
2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo



SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class II where indicated on the photo above. The poles would not attract the attention of the casual observer any more than the existing poles that would be replaced under most circumstances due to the development surrounding the roadway, the existing infrastructure, and the use of dark weathered poles, therefore meeting the VRM II objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
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VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 06
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 15
5. Location Sketch: See Appendix VRM Map Panels for KOP 06

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, hard edged road cuts	Short indistinct	Geometric, tall narrow, curved cylinders for conductors
LINE	Irregular, jumbled, horizontal dipping to the north	Irregular	Vertical, horizontal, curved conductors
COLOR	Tan, cream, pinkish-red, dark brown, light brown, gray	Light yellow, a range of greens, gray	Dark brown, white, gray, sliver, light brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, ordered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with a few more pronounced structures in the foreground
LINE	Same	Same	Similar with potentially more pronounced and taller vertical lines in the foreground
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x			x	
	Line				x				x			x	
	Color				x				x				x
	Texture				x				x				x

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project as seen from this location is on private land and would generally replace the existing line. The land managed by the City of Kingman is cooperatively managed for the non-monitiorized Cerbat Foothills Recreation Area Trail System. The poles would not attract the attention of the casual observer under most circumstances due to the developed nature of the roadway, the existing infrastructure, the use of dark weathered poles, avoiding use of reflective material, and the replacement of existing poles with the new poles. It is currently unknown wherethe communication line, currently attached to the existing poles, will be sited by the communication line company when the current poles are removed, therefore, the impacts of the new communication line are not analyzed here.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
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VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 07
3. VRM Class: II
4. Location: Township 21 N; Range 17 W; Section 16
5. Location Sketch: See Appendix VRM Map Panels for KOP 07

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, hard edged road cuts	Short indistinct	Geometric, tall narrow, curved cylinders for conductors
LINE	Irregular, jumbled, horizontal dipping to the north	Irregular	Vertical, horizontal, curved conductors
COLOR	Tan, cream, pinkish-red, dark brown, light brown, gray	Light yellow, yellow, a range of greens, gray	Dark brown, white, gray, sliver, light brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, ordered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with slightly increased complexity of additional conductors
LINE	Same	Same	Same with additional lines associated with additional conductors, and more and more pronounced vertical lines.
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class II on the right side of the highway in the same general location of the existing line. The poles would not likely attract the attention of the casual observer any more than the existing poles that would be replaced under most circumstances due to the development surrounding the roadway, the existing infrastructure, and the use of dark weathered poles. In addition to the replacement of the 69kV poles, UNSE would place new wood distribution poles parallel to the current route and they would top the poles on the north side of the highway that have the distribution line. The combination of larger but fewer transmission line poles, addition of wood distribution poles, and reduction in the size of the communication line poles would likely increase the level of contrast over the current condition, however it would not likely attract the attention of the casual observer more that the current condition therefore meeting the VRM II objectives.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures
VIS-08 Monitor disturbed soil and cut and fill slopes and apply Bureau of Land Management (BLM)-approved soil colorants where soil color does not match existing conditions
VIS-09 Seeding and/or reclamation of access roads
VIS-10 Overland travel with no blading of road or workspaces with limited vegetation removal at structures
VIS-11 Use of powder coat poles with BLM-approved standard environmental color selected by the BLM
VIS-12 Use non-reflective metals where possible and color buildings to meet BLM terms and conditions from the standard environmental color chart
VIS-13 Submit site specific plan and receive pre-approval of any pulling and tensioning sites for each site within VRM Class II areas.

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VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 09 East Cerbat Alternative
3. VRM Class: II
4. Location: Township 21 N; Range 17 W; Section 08
5. Location Sketch: See Appendix VRM Map Panels for KOP 09 East Cerbat Alternative

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, hard edged road cuts	Short indistinct	Geometric, tall narrow, curved road forms, blocky
LINE	Irregular ledges, jumbled, horizontal	Irregular	Vertical, horizontal, curved roads
COLOR	Tan, cream, pinkish-red, dark brown, light brown, gray	Light yellow, yellow, a range of greens, gray	Dark brown, white, gray, sliver, light brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with a few more pronounced structures in the distance
LINE	Same	Same	Same with a few more pronounced vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same with additional small interruptions in more uniform places for permanent roads	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x			x	
	Line				x				x			x	
	Color				x				x				x
	Texture				x			x					x

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class II with three structures on the far left in the distance and a single structure on the left side and in the middle of the photo. The poles would not attract the attention of the casual observer under most circumstances due to the distance from the KOP, the development surrounding the roadway, the existing infrastructure, and the implementation of the mitigation measures therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures
VIS-08 Monitor disturbed soil and cut and fill slopes and apply Bureau of Land Management (BLM)-approved soil colorants where soil color does not match existing conditions
VIS-09 Seeding and/or reclamation of access roads
VIS-10 Overland travel with no blading of road or workspaces with limited vegetation removal at structures
VIS-11 Use of powder coat poles with BLM-approved standard environmental color selected by the BLM
VIS-12 Use non-reflective metals where possible and color buildings to meet BLM terms and conditions from the standard environmental color chart
VIS-13 Submit site specific plan and receive pre-approval of any pulling and tensioning sites for each site within VRM Class II areas.

UNITED STATES
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BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 09 East Cerbat Alternative
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 08
5. Location Sketch: See Appendix VRM Map Panels for KOP 09 East Cerbat Alternative

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, hard edged road cuts	Short indistinct	Geometric, tall narrow, curved road forms, blocky
LINE	Irregular ledges, jumbled, horizontal	Irregular	Vertical, horizontal, curved roads
COLOR	Tan, cream, pinkish-red, dark brown, light brown, gray	Light yellow, yellow, a range of greens, gray	Dark brown, white, gray, sliver, light brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with a few more pronounced structures in the distance
LINE	Same	Same	Same with a few more pronounced vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same with additional small interruptions in more uniform places for permanent roads	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X			X					X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV on the left and in the middle of the photo. The poles would not attract the attention of the casual observer under most circumstances due to the distance from the KOP, the development surrounding the roadway, the existing infrastructure, and the use of dark weathered poles, therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 09 West Cerbat Alternative
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 08
5. Location Sketch: See Appendix VRM Map Panels for KOP 09 West Cerbat Alternative

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, hard edged road cuts	Short indistinct	Geometric, tall narrow, curved road forms, blocky
LINE	Irregular ledges, jumbled, horizontal	Irregular	Vertical, horizontal, curved roads
COLOR	Tan, cream, pinkish-red, dark brown, light brown, gray	Light yellow, yellow, a range of greens, gray	Dark brown, white, gray, sliver, light brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with a few more pronounced structures in the distance
LINE	Same	Same	Same with a few more pronounced vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same with additional small interruptions in more uniform places for permanent roads	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x			x	
	Line				x				x			x	
	Color				x				x				x
	Texture				x			x					x

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV near the middle of the photo. The poles would not attract the attention of the casual observer under most circumstances due to the development in the area, the existing infrastructure, and the use of dark weathered poles, therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 10
3. VRM Class: IV
4. Location: Township 20 N; Range 17 W; Section 08
5. Location Sketch: See KOP Map for KOP 10

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, flat	Short indistinct	Geometric, tall narrow, curved road forms, blocky, complex
LINE	Irregular ledges, jumbled, horizontal, undulating	Irregular	Vertical, horizontal, curved roads, rectalinar
COLOR	Tan, cream, pinkish-red, dark brown, light brown, gray	Light yellow, yellow, a range of greens, gray	Full range of colors
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with a few more pronounced structures in the middleground
LINE	Same	Same	Same with a few more pronounced vertical lines in the middleground
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV on the far left side of the photo. The project would not attract the attention of the casual observer under most circumstances due to the development in the area, the existing infrastructure, and the use of dark weathered poles, therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 11 W1 and W2
3. VRM Class: II
4. Location: Township 20 N; Range 18 W; Section 01
5. Location Sketch: See Appendix VRM Map Panels for KOP 11 W2

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous mounding hills	Short flat	Geometric, tall narrow, blocky
LINE	Horizontal, jumbled, irregular	Horizontal, regular	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown	Greens, light yellow, gray, light blue	White, tan, dark brown, blue, silver, gray
TEXTURE	Smooth to medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with a few additional vertical cylindrical forms barely visible
LINE	Same	Same	Same with a few more pronounced vertical lines barely visible
COLOR	Same with a little more lighter color soil exposed barely visible where new roads/work spaces will be	Same	Same
TEXTURE	Same	Same with a few more breaks barely visible where new roads/ work spaces will be	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color			X					X				X
	Texture				X			X					X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class II visible over the top of the light blue building in the middle of the photo and a little to the right and left. The project would not attract the attention of the casual observer under most circumstances due to the distance from the KOP, development in the area, the existing infrastructure, and the implementation of mitigation measures outlined below, therefore meeting the VRM II objective.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures
VIS-08 Monitor disturbed soil and cut and fill slopes and apply Bureau of Land Management (BLM)-approved soil colorants where soil color does not match existing conditions
VIS-09 Seeding and/or reclamation of access roads
VIS-10 Overland travel with no blading of road or workspaces with limited vegetation removal at structures 58 and 67
VIS-11 Use of powder coat poles with BLM-approved standard environmental color selected by the BLM
VIS-12 Use non-reflective metals where possible and color buildings to meet BLM terms and conditions from the standard environmental color chart
VIS-13 Submit site specific plan and receive pre-approval of any pulling and tensioning sites for each site within VRM Class II areas.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 11 W1 and W2
3. VRM Class: IV
4. Location: Township 20 N; Range 18 W; Section 01
5. Location Sketch: See Appendix VRM Map Panels for KOP 11 W2

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous mounding hills	Short flat	Geometric, tall narrow, blocky
LINE	Horizontal, jumbled, irregular	Horizontal, regular	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown	Greens, light yellow, gray, light blue	White, tan, dark brown, blue, silver, gray
TEXTURE	Smooth to medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with many additional vertical cylindrical forms visible in the middleground to background
LINE	Same	Same	Same with a many more pronounced vertical lines visible in the middleground
COLOR	Same with a little more lighter color soil exposed barely visible where new roads/work spaces will be	Same	Same
TEXTURE	Same	Same with many more breaks barely visible where new roads /work spaces will be	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color			X					X				X
	Texture				X			X					X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV around the base of the hills minus a small VRM II area visible just over the light blue building. The project would not dominate the view of the casual observer due to the distance from the KOP development in the area, the existing infrastructure, and the use of dark weathered poles, therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 11 W3
3. VRM Class: IV
4. Location: Township 20 N; Range 18 W; Section 01
5. Location Sketch: See Appendix VRM Map Panels for KOP 11 W3

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous mounding hills	Short flat	Geometric, tall narrow, blocky
LINE	Horizontal, jumbled, irregular	Horizontal, regular	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown	Greens, light yellow, gray, light blue	White, tan, dark brown, blue, silver, gray
TEXTURE	Smooth to medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with a many additional vertical cylindrical forms in the middleground
LINE	Same	Same	Same with a many more pronounced vertical lines in the middleground
COLOR	Same	Same	Same with more dark brown
TEXTURE	Same	Same	Same with more ordered elements

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x		x		
	Line				x				x		x		
	Color				x				x			x	
	Texture				x				x			x	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV across the middle of the photo above. The project may attract the attention of the casual observer but would not dominate under most circumstances due to the development in the area, the existing infrastructure, and the use of dark weathered poles, therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 11 W4
3. VRM Class: IV
4. Location: Township 20 N; Range 18 W; Section 01
5. Location Sketch: See Appendix VRM Map Panels for KOP 11 W4

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous mounding hills, conical	Short flat	Geometric, blocky, complex
LINE	Horizontal, jumbled, irregular	Horizontal, regular	Vertical, horizontal, rectilinear, sweeping curves of conductors
COLOR	Tan, cream, dark brown, light brown	Greens, light yellow, gray	White, tan, brown, blue, silver, gray
TEXTURE	Smooth to medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Introduction of vertical cylindrical forms in the foreground-middleground
LINE	Same	Same	Introduction of pronounced vertical lines in the foreground-middleground
COLOR	Same	Same	Introduction of dark brown into the foreground-middleground
TEXTURE	Same	Same	Same with more ordered elements

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X		X		
	Line				X				X		X		
	Color				X				X			X	
	Texture				X				X			X	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV to the left of the photo above. Where the project would be visible in the photo above it is on private land. The project may dominate the view of the casual observer in some circumstances however, efforts have been made to repeat form, line, color, and texture as well as to reduce contrast. By reducing contrast the proposed changes will meet VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 12 W1 and W2
3. VRM Class: II
4. Location: Township 21 N; Range 18 W; Section 36
5. Location Sketch: See KOP Map for KOP 12

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous mounding hills, conical	Short	Geometric, blocky, complex, tall narrow
LINE	Horizontal, jumbled, irregular	Horizontal, regular	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown, gray	Greens, light yellow, gray	White, tan, brown, green, orange, silver, gray dark brown
TEXTURE	Smooth to random medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow cylindrical vertical forms
LINE	Same	Same	Same with additional vertical lines
COLOR	Same with a little more lighter color soil exposed barely visible where new roads/work spaces will be	Same	Same
TEXTURE	Same	Same with many more breaks barely visible where new roads /work spaces will be	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x			x	
	Line				x				x			x	
	Color			x					x				x
	Texture				x			x					x

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class II on the left side of the highway in two small locations at the base of the hills. The project is so far away from the KOP that it would be difficult for the casual observer to notice the project, In addition, the recommended mitigation measures below would further reduce noticeably, therefore meeting the VRM II objectives.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures
VIS-08 Monitor disturbed soil and cut and fill slopes and apply Bureau of Land Management (BLM)-approved soil colorants where soil color does not match existing conditions
VIS-09 Seeding and/or reclamation of access roads
VIS-10 Overland travel with no blading of road or workspaces with limited vegetation removal at structures
VIS-11 Use of powder coat poles with BLM-approved standard environmental color selected by the BLM
VIS-12 Use non-reflective metals where possible and color buildings to meet BLM terms and conditions from the standard environmental color chart
VIS-13 Submit site specific plan and receive pre-approval of any pulling and tensioning sites for each site within VRM Class II areas.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 12 All West Cerbat Alternatives
3. VRM Class: IV
4. Location: Township 21 N; Range 18 W; Section 36
5. Location Sketch: See KOP Map for KOP 12

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous mounding hills, conical	Short	Geometric, blocky, complex, tall narrow
LINE	Horizontal, jumbled, irregular	Horizontal, regular	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown, gray	Greens, light yellow, gray	White, tan, brown, green, orange, silver, gray dark brown
TEXTURE	Smooth to random medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow cylindrical vertical forms
LINE	Same	Same	Same with additional vertical lines
COLOR	Same with a little more lighter color soil exposed barely visible where new roads/work spaces will be	Same	Same
TEXTURE	Same	Same with many more breaks barely visible where new roads /work spaces will be	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color			X					X				X
	Texture				X			X					X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV near the base of hills on the left side of the highway and W3 and W4 would cross the highway to the right side about that same distance from this KOP. The project may be noticeable to the casual observer in some circumstances however, the project is a long way from this point and efforts have been made to repeat form, line, color, and texture and reduce contrast through mitigation, therefore meeting the VRM IV objective.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 13 W1 and W2
3. VRM Class: II
4. Location: Township 21 N; Range 17 W; Section 31
5. Location Sketch: See Appendix VRM Map Panels for KOP 13 W2

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous mounding hills	Short	Geometric, blocky, complex, tall narrow
LINE	Horizontal, jumbled, irregular	Horizontal, regular	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown	Greens, light yellow, gray	White, tan, brown, green, silver, gray dark brown
TEXTURE	Smooth to random medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow cylindrical vertical forms
LINE	Same	Same	Same with additional vertical lines
COLOR	Same with additional lighter color soil exposed as a result of roads and workspaces	Same	Same
TEXTURE	Same	Same with additional breaks for new roads and workspaces	Same with more ordered elements

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color			X					X				X
	Texture				X			X				X	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class II on BLM land near the center of the photo (Three structures for W2 and six structures for W1) The project may attract the attention of the casual observer without mitigation. With the implementation of the mitigation measures below, the project would not attract the attention of the casual observer under most circumstances, therefore meeting the VRM Class II objective.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures
VIS-08 Monitor disturbed soil and cut and fill slopes and apply Bureau of Land Management (BLM)-approved soil colorants where soil color does not match existing conditions
VIS-09 Seeding and/or reclamation of access roads
VIS-10 Overland travel with no blading of road or workspaces with limited vegetation removal at structures
VIS-11 Use of powder coat poles with BLM-approved standard environmental color selected by the BLM
VIS-12 Use non-reflective metals where possible and color buildings to meet BLM terms and conditions from the standard environmental color chart
VIS-13 Submit site specific plan and receive pre-approval of any pulling and tensioning sites for each site within VRM Class II areas.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 13 W1 and W2
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 31
5. Location Sketch: See Appendix VRM Map Panels for KOP 13 W2

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous mounding hills	Short	Geometric, blocky, complex, tall narrow
LINE	Horizontal, jumbled, irregular	Horizontal, regular	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown	Greens, light yellow, gray	White, tan, brown, green, silver, gray dark brown
TEXTURE	Smooth to random medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow cylindrical vertical forms
LINE	Same	Same	Same with additional vertical lines
COLOR	Same with additional lighter color soil exposed as a result of roads and workspaces	Same	Same
TEXTURE	Same	Same with additional breaks for new roads and workspaces	Same with more ordered elements

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color			X					X				X
	Texture				X			X				X	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV on BLM to the left and right of center. The project would not dominate the view for the casual observer under most circumstances due to the distance, development in the area, the existing infrastructure, and the use of dark weathered poles, therefore meeting the VRM Class IV objective.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 13 W3
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 31
5. Location Sketch: See Appendix VRM Map Panels for KOP 13 W3

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous, conical	Short, flat, clumped	Geometric, blocky, complex, tall narrow
LINE	Horizontal, irregular	Horizontal regular, jumbled	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown	Greens, light yellow, gray	White, tan, brown, green, silver, gray dark brown
TEXTURE	Smooth to medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow conical vertical forms
LINE	Same	Same	Same with additional vertical lines
COLOR	Same	Same	Same with additional dark brown
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x			x	
	Line				x				x			x	
	Color				x				x			x	
	Texture				x				x				x

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV across the middle of the photo above.. The project may dominate the view of the casual observer in some circumstances however, efforts have been made to repeat form, line, color, and texture and reduce contrast through mitigation, therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 13 W4
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 31
5. Location Sketch: See Appendix VRM Map Panels for KOP 13 W4

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous, conical	Short flat, clumped	Geometric, blocky, complex, tall narrow
LINE	Horizontal, irregular	Horizontal regular, jumbled	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown	Greens, light yellow, gray	White, tan, brown, green, silver, gray dark brown
TEXTURE	Smooth to medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow cylindrical vertical forms in the distance
LINE	Same	Same	Same with additional vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x			x	
	Line				x				x			x	
	Color				x				x				x
	Texture				x				x				x

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV across the middle of the photo and in the distance near the other structures visible in the photo. The project may be visible but would not dominate the view of the casual observer due to the distance and association with exiting development and utilities, therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 14 W1 and W2
3. VRM Class: II
4. Location: Township 21 N; Range 17 W; Section 31
5. Location Sketch: See KOP Map for KOP 14

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous, conical	Short flat	Geometric, blocky, complex, tall narrow
LINE	Horizontal, jumbled, irregular	Horizontal, jumbled	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown, gray	Greens, gray	White, tan, brown, silver, gray dark brown
TEXTURE	Medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Introduction of additional tall narrow conical vertical forms
LINE	Same	Same	Introduction of additional vertical lines
COLOR	Same with more visibility of lighter soil where there are new roads	Same	Introduction of additional dark brown
TEXTURE	Same	Same with more visibility of breaks where new roads will be	Introduction of more ordered elements

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color			X					X			X	
	Texture				X			X				X	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class II visible above and to the left of the car in the photo for alternatives W1 and W2. The project may attract the attention of the casual observer without mitigation. With the implementation of the mitigation measures below the project would not attract the attention of the casual observer under most circumstances therefore meeting the VRM II objective.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures
VIS-08 Monitor disturbed soil and cut and fill slopes and apply Bureau of Land Management (BLM)-approved soil colorants where soil color does not match existing conditions
VIS-09 Seeding and/or reclamation of access roads
VIS-10 Overland travel with no blading of road or workspaces with limited vegetation removal at structures
VIS-11 Use of powder coat poles with BLM-approved standard environmental color selected by the BLM
VIS-12 Use non-reflective metals where possible and color buildings to meet BLM terms and conditions from the standard environmental color chart
VIS-13 Submit site specific plan and receive pre-approval of any pulling and tensioning sites for each site within VRM Class II areas.

UNITED STATES
DEPARTMENT OF THE INTERIOR
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VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 14 All West Cerbat Alternatives
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 31
5. Location Sketch: See KOP Map for KOP 14

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous, conical	Short flat	Geometric, blocky, complex, tall narrow
LINE	Horizontal, jumbled, irregular	Horizontal, jumbled	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown, gray	Greens, gray	White, tan, brown, silver, gray dark brown
TEXTURE	Medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Introduction of additional tall narrow conical vertical forms all West Cerbat alternatives
LINE	Same	Same	Introduction of additional vertical lines on all West Cerbat alternatives
COLOR	Same with more visibility of lighter soil on W2 where there are new roads	Same	Introduction of additional dark brown on all West Cerbat alternatives
TEXTURE	Same	Same with more visibility of breaks on W2 where new roads will be	Introduction of more ordered elements on all West Cerbat alternatives

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X		X		
	Line				X				X		X		
	Color			X					X			X	
	Texture				X			X			X		

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV on BLM land to varying degrees for each alternative. The project may be visible but would repeate form, line, color, and texture and would not dominate the view of the casual observer therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
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VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 15 W1 and W2
3. VRM Class: II
4. Location: Township 21 N; Range 17 W; Section 31
5. Location Sketch: See Appendix VRM Map Panels for KOP 15 W2

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rolling, amorphous, conical	Short	Geometric, blocky, complex, tall narrow
LINE	Curving, jumbled, irregular	Indistinct	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown, gray	Greens, gray	White, tan, brown, silver, gray, dark brown
TEXTURE	Medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Introduction of additional tall narrow conical vertical forms
LINE	Same	Same	Same with additional vertical lines
COLOR	Same	Same	Same
TEXTURE	Same	Same	Introduction of more ordered elements

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x			x	
	Line				x				x			x	
	Color				x				x				x
	Texture				x				x			x	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

All poles and disturbance for W2 in VRM Class II would be screened by the hill on the right side of the photo as viewed from this KOP. Two or three poles and disturbance for W1 may be visible to the right of the area in the photo above. It may attract the attention of the casual observer without mitigation. With the implementation of the mitigation measures below, the project would not attract the attention of the casual observer under most circumstances.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures
VIS-08 Monitor disturbed soil and cut and fill slopes and apply Bureau of Land Management (BLM)-approved soil colorants where soil color does not match existing conditions
VIS-09 Seeding and/or reclamation of access roads
VIS-10 Overland travel with no blading of road or workspaces with limited vegetation removal at structures
VIS-11 Use of powder coat poles with BLM-approved standard environmental color selected by the BLM
VIS-12 Use non-reflective metals where possible and color buildings to meet BLM terms and conditions from the standard environmental color chart
VIS-13 Submit site specific plan and receive pre-approval of any pulling and tensioning sites for each site within VRM Class II areas.

UNITED STATES
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VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 15 W1 and W2
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 31
5. Location Sketch: See Appendix VRM Map Panels for KOP 15 W2

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rolling, amorphous, conical	Short	Geometric, blocky, complex, tall narrow
LINE	Curving, jumbled, irregular	Indistinct	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown, gray	Greens, gray	White, tan, brown, silver, gray, dark brown
TEXTURE	Medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Introduction of additional tall narrow conical vertical forms
LINE	Same	Same	Same with additional vertical lines
COLOR	Same	Same	Same
TEXTURE	Same	Same	Introduction of more ordered elements

SECTION D. CONTRAST RATING

SHORT TERM **LONG TERM** X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X		X		
	Line				X				X		X		
	Color				X				X				X
	Texture				X				X			X	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV to the right of the photo and from the middle of the photo to the left and off of the photo. The project may be visible but would not dominate the view of the casual observer due to portions of the project being hidden by topography and association with exiting development and utilities, therefore meeting the VRM Class IV objectives.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
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VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 15 W3 and W4
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 31
5. Location Sketch: See Appendix VRM Map Panels for KOP 15 W3 and W4

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous, conical	Short flat	Geometric, blocky, complex, tall narrow
LINE	Irregular	Horizontal regular, jumbled	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown, gray	Greens, light yellow, gray	White, tan, brown, silver, gray, dark brown
TEXTURE	Medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same
LINE	Same	Same	Same
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X				X
	Line				X				X				X
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV on the left third of the video and in the middle vertically. The project may be visible but would not dominate the view of the casual observer due to the distance and association with exiting development and utilities, therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 16 All West Cerbat Alternatives
3. VRM Class: II
4. Location: Township 21 N; Range 18 W; Section 26
5. Location Sketch: See Appendix VRM Map Panels for KOP 16 All West Cerbat Sub Alternatives

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous	Short flat	Geometric, blocky, complex, tall
LINE	Horizontal, irregular	Horizontal regular	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown, gray	Greens, light yellow, gray	White, tan, brown, silver, gray dark brown
TEXTURE	Smooth, random	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Introduction of additional tall narrow cylindrical vertical forms in the distance
LINE	Same	Same	Introduction of additional vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Introduction of additional ordered elements in the distance

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X			X	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

Three structures on the West Common Alternative would pass through VRM Class II in the area around the left third of the photo and above the green near the base of the hills. The project would not attract the attention of the casual observer due to the distance therefore meeting the VRM Class II objective.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 16 All West Cerbat Alternatives
3. VRM Class: IV
4. Location: Township 21 N; Range 18 W; Section 26
5. Location Sketch: See Appendix VRM Map Panels for KOP 16 All West Cerbat Sub Alternatives

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous	Short flat	Geometric, blocky, complex, tall
LINE	Horizontal, irregular	Horizontal regular	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown, gray	Greens, light yellow, gray	White, tan, brown, silver, gray dark brown
TEXTURE	Smooth, random	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Introduction of additional tall narrow cylindrical vertical forms in the distance
LINE	Same	Same	Introduction of additional vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Introduction of additional ordered elements in the distance

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X			X	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV along the base of the hills. The project may be visible but would not dominate the view of the casual observer due to the distance and dark pole color therefore meeting the VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 17 W1 and W2
3. VRM Class: II
4. Location: Township 21 N; Range 17 W; Section 29
5. Location Sketch: See Appendix VRM Map Panels for KOP 17 W2

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Concave, amorphous, flat	Short, indistinct	Geometric, blocky, tall narrow barely visible in the distance
LINE	Concave, irregular	Irregular	Vertical, horizontal, rectilinear barely visible in the distance
COLOR	Tan, cream, dark brown, light brown, gray	Greens, light yellow, gray	White, tan, brown, silver, gray dark brown barely visible in the distance
TEXTURE	Random, medium rough, smooth	Medium uniform with breaks	Random, ordered, clumped in the distance

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Introduction of more visible tall narrow cylindrical vertical forms
LINE	Same	Same	Introduction of more visible vertical lines
COLOR	Introduction of additional light colored soil from access roads	Same	Same
TEXTURE	Same	Introduction of additional breaks from access roads	Introduction of more visible ordered elements

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color			X					X				X
	Texture				X			X				X	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class II near the small hill in the middle and bottom third of the photo (Three structures for W2 and six structures for W1). The project may attract the attention of the casual observer under some circumstances without mitigation. The project would meet VRM IV objectives under most circumstances with the implementation of the mitigation measures below.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures
VIS-08 Monitor disturbed soil and cut and fill slopes and apply Bureau of Land Management (BLM)-approved soil colorants where soil color does not match existing conditions
VIS-09 Seeding and/or reclamation of access roads
VIS-10 Overland travel with no blading of road or workspaces with limited vegetation removal at structures
VIS-11 Use of powder coat poles with BLM-approved standard environmental color selected by the BLM
VIS-12 Use non-reflective metals where possible and color buildings to meet BLM terms and conditions from the standard environmental color chart
VIS-13 Submit site specific plan and receive pre-approval of any pulling and tensioning sites for each site within VRM Class II areas.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 17 W1 and W2
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 29
5. Location Sketch: See Appendix VRM Map Panels for KOP 17 W2

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Concave, amorphous, flat	Short, indistinct	Geometric, blocky, tall narrow barely visible in the distance
LINE	Concave, irregular	Irregular	Vertical, horizontal, rectilinear barely visible in the distance
COLOR	Tan, cream, dark brown, light brown, gray	Greens, light yellow, gray	White, tan, brown, silver, gray dark brown barely visible in the distance
TEXTURE	Random, medium rough, smooth	Medium uniform with breaks	Random, ordered, clumped in the distance

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Introduction of more visible tall narrow cylindrical vertical forms
LINE	Same	Same	Introduction of more visible vertical lines
COLOR	Introduction of additional light colored soil from access roads	Same	Same
TEXTURE	Same	Introduction of additional breaks from access roads	Introduction of more visible ordered elements

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color			X					X				X
	Texture				X			X				X	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV in the bottom third of the photo minus the area around the small hill where it is VRM II. The project would not dominate the view of the casual observer and general attempts to repeat form, line, color, and texture where possible. The project would meet VRM IV objectives.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 10/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 17 W3 and W4
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 29
5. Location Sketch: See Appendix VRM Map Panels for KOP 17 W3 and W4

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Concave, amorphous, flat	Short, indistinct	Geometric, blocky, tall narrow barely visible in the distance
LINE	Concave, irregular	Irregular	Vertical, horizontal, rectilinear barely visible in the distance
COLOR	Tan, cream, dark brown, light brown, gray	Greens, light yellow, gray	White, tan, brown, silver, gray dark brown barely visible in the distance
TEXTURE	Random, medium rough, smooth	Medium uniform with breaks	Random, ordered, clumped in the distance

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same
LINE	Same	Same	Same
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X				X
	Line				X				X				X
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV out on the valley floor. The project is not likely to attract the attention of the casual observer due to the distance, use of dark poles, and association with other development. The project would meet VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 18
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 29
5. Location Sketch: See Appendix VRM Map Panels for KOP 18

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Concave, amophous, flat	Short, indistinct	Geometric, blocky, tall narrow barely visible in the distance
LINE	Concave, irregular	Irregular	Vertical, horizontal, rectilinear barely visible in the distance
COLOR	Tan, cream, dark brown, light brown, gray	Greens, light yellow, gray	White, tan, brown, silver, gray dark brown barely visible in the distance
TEXTURE	Smooth, random, medium rough	Medium uniform with breaks	Random, clumped barely visible in the distance

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow cylindrical vertical forms barely visible in the distance
LINE	Same	Same	Same with additional vertical lines barely visible in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Introduction of faintly visible ordered elements

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x			x	
	Line				x				x			x	
	Color				x				x				x
	Texture				x				x			x	

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV near the base of the hills at the bottom of the drainage. The project is not likely to attract the attention of the casual observer due to the distance and the use of dark poles. The project would meet VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 19
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 20
5. Location Sketch: See KOP Map for KOP 19

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Concave, amorphous, flat	Short, indistinct	Geometric, blocky, tall narrow barely visible in the distance
LINE	Concave, irregular	Irregular	Vertical, horizontal, rectilinear barely visible in the distance
COLOR	Tan, cream, dark brown, light brown	Greens, yellow, orange, gray	White, tan, brown, silver, gray dark brown barely visible in the distance
TEXTURE	Smooth to random medium, rough	Medium uniform with breaks	Random, clumped in the distance

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow cylindrical vertical forms barely visible in the distance
LINE	Same	Same	Same with additional vertical lines barely visible in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM X

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV near the base of the hill at the bottom of the drainage. The project is not likely to attract the attention of the casual observer due to the distance, association with development, and the use of dark poles. The project would meet VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 20
3. VRM Class: II
4. Location: Township 21 N; Range 18 W; Section 13
5. Location Sketch: See Appendix VRM Map Panels for KOP 20

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous	Short flat, Indistinct	Geometric, blocky, tall narrow
LINE	Horizontal, irregular	Horizontal regular, jumbled	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown	Greens, yellow, gray	White, tan, brown, silver, green, dark brown
TEXTURE	Smooth, random medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow cylindrical vertical forms in the distance
LINE	Same	Same	Same with additional vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class II. Two structures on the right side of the photo. The project would not attract the attention of the casual observer under most circumstances due to the distance, development in the area, and the existing infrastructure therefore meeting the VRM Class II objectives.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures
VIS-08 Monitor disturbed soil and cut and fill slopes and apply Bureau of Land Management (BLM)-approved soil colorants where soil color does not match existing conditions
VIS-09 Seeding and/or reclamation of access roads
VIS-10 Overland travel with no blading of road or workspaces with limited vegetation removal at structures
VIS-11 Use of powder coat poles with BLM-approved standard environmental color selected by the BLM
VIS-12 Use non-reflective metals where possible and color buildings to meet BLM terms and conditions from the standard environmental color chart
VIS-13 Submit site specific plan and receive pre-approval of any pulling and tensioning sites for each site within VRM Class II areas.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 20
3. VRM Class: IV
4. Location: Township 21 N; Range 18 W; Section 13
5. Location Sketch: See Appendix VRM Map Panels for KOP 20

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat, amorphous	Short flat, Indistinct	Geometric, blocky, tall narrow
LINE	Horizontal, irregular	Horizontal regular, jumbled	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown	Greens, yellow, gray	White, tan, brown, silver, green, dark brown
TEXTURE	Smooth, random medium	Medium uniform with breaks	Random, ordered, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow cylindrical vertical forms in the distance
LINE	Same	Same	Same with additional vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV along the base of the hills with the exception of two poles on the right side of the photo. The project would dominate the view of the casual observer under most circumstances due to the distance, development in the area, the existing infrastructure, and the use of dark weathered poles, therefore meeting the VRM Class IV objectives.

3. Additional mitigating measures recommended? Yes No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/4/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 21
3. VRM Class: IV
4. Location: Township 21 N; Range 17 W; Section 7
5. Location Sketch: See Appendix VRM Map Panels for KOP 21

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rolling, amorphous	Indistinct	Geometric, blocky, tall narrow
LINE	Wavy, irregular	Irregular	Vertical, horizontal, rectilinear
COLOR	Tan, cream, dark brown, light brown, gray	Greens, yellow, gray	White, tan, brown, silver, gray dark brown
TEXTURE	Smooth, random medium	Scattered	Random, clumped, ordered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow cylindrical vertical forms
LINE	Same	Same	Same with additional vertical lines
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Osmer Beck
Dates: 04/12/2017

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point would pass through VRM Class IV across the right two thirds of the photo and in the upper half vertically. The project may attract the attention of the casual observer but would not dominate due to the association with development and the use of dark poles. The project would meet VRM IV objectives.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

Form 8400-4

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: Aug 27, 2019

District/ Field Office: Kingman FO

Resource Area: Cerbat Mountains

Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name	4. Location	5. Location Sketch
Golden Valley 230kV Substation		See attached photos.
2. Key Observation Point KOP 22	Lat: 35.32802	
3. VRM Class IV	Long: -114.2098	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Low, rolling hills consistent with basin-type desert to rugged mountainous woodland forests.	Dotted through the valleys and hills.	Rectangular and mostly geometric as a result of roads, powerlines, water tank, substations and urban developments in the distance.
LINE	Horizontal and broken with vertical lines as elevation increases. Strong curvilinear features from Mineral Park Mine and county landfill.	Mostly inconsistent with exception of strong horizontal lines along washes.	Strong vertical, horizontal, and circular lines.
COLOR	Dark browns to light tans to whites creating stark contrast along characteristic landscape.	Greens, browns and grays.	Browns, whites, greens, galvanized grays.
TEX-TURE	Smooth and grainy.	Consistently course with instances of smoothness.	Smooth.

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	More rectangular shapes as a result of substation development.	Slightly more regular lines.	Increased rectangular elements in foreground.
LINE	Stronger horizontal lines.	No change.	Increased horizontal and vertical lines in foreground.
COLOR	No change.	No change.	More galvanized grays and some reflective fixtures.
TEX-TURE	No change.	No change.	More smooth textures in foreground.

SECTION D. CONTRAST RATING ☐ SHORT TERM ☑ LONG TERM

1. DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM	☐	☑	☐	☐	☐	☑	☐	☐	☐	☐	☑	☐
	LINE	☐	☑	☐	☐	☐	☐	☑	☐	☐	☐	☑	☐
	COLOR	☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	☐
	TEXTURE	☐	☐	☑	☐	☐	☐	☑	☐	☐	☐	☑	☐

2. Does project design meet visual resource management objectives?
☑ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended
☑ Yes ☐ No (Explain on reverse side)

Evaluator's Names — Date

Matthew Driscoll — Aug 27, 2019

SECTION D. (Continued)

Comments from item 2.

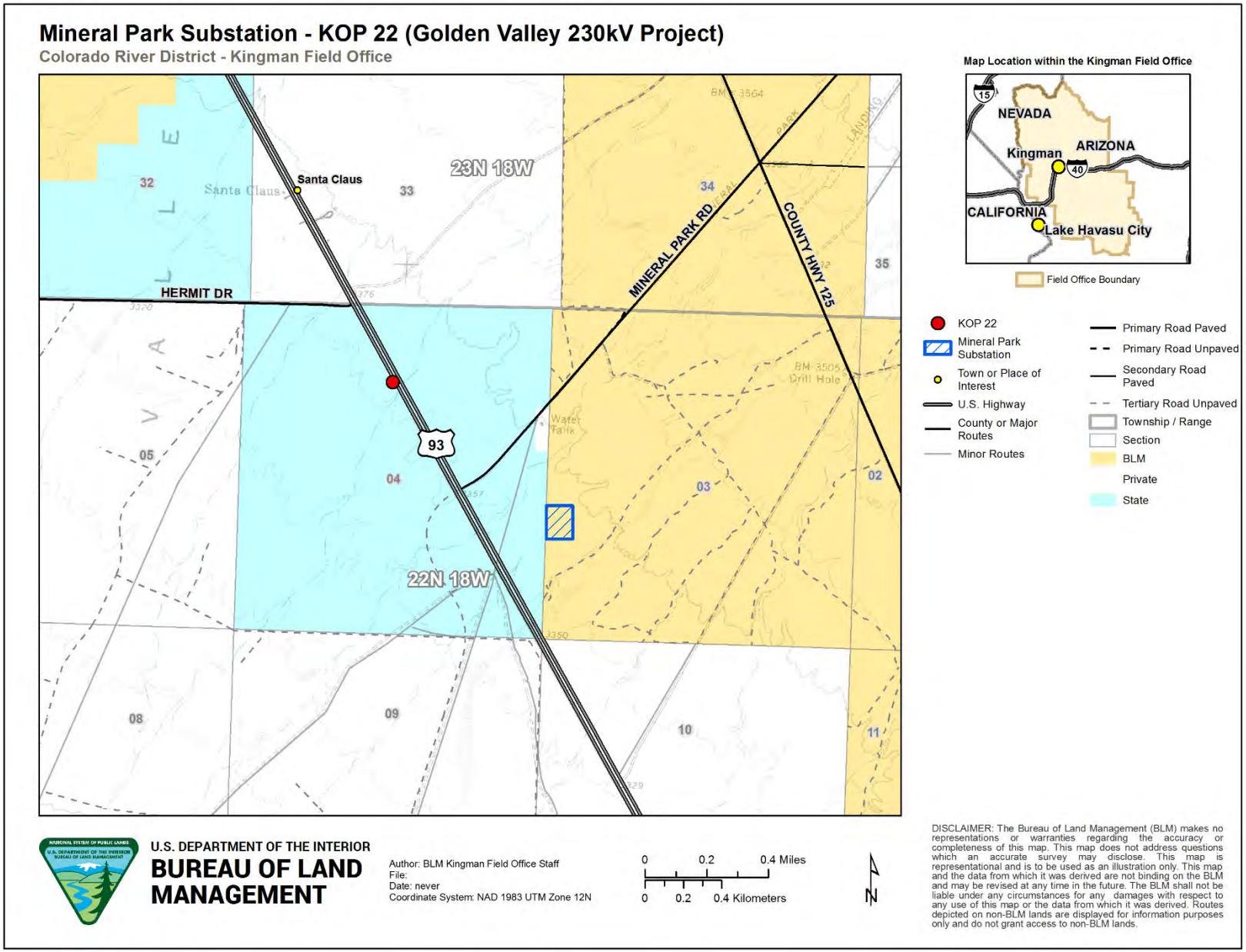
The area exists in a highly modified utility/transportation corridor. The addition of a substation does not substantially change that.

Additional Mitigating Measures (See item 3)

VIS-12 Use non-refective metals where possible and color buildings to meet BLM terms and conditions from the standard environmental color chart.

Form 8400-4

Map of Project Area



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 11/19/2018
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 33
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 35
5. Location Sketch: See KOP Map for KOP 33

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Rounded forms, clumped, with vertical elements indistinct	Low, indistinct, not much of own form	Geometric, narrow
LINE	Dominant irregular lines, occasional	Indistinct, sporadic	Scattered vertical lines, curvilinear, horizontal
COLOR	Tan, creams, browns, and earthy greenish , reddish, and yellowish browns	Greens to blue grays	Browns, grays
TEXTURE	Medium texture, irregular, with random components	Stipulated, low, somewhat regular pattern	Irregular, random

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with additional tall narrow structures along the ridge-line
LINE	Same	Same	Same with new additional vertical lines along the ridge-line and with additional lines associated with conductors
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Karyn Kerdolff
Dates: 12/05/2018

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project as seen from this location is on private land and would cross from the dark hill on the left to the hill on the right. The poles would not attract the attention of the casual observer under most circumstances due to the developed nature of the area, the existing infrastructure, the use of dark weathered poles, and the inferior view angle.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 12/04/2018
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 34
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 26
5. Location Sketch: See Appendix VRM Map Panels for KOP 34

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, and trapezoidal shaped road cuts	Short indistinct to medium indistinct	Geometric, linear, rectilinear, blocky
LINE	Horizontal, irregular, wavy	Irregular	Vertical, horizontal, angular, irregular, curvilinear road
COLOR	Tan, cream, dark brown	Light yellow, a range of greens, blues and grays	White, gray, brown, green, blue
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, smooth, scattered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same, with additional tall narrow structures along the ridge-line
LINE	Same	Same	Same, with new additional vertical lines along the ridge-line
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				x				x			x	
	Line				x				x			x	
	Color				x				x				x
	Texture				x				x				x

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Karyn Kerdolff
Dates: 12/05/2018

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project as seen from this location is on private land and would be near the top and just behind the hill top on the right side of the highway. The poles would not attract the attention of the casual observer under most circumstances due to the developed nature of the area, the existing infrastructure, the use of dark weathered poles, and the inferior view angle.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 12/05/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 35
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 14
5. Location Sketch: See KOP Map for KOP 35

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, irregular roads cuts	Short indistinct to medium indistinct	Geometric, tall narrow, rectilinear, blocky
LINE	Irregular, wavy, horizontal	Irregular	Vertical, horizontal, angular, irregular, curvilinear road and guard rail
COLOR	Tan, cream, dark brown, gray	Light yellow, a range of greens, blues and grays	White, gray, brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same, with additional tall narrow structures along the ridgeline
LINE	Same	Same	Same, with new additional vertical lines along the ridgeline and faintly visible curved conductor lines between poles
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Karyn Kerdolff
Dates: 12/05/2018

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project as seen from this location is on private land and would be in the distance on each side of the freeway on the left of the photo. The poles would not attract the attention of the casual observer under most circumstances due to the developed nature of the area, the existing infrastructure, the use of dark weathered poles, and the inferior view angle.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 12/05/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 36
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 14
5. Location Sketch: See Appendix VRM Map Panels for KOP 36

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills	Short indistinct to medium indistinct	Geometric, tall narrow, rectilinear, blocky
LINE	Irregular, wavy, horizontal	Irregular	Vertical, horizontal, angular, irregular, curvilinear road and guard rail
COLOR	Tan, cream, dark brown, gray	Light yellow, a range of blue-greens, and gray	White, gray, brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, clumped

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same, with a few more pronounced structures in the distance
LINE	Same	Same	Same, with a few more pronounced vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Karyn Kerdolff
Dates: 12/05/2018

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project as seen from this location is on private land and would be on both sides of the freeway in the middle of the photo. The poles would not attract the attention of the casual observer under most circumstances due to the developed nature of the area, the existing infrastructure, the use of dark weathered poles, and the inferior view angle.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 12/05/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 37
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 26
5. Location Sketch: See KOP Map for KOP 37

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, large, shear road cuts that form verticle slabs	Short indistinct	Geometric, tall narrow, rectilinear, blocky
LINE	Irregular, jumbled	Irregular, sporadic	Vertical, horizontal, irregular, curvilinear road and guard rail
COLOR	Tan, cream, dark brown, gray	Light yellow, a range of blue-greens, and gray	Dark Brown, gray, sliver, light brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, scattered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same, with a few more pronounced structures in the background
LINE	Same	Same	Same, with a few more pronounced vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Karyn Kerdolff
Dates: 12/05/2018

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project visible from this point is on private land on top of the road cut on the right side of the highway. The poles would not attract the attention of the casual observer due to the development surrounding the roadway, the existing infrastructure, the steep road cuts, and the use of dark weathered poles.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 12/05/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 38
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 26
5. Location Sketch: See KOP Map for KOP 38

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, hard edged road cuts	Short indistinct	Geometric, tall narrow, rectilinear
LINE	Irregular, jumbled, horizontal	Irregular	Vertical, horizontal, curvilinear road and guard rail
COLOR	Tan, cream, dark brown, light brown, gray	Light yellow, a range of blue-greens, and gray	Dark Brown, white, gray, sliver, light brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Ordered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with a few more pronounced structures in the background
LINE	Same	Same	Same, with a few more pronounced vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Karyn Kerdolff
Dates: 12/05/2018

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project as seen from this location is on private land near the middle of the photo. The poles would not attract the attention of the casual observer under most circumstances due to the developed nature of the roadway, the existing infrastructure, the use of dark weathered poles, and the inferior view angle.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAEMENTT

VISUAL CONTRAST RATING WORKSHEET

Date: 6/3/2016
District: Colorado River District
Resource Area: Kingman Field Office
Activity (program): Lands & Realty

SECTION A. PROJECT INFORMATION

1. Project Name: U17-04 Golden Valley 230kV Transmission Line
2. Key Observation Point: KOP 39
3. VRM Class: NA Private Land
4. Location: Township 21 N; Range 17 W; Section 23
5. Location Sketch: See KOP Map for KOP 39

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Irregular formed ledges, amorphous hills, irregular roads cuts	Short indistinct	Geometric, tall narrow, rectilinear, blocky
LINE	Irregular, jumbled, horizontal	Irregular	Vertical, horizontal, curvilinear road and guard rail
COLOR	Tan, cream, dark brown, light brown, gray	Light yellow, a range of blue-greens, and gray	Dark brown, white, gray, sliver, light brown
TEXTURE	Random rough to smooth	Medium clumped in places and fine uniform in places	Random, ordered

SECTION C. PROPOSED ACTIVITIY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with a few more pronounced structures in the foreground
LINE	Same	Same	Same with additional lines associated with additional conductors and a few more pronounced vertical lines in the distance
COLOR	Same	Same	Same
TEXTURE	Same	Same	Same

SECTION D. CONTRAST RATING

SHORT TERM LONG TERM x

DEGREE OF CONTRAST		FEATURES: LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		Strong	Moderate	Weak	None	Strong	Moderate	Weak	None	Strong	Moderate	Weak	None
ELEMENTS	Form				X				X			X	
	Line				X				X			X	
	Color				X				X				X
	Texture				X				X				X

2. Does project design meet visual resource management objectives? [Yes] No (Explain on reverse side)

3. Additional mitigating measures recommended? [Yes] No (Explain on reverse side)

Evaluators' Names: Karyn Kerdolff
Dates: 12/05/2018

SECTION B. CONTINUATION

Characteristic Landscape Photo

SECTION D. CONTINUATION

2. Does project design meet visual resource management objectives? [Yes] No

The project as project as viewed from this location is on private land on the left side and parallel to the freeway. The poles would not attract the attention of the casual observer under most circumstances due to the developed nature of the roadway, the existing infrastructure, the use of dark weathered poles, and the inferior view angle.

3. Additional mitigating measures recommended? [Yes] No

VIS-01-07 Project-wide Resource Protection Measures

F. EXHIBIT F—RECREATIONAL PURPOSES AND ASPECTS

As stated in Arizona Administrative Code R14-3-219:

> *State the extent, if any, the proposed site or route will be available to the public for recreational purposes, consistent with safety considerations and regulations, and attach any plans the applicant may have concerning the development of the recreational aspects of the proposed site or route.*

Parks, recreation, and preservation uses include areas, sites, or facilities used for recreational purposes or formally designated by a governmental agency for conservation or protection purposes. Such areas within the Project study area are depicted on **Figure F-1** and include the CFRA, Camp Beale Springs, Locomotive Park, Charles Metcalfe Park, Hubbs Neighborhood Park, and the Grandview Public Pool. A description of each area along with potential Project effects is provided below.

F.1 Regional and Community Parks

F.1.1 Cerbat Foothills Recreation Area

The CFRA is the largest park located within the Project area. Jointly managed by the City of Kingman and BLM, the CFRA is designated as an 11,300-acre Special Recreation Management Area under the Kingman RMP (BLM 1993). The area consists of federal, state, county, and city land. Recreational opportunities in the CFRA include hiking, mountain biking, equestrian activities, and a variety of other dispersed recreational activities.

The CFRA has over 38 miles of non-motorized trails that receive year-round use from hikers, mountain bikers, and equestrian users. Visitation to the area has been documented using visitor sign-in boxes located strategically throughout the area and then recording that documented use in the Recreation Management Information System, a national BLM database. Since 2006, non-motorized annual visitation to the CFRA averages approximately 3,307 visits per year, while dispersed visitation (visitors participating in indirectly managed activities such as general recreational use) accounts for an average of about 1,407 visits per year.

F.1.2 Camp Beale Springs

Camp Beale Springs, a NRHP-eligible historic property, is located within the CFRA and owned by the City of Kingman. It lies just southeast of a small segment of the common portion of East Cerbat alternatives that are proposed to be built on the east side of US 93. There are two historical markers memorializing the significance of this area as an outpost during the Hualapai War and later as a place of temporary resettlement for the Hualapai people. There are trails and picnic tables as well.

F.2 Local Parks and Recreation

F.2.1 City of Kingman

The City of Kingman operates public parks and recreation areas within the Project area. These public spaces provide Kingman residents and visitors with natural spaces within the city for picnicking, swimming, and other outdoor activities. As described above, the City of Kingman owns a portion of land with the CFRA and is the site of Camp Beale Springs.

Other parks and recreation areas with the City of Kingman are as follows:

- Locomotive Park is located at 310 West Beale and 1st Street. It is a 7-acre park which displays an historic steam engine and caboose and has a sitting bench
- Charles Metcalfe Park is located at 315 West Beale and Grandview. It is a 4-acre park with a picnic area and grills, a playground, stage area, and restrooms
- Hubbs Neighborhood Park is located at 421 Golconda and 4th Street. It is a 2-acre park with a picnic area and grills, a playground, basketball court, horseshoe pit, picnic shelter, and historic "Hubbs Home"
- Grandview Public Pool is located at Grandview and 324 Gold Street. It is a 3-acre park with a 25-meter swimming pool, wading pool, mini-slide, and restrooms

F.3 Potential Project Effects

F.3.1 Cerbat Foothills Recreation Area

Both sets of alternatives (East and West alternatives) pass within the CFRA. The East Cerbat alternatives cross the CFRA as the alignment parallels US 93 within a BLM-designated utility corridor. The West Cerbat alternatives extend along BLM-administered land just within the westernmost boundary of the CFRA. There is an existing 69 kV transmission line within the CFRA boundary. This 69 kV line would be replaced by the proposed 230 kV transmission line.

Four trailheads occur within 0.5 mile of the East Cerbat alternatives; none occur near the West Cerbat alternatives. Metwell Drive Trailhead is located about 0.5 mile north of the I-40 interchange in Kingman on the southwest side of US 93. Camp Beale Trailhead is located about 1.5 miles north of the I-40 interchange in Kingman on the north side of US 93. Coyote Pass Trailhead is located 1.5 miles north of Metwell Drive Trailhead on the southwest side of US 93 Badger Trailhead is located on the northeast side of the US 93 and SR-68 interchange. These trailheads are the four most accessible access points for approximately 38 miles of trails within the study area, including the Monolith Gardens, Foothills Rim, Rattler, Sidewinder, Camp Beale Loop, Badger, and Castle Rock trails.

Impacts to recreation within the CFRA will vary depending upon the alternative selected. The East Cerbat alternatives will have short-term impacts on recreational use of the CFRA during Project construction. These alternatives will both pass near to the Metwell and Coyote Pass trailheads and access could be temporarily disrupted during certain construction activities. During construction of the 230 kV power line located adjacent to the Metwell and Coyote Pass trailheads, construction crews will be working at each trailhead for an estimated time of twelve (12) days, and recreational access to the trailheads will be limited during that time. There will also be short-term impacts to the recreation experience (e.g., potential displacement of users) because of the elevated activity and noise levels associated with construction. These impacts will lessen as users move further into the park.

Once built, the East Cerbat alternatives will be expected to result in long-term, but minor, impacts to recreation users of the CFRA. While these two alternatives extend through the most frequented area of the CFRA, they cross trails, are close to two trailheads, and are located across the highway from a third trailhead. The alignment of the alternatives is within a BLM-designated utility corridor which already has

a UNSE 69 kV transmission line constructed on similar compositional structures. Thus, while visitors participating in activities such as hiking, mountain biking, and equestrian riding will be affected by more prominent views of the new transmission line, the views will be similar to that which currently exists, just more pronounced. Additionally, this utility corridor also contains US 93, which is a busy highway. Thus, users are accustomed to the setting of a built environment near the trailheads and traffic noise associated with being near US 93. Views of the transmission line will dissipate as users travel further from the trailhead and deeper into the park.

Long-term impacts resulting from implementation of the West Cerbat alternatives will include creating a new transmission line corridor and access road within with CFRA where none currently exists. The resulting effects will have minor, long-term, adverse impacts to the CFRA because the road and utility corridor development will change a portion of the CFRA that currently has characteristics of undeveloped open space. Negative impacts to the CFRA will be minimized because the transmission line and access road will be built along the western edge of the CFRA and will not fragment the park. This corridor will conflict with the utility corridor designation through the CFRA outlined in the BLM Kingman RMP.

F.3.2 Camp Beale Springs

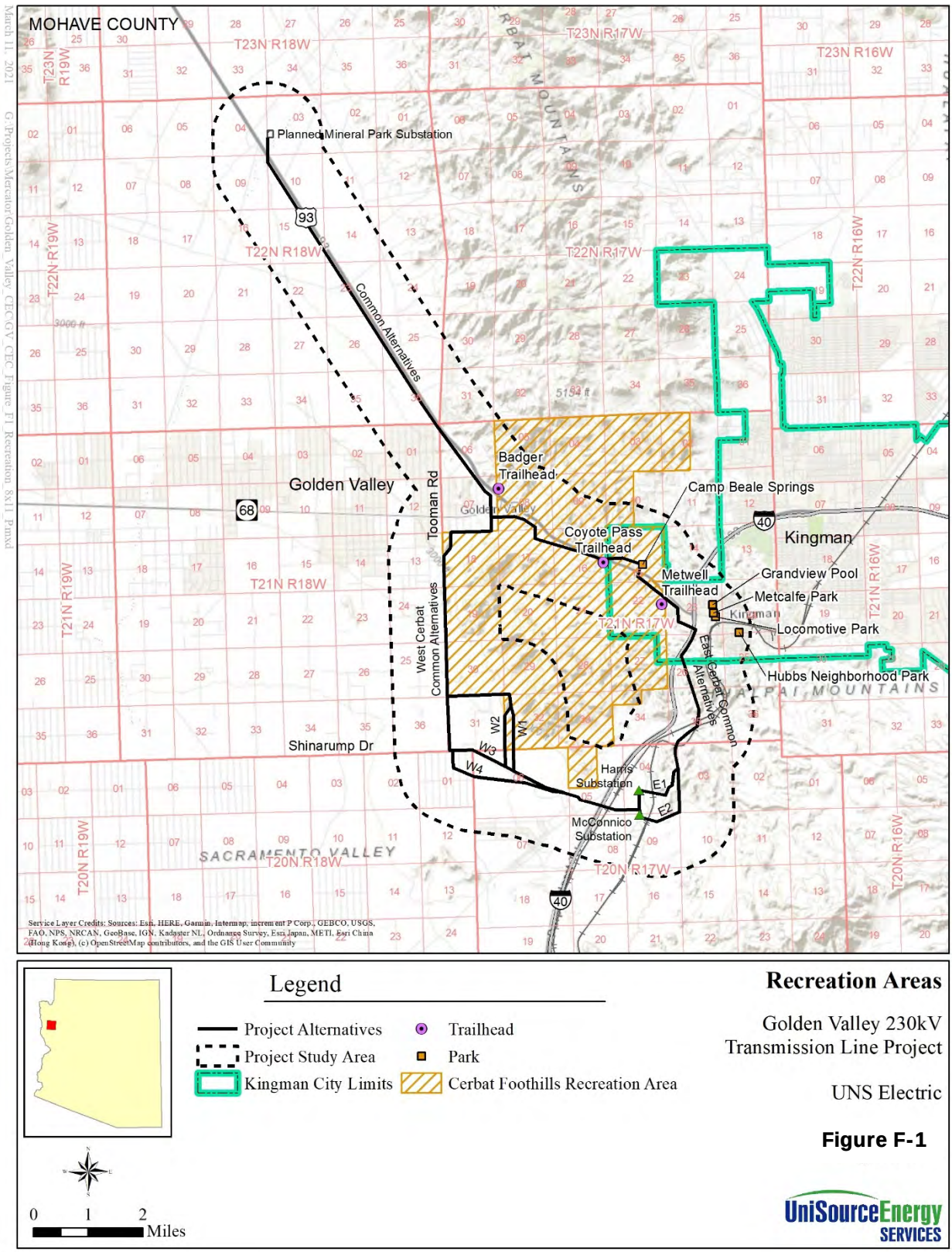
The historic Camp Beale Springs area will be minimally impacted by the East Cerbat alternatives. Construction of the E1 and E2 alternatives in the Camp Beale Springs area will take place in the same alignment as the existing 69 kV transmission line, and ground disturbance will occur primarily in previously disturbed areas. Final alignment in this area will be determined upon close coordination with the City and local Tribes.

F.3.3 Local Parks and Recreation

Locomotive Park, Metcalfe Park, Hubbs Neighborhood Park, and the Grandview Pool are in proximity of the East Cerbat alternatives on either side of West Beale Street, slightly southwest of the I-40 and US 93 interchange. Due to the location, distance from the proposed transmission line alternatives, and developed setting where other parks are located, no or negligible effects are expected for Locomotive Park, Metcalfe Park, Hubbs Neighborhood Park, and the Grandview Pool.

F.4 Summary

Following construction, the transmission line will not impede the public's use of existing recreational areas. No portion of the new transmission line ROW on private non-recreational lands will be made available to the public.


MOHAVE COUNTY
Planned Mineral Park Substation
Common Alternatives
Golden Valley
Badger Trailhead
Tooman Rd
Coyote Pass Trailhead
Camp Beale Springs
Kingman
Metwell Trailhead
Grandview Pool
Metcalfe Park
Locomotive Park
Hubbs Neighborhood Park
West Cerbat Common Alternatives
East Cerbat Common Alternatives
Shinarump Dr
W1
W2
W3
W4
Harris Substation
E1
E2
McConnico Substation
T23N R18W
T23N R17W
T23N R16W
T22N R18W
T22N R17W
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T22N R19W
T23N R19W
T20N R19W
SACRAMENTO VALLEY
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Legend
Project Alternatives
Project Study Area
Kingman City Limits
Trailhead
Park
Cerbat Foothills Recreation Area
0 1 2 Miles
Recreation Areas
Golden Valley 230kV Transmission Line Project
UNS Electric
Figure F-1
UniSourceEnergy SERVICES

G. EXHIBIT G—CONCEPTS OF TYPICAL FACILITIES AND VISUAL SIMULATIONS

As stated in Arizona Administrative Code R14-3-219:

> *Attach any artist's or architect's conception of the proposed plant or transmission line structures and switchyards which applicant believes may be informative to the Committee.*

EXHIBIT CONTENTS

G.1 Project Facilities

G.1.1 Proposed Transmission Line Structure Exhibits

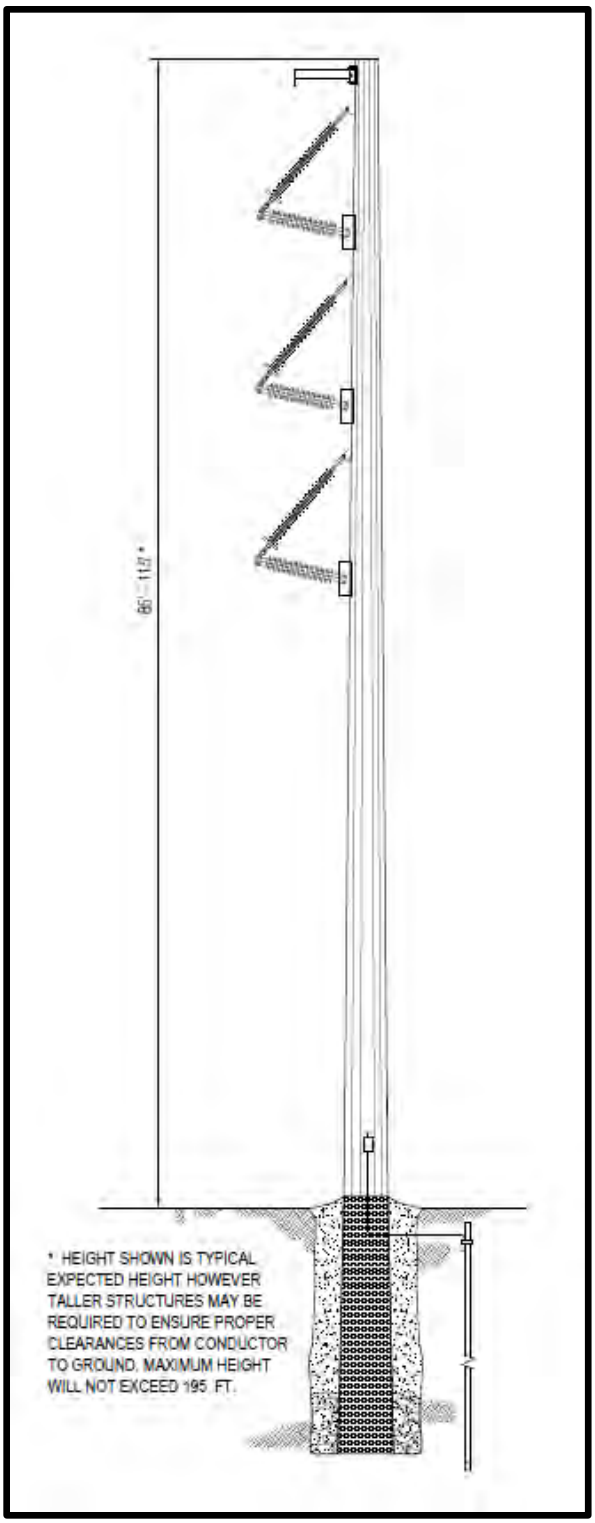


Exhibit G-1. Single-circuit 230 kV Tangent Pole Typical Configuration.

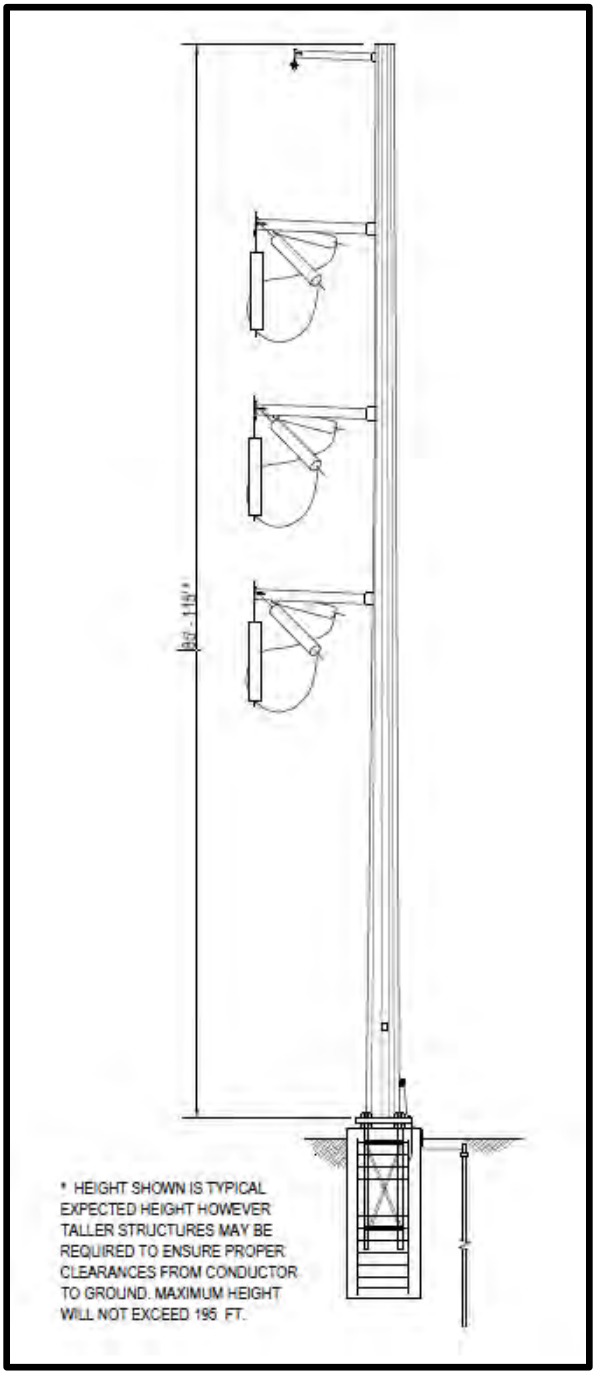


Exhibit G-2. Single-circuit 230 kV Foundation Pole Typical Configuration.

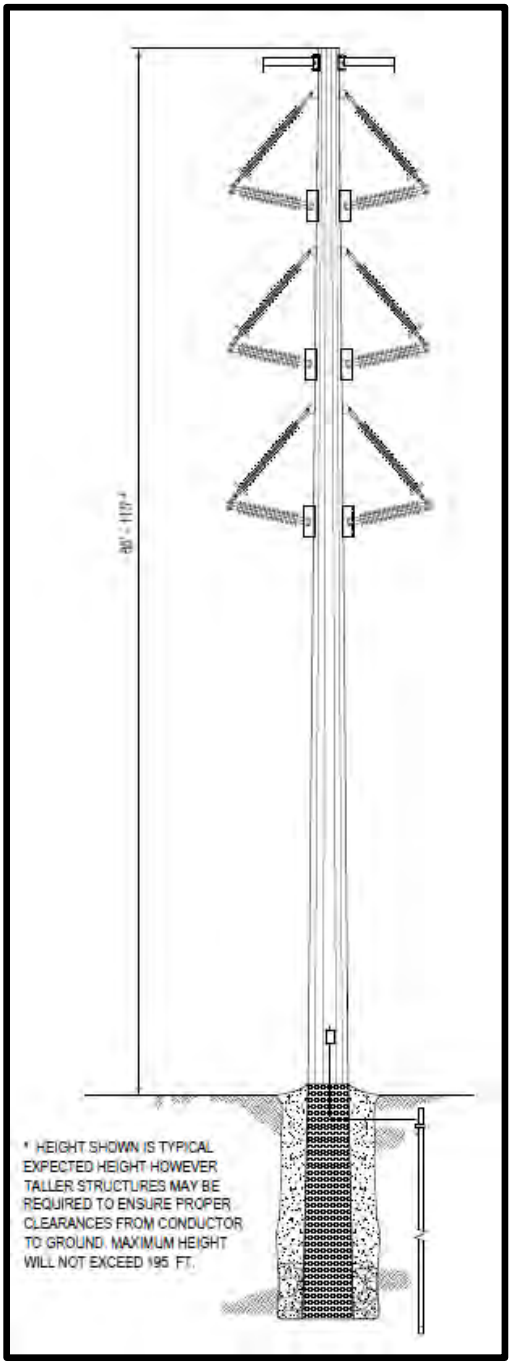


Exhibit G-3. Double-circuit 230 kV Tangent Pole Typical Configuration.

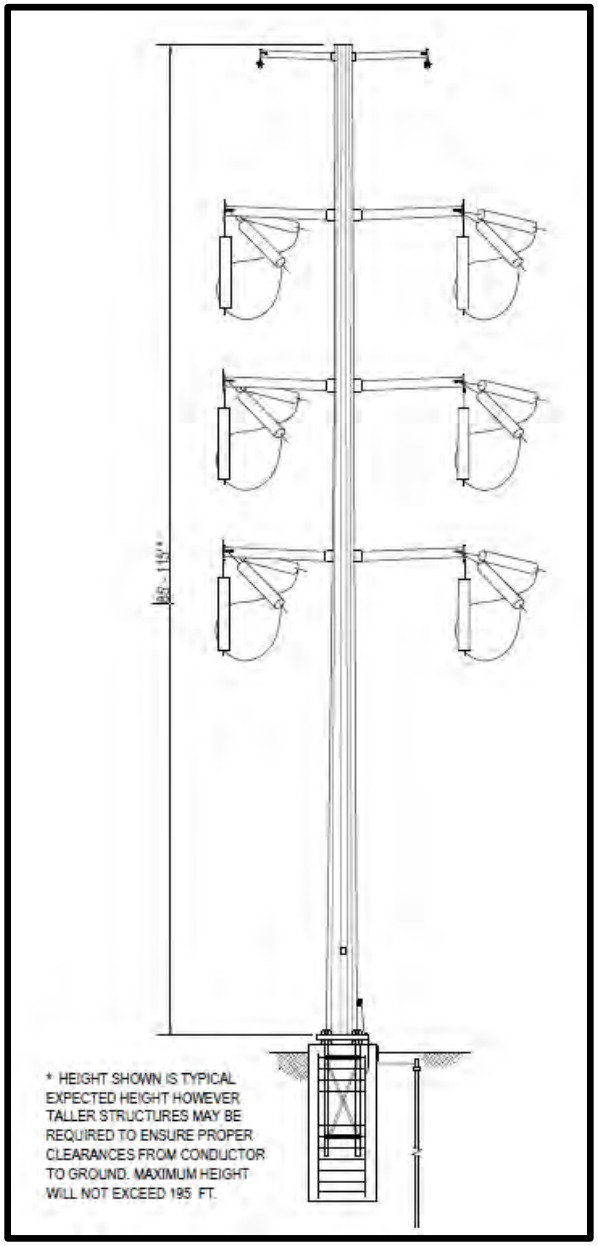


Exhibit G-4. Double-circuit 230 kV Foundation Pole Typical Configuration.

G.2 Visual Simulations

Visual simulations were prepared for the proposed transmission line alternatives in both the first phase of the Project (2007 to 2008) and, most recently, from 2016 to 2019. Only simulations from 2016 to 2019 are included in this exhibit as they represent the current proposed alignments and structure types.

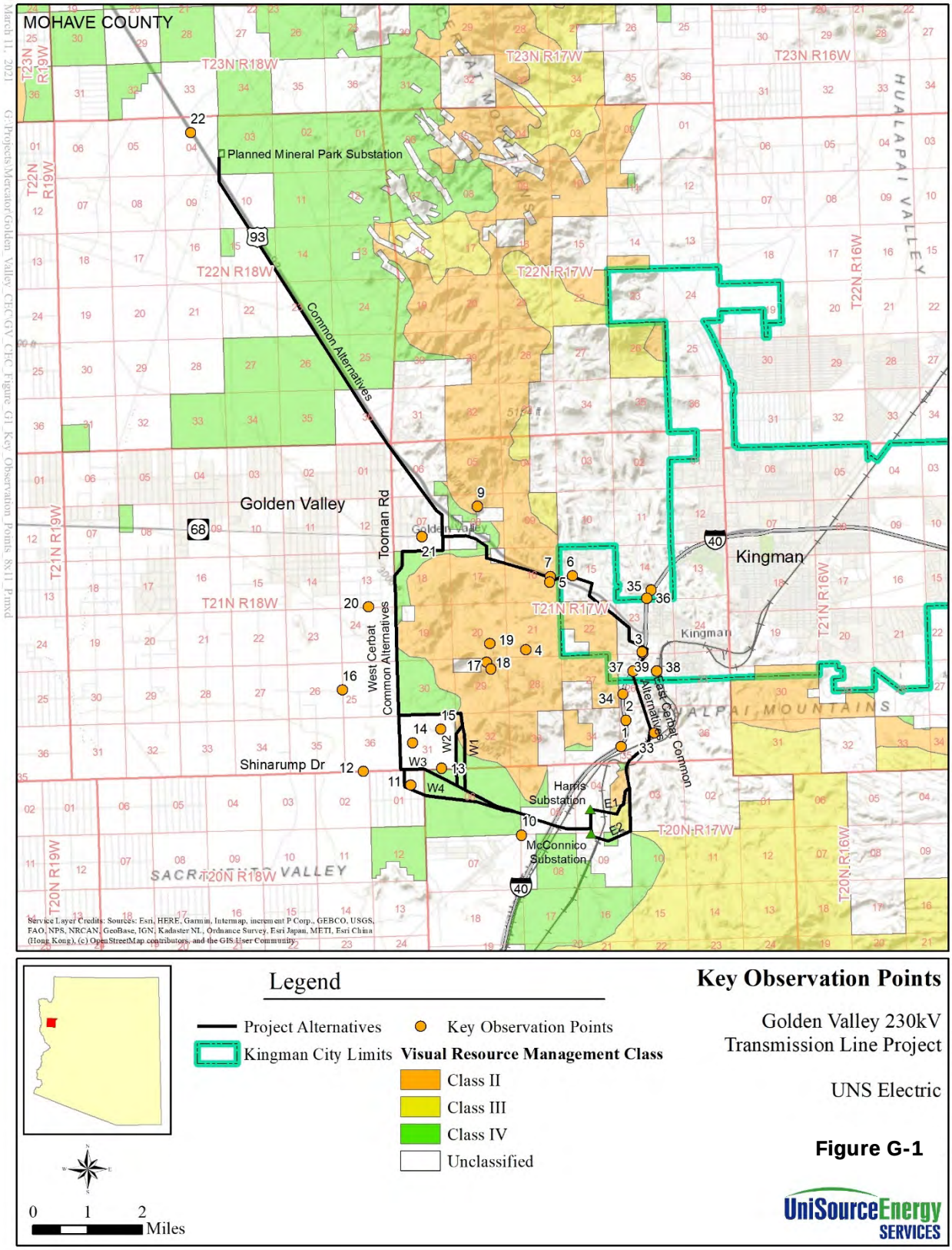
In 2016, BLM representatives evaluated all the possible locations within 3 miles of the Project alternatives where the Project may be visible, including roads, trails, residences, and commercial facilities, and they visited the Project area on multiple occasions to identify and photograph representative viewpoints. Transcon and BLM representatives reviewed all of the preliminary viewpoint locations and corresponding photographs and selected KOPs from which further analysis should be performed based on the most representative and most sensitive view locations. All identified KOPs were within 1 mile of the Project alternatives due to topography as well as the inability to visually perceive existing, similarly sized structures and disturbance from greater distances.

In June 2016, Transcon's visual resource specialist visited each of the 21 identified KOPs and collected high-resolution, 360-degree photographs with camera settings that most closely mimic how the human eye sees. Transcon also collected detailed GPS information, landscape character information, and general observations on how the Project would likely be viewed from each location. Visual simulations were prepared for 10 of the KOPs by creating a three-dimensional model of the proposed Project and known existing features, rendering scenes from the location where photographs were taken with the same camera settings within the model and overlaying the rendered scene onto the corresponding photographs. Initial visual simulations were printed and used during scoping meetings.

Based on the scoping meetings in 2016, four additional KOPs and additional alternative simulations from previously established KOPs were requested to represent additional views along I-40, residential views particularly of the south end of the West Cerbat alternatives, and views of the newly proposed West Cerbat alternatives W3 and W4. BLM representatives evaluated possible view locations within 3 miles of the new W3 and W4 alternatives following the same process as mentioned above and identified 6 possible KOPs. Transcon's visual resource specialist visited the new KOP locations in October 2016, repeated the process mentioned above, and prepared simulations for four of the new KOP locations as well as simulations of the additional alternatives.

In 2018, UNSE realigned a portion of the common segment of the East Cerbat Alternatives which required further analysis. The BLM identified seven additional KOPs. Transcon's visual specialist made a visit in November 2018 to collect field data. Two of the seven new KOPs were selected for simulations. A final change to the East Cerbat Alternative alignment in the spring 2019 required updating two simulations.

In total, Transcon prepared 26 simulations for the project. **Figure G-1** shows the locations of the simulations prepared for the Project. The simulations are provided as **Exhibits G-5 through G-30**.



Legend

Project Alternatives
Key Observation Points
Kingman City Limits
Visual Resource Management Class
Class II
Class III
Class IV
Unclassified

0 1 2 Miles

Key Observation Points

Golden Valley 230kV Transmission Line Project

UNS Electric

Figure G-1

UniSourceEnergy SERVICES

GOLDEN VALLEY

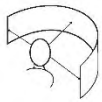
230kV Transmission Line Project

KOP 01

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Northbound travelers on US 93 or Historic Route 66, and local commercial facilities
- Location: Interstate 40 and Historic Route 66 south of Kingman AZ
- UTM Coordinates (NAD83 Zone 12 N): 219809 E, 3895220 N
- View Point Elevation at Eye Level: 3,069 ft
- Looking: East
- Poles Visible from KOP: East Cerbat Alternative poles 27-33

Simulation Notes
- Photo taken 6/4/2016, 11:33
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 1,500 feet northwest of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. The top portions of seven poles are visible in the simulation. Conductors are difficult to see.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

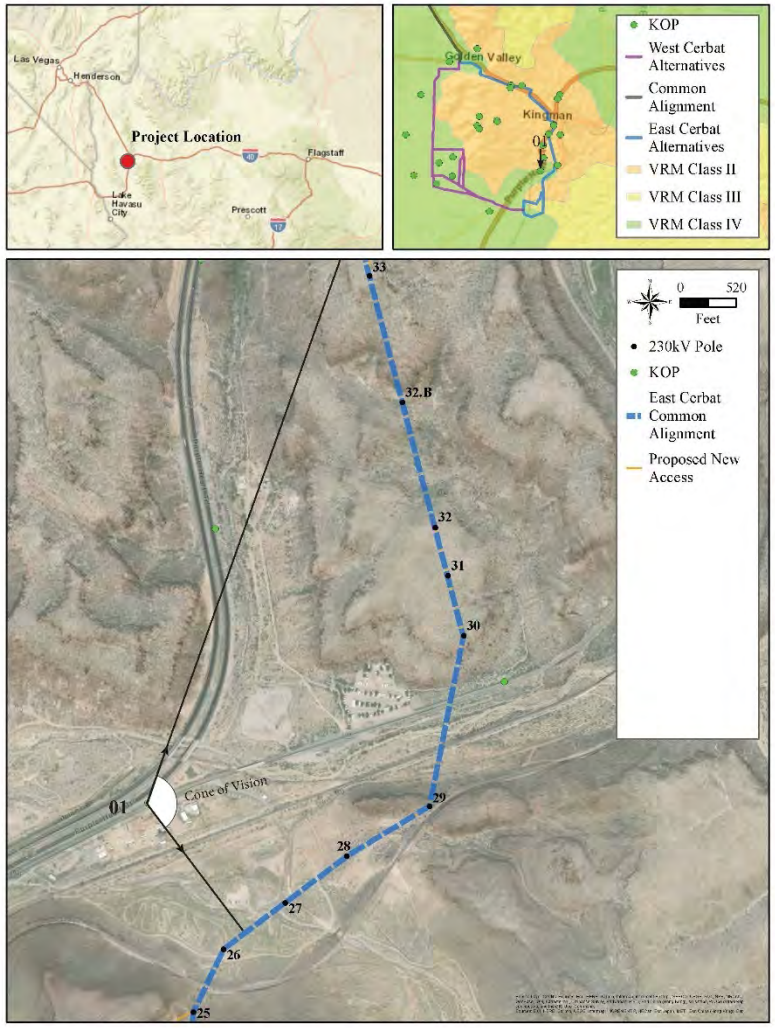


Exhibit G-5. Visual simulation, KOP 1, East Cerbat Common Alignment, 6/4/2016 (looking east).

Exhibit G-5. Visual simulation, KOP 1, East Cerbat Common Alignment, 6/4/2016 (looking east).

GOLDEN VALLEY

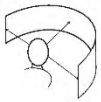
230kV Transmission Line Project

KOP 02

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences and viewers in automobiles approximately 2,000 feet from the project
- Location: This is located along Interstate 40 approximately 0.2 miles south of Kingman
- UTM Coordinates (NAD83 Zone 12 N): 220000 E, 3896000 N
- View Point Elevation at Eye Level: 3,113 ft
- Looking: North
- Poles Visible from KOP: West Cerbat Alternative poles 33-36

Simulation Notes
- Photo taken 10/4/2016, 11:48
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 1,000 feet south of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. All or part of four poles are visible in the simulation, conductors are difficult to see.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

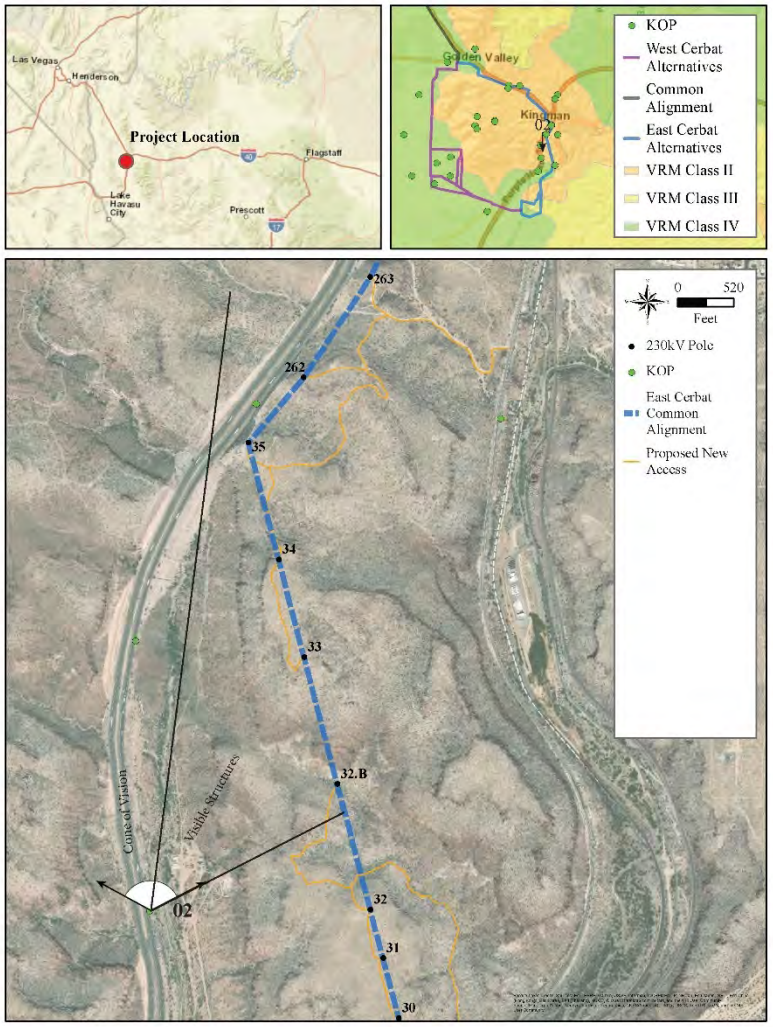


Exhibit G-6. Visual simulation, KOP 2, East Cerbat Common Alignment, 10/4/2016 (looking north).

Exhibit G-6. Visual simulation, KOP 2, East Cerbat Common Alignment, 10/4/2016 (looking north).

GOLDEN VALLEY

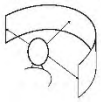
230kV Transmission Line Project

KOP 03

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Viewers in automobiles approximately 1,200 feet from the project
- Location: This is located along Interstate 40 approximately 0.2 miles south of Beale Street
- UTM Coordinates (NAD83 Zone 12 N): 220604 E, 3897940 N
- View Point Elevation at Eye Level: 3,381 ft
- Looking: Southwest
- Poles Visible from KOP: West Cerbat Alternative poles 35-36

Simulation Notes
- Photo taken 10/4/2016, 11:12
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately1,300 feet east of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. Two structures are visible in the simulation. Conductors are difficult to see.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

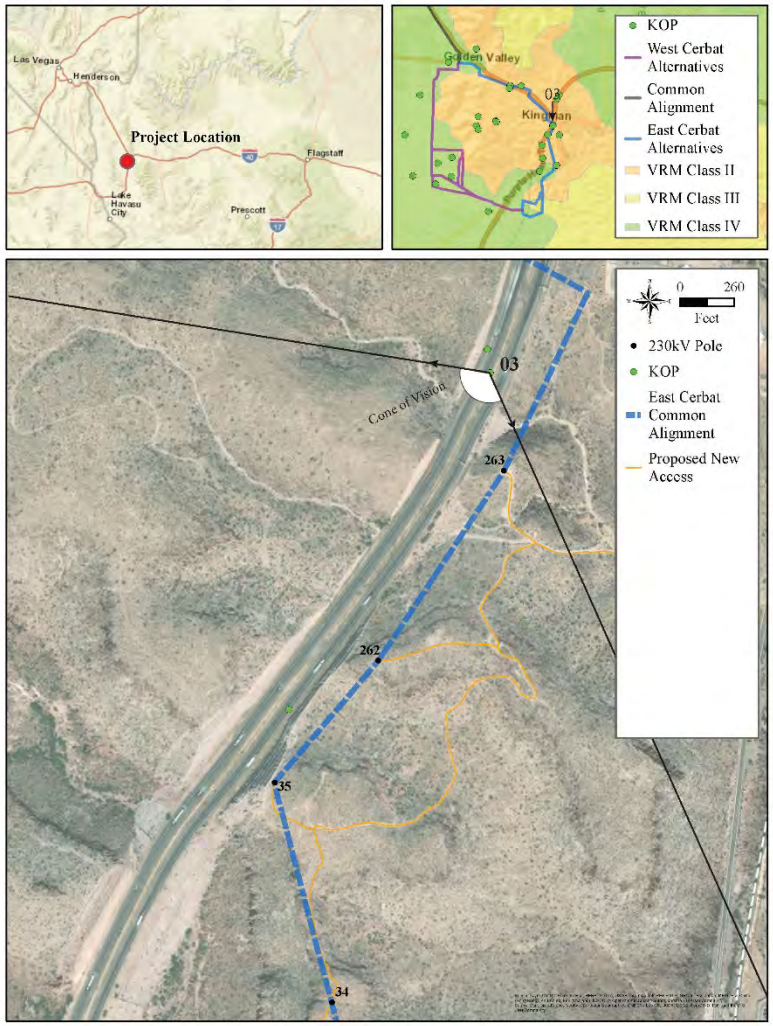


Exhibit G-7. Visual simulation, KOP 3, East Cerbat Common Alignment, 10/4/2016 (looking southwest).

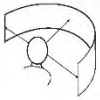
Exhibit G-7. Visual simulation, KOP 3, East Cerbat Common Alignment, 10/4/2016 (looking southwest).

GOLDEN VALLEY

230kV Transmission Line Project

KOP 06

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 30 mm
- 35 mm equivalent focal length: 48 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100



Recommended Viewing Configuration

KOP
- Representative of view for: Non-motorized trail users
- Location: Rattler trail located within the Cerbat Foothills Recreation Area north of US 93
- UTM Coordinates (NAD83 Zone 12 N): 218687 E, 3900340 N
- View Point Elevation at Eye Level: 3,649 ft
- Looking: South
- Poles Visible from KOP: East Cerbat Alternative poles 48-53

Simulation Notes
- Photo taken 6/4/2016, 12:10
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 130 feet northwest of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. Six poles and corresponding conductors in whole or part are visible in the simulation.
- New poles and conductors would replace existing poles and conductors.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.
- UNSE is requesting the communication line currently attached to UNSE's structures be removed. It will be up to the communication company as to how to reinstall the communication line. For the purposes of this simulation we assumed it would be placed on newly installed wood poles

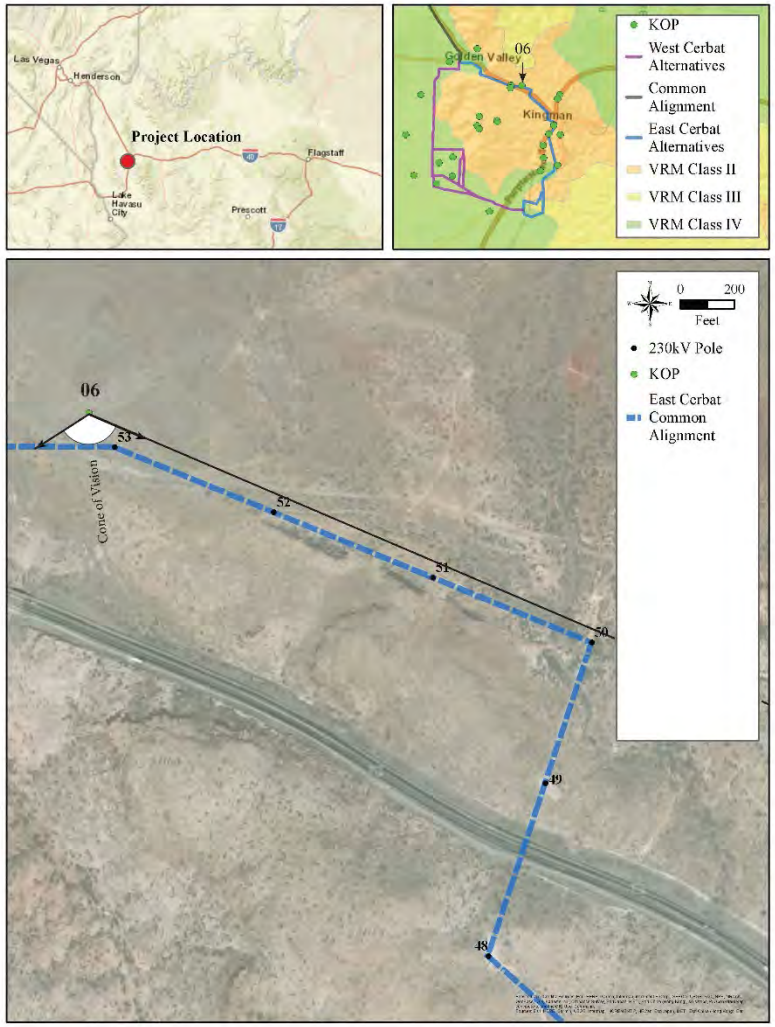


Exhibit G-8. Visual simulation, KOP 6, East Cerbat Common Alignment, 6/4/2016 (looking south).

Exhibit G-8. Visual simulation, KOP 6, East Cerbat Common Alignment, 6/4/2016 (looking south).

GOLDEN VALLEY

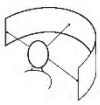
230kV Transmission Line Project

KOP 07

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 33 mm
- 35 mm equivalent focal length: 53 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Southbound travelers on US 93
- Location: US 93 west northwest of Kingman, AZ
- UTM Coordinates (NAD83 Zone 12 N): 218029 E, 3900360 N
- View Point Elevation at Eye Level: 3,724 ft
- Looking: East southeast
- Poles Visible from KOP: East Cerbat Alternative poles 47-56

Simulation Notes
- Photo taken 6/3/2016, 11:15
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 540 feet northwest of the nearest pole portrayed in the simulation.
- Eight poles and corresponding conductors in whole or part are visible in the simulation.
- New poles and conductors would replace existing transmission poles and conductors. Separate distribution poles would be placed ajacent to the transmission line.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

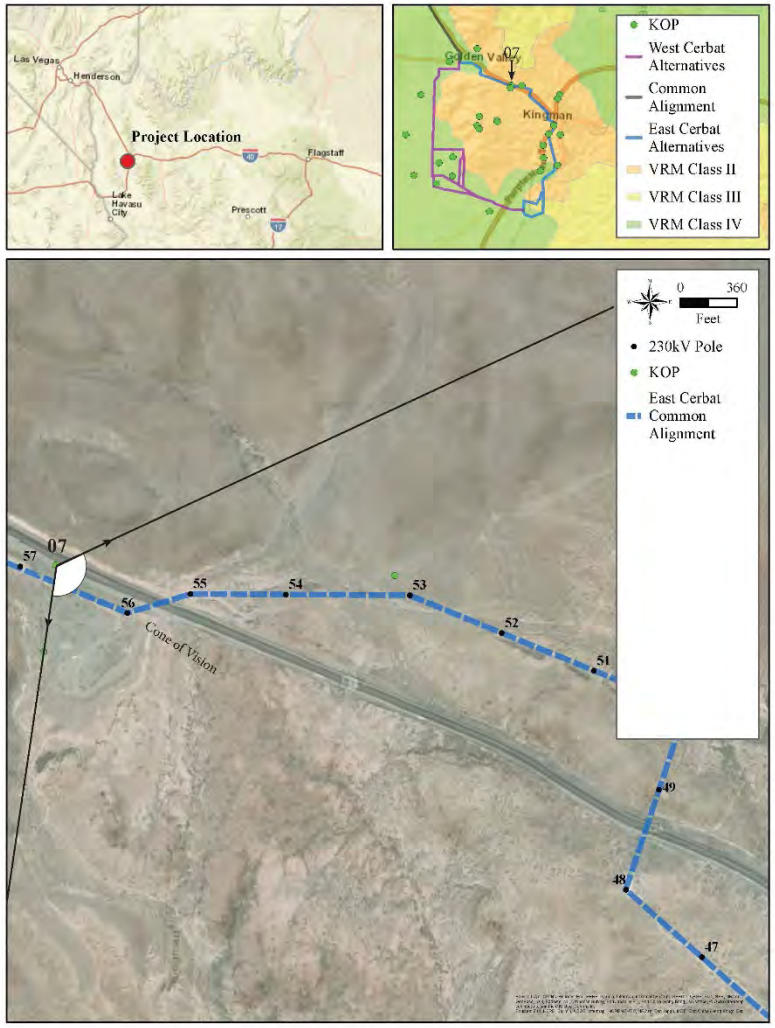


Exhibit G-9. Visual simulation, KOP 7, East Cerbat Common Alignment, 6/3/2016 (looking east, southeast).

Exhibit G-9. Visual simulation, KOP 7, East Cerbat Common Alignment, 6/3/2016 (looking east, southeast).

GOLDEN VALLEY

230kV Transmission Line Project

KOP 09

East Cerbat Alternative

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Non-motorized trail users
- Location: Overlook on Badger Trail northeast of US 93 and SR 68 within the Cerbat Foothills Recreation Area
- UTM Coordinates (NAD83 Zone 12 N): 216007 E, 3902550 N
- View Point Elevation at Eye Level: 3,778 ft
- Looking: Southwest
- Poles Visible from KOP: East Cerbat Alternative poles 60-78

Simulation Notes
- Photo taken 6/4/2016, 13:03
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 3,000 feet northeast of the nearest pole portrayed in the simulation.
- The locations of nineteen poles are indicated in the simulation. Two poles in the background and portions of new access roads are not visible from this KOP.
- New poles and conductors would replace existing poles and conductors.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.

Recommended Viewing Configuration

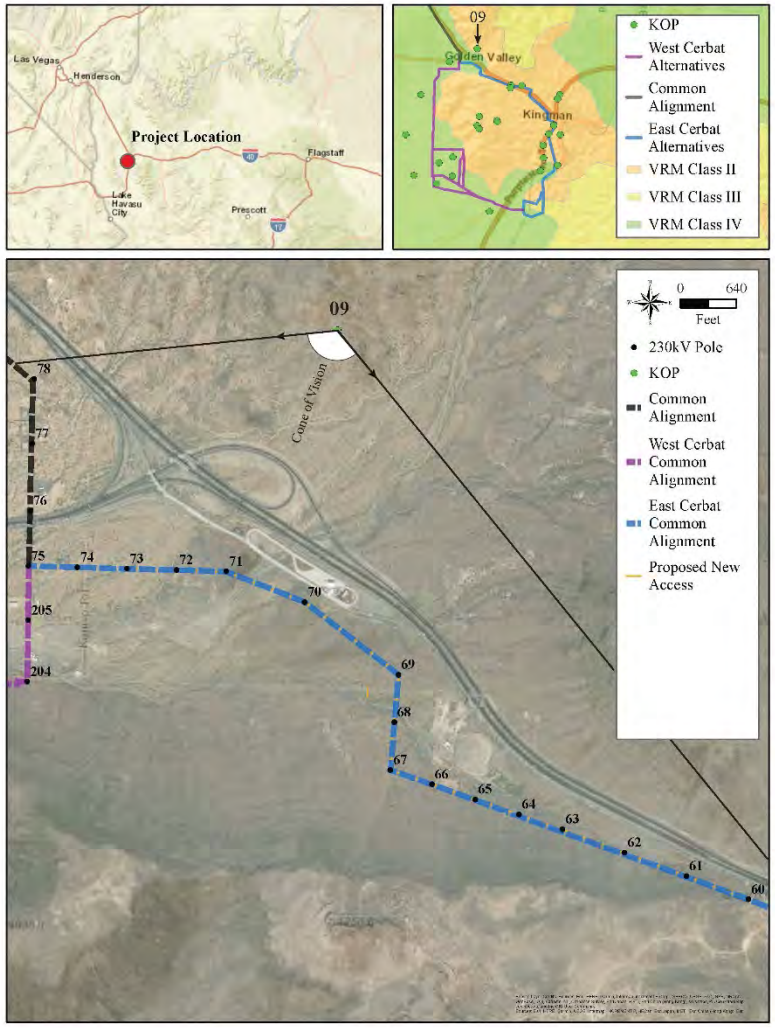


Exhibit G-10. Visual simulation, KOP 9, East Cerbat Common Alignment, 6/4/2016 (looking southwest).

Exhibit G-10. Visual simulation, KOP 9, East Cerbat Common Alignment, 6/4/2016 (looking southwest).

GOLDEN VALLEY

230kV Transmission Line Project

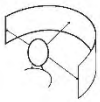
KOP 09

West Cerbat Alternative

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Non-motorized trail users
- Location: Overlook on Badger Trail northeast of US 93 and SR 68 within the Cerbat Foothills Recreation Area
- UTM Coordinates (NAD83 Zone 12 N): 216007 E, 3902550 N
- View Point Elevation at Eye Level: 3,778 ft
- Looking: Southwest
- Poles Visible from KOP: West Cerbat Alternative poles 191-205, 75-78

Simulation Notes
- Photo taken 6/4/2016, 13:03
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 3,000 feet east of the nearest pole portrayed in the simulation.
- Nineteen poles are visible in the simulation. Portions of access roads are somewhat visible.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

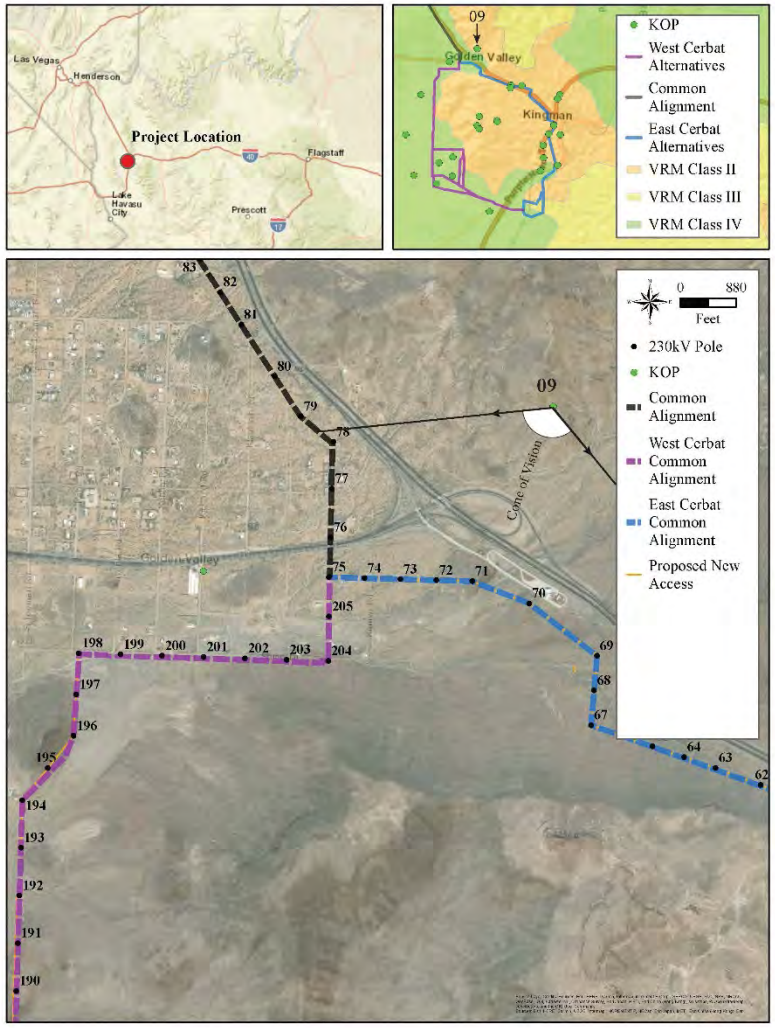


Exhibit G-11. Visual simulation, KOP 9, Common Alignment, West Cerbat Common Alignment, 6/4/2016 (looking southwest).

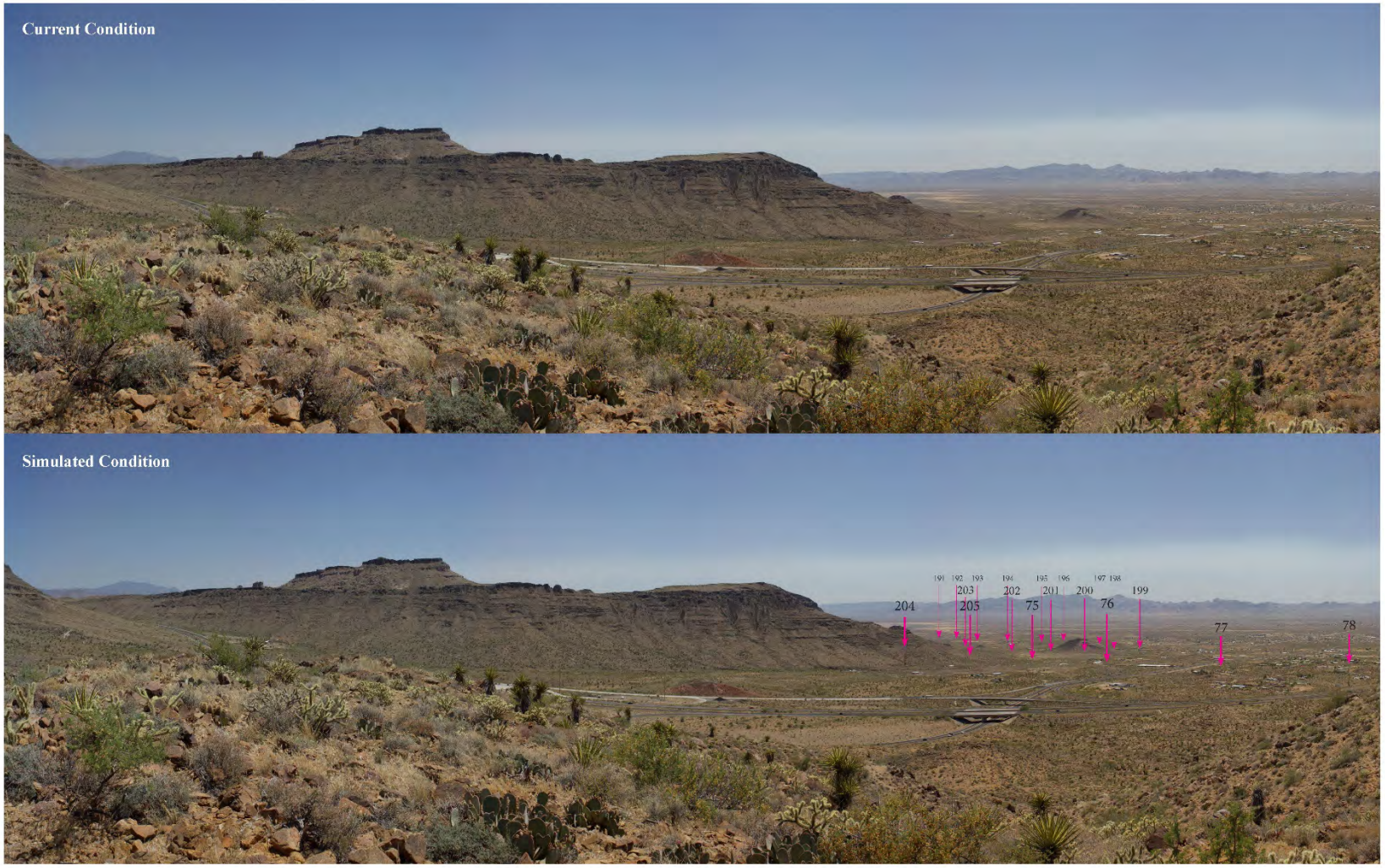


Exhibit G-11. Visual simulation, KOP 9, Common Alignment, West Cerbat Common Alignment, 6/4/2016 (looking southwest).

GOLDEN VALLEY

230kV Transmission Line Project

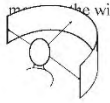
KOP 11W2

West Cerbat Alternative

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences and auto traffic approximately 4,500 feet from the project
- Location: KOP is 1,600 feet south of Shinarump Road on Mohave Trail Road.
- UTM Coordinates (NAD83 Zone 12 N): 213559 E, 3894470 N
- View Point Elevation at Eye Level: 2,712 ft
- Looking: North northeast
- Poles Visible from KOP: W2 West Cerbat Alternative poles 166-181, 208-214

Simulation Notes
- Photo taken 10/4/2016, 11:51
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 4,500 feet southeast of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. Many structures are faintly visible on the north and south ends. Portions of some access roads in steeper terrain are also visible.
- The W1 West Cerbat Alternative (parallell line to the right in the map) is not simulated
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, [illegible] the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

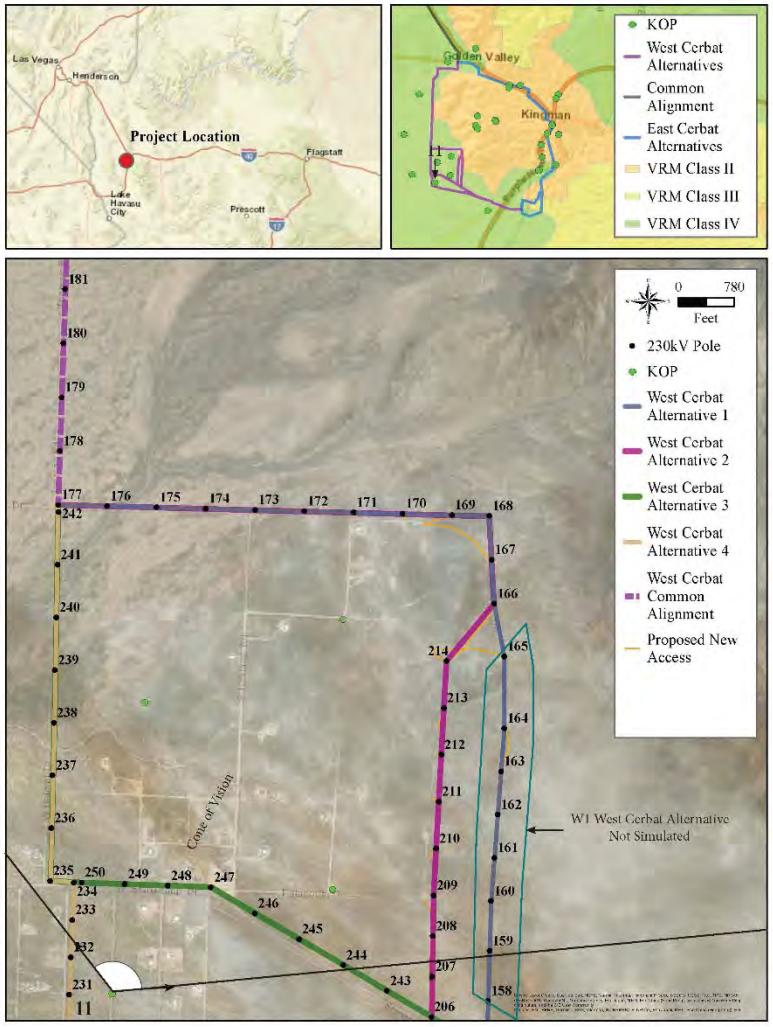


Exhibit G-12. Visual simulation, KOP 11, West Cerbat Common Alignment, W2 West Cerbat Alignment, 10/4/2016 (looking north, northeast).

Exhibit G-12. Visual simulation, KOP 11, West Cerbat Common Alignment, W2 West Cerbat Alignment, 10/4/2016 (looking north, northeast).

GOLDEN VALLEY

230kV Transmission Line Project

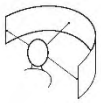
KOP 11W3

West Cerbat Alternative

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences and auto traffic approximately 1,500 feet from the project
- Location: KOP is 1,600 feet south of Shinarump Road on Mohave Trail Road.
- UTM Coordinates (NAD83 Zone 12 N): 213559 E, 3894470 N
- View Point Elevation at Eye Level: 2,712 ft
- Looking: North
- Poles Visible from KOP: West Cerbat Alternative poles 245-250, 235-241, 177-181

Simulation Notes
- Photo taken 10/4/2016, 11:51
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 1,500 feet south of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

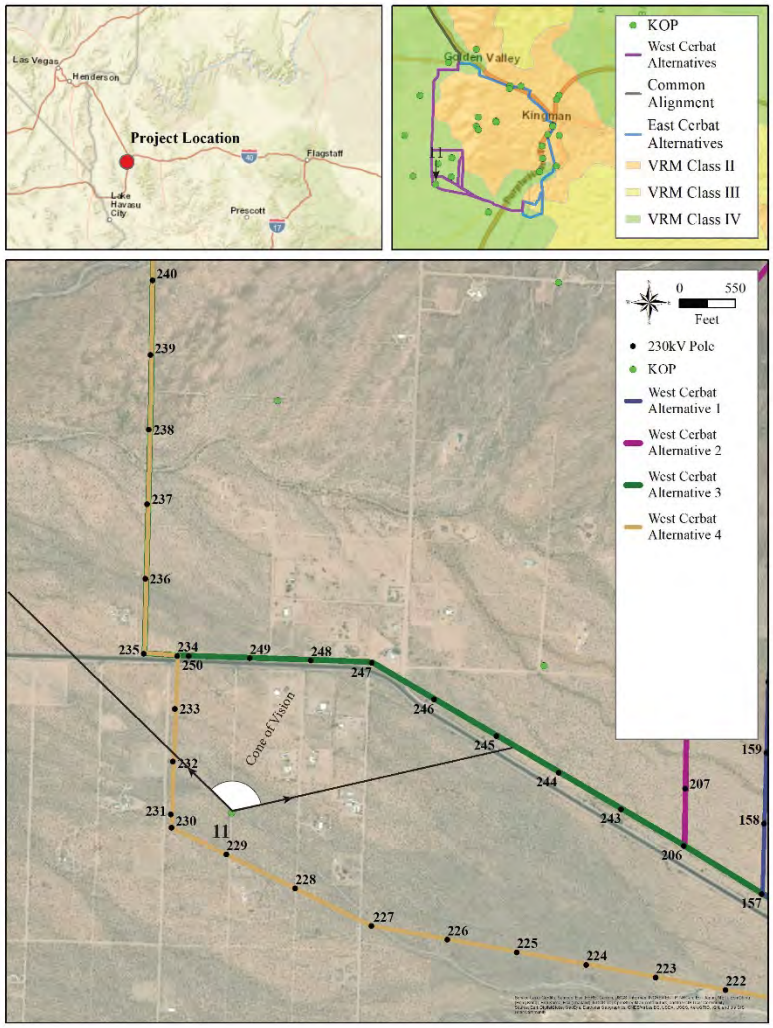


Exhibit G-13. Visual simulation, KOP 11, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 10/4/2016 (looking north).

Exhibit G-13. Visual simulation, KOP 11, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 10/4/2016 (looking north).

GOLDEN VALLEY

230kV Transmission Line Project

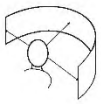
KOP 11W4

West Cerbat Alternative

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences and auto traffic approximately 450 feet from the project
- Location: KOP is 1,500 feet south of Shinarump Road on Mohave Trail Road.
- UTM Coordinates (NAD83 Zone 12 N): 213559 E, 3894470 N
- View Point Elevation at Eye Level: 2,712 ft
- Looking: Southwest
- Poles Visible from KOP: West Cerbat Alternative poles 229-231

Simulation Notes
- Photo taken 10/4/2016, 11:51
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 450 feet north of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

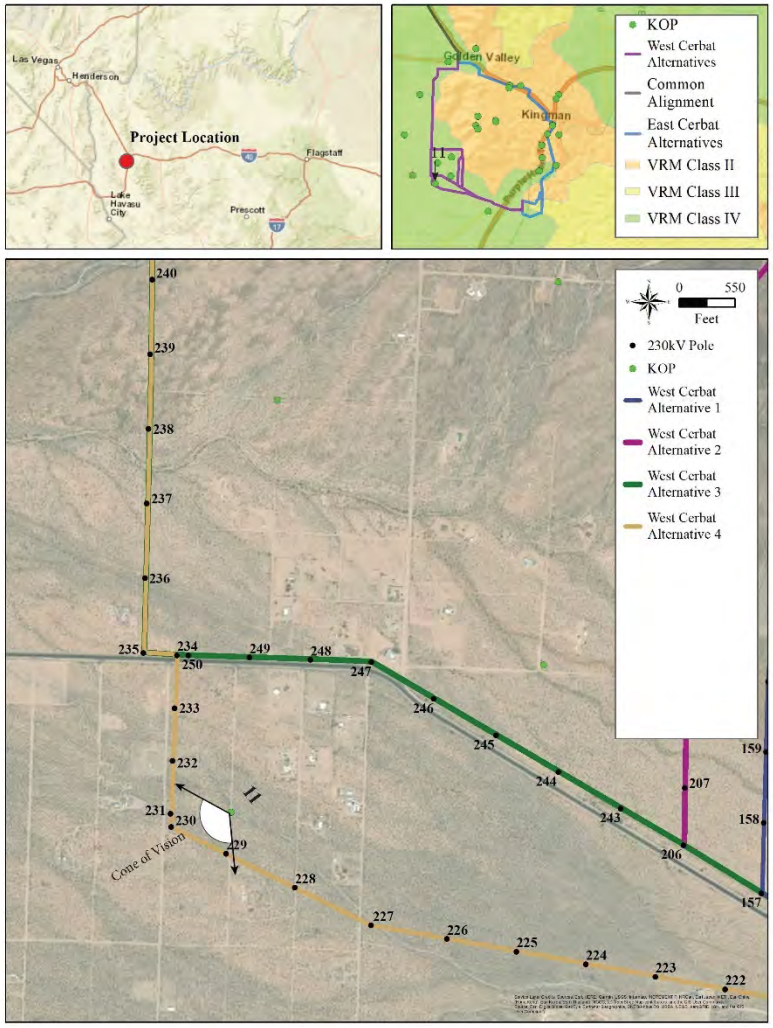


Exhibit G-14. Visual simulation, KOP 11, W4 West Cerbat Alignment, 10/4/2016 (looking southwest).

Exhibit G-14. Visual simulation, KOP 11, W4 West Cerbat Alignment, 10/4/2016 (looking southwest).

GOLDEN VALLEY

230kV Transmission Line Project

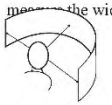
KOP 13

West Cerbat Alternative 2

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences in the area that are approximately a quarter mile from the project
- Location: Private property north of Shinarump Drive
- UTM Coordinates (NAD83 Zone 12 N): 214495 E, 3894910 N
- View Point Elevation at Eye Level: 2,743 ft
- Looking: East northeast
- Poles Visible from KOP: West Cerbat Alternative poles 209-214, 166-175

Simulation Notes
- Photo taken 6/3/2016, 15:29
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 1,380 feet west of the nearest pole portrayed in the simulation.
- Eleven of the thirteen poles shown on the map in the cone of vision and portions of new access roads are visible in the simulation. Conductors are difficult to see. Two poles are not visible from this angle.
- The W1 West Cerbat Alternative (parallell line to the right in the map) is not simulated
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

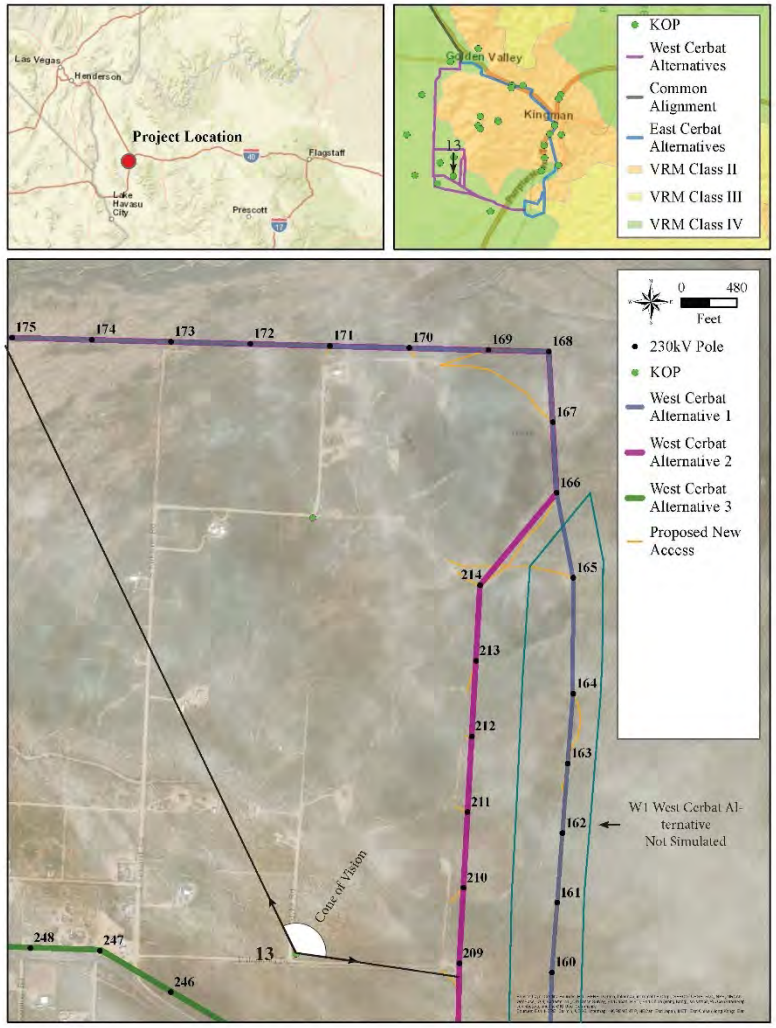


Exhibit G-15. Visual simulation, KOP 13, W1 West Cerbat Alignment, W2 West Cerbat Alignment, 6/3/2016 (looking east, northeast).

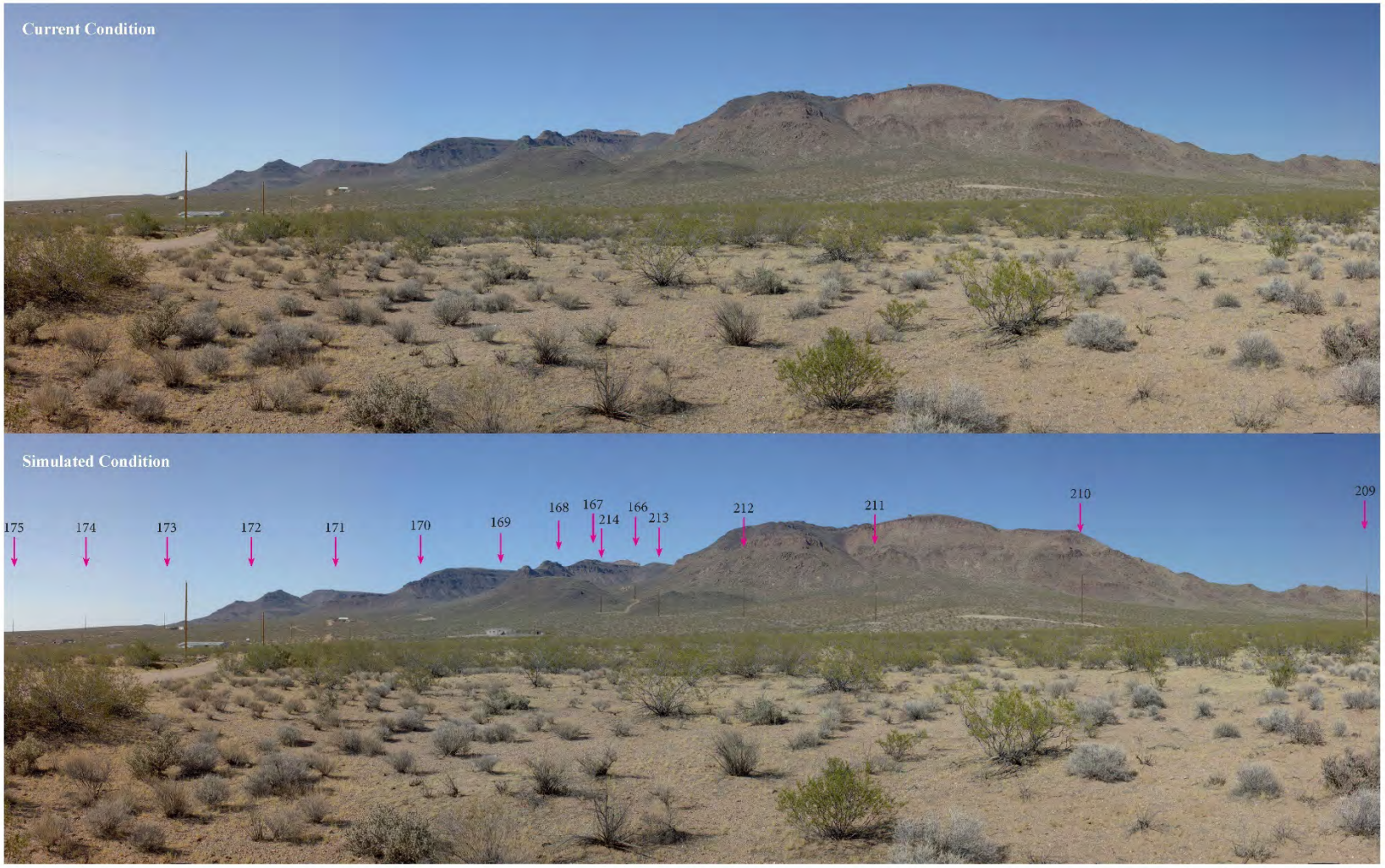


Exhibit G-15. Visual simulation, KOP 13, W1 West Cerbat Alignment, W2 West Cerbat Alignment, 6/3/2016 (looking east, northeast).

GOLDEN VALLEY

230kV Transmission Line Project

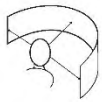
KOP 13

West Cerbat Alternative 3

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences in the area that are approximately 800 feet from the project
- Location: Private property north of Shinarump Drive
- UTM Coordinates (NAD83 Zone 12 N): 214495 E, 3894910 N
- View Point Elevation at Eye Level: 2,743 ft
- Looking:South southwest
- Poles Visible from KOP: West Cerbat Alternative poles 235-238, 245-250

Simulation Notes
- Photo taken 6/3/2016, 15:29
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 800 feet northeast of the nearest pole portrayed in the simulation.
- Nine of the seventeen poles shown on the map in the cone of vision and portions of new access roads are visible in the simulation. Conductors are difficult to see. Two poles are not visible from this angle.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

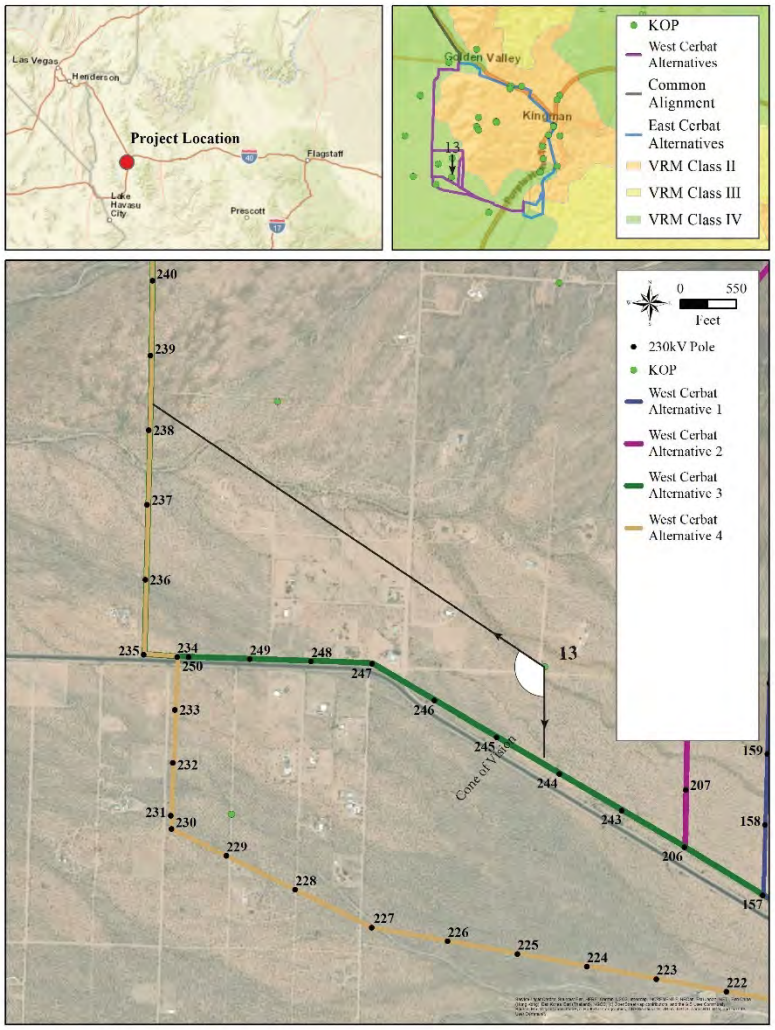


Exhibit G-16. Visual simulation, KOP 13, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 6/3/2016 (looking south, southwest).

Exhibit G-16. Visual simulation, KOP 13, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 6/3/2016 (looking south, southwest).

GOLDEN VALLEY

230kV Transmission Line Project

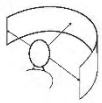
KOP 13

West Cerbat Alternative 4

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences in the area that are approximately 2,800 feet from the project
- Location: Private property north of Shinarump Drive
- UTM Coordinates (NAD83 Zone 12 N): 214495 E, 3894910 N
- View Point Elevation at Eye Level: 2,743 ft
- Looking: West southwest
- Poles Visible from KOP: West Cerbat Alternative poles 226-238

Simulation Notes
- Photo taken 6/3/2016, 15:29
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is 2,795 feet west of the nearest pole portrayed in the simulation.
- Thirteen poles are visible in the simulation. Conductors are difficult to see.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

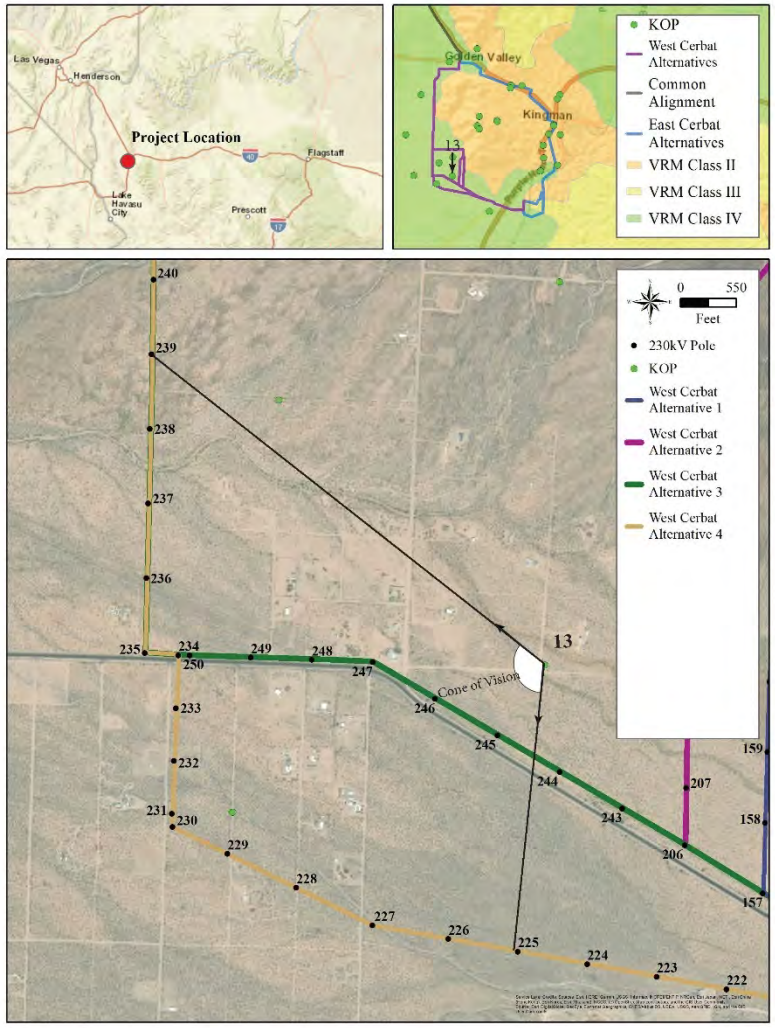


Exhibit G-17. Visual simulation, KOP 13, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 6/3/2016 (looking west, southwest).

Exhibit G-17. Visual simulation, KOP 13, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 6/3/2016 (looking west, southwest).

GOLDEN VALLEY

230kV Transmission Line Project

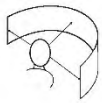
KOP 15

West Cerbat Alternative 2

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences and auto traffic approximately 1,500 feet from the project
- Location: The intersection of Klondyke Road and Kirkland Road
- UTM Coordinates (NAD83 Zone 12 N): 214540 E, 3896060 N
- View Point Elevation at Eye Level: 2,815 ft
- Looking: Northeast
- Poles Visible from KOP: West Cerbat Alternative poles 169-172

Simulation Notes
- Photo taken 6/4/2016, 14:49
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 1,500 feet south of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures 169-172 visible in this simulation. 166-168 are behind the hill.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

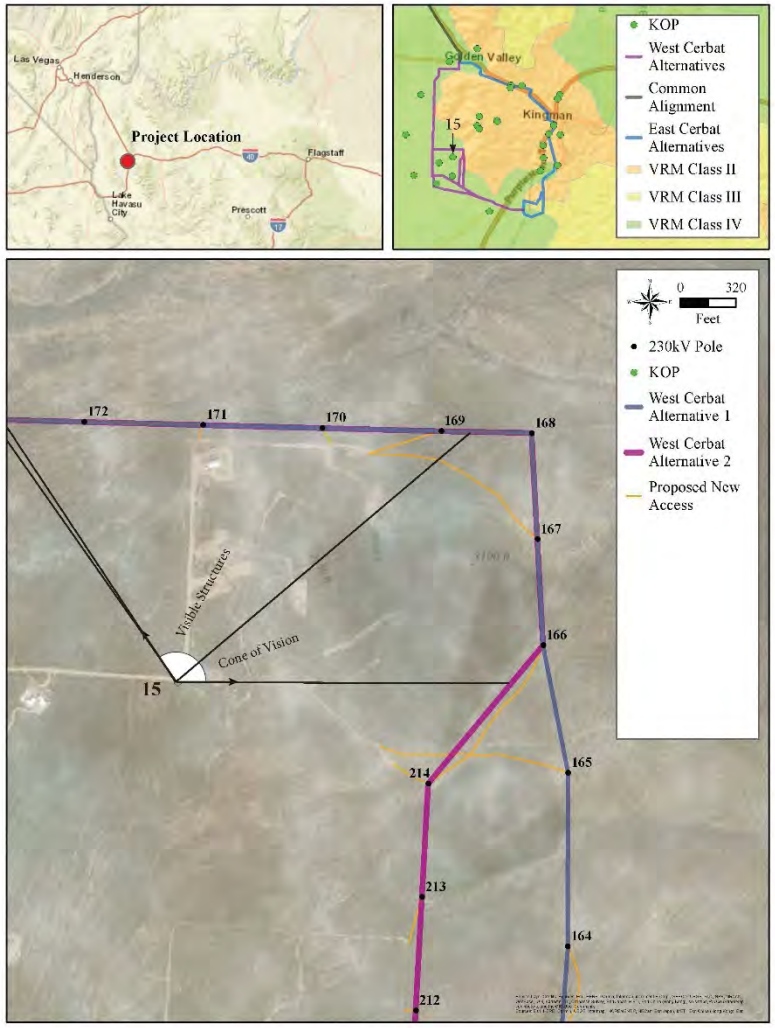


Exhibit G-18. Visual simulation, KOP 15, W1 West Cerbat Alignment, W2 West Cerbat Alignment, 6/4/2016 (looking northeast).

Exhibit G-18. Visual simulation, KOP 15, W1 West Cerbat Alignment, W2 West Cerbat Alignment, 6/4/2016 (looking northeast).

GOLDEN VALLEY

230kV Transmission Line Project

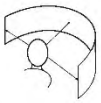
KOP 15

West Cerbat Alternative 3

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences and auto traffic approximately 3,950 feet from the project
- Location: The intersection of Klondyke Road and Kirkland Road
- UTM Coordinates (NAD83 Zone 12 N): 214540 E, 3896060 N
- View Point Elevation at Eye Level: 2,815 ft
- Looking: Southwest
- Poles Visible from KOP: West Cerbat Alternative poles 235-240, 242-250

Simulation Notes
- Photo taken 6/4/2016, 14:49
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 4,000 feet east of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

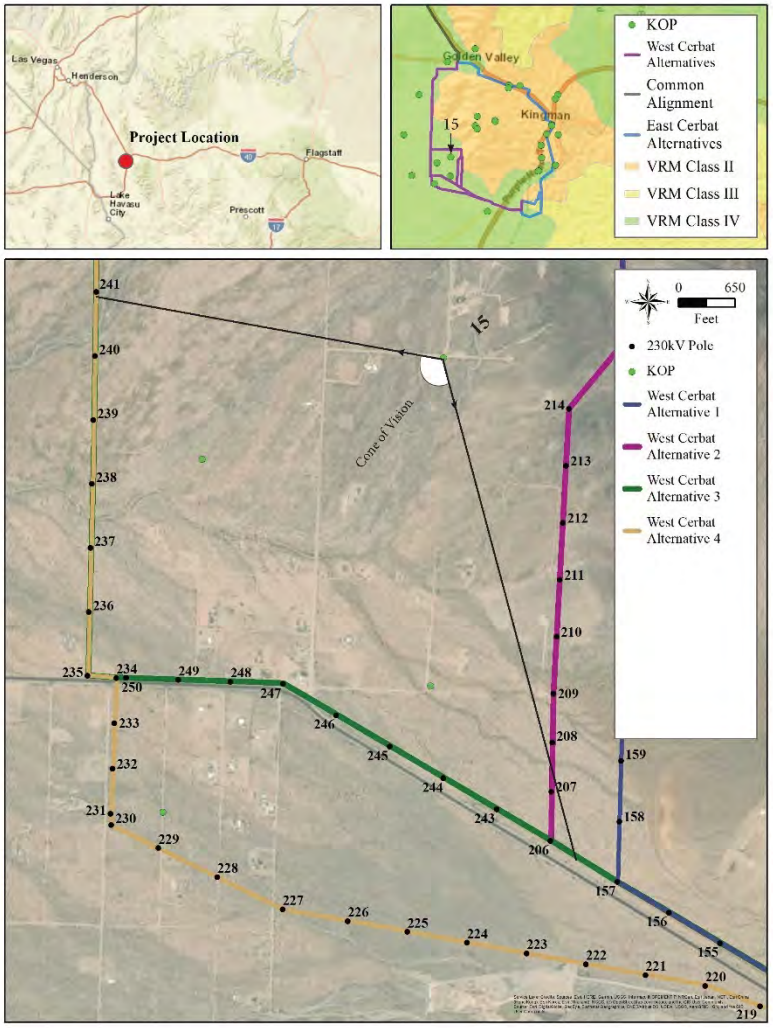


Exhibit G-19. Visual simulation, KOP 15, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 6/4/2016 (looking southwest).

Exhibit G-19. Visual simulation, KOP 15, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 6/4/2016 (looking southwest).

GOLDEN VALLEY

230kV Transmission Line Project

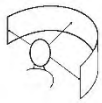
KOP 15

West Cerbat Alternative 4

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences and auto traffic approximately 3,950 feet from the project
- Location: The intersection of Klondyke Road and Kirkland Road
- UTM Coordinates (NAD83 Zone 12 N): 214540 E, 3896060 N
- View Point Elevation at Eye Level: 2,815 ft
- Looking: Southwest
- Poles Visible from KOP: West Cerbat Alternative poles 222-240

Simulation Notes
- Photo taken 6/4/2016, 14:49
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 4,000 feet east of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. Many structures are faintly visible.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

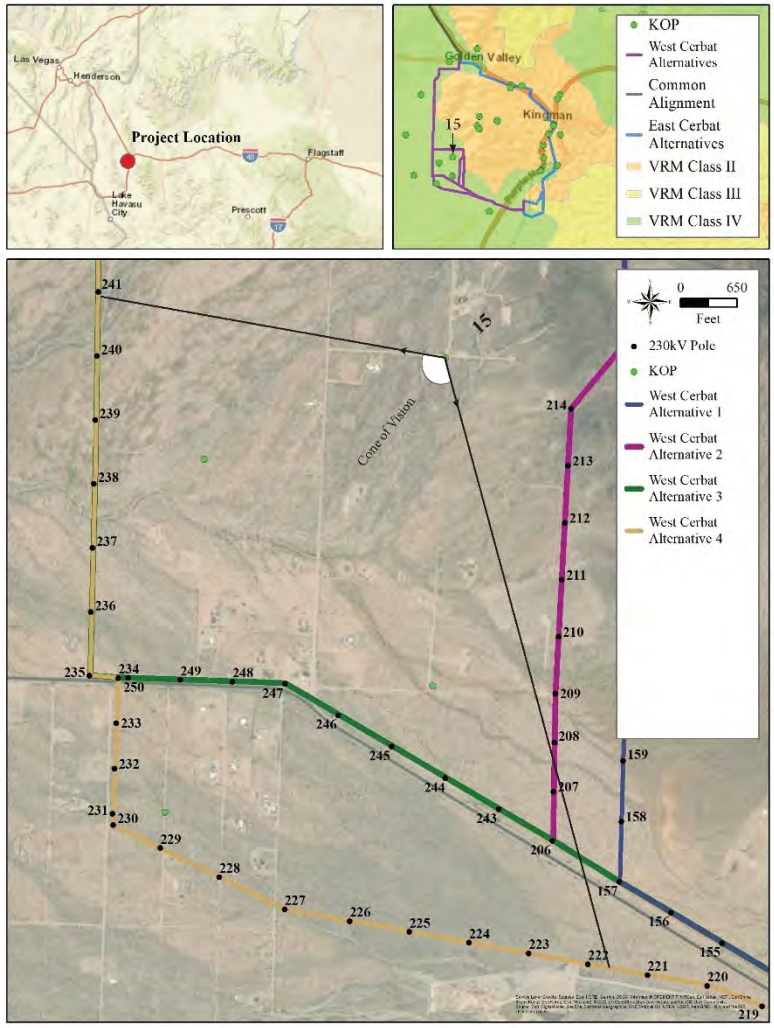


Exhibit G-20. Visual simulation, KOP 15, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 6/4/2016 (looking southwest).

Exhibit G-20. Visual simulation, KOP 15, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 6/4/2016 (looking southwest).

GOLDEN VALLEY

230kV Transmission Line Project

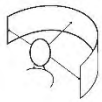
KOP 16

West Cerbat Alternative 2

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences and auto traffic approximately one mile from the project
- Location: Intersection of Bacobi Road and Chuar Drive
- UTM Coordinates (NAD83 Zone 12 N): 211719 E, 3897390 N
- View Point Elevation at Eye Level: 2,677 ft
- Looking: East
- Poles Visible from KOP: West Cerbat Alternative poles 154-157, 206-214, 166-205

Simulation Notes
- Photo taken 6/4/2016, 11:12
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 5,370 feet northwest of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. Many structures are faintly visible on the north and south ends. Portions of some access roads in steeper terrain are also visible.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

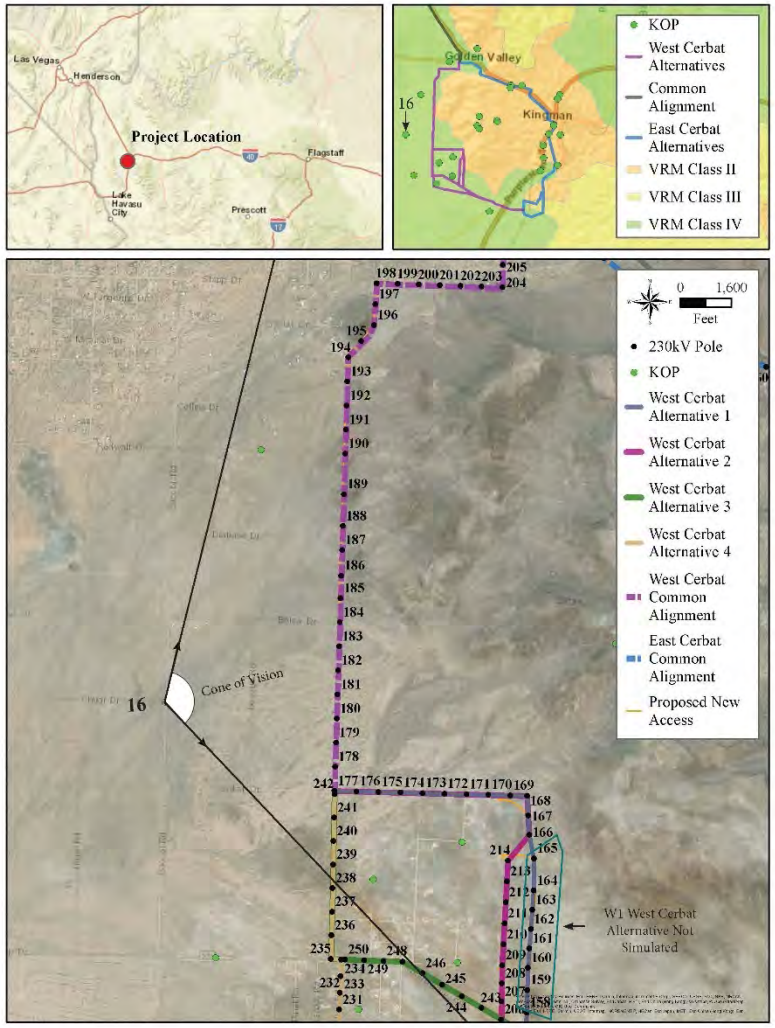


Exhibit G-21. Visual simulation, KOP 16, West Cerbat Common Alignment, W2 West Cerbat Alignment, 6/4/2016 (looking east).

Exhibit G-21. Visual simulation, KOP 16, West Cerbat Common Alignment, W2 West Cerbat Alignment, 6/4/2016 (looking east).

GOLDEN VALLEY

230kV Transmission Line Project

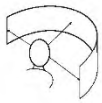
KOP 16

West Cerbat Alternatives 3&4

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences and auto traffic approximately one mile from the project
- Location: Intersection of Bacobi Road and Chuar Drive
- UTM Coordinates (NAD83 Zone 12 N): 211719 E, 3897390 N
- View Point Elevation at Eye Level: 2,677 ft
- Looking: East
- Poles Visible from KOP: West Cerbat Alternative poles 177-205, 238-242

Simulation Notes
- Photo taken 6/4/2016, 11:12
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 5,370 feet west of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. Many structures are faintly visible on the north and south ends. Portions of some access roads in steeper terrain are also visible.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

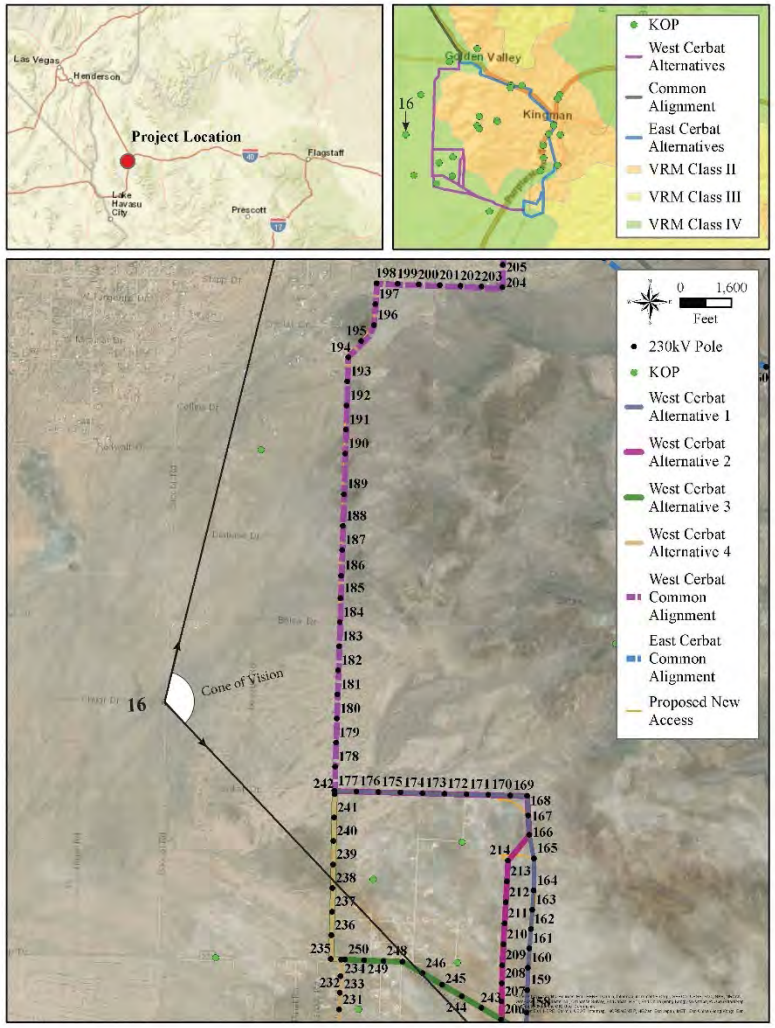


Exhibit G-22. Visual simulation, KOP 16, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 6/4/2016 (looking east).

Exhibit G-22. Visual simulation, KOP 16, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 6/4/2016 (looking east).

GOLDEN VALLEY

230kV Transmission Line Project

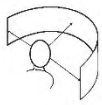
KOP 17

West Cerbat Alternative 2

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Hikers hiking cross-country or brief glimpses from the non-motorized Foothills Rim Trail
- Location: On the Foothills Rim Trail.
- UTM Coordinates (NAD83 Zone 12 N): 216126 E, 3897740 N
- View Point Elevation at Eye Level: 3,908 ft
- Looking: West southwest
- Poles Visible from KOP: West Cerbat Alternative poles 166-174, 213-214

Simulation Notes
- Photo taken 10/4/2016, 8:47
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 5,200 feet east of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

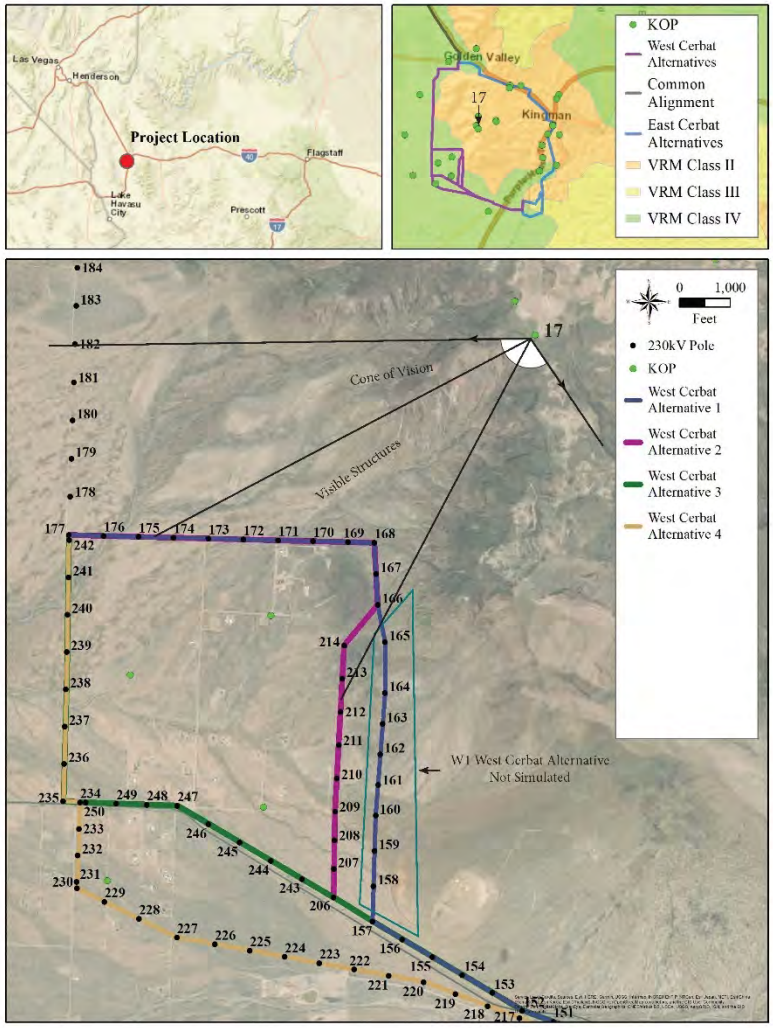


Exhibit G-23. Visual simulation, KOP 17, W1 West Cerbat Alignment, W2 West Cerbat Alignment, 10/4/2016 (looking west, southwest).

Exhibit G-23. Visual simulation, KOP 17, W1 West Cerbat Alignment, W2 West Cerbat Alignment, 10/4/2016 (looking west, southwest).

GOLDEN VALLEY

230kV Transmission Line Project

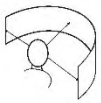
KOP 17

West Cerbat Alternative 3

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Hikers hiking cross-country or brief glimpses from the non-motorized Foothills Rim Trail
- Location: On the Foothills Rim Trail.
- UTM Coordinates (NAD83 Zone 12 N): 216126 E, 3897740 N
- View Point Elevation at Eye Level: 3,908 ft
- Looking: West southwest
- Poles Visible from KOP: West Cerbat Alternative poles 235-241, 244-250

Simulation Notes
- Photo taken 10/4/2016, 8:47
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 9,055 feet east of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. Structures are faintly visible.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

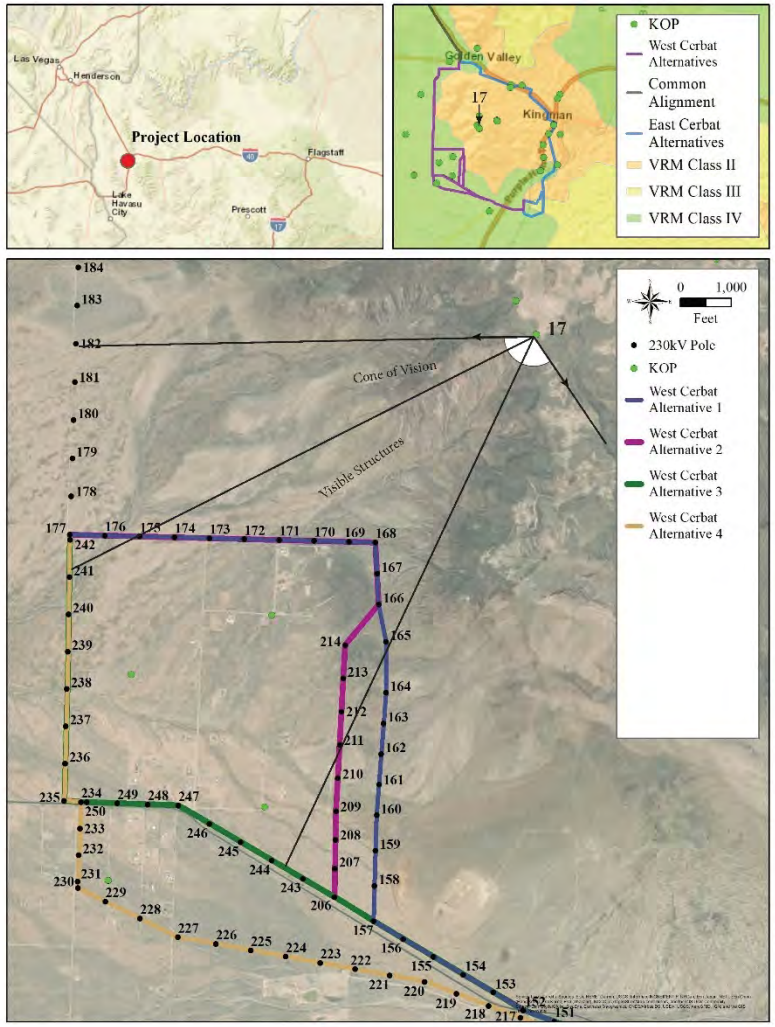


Exhibit G-24. Visual simulation, KOP 17, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 10/4/2016 (looking west, southwest).

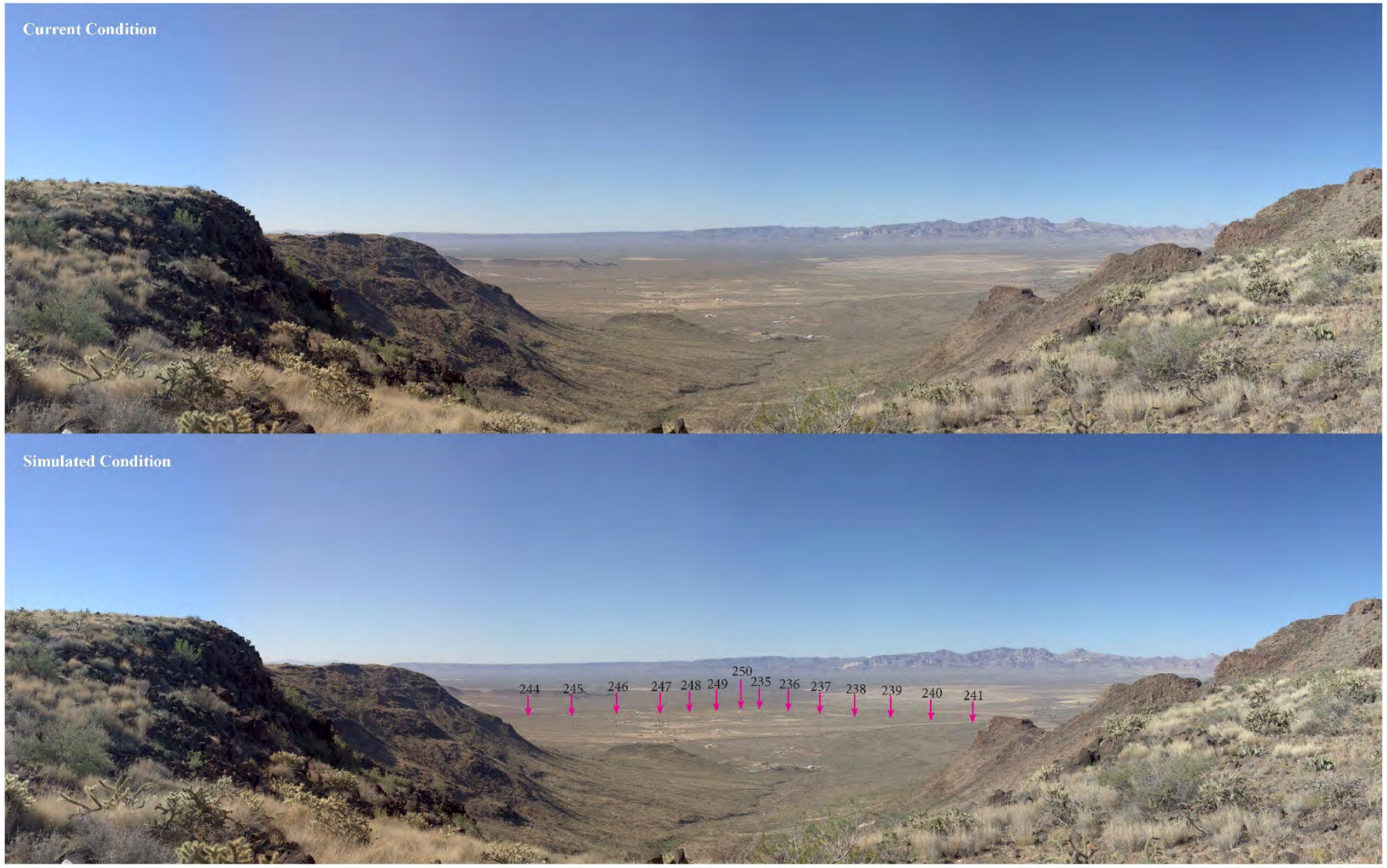


Exhibit G-24. Visual simulation, KOP 17, W3 West Cerbat Alignment, W4 West Cerbat Alignment, 10/4/2016 (looking west, southwest).

GOLDEN VALLEY

230kV Transmission Line Project

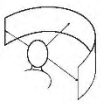
KOP 17

West Cerbat Alternative 4

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Hikers hiking cross-country or brief glimpses from the non-motorized Foothills Rim Trail
- Location: On the Foothills Rim Trail.
- UTM Coordinates (NAD83 Zone 12 N): 216126 E, 3897740 N
- View Point Elevation at Eye Level: 3,908 ft
- Looking: West southwest
- Poles Visible from KOP: West Cerbat Alternative poles 225-241

Simulation Notes
- Photo taken 10/4/2016, 8:47
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 9,055 feet east of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. Structures are faintly visible.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

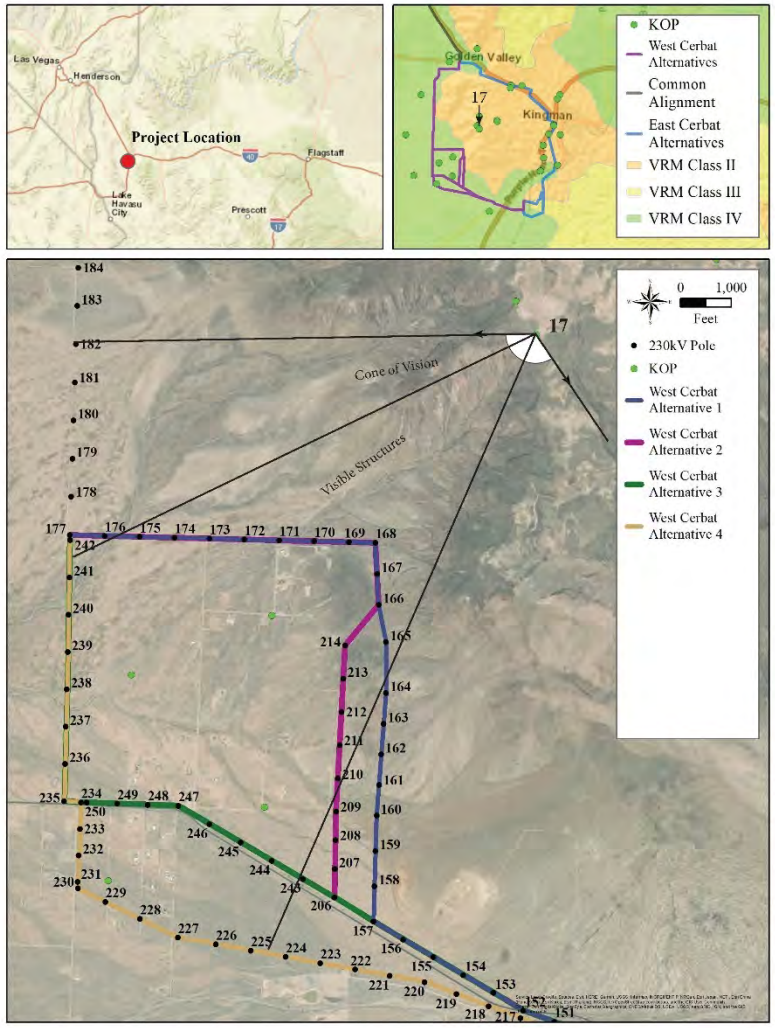


Exhibit G-25. Visual simulation, KOP 17, W4 West Cerbat Alignment, 10/4/2016 (looking west, southwest).

Exhibit G-25. Visual simulation, KOP 17, W4 West Cerbat Alignment, 10/4/2016 (looking west, southwest).

GOLDEN VALLEY

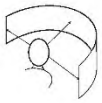
230kV Transmission Line Project

KOP 18

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Hikers hiking cross-country or brief glimpses from the non-motorized Foothills Rim Trail
- Location: On the Foothills Rim Trail.
- UTM Coordinates (NAD83 Zone 12 N): 216004 E, 3897940 N
- View Point Elevation at Eye Level: 3,923 ft
- Looking: West
- Poles Visible from KOP: West Cerbat Alternative poles 177-182

Simulation Notes
- Photo taken 6/4/2016, 8:57
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 8,600 feet east southeast of the nearest pole portrayed in the simulation.
- Six poles are visible in this simulation. Work sites will be accessed via short spurs off of an existing road that is not visible in the photograph from this angle. Poles depicted in the map, outside the "view down canyon" lines, are not visible.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

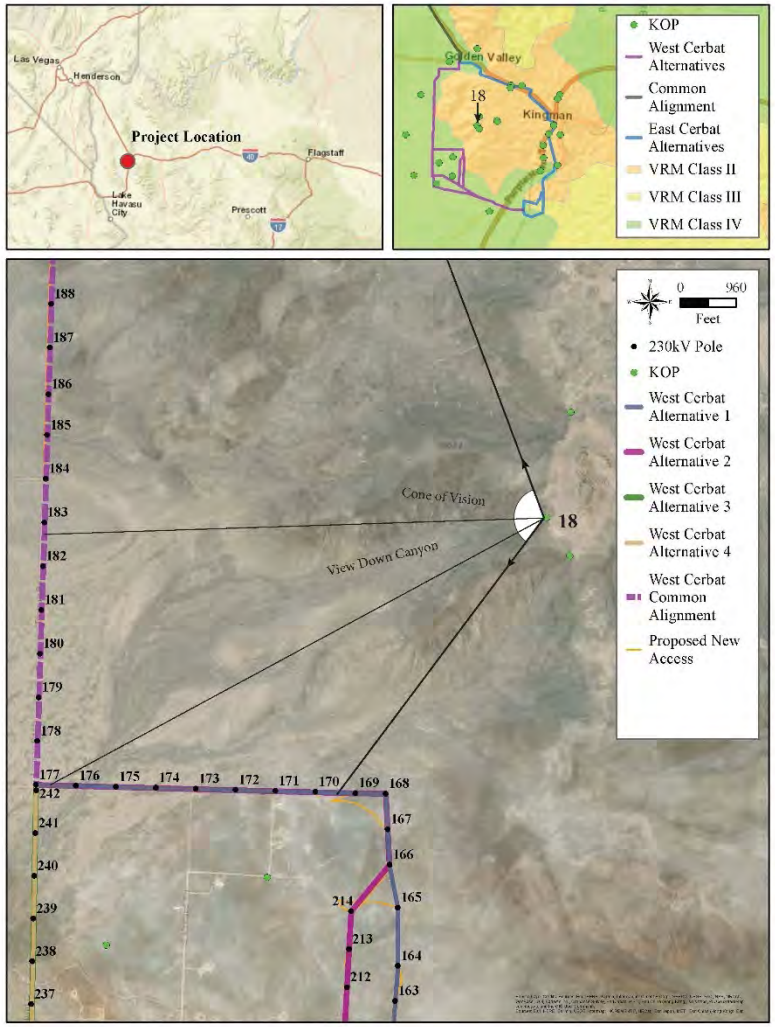


Exhibit G-26. Visual simulation, KOP 18, West Cerbat Common Alignment, 6/4/2016 (looking west).

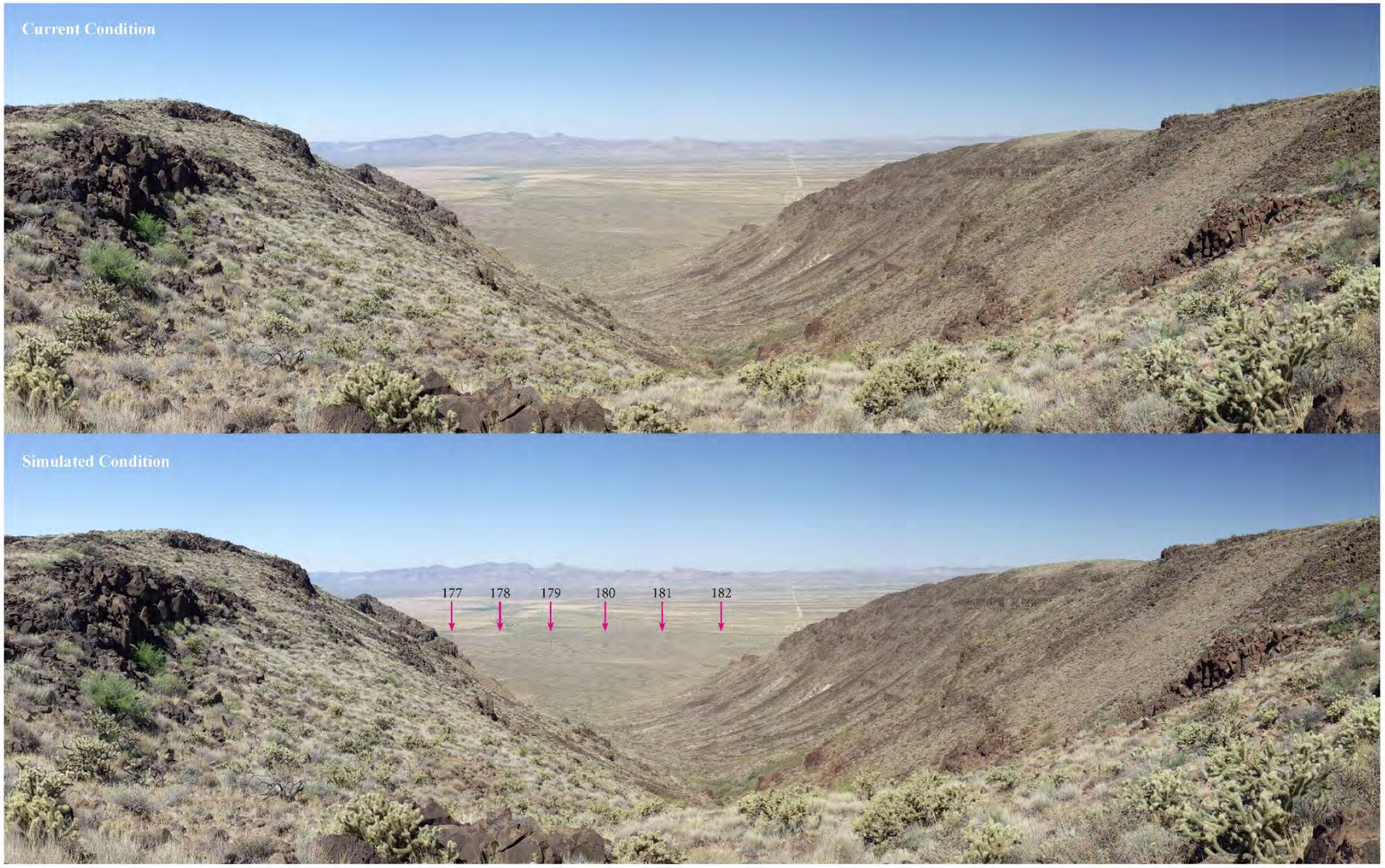


Exhibit G-26. Visual simulation, KOP 18, West Cerbat Common Alignment, 6/4/2016 (looking west).

GOLDEN VALLEY

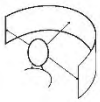
230kV Transmission Line Project

KOP 20

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences in the area that are approximately a half mile from the project
- Location: Private property east of Bacobi Road
- UTM Coordinates (NAD83 Zone 12 N): 212630 E, 3899790 N
- View Point Elevation at Eye Level: 2,894 ft
- Looking: East
- Poles Visible from KOP: West Cerbat Alternative poles 186-196

Simulation Notes
- Photo taken 6/3/2016, 14:03
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 2,560 feet northwest of the nearest pole portrayed in the simulation.
- Eleven poles and portions of new access roads are visible in the simulation. Conductors are difficult to see.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

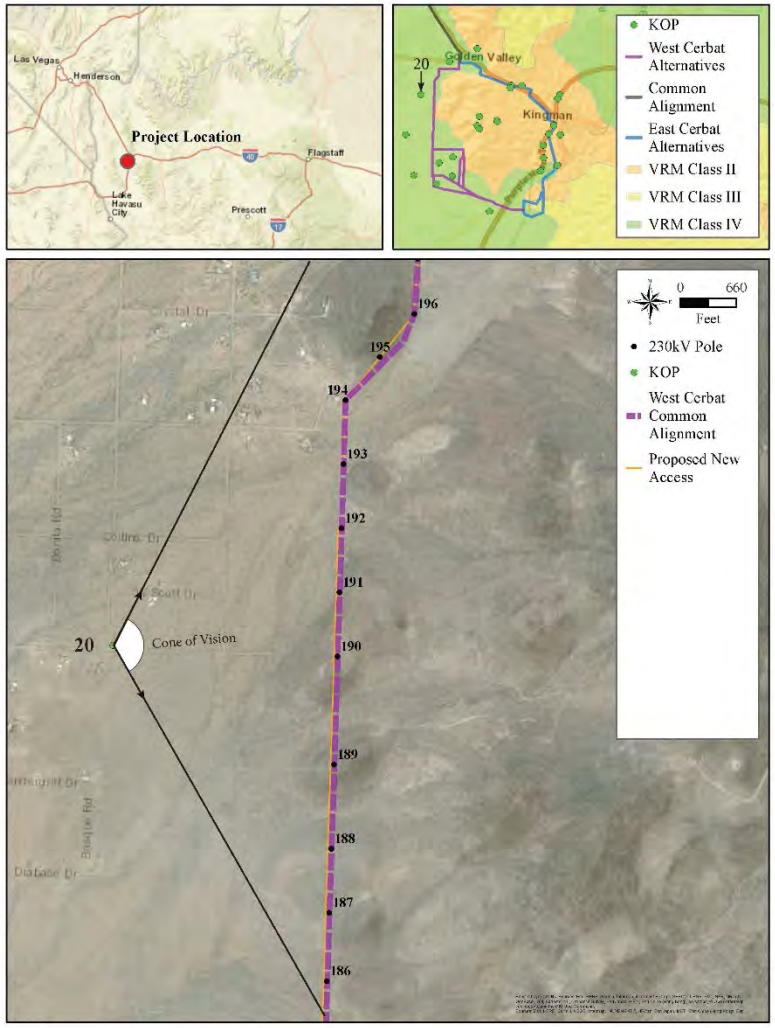


Exhibit G-27. Visual simulation, KOP 20, West Cerbat Common Alignment, 6/3/2016 (looking east).

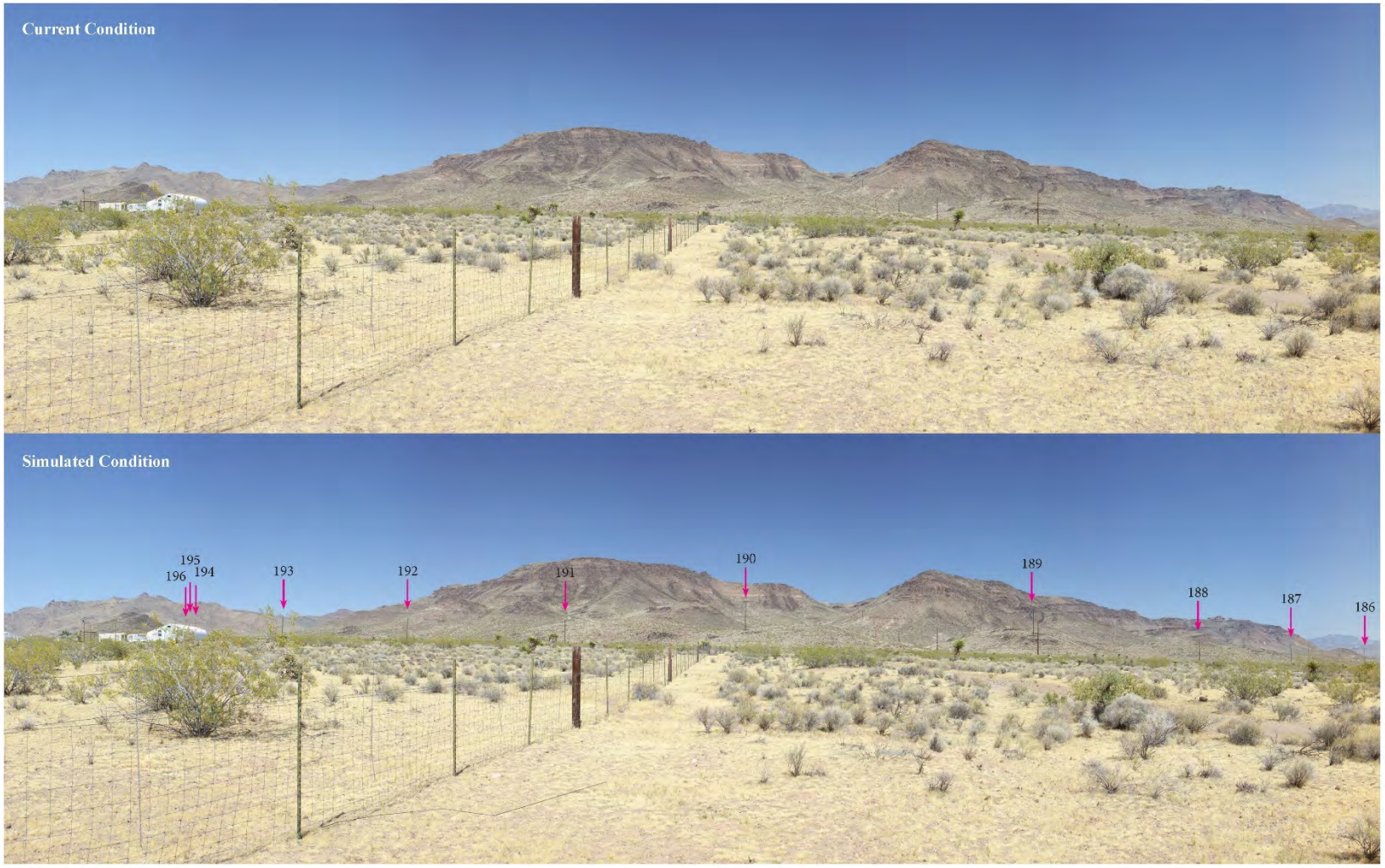


Exhibit G-27. Visual simulation, KOP 20, West Cerbat Common Alignment, 6/3/2016 (looking east).

GOLDEN VALLEY

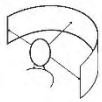
230kV Transmission Line Project

KOP 21

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Businesses and Golden Valley residents approximately a half mile from the project
- Location: Business parking area along Highway 68
- UTM Coordinates (NAD83 Zone 12 N): 214329 E, 3901760 N
- View Point Elevation at Eye Level: 3,177 ft
- Looking: South
- Poles Visible from KOP: West Cerbat Alternative poles 200-204

Simulation Notes
- Photo taken 6/4/2016, 10:52
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 2,560 feet northwest of the nearest pole portrayed in the simulation.
- Poles visible are indicated with arrows.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

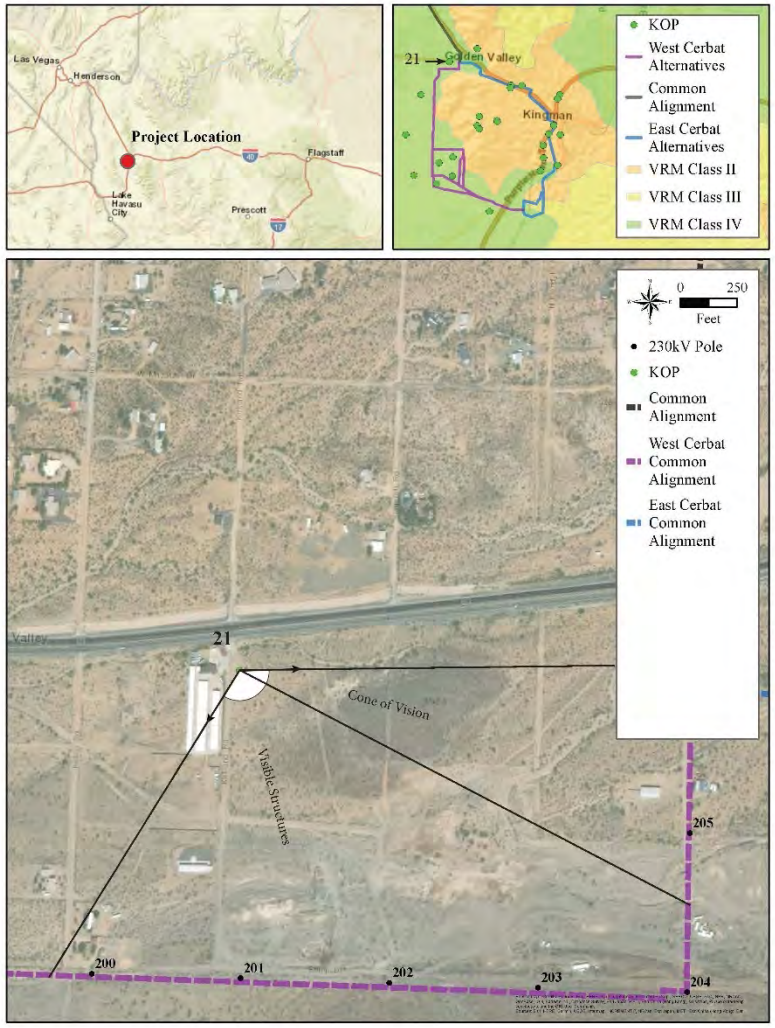


Exhibit G-28. Visual simulation, KOP 21, West Cerbat Common Alignment, 6/4/2016 (looking south).

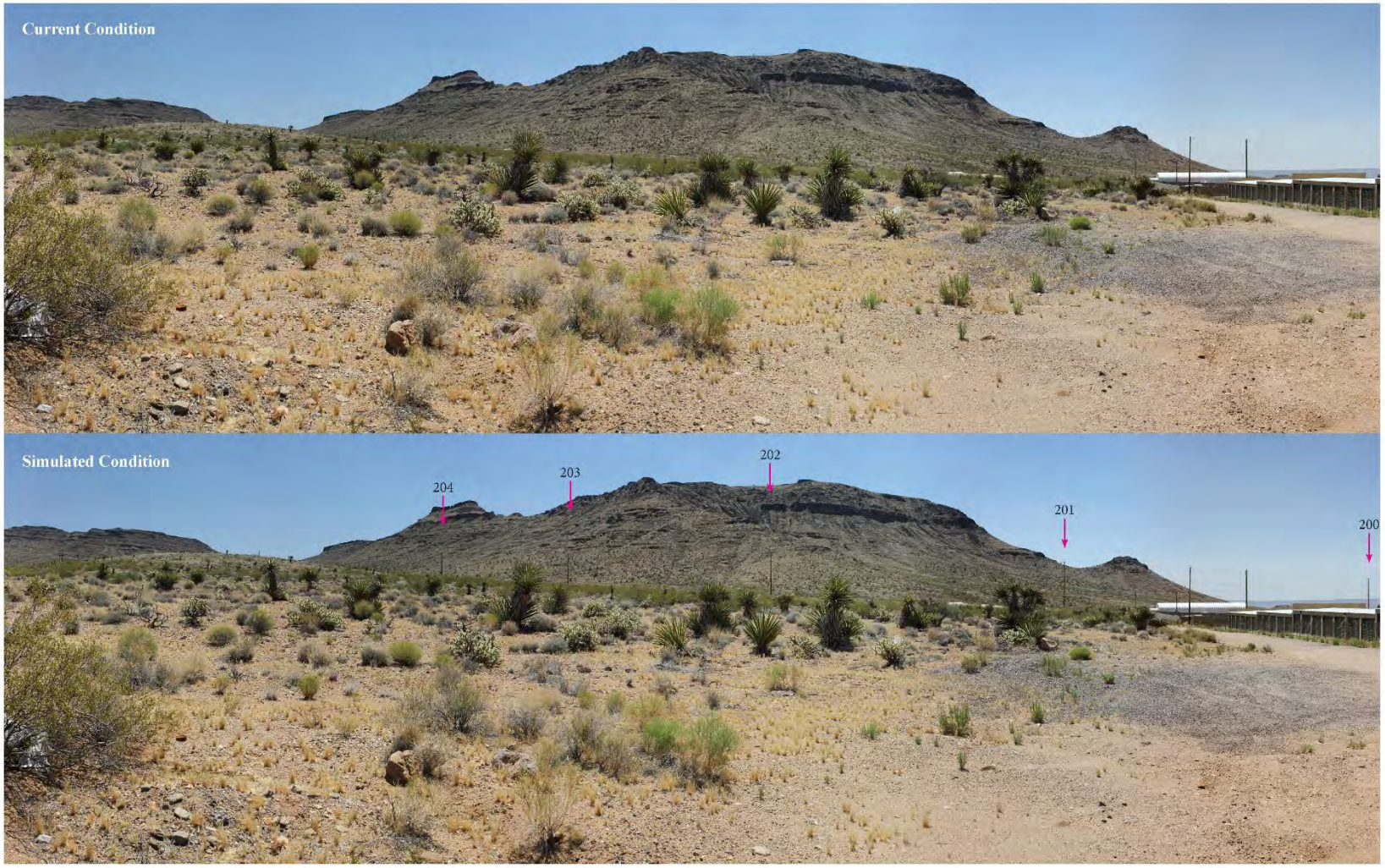


Exhibit G-28. Visual simulation, KOP 21, West Cerbat Common Alignment, 6/4/2016 (looking south).

GOLDEN VALLEY

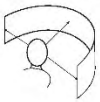
230kV Transmission Line Project

KOP 34

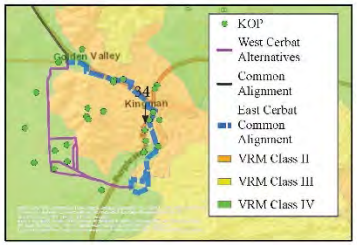
Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 31 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Northbound travelers on Interstate 40
- Location: Interstate 40 southwest of Kingman, AZ
- UTM Coordinates (NAD83 Zone 12 N): 219946 E, 3896352 N
- View Point Elevation at Eye Level: 3,164 ft
- Looking: North
- Poles Visible from KOP: 282, 35, 34, 33

Simulation Notes
- Photo taken 11/13/2018, 11:50 AM
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 1,500 feet west of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. The top portions of four poles are visible in the simulation. Conductors are difficult to see.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration



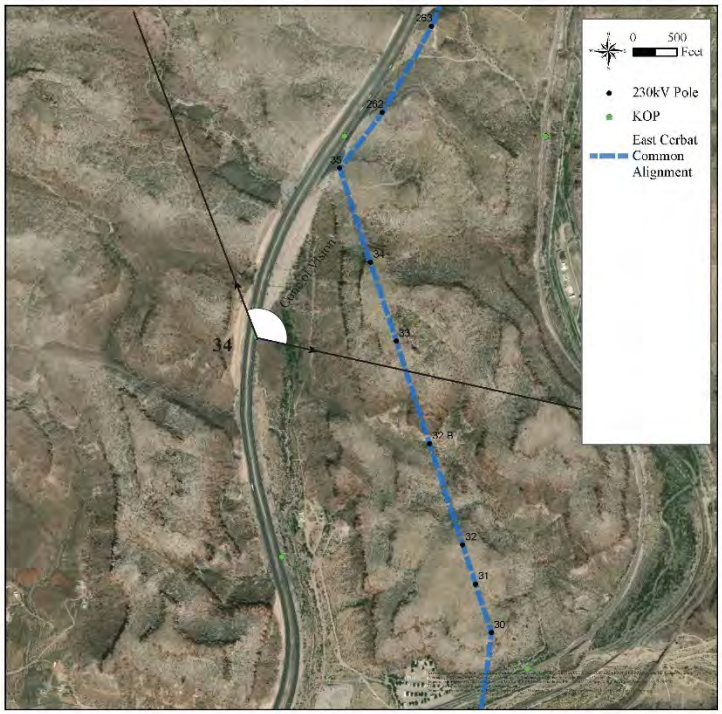


Exhibit G-29. Visual simulation, KOP 34, East Cerbat Common Alignment, 11/13/2018 (looking north).

Exhibit G-29. Visual simulation, KOP 34, East Cerbat Common Alignment, 11/13/2018 (looking north).

GOLDEN VALLEY

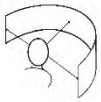
230kV Transmission Line Project

KOP 36

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Southbound travelers on Interstate 40
- Location: Interstate 40 northwest of Kingman, AZ
- UTM Coordinates (NAD83 Zone 12 N): 220822 E, 3899187 N
- View Point Elevation at Eye Level: 3,337 ft
- Looking: South
- Poles Visible from KOP: 39, 266, 265, 264, 263, 262

Simulation Notes
- Photo taken 11/16/2018, 12:47 PM
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 4,500 feet north of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. All or part of six poles are visible in the simulation, conductors are difficult to see.
- The simulation is based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.



Recommended Viewing Configuration

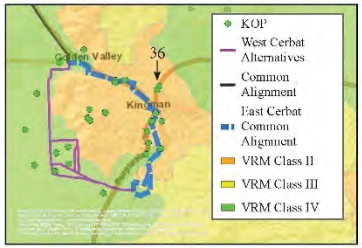


Exhibit G-30. Visual simulation, KOP 36, East Cerbat Common Alignment, 11/16/2018 (looking south).

Exhibit G-30. Visual simulation, KOP 36, East Cerbat Common Alignment, 11/16/2018 (looking south).

H. EXHIBIT H—EXISTING PLANS

As stated in Arizona Administrative Code R14-3-219:

> *To the extent applicant is able to determine, state the existing plans of the state, local, government, and private entities for other developments at or in the vicinity of the proposed site or route.*

H.1 Land Use

This section summarizes the lands within the Project area in terms of ownership and jurisdiction, existing land use, zoning, and planned and proposed uses. The land use study area includes those areas where land use could be directly or indirectly affected by construction and operation of the planned Golden Valley 230 kV transmission line. Specifically, for existing land use and existing zoning, the study area is 1 mile on either side of the centerline of each of the Project alternatives. For ownership and jurisdiction and planned and proposed land use, the study area is 2 miles on either side of the proposed transmission line centerline alternatives. Inventoried data was gathered through aerial photograph interpretation, field verification, and the review of various documents, including general plans and maps, zoning/land development codes, and master plans. In addition, jurisdictional websites were reviewed, and direct contact was made with federal, state, and local agency staff.

The entire study area is within Mohave County, Arizona. The City of Kingman, located in the southeastern portion of the Project study area, is the county seat of Mohave County.

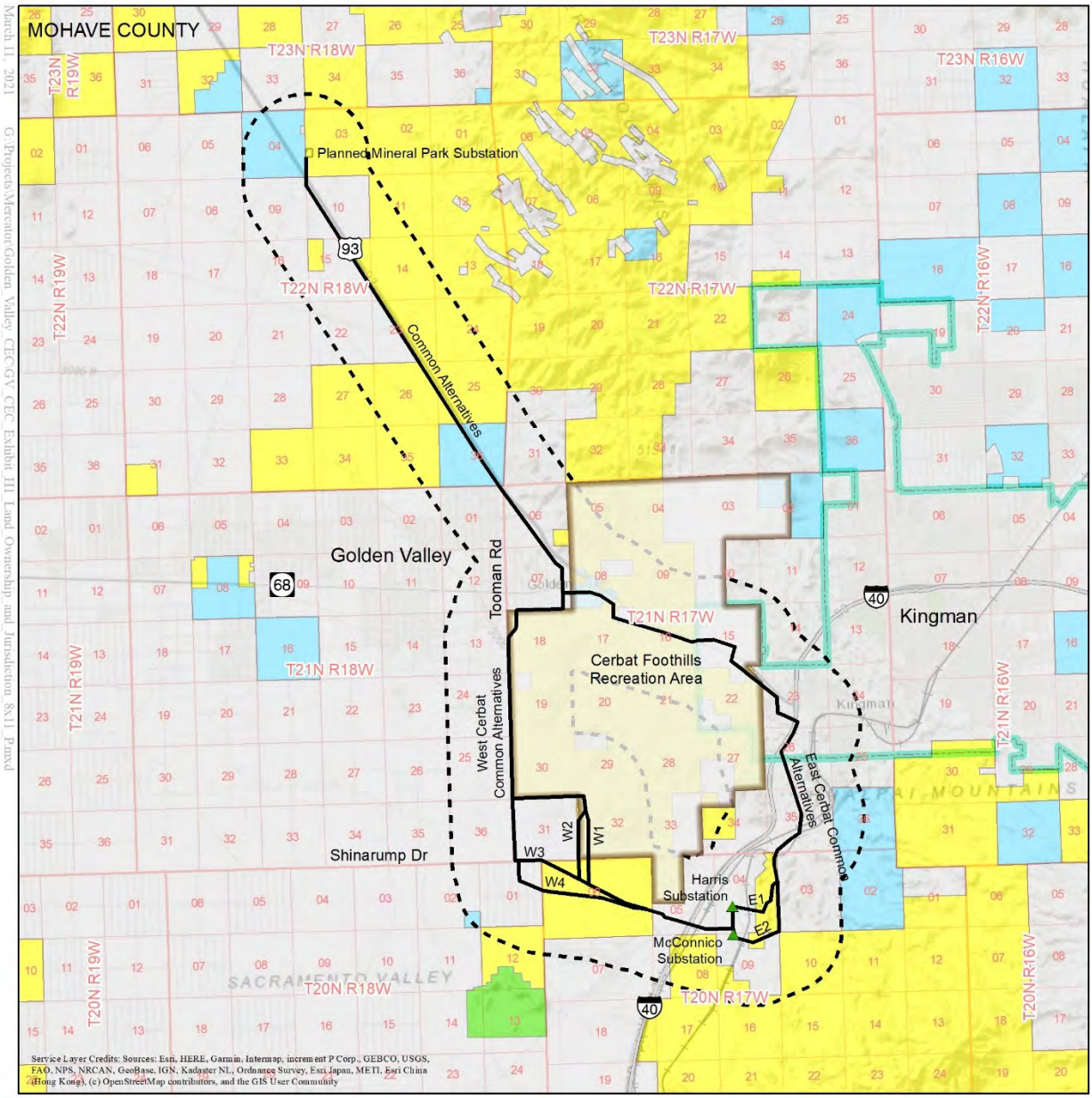
H.1.1 Land Ownership and Jurisdiction

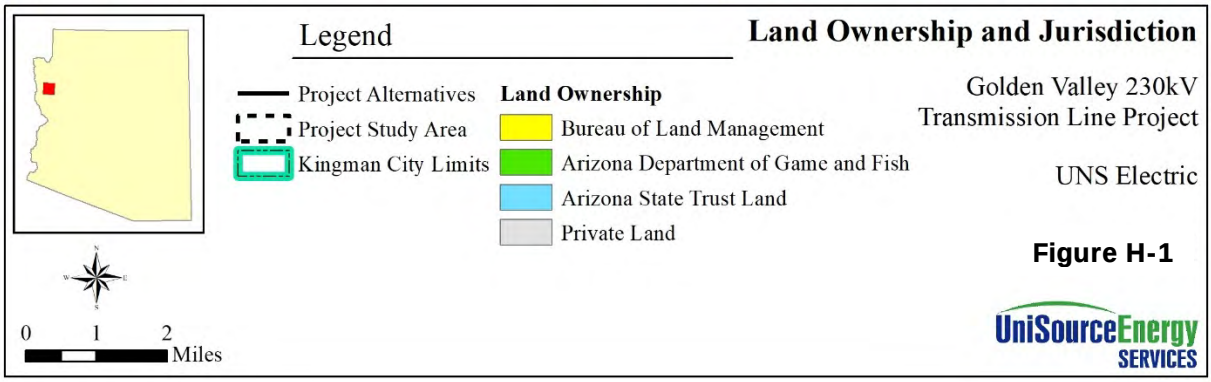
Land ownership and jurisdiction defines the limits of administrative or jurisdictional control maintained by the major landholders located in the vicinity of the Project (**Figure H-1**). Land status designations are important to the siting of transmission lines because they influence or directly determine such things as land use and zoning regulations and administrative planning goals for particular parcels or districts. **Table H-1** summarizes land ownership by alternatives.

TABLE H-1
LAND OWNERSHIP BY PROJECT ALTERNATIVE (MILES)*

Action Alternatives	Land Jurisdiction			Total Length
	Private	BLM	ASLD	
East Cerbat Alternatives				
E1	10.8**	4.4	1.8	**17.0**
E2	11.4**	4.8	1.8	**18.0**
West Cerbat Alternatives				
W1	7.5	8.9	1.2	**17.6**
W2	7.5	9.0	1.2	**17.7**
W3	9.0	7.2	1.2	**17.4**
W4	9.3	7.0	1.2	**17.5**

*Alternative length is measured from the Harris Substation to the Mineral Park Substation, inclusive of all common or overlapping segments.
**Includes some land owned by the City of Kingman.


MOHAVE COUNTY
T23N R18W
T23N R17W
T23N R16W
T23N R19W
Planned Mineral Park Substation
93
T22N R18W
T22N R17W
T22N R19W
T22N R16W
Common Alternatives
Golden Valley
68
Tooman Rd
T21N R17W
40
Kingman
Cerbat Foothills Recreation Area
T21N R18W
T21N R19W
T21N R16W
West Cerbat Common Alternatives
East Cerbat Common Alternatives
W1
W2
W3
W4
Shinarump Dr
Harris Substation
E1
E2
McConnico Substation
T20N R18W
T20N R17W
T20N R19W
T20N R16W
SACRAMENTO VALLEY
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
March 11, 2021
G:\Projects\Mercator\Golden_Valley_CEC\GV_CEC_Exhibit_H1_Land_Ownership_and_Jurisdiction_8x11_Portrait.mxd

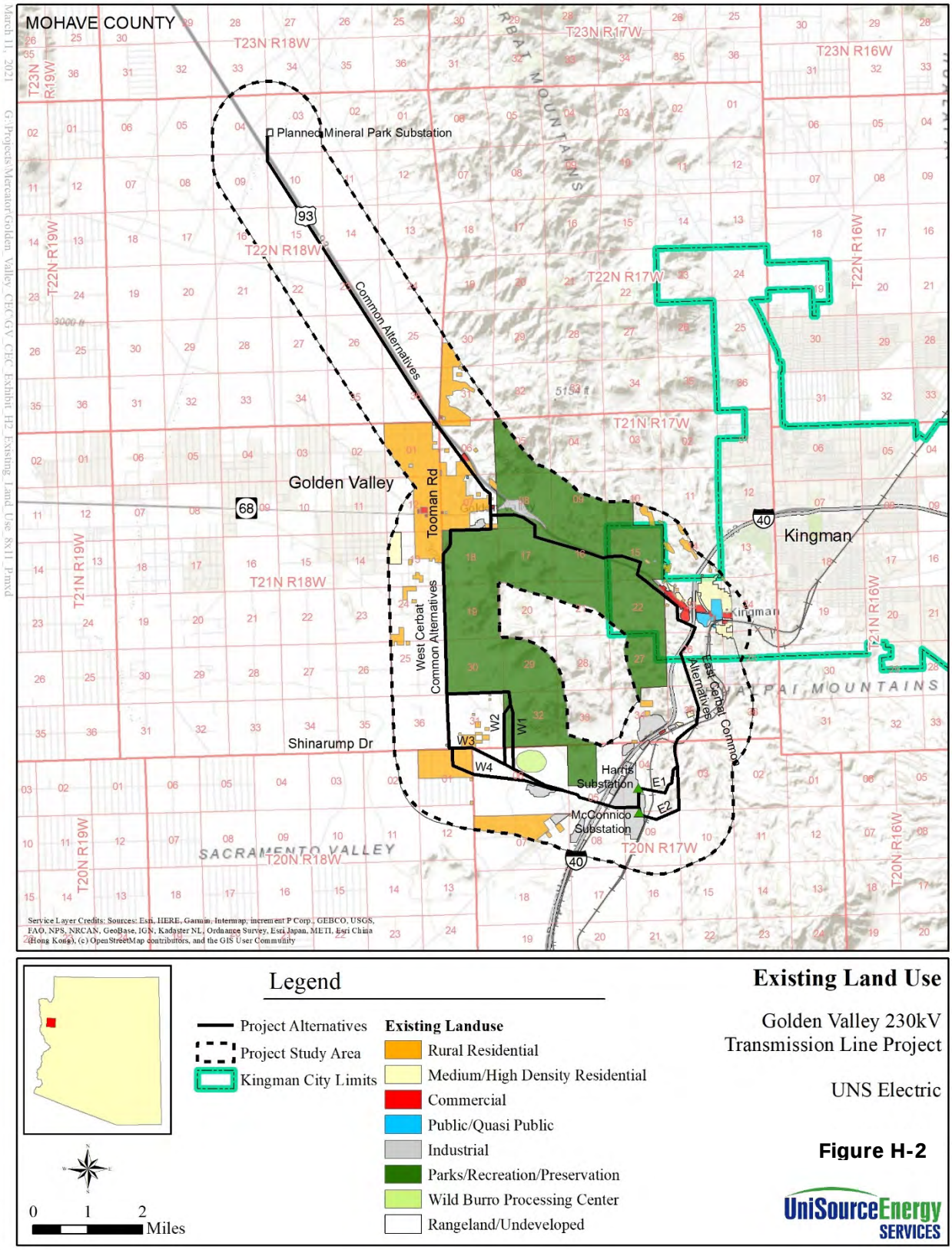

Legend
Project Alternatives
Project Study Area
Kingman City Limits
Land Ownership
Bureau of Land Management
Arizona Department of Game and Fish
Arizona State Trust Land
Private Land
0 1 2 Miles
Land Ownership and Jurisdiction
Golden Valley 230kV Transmission Line Project
UNS Electric
Figure H-1
UniSourceEnergy SERVICES

Each of the Project alternatives cross a mix of federal and state-owned and -managed and private land. The federally managed land crossed by the Project alternatives is administered by the BLM KFO. There are also several areas held in public trust and administered by the ASLD.

Portions of the East Cerbat alternatives cross over private lands within the City of Kingman and unincorporated Mohave County. Golden Valley, located along the route common to all alternatives and the West Cerbat alternatives, is an unincorporated area and is administered directly by Mohave County.

H.1.2 Existing Land Use

There are a mix of existing land uses within the Project study area. Existing land uses are depicted in **Figure H-2**.


MOHAVE COUNTY
Planned Mineral Park Substation
Common Alternatives
Golden Valley
Tooman Rd
West Cerbat Common Alternatives
East Cerbat Common Alternatives
Kingman
Shinarump Dr
W1
W2
W3
W4
Harris Substation
E1
E2
McConnico Substation
HUALAPAI MOUNTAINS
SACRAMENTO VALLEY
T23N R18W
T23N R17W
T23N R16W
T22N R18W
T22N R17W
T22N R16W
T21N R18W
T21N R17W
T21N R16W
T20N R18W
T20N R17W
T20N R16W
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Legend
Project Alternatives
Project Study Area
Kingman City Limits
Existing Landuse
Rural Residential
Medium/High Density Residential
Commercial
Public/Quasi Public
Industrial
Parks/Recreation/Preservation
Wild Burro Processing Center
Rangeland/Undeveloped
0 1 2 Miles
Existing Land Use
Golden Valley 230kV Transmission Line Project
UNS Electric
Figure H-2
UniSourceEnergy SERVICES

Residential

Residential areas are categorized and depicted in **Exhibit H-2** based on the density of dwellings within a given area. Rural residential areas are low-density housing areas, including ranchettes, rural residences, and other single-family dwellings on large rural and/or agricultural parcels. Much of Golden Valley falls within this category. Due to the relatively small population size within the City of Kingman and Mohave County and the rural nature of much of the study area, residential areas with four or more dwelling units per acre are considered medium-high density residential. This category includes most developed subdivisions as well as high-density housing such as condominiums, townhouses, and apartments.

Several existing residential subdivisions are within the Project study area: So-Hi Estates, Walnut Creek Estates, Sacramento Valley Ranches, Golden Sage Ranchos, Sun West Acres, Golden Valley Ranches, Metcalfe Acres, and the Kingman New School House Addition. In addition, two recreational vehicle (RV) parks are located in the project area; one, the Canyon West RV Park, is located adjacent to US 66 within 1,000 feet of the East Cerbat common alternative; and a second, the Golden Valley RV Park, is located west of US 93 in Golden Valley and is adjacent to the common alternative alignment. A count of existing residences adjacent to the East Cerbat and West Cerbat alternatives is summarized in **Table H-2**.

TABLE H-2
RESIDENCES AND OCCUPIED RECREATIONAL VEHICLES/MOBILE HOMES ADJACENT TO TRANSMISSION LINE ALTERNATIVES

Alternative	Number of Inhabitable Residential Structures and Occupied RVs/Mobile Homes (distance from centerline)		
	Within 100 feet	Within 500 feet	Within 1,000 feet
E1	14	51	141
E2	14	51	141
W1	14	51	85
W2	14	51	85
W3	16	56	96
W4	16	51	88

The Canyon West RV Park and the Golden Valley RV Park have a mix of short-term and long-term residents, but most of the recreational vehicles in these parks are generally considered to be temporary and not a permanent residence. **Table H-3** provides permanent residential house counts adjacent to the East and West Cerbat alternatives.

TABLE H-3
PERMANENT RESIDENTIAL STRUCTURES* ADJACENT TO TRANSMISSION LINE ALTERNATIVES

Alternative	Number of Residential Structures (distance from centerline)		
	Within 100 feet	Within 500 feet	Within 1,000 feet
E1	8	28	93
E2	8	28	93

TABLE H-3 PERMANENT RESIDENTIAL STRUCTURES* ADJACENT TO TRANSMISSION LINE ALTERNATIVES			
Alternative	Number of Residential Structures (distance from centerline)		
	Within 100 feet	Within 500 feet	Within 1,000 feet
W1	8	35	71
W2	8	35	71
W3	10	40	82
W4e	10	35	74
*Defined as residences with a foundation, and does not include recreational vehicles used for short- or-long-term housing			

Public and Quasi-Public

Public and quasi-public uses include schools, churches, cemeteries, airports, and other facilities generally associated with public use (not including parks). There are no public or quasi-public facilities along the West Cerbat alternatives. Along the East Cerbat alternatives and within the City of Kingman, public and quasi-public land uses include the Mohave County Sheriff's Department, several Mohave County offices, Kingman Cerbat Justice Court, Mohave County Jail, Mohave County Juvenile Detention Center, Mohave Museum of History and Arts, Kingman Visitor Center, Lee Williams High School, Palo Christy Elementary School, and Grandview Public Pool. ADOT operates the Kingman Port of Entry and Weigh Station near the intersection of US 93 and SR-68. There are no airports within the study area.

Commercial

Commercial uses, which include business, office, and retail land uses, are generally located along the East Cerbat alternatives in or near the City of Kingman, specifically near the intersection of I-40 and US 93. Commercial uses are also located near the portion of the Project that share common alignments, generally along major transportation corridors, including US 93 and SR-68. A variety of transportation services, such as truck stops, service stations, automobile repair facilities, vehicle sales, convenience stores, fast food and sit-down restaurants, and other related service businesses, are located along these transportation corridors. No commercial uses are located along the West Cerbat alignments.

Industrial

Industrial land uses are found near the point of origin of all the Project alternatives at the Harris Substation along I-40 and also near the US 93 and SR-68 interchange. Industrial facilities near the E1 and E2 alternatives include Nucor Steel, Harris and McConnico electrical substations, a variety of warehouses and trucking distribution centers, and several vehicle scrap yards. The West Cerbat alternatives are near the Nucor Steel plant and some warehouse/distribution facilities. Further west along the W4 alignment, there is a material extraction area south of Shinarump Road used by Mohave County. Another area along the West Cerbat alternatives near the US 93 and SR-68 interchange includes a disturbed area that is used for sand and gravel extraction.

Parks, Recreation, and Preservation

Parks, recreation, and preservation uses include areas, sites, or facilities used for recreational purposes or formally designated by a governmental agency for conservation or protection purposes. Such areas within the Project study area include the CFRA, Fort Beale Spring Park, Locomotive Park, Charles Metcalfe Park, Hubbs Neighborhood Park, and the Grandview Public Pool. Additional information regarding recreational aspects identified in the Project area is located with this Application under **Exhibit F**.

Range Land / Undeveloped

Large areas of undeveloped land are found throughout much of the study area, particularly west and south of the City of Kingman and north of Golden Valley along the US 93 corridor. Some of this land is used for livestock grazing, which primarily occurs on private land and open rangelands administered by the BLM and ASLD. Grazing allotments and leases issued by the BLM and ASLD within the study area are listed in **Table H-4**.

TABLE H-4
GRAZING LEASES (ASLD) AND PERMITS (BLM)

Administered By	Location within Study Area (alternative)	Lease Number	Name/Owner
BLM	Far north; alternative alignments do not cross this allotment	00055	Mineral Park
BLM	West of US 93; near northern extent of the shared portion of all alternatives	00060	Pine Springs
BLM	East of US 93 and due north of Golden Valley; near northern extent of shared portion of all alternatives	00087	Mud Springs (Little Cane)
BLM	East of US 93, near the intersection of US 93 and SR-68; northeast of shared portion of all alternatives	00018	Castle Rock
BLM	West of US 93 and immediately north of Golden Valley; southwest of shared portion of all alternatives	00027	Curtain
BLM	Covers some of the CFRA and surrounded by East/West Cerbat alternatives; W1 and W2 West Cerbat alternatives cross over western portion of allotment	00024	Cook Canyon
BLM	Southeastern portion of Project study area; portions of East Cerbat alternatives cross this allotment	00052	Lazy Yu
BLM	Far eastern portion of the Project study area, south of Kingman; no alternatives cross this allotment	00047	Hualapai Peak
ASLD	No alternatives cross this allotment	908	Overson Revocable Trust
ASLD	No alternatives cross this allotment	908	Overson Revocable Trust
ASLD	The East and West Cerbat alternatives cross this allotment	91730	Gross Family Limited Partnership

Transportation, Utilities, and Communication Towers

Transportation—Ground transportation features within the study area include I-40, US 93, US 66, and SR-68, as well as city and county jurisdictional roads and two railroads. There are numerous major local roadways within the study area, including Shinarump Road, Bacobi Road, and Mineral Park Road. There are no airports within the study area.

Utilities—Utilities inventoried include electrical transmission lines, electrical substations, renewable energy facilities, major pipelines, fiber optic lines, communication lines, water lines, wells, and wastewater lines. Transmission lines are electric lines that transport electricity in bulk for long distances. Electrical transmission lines within the study area are operated by UNSE, Mohave Electric Cooperative, and WAPA. UNSE operates several 69 kV transmission lines within the study area, located primarily along major roadways. In addition, UNSE owns and operates several substations within the study area. These lines are built on varied structures such as lattice towers, steel monopoles, and wood poles. Electrical distribution lines are located throughout the study area, usually adjacent to roads. East of the Harris Substation, Western Wind Energy owns and operates a 10.5-megawatt wind and solar farm. The facility is currently comprised of 5 wind turbines and a 500-kilowatt photovoltaic solar array.

A variety of fiber optic and telecommunication lines extend throughout the Project study area, generally along the primary transportation routes.

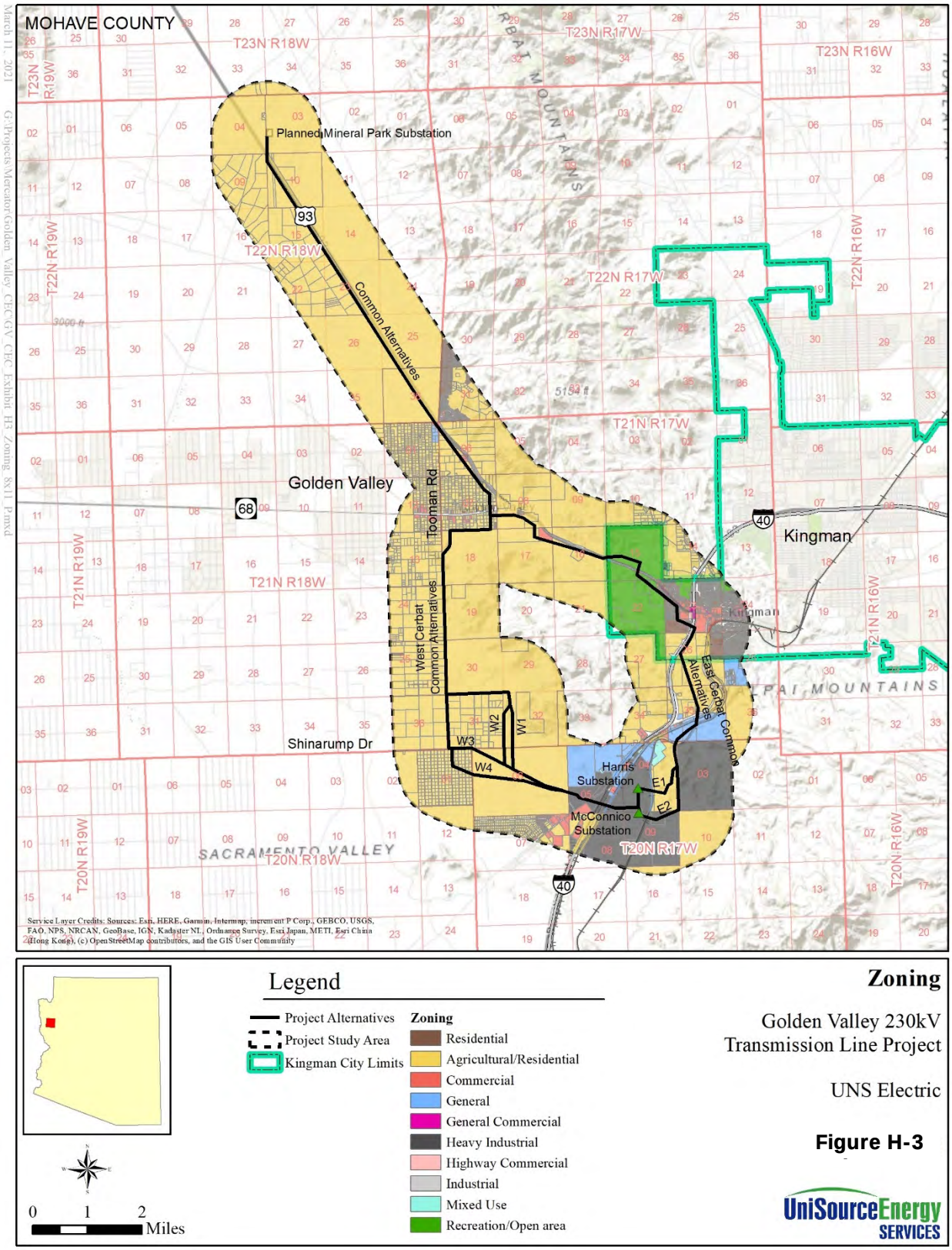
Several public and private wells primarily associated with residential areas are also located within the study area. Water and wastewater pipelines are also found throughout the study area, generally within or adjacent to roads in developed areas.

Communication and Radio Towers—The KAAA 97.5 FM radio tower is located near the intersection of I-40 and US 66 in the southern portion of the Project study area. It broadcasts 24-hour talk radio. A multi-use radio tower is located near the junction of US 93 and SR-68 in Golden Valley and primarily serves KYET 1170 AM radio broadcast. KYET broadcasts classic country. **Exhibit I** provides more details about these radio towers and their location.

There is also a microwave tower located between the CFRA and I-40 in the southern part of the study area and a cellular tower about 1 mile northeast of the US 93 and SR-68 intersection on the west side of US 93.

H.1.3 Zoning

Zoning is the single most commonly used legal device for implementing a land use plan or for controlling the type of development within a given area. The source of statutory authority for the Zoning Code is in the form of the State Enabling Act. Zoning was inventoried and mapped for portions of Mohave County, City of Kingman, and all areas where land could be directly or indirectly affected by the proposed Project (**Figure H-3**).


MOHAVE COUNTY
Planned Mineral Park Substation
Common Alternatives
Golden Valley
Tooman Rd
West Cerbat Common Alternatives
East Cerbat Common Alternatives
Kingman
Shinarump Dr
W1
W2
W3
W4
Harris Substation
E1
E2
McConnico Substation
T23N R18W
T23N R17W
T23N R16W
T22N R18W
T22N R17W
T22N R16W
T21N R18W
T21N R17W
T21N R16W
T20N R18W
T20N R17W
T20N R16W
SACRAMENTO VALLEY
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Legend
Project Alternatives
Project Study Area
Kingman City Limits
Zoning
Residential
Agricultural/Residential
Commercial
General
General Commercial
Heavy Industrial
Highway Commercial
Industrial
Mixed Use
Recreation/Open area
0 1 2 Miles
Zoning
Golden Valley 230kV Transmission Line Project
UNS Electric
Figure H-3
UniSourceEnergy SERVICES

The majority of the private land within the study area is within the jurisdiction of Mohave County. County zoning adjacent to the proposed Project alternatives includes A-R (Agricultural Residential) located throughout the study area, A (General), M-X (Heavy Manufacturing), and C-MO (Commercial Manufacturing—Open Lot Storage) situated along the I-40 corridor. Scattered districts of R-E (Residential Recreation) and R-O (Single-Family Residential/Manufactured Homes Prohibited) zoning are also found throughout the study area, and C-2H (Highway Commercial) is present along SR-68. A-R is the most prevalent zoning district throughout the study area.

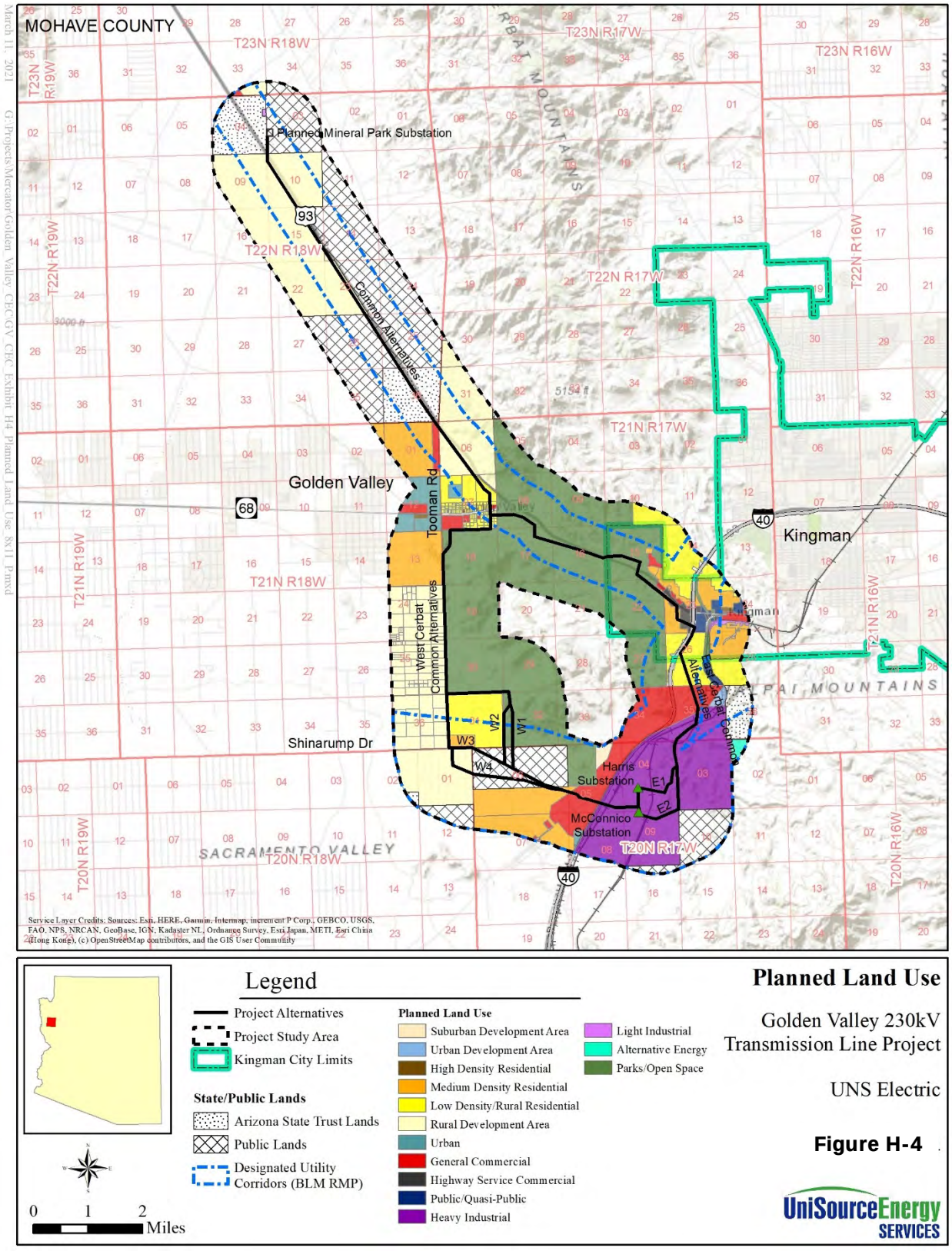
Land along the East Cerbat alignments within the City of Kingman includes several open areas labeled O (Recreational Open Areas) and O and C-3 (Recreational Open Areas/Commercial, Service Business). Building density increases with proximity to downtown and/or major roadways, including US 93, West Beale Street, and I-40, increases. Downtown Kingman zoning consists of variations of C-2 and C-3 (Commercial, Community Business—Commercial, Service Business), be that strictly community business, service business, or a combination. Most structures adjacent to West Beale Street, Kingman's main street, are C-2 (Commercial, Community Business). Zoning north of West Beale Street includes R-2 (Residential, Multiple-Family, Low Density) and R-1-6 (Residential, Single-Family 6,000-square-foot Lot Minimum). Zoning south of West Beale Street includes C-3 and R-MH-6 (Residential, Manufactured Home 6,000-square-foot Lot Minimum).

H.1.4 Planned and Proposed Land Use

Planned land use information was obtained from general and comprehensive area plans adopted by federal, state, county, and municipal agencies. The primary purpose of general and comprehensive plans is defined in state law: "The comprehensive plan shall be developed to conserve the natural resources of the county (city), to ensure efficient expenditure of public funds, and to promote the health, safety, convenience, and general welfare of the public."

The Comprehensive Plan serves as a guide for decisions by the Planning and Zoning Commission and Board of Supervisors concerning growth and development, while also serving as a guide for the private sector in making informed investment decisions.

The planning efforts and information available from the BLM, State of Arizona, and Mohave County describe short- and long-term goals and expectations but vary substantially in complexity and level of accuracy. Planned land use designations have been generalized to incorporate different jurisdictional categories (**Figure H-4**).


MOHAVE COUNTY
T23N R18W
T23N R17W
T23N R16W
T23N R19W
T22N R19W
T22N R18W
T22N R17W
T22N R16W
T21N R17W
T21N R19W
T21N R18W
T21N R16W
T20N R19W
T20N R18W
T20N R17W
T20N R16W
Planned Mineral Park Substation
93
68
40
Golden Valley
Kingman
Tooman Rd
Shinarump Dr
Common Alternatives
West Cerbat Common Alternatives
East Cerbat Common Alternatives
W1
W2
W3
W4
Harris Substation
E1
E2
McConnico Substation
RAT MOUNTAINS
PAI MOUNTAINS
SACRAMENTO VALLEY
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Legend
Project Alternatives
Project Study Area
Kingman City Limits
State/Public Lands
Arizona State Trust Lands
Public Lands
Designated Utility Corridors (BLM RMP)
Planned Land Use
Suburban Development Area
Urban Development Area
High Density Residential
Medium Density Residential
Low Density/Rural Residential
Rural Development Area
Urban
General Commercial
Highway Service Commercial
Public/Quasi-Public
Heavy Industrial
Light Industrial
Alternative Energy
Parks/Open Space
0 1 2 Miles
Planned Land Use
Golden Valley 230kV Transmission Line Project
UNS Electric
Figure H-4
UniSourceEnergy SERVICES

The primary planning documents with regulatory authority over the lands crossed by the alternatives include the Mohave County General Plan, City of Kingman General Plan Update 2030, and the RMP of the BLM KFO.

BLM

The BLM completed its current RMP in 1993. The overall goal of the Kingman RMP is to provide quality multiple use and sustained yield resource management of the public lands. General objectives have been established to ensure that the RMP provides quality management direction that responds to the issues and meets specific needs of the resources.

The Kingman RMP designates two utility corridors within the study area: Davis-Prescott, a 2-mile-wide utility corridor extending east-west across the southern portion of the study area, and the Highway, a 1-mile corridor generally extending along US 93 northwest of Kingman and along I-40 both east and west of Kingman.

In addition, the majority of the study area is managed for visual resources as a Class II Visual Management Area. The Class II objective is "To retain the existing character of the landscape. The level of change to the characteristic landscape should be low." More information about Visual Resources is located in **Exhibit E**.

The BLM manages the area east of Tooman Road and northeast of the City of Kingman as part of the CFRA, also referred to as the Kingman Regional Park Special Recreation Management Area in the RMP. A Special Recreation Management Area is designated where intensive recreation management is needed. A Management Plan for the CFRA was adopted in 1995 in cooperation with the BLM, the City of Kingman, and the Arizona Game and Fish Department. This plan provides the framework for long-range cooperative management of the CFRA and identifies BLM- and city-controlled land and private lands considered for future acquisition and development for recreational purposes.

Cerbat Herd Management Area is an 83,000-acre Herd Management Area owned and managed by the BLM. Situated just 5 miles north of Kingman to the east of US 93 along the common alternative route, this area houses prime chaparral grassland and desert shrub habitat. The Cerbat Herd Area is one of only two designated wild horse areas in the State of Arizona. Approximately 70 wild horses roam the area, with the population largely being kept in check by the dense mountain lion population. These horses are managed by the BLM "as living symbols of the historic and pioneer spirit of the West."

State of Arizona

Portions of the study area consist of undeveloped tracts of land administered by the ASLD. The State of Arizona does not have a Comprehensive Management Plan for lands in the vicinity of the study area. The majority of State of Arizona land in the study area is currently leased for grazing, and no change is expected in the near future.

Mohave County

The Mohave County General Plan was adopted in September 2015. The primary purpose of the General Plan is to meet state requirements for future development of the county and provide the citizens of Mohave

County an opportunity to incorporate their own ideas for the county into the plan. Most importantly, the 2015 General Plan is a public tool for the citizens of Mohave County to guide the growth they wish to see through the year 2035.

The county has been divided into a number of land use designations. The intent of these land use categories is to provide direction in determining the growth patterns for today and for the future. The General Plan Land Use Diagram is based on the goals, objectives, and policies developed through citizen, agency, and governmental participation and takes into consideration physical conditions and environmental constraints.

The land use designations for Mohave County that are within the study area include:

Urban Development Area (UDA)—This area is intended to provide for more intense urban development near cities and in outlying communities. While residential densities typically will range from 2 to 5 dwellings per acre, high-density development of up to 25 units per acre may be permitted. Urban services and facilities will be required for both residential and non-residential development in this area.

Suburban Development Area (SDA)—This is an area intended for development of lower-density residential neighborhoods with many of the amenities of urban areas. Suburban lot sizes range from 1 to 5 acres in size. Neighborhood commercial uses are permitted at appropriate locations where they are compatible with adjacent uses and infrastructure.

Rural Development Area (RDA)—This is an area where residents maintain a more rural lifestyle, with wide open spaces and few neighbors. Most of the land in Mohave County is included in this area type. Properties in these areas are generally at least 5 acres in size or larger. A significant amount of land within this area type is owned by the federal or state governments.

High-Density Residential (HDR)—This designation is used to show the highest density planned in Mohave County. Development could range from 12 to a maximum of 25 dwelling units per acre. Higher density areas provide opportunities to develop uses such as townhomes, apartments, or condominiums which can serve as a buffer between nonresidential development and lower-density residential neighborhoods. Mixed-use developments incorporating office and retail space may be approved in HDR areas through the planned development process. Full urban services are required for HDR development.

Medium-Density Residential (MDR)—This designation consists of areas with between 5 and 12 dwelling units per acre. Residential uses in these areas might include mobile home parks/subdivisions, duplexes, and/or some multi-family projects. Full urban services are required for MDR development.

Rural Residential (RR)—This category indicates the lowest density residential development planned within urban areas. It is designed to reflect development between 1 and 5 units per acre. Rural residential areas will be developed exclusively with single-family homes, unless rezoned to accommodate other types of development. Residents may keep livestock as long as existing rural/agricultural character is maintained.

Low-Density Residential (LR)—The lowest density residential development planned within urban areas. It is designed to reflect development between 1 and 5 units per acre. This category is used only in UDAs.

Since the lot sizes are less than 1 acre, community sewer or ADEQ-approved on-site sewage disposal and water systems are needed, as are other urban services. Low-density residential areas will be developed exclusively with single-family homes, except where planned developments permitting neighborhood commercial uses are approved.

General Commercial (GC)—This land use category is used to indicate locations for retail, service, and office uses that serve an entire community or region. Major retail centers, fast food restaurants, service stations, multi-story office buildings, and other intensive commercial uses should be located in areas designated for general commercial uses.

Heavy Industrial (HI)—This land use category allows for a relatively wide range of industrial uses, including heavy manufacturing, construction yards, and support retail commercial. These uses may have safety, nuisance, or environmental effects which make them undesirable neighbors to residential areas. They should be located near or adjacent to major transportation facilities (such as rail lines, airports, or freeways).

Light Industrial (LI)—This category includes warehousing, wholesale and distribution, and light manufacturing. Rural industrial uses could include gravel mining or renewable power generation.

Parks/Open Space (P/OS)—This category includes public parks, such as local, state, and national parks managed for the benefit of the public, as well as public lands not intended for recreational use which are owned and managed by the BLM, BOR, or ASLD.

Public/Quasi Public (PQP)—This land use category includes institutional uses such as schools, colleges, libraries, government buildings, hospitals, and fire stations.

None of the land use designations identified in the Project study area within Mohave County exclude an electrical transmission line.

City of Kingman

The City of Kingman General Plan was updated in 2014. Its goal is to guide long-term growth and development for the City of Kingman and its planning area. It calls for a balanced mix of land uses, improving traffic efficiency, and preserving air and water quality. The land use designations for the City of Kingman that are within the study area include:

High-Density Residential—17 to 28 dwelling units per acre or less.

Intermediate-Density Residential—9 to 16 dwelling units per acre.

Medium-Density Residential—3 to 8 dwelling units per acre.

Low-Density Residential—1 to 2 dwelling units per acre.

Rural-Density Residential—1 dwelling unit per acre or less.

Highway Service Commercial—These commercial areas are generally located near the I-40 interchanges or along Andy Devine Avenue (US 66) and West Beale Street (US 93). Highway Service Commercial land uses provide for traveler-oriented establishments such as truck stops, hotels, motels, and full-service automotive gas stations.

Community Commercial—These are mostly major retail/service uses serving the community at large that are generally buffered from residential uses. Community Commercial uses are found dispersed throughout the city along major roadways in order to manage projected increases in traffic flows. Development criteria for the Community Commercial land uses demand that property development standards insure compatibility with adjacent non-commercial land uses.

Neighborhood Commercial—These are low-intensity commercial areas typically located near or within residential areas at nodes disbursed throughout various residentially designated areas at major crossroads. This land use category would provide for goods and services that fit into a residential environment without undue detriment to the character of the area. This would generally include offices and low-intensity, small-scale retail uses.

Light Industrial—These areas will accommodate industrial business activities that are not offensive to nearby commercial and residential uses. Development of such designated lands would be limited to uses such as light manufacturing, assembly, research and development, wholesale distribution, construction, and other types of low-intensity industrial activities.

Public/Quasi-Public—Land uses include public uses such as government buildings and properties, school sites, the Kingman Airport, and quasi-public uses such as major places of worship.

Parks/Open Space—Land uses include developed recreational areas such as public parks and golf courses as well as lands that are held for, or identified for, recreational use or preservation. They can also include areas that are not likely to be developed due to topography. This may include hilltops and washes, for example.

None of the land use designations for the City of Kingman within the Project study area exclude an electrical transmission line or switchyard.

Proposed Land Use

The proposed land use sub-category discusses specific land development proposals that have been identified by the land development departments of Mohave County and the City of Kingman as well as by the BLM. These jurisdictions were contacted during the BLM EA process in order to obtain information about current land use developments proposed in the study area.

Western Wind Energy has a lease for land next to its existing five-turbine Kingman project. The company has expressed interest in developing a similar number of turbines on this parcel. Additional small-scale solar energy-generating facilities are also a possibility in the vicinity of existing facilities.

For the purposes of this study, undeveloped areas are categorized as open space. These areas may also include subdivisions that have been platted and razed for development but either no construction has taken place or the development appears to have been abandoned in portions or in its entirety. Known as "legacy lots," thousands of lots in these subdivisions were platted and sold off in Mohave County as inexpensive land deals in the 1930s. Many of these lots remain vacant to this day. These lots are available for development pending permit approval.

ADOT and the Federal Highway Administration, in coordination with the BLM, have initiated a study to identify a preferred alternative for improving traffic flow at the I-40 and US 93 interchange in west Kingman. Alternatives for a new traffic interchange location, including possible improvements to the existing Beale Street traffic interchange, were evaluated for providing a free-flow connection between I-40 and US 93.

The Interstate 11 (I-11) and Intermountain West Corridor is envisioned to accommodate multiple modes and uses such as highway, rail, and utilities. The first phase of this project is underway between Nogales, Arizona, and Wickenburg, Arizona. In the future, the north section of the project connecting Wickenburg to Las Vegas via US 93 and Interstate 515 will be revamped and replaced by I-11. Although construction has yet to commence, the northern extension of I-11 remains an integral part of the Intermountain West Corridor long-range plan.

H.2 Potential Project Effects

The impact assessment for land use is based on four general factors: resource sensitivity, resource quantity or duration of impact, resource quality, and resource or Project compatibility. The combination of these four variables, along with consideration of RPMs where applicable, were used to determine the level of impact.

Resource sensitivity is a measure of how the Project would make various land use characteristics susceptible to change and is based on regulatory guidelines and professional judgment. Resource quantity is measured by the number of individual occurrences or area of a given impact type; duration of impact is the period of time over which the resource would be affected. Resource quality represents the present condition of the potentially affected resource. Resource compatibility is the level to which the proposed Project facilities are harmonious with specific land uses.

H.2.1 Land Ownership and Jurisdiction

Negligible changes to BLM and ASLD jurisdiction would occur as a result of Project implementation. Easements are nonpossessory and do not change land ownership or jurisdiction. UNSE would be granted rights to operate and maintain the transmission line on federal- and state-managed lands, but the BLM and ASLD would maintain ownership.

Minor adverse effects to private land ownership are expected as a result of the Project. UNSE must obtain legal authorization (i.e., by securing an easement or, less frequently, through purchase) to access private property. The easement is expected to be for a width of 125 feet, and the landowner would be compensated for the easement. The easement would allow UNSE the right to access the transmission line at any time for

construction, maintenance, or operation. Easements are nonpossessory and therefore, do not change land ownership or jurisdiction. By granting an easement, the private landowner would most likely be limited in the allowed uses for developing the land within the easement. Allowed uses are those that would not damage or interfere with UNSE's legally defined right to access the easement for construction, operation, and maintenance of the transmission line. Some examples of typical restrictions include not allowing construction of houses or other substantial structures or buildings, planting of trees and shrubs that exceed a certain height, or placement of any type of obstruction within a certain distance of transmission line poles within the easement.

For some private land, the impacts to land ownership would be expected to be negligible because there is already an existing UNSE transmission line easement on these lands. Depending on the alternative selected, there is existing UNSE transmission line easement on approximately 45 to 70 percent of the land (**Table H-5**). Some of the existing easements may need to be expanded in width to allow for the higher-voltage transmission line and/or double-circuiting of the line. Each individual easement would need to be reviewed to determine changes, if any that would be necessary.

TABLE H-5
EXISTING UNSE TRANSMISSION LINE EASEMENT ON PRIVATE LANDS FOR EACH ALTERNATIVE

Alternative	Total Miles of Private Land Crossed by Alternative (miles)	Miles of Existing UNSE Transmission Line Easement on Private Land (miles)	Percent of Existing UNSE Transmission Line Easement on Private Land (percent)
E1	10.8	7.3	67.6
E2	11.4	7.3	64.0
W1	7.5	4.3	57.3
W2	7.5	4.3	57.3
W3	9.0	4.3	47.8
W4	9.3	4.3	46.2

H.2.2 Existing Land Use

Residential

Some residential land would be impacted regardless of the alternative selected, although none of the alternatives would displace a residence. **Tables H-2 and H-3** provide information about the number of permanent and temporary residences within 100 feet, 500 feet, and 1,000 feet of the Project alternatives. Direct impacts to residences immediately adjacent to the transmission alignment may result from obstruction of access during construction as driveways are temporarily blocked by construction equipment and vehicles. These impacts would be short term and temporary. In addition, granting UNSE an easement for a transmission line may restrict other forms of development within the easement, resulting in minor, adverse effects to residential land use.

Other residents within 1,000 feet of the 230 kV transmission line may also be indirectly affected by the construction and operation of a 230 kV transmission line as a result of noise, visual, and health impacts (information provided in other CEC Application Exhibits). Portions of all alternatives would be constructed in areas where there is already an existing transmission line. Because residents in these areas are accustomed to living in the vicinity of a transmission line, indirect impacts resulting from the construction and operation of the new 230 kV transmission line to those residents would be less than that of residents currently living in areas where no transmission line exist. **Table H-6** provides information on the number of permanent residential structures in areas of the Project alternatives that are within an existing transmission line corridor in comparison to areas where the 230 kV transmission line would be constructed in a new corridor.

TABLE H-6
AMOUNT OF RESIDENTIAL LAND PROXIMATE TO ALTERNATIVES

Alternative	Lengths within 1,000 Feet of Residential Land (miles)	Percent of Alternative within 1,000 Feet of Residential Land (percent)
E1	8.6	50.7
E2	8.6	47.9
W1	11.8	67.1
W2	12.0	67.6
W3	11.4	65.6
W4	11.6	65.8

Granting UNSE an easement would restrict development within the easement, resulting in minor adverse effects to residential land use.

Temporary, short-term, and minor adverse impacts may result from obstruction of access during construction as driveways are temporarily blocked by construction equipment and vehicles. These indirect impacts would be short-term, temporary, and minimized through the application of the RPMs.

TABLE H-7
PERMANENT RESIDENTIAL STRUCTURES* ADJACENT TO EXISTING TRANSMISSION LINE CORRIDORS AND WITHIN NEW CORRIDORS BY ALTERNATIVE

Alternative	Number of Residential Structures (distance from centerline)					
	Within 100 feet		Within 500 feet		Within 1,000 feet	
	Existing Corridor	New Corridor	Existing Corridor	New Corridor	Existing Corridor	New Corridor
E1 Alternative	14/14	0/14	28/28	0/28	89/93	4/93
E2 Alternative	14/14	0/14	28/28	0/28	89/93	4/93
W1 Alternative	5/8	3/8	16/35	19/35	47/71	24/71
W2 Alternative	5/8	3/8	16/35	19/35	47/71	24/71

TABLE H-7
PERMANENT RESIDENTIAL STRUCTURES* ADJACENT TO EXISTING TRANSMISSION LINE CORRIDORS AND WITHIN NEW CORRIDORS BY ALTERNATIVE

Alternative	Number of Residential Structures (distance from centerline)					
	Within 100 feet		Within 500 feet		Within 1,000 feet	
W3 Alternative	6/10	4/10	16/40	24/40	47/82	35/82
W4 Alternative	7/10	3/10	16/35	19/35	53/74	21/74

*Defined as residences with a foundation, and does not include recreational vehicles used for short- or-long-term housing

Public/Quasi Public

There would be no effect to public/quasi-public land uses along the West Cerbat alternatives because there are no such facilities along these alternatives. Negligible impacts to existing public/quasi-public uses of land are expected along the East Cerbat alternatives. None of the facilities identified will be displaced. Negligible to minor, adverse, indirect impacts to some of the public/quasi-public areas may arise temporarily during construction if access is temporarily restricted.

Commercial

There would be no effect to existing commercial land uses along the West Cerbat set of alternatives because there are no such facilities along these alternatives. Negligible impacts to existing commercial uses are expected along the East Cerbat alternatives. None of the facilities identified will be displaced. Negligible to minor adverse impacts to some of the commercial facilities may arise temporarily during construction if access is temporarily restricted.

Industrial

There is expected to be no effect or minor, adverse, short-term effects for any alternatives from travel restrictions on local roads to the Nucor Steel, Harris, and McConnico electrical substations; a variety of warehouses and trucking distribution centers; the material extraction pit near US 93 and SR 68; and the several vehicle scrap yards found within the Project area. There could be minor adverse effects to the material extraction pit along the W4 Alternative alignment located south of Shinarump Road resulting from short-term restrictions on access to the pit, but this alternative would not be expected to interfere with future operation of the pit.

Parks, Recreation, and Preservation

The primary Project impacts to parks and recreation are associated with the CFRA. Both sets of alternatives pass within the CFRA. Impacts to recreation within the CFRA would vary depending upon the alternative selected. Project impacts to parks and recreation are described in **Exhibit F**.

Range Land/Undeveloped

All alternatives cross several BLM- and state-administered grazing allotments. Only minor adverse effects on grazing are expected. The loss of vegetation for grazing livestock where poles and access roads are built

would be a minor adverse effect, and the effects of clearing vegetation for construction would be short term. The amount of grazing vegetation or land lost to grazing would not affect the number of animal unit months that the allotments could support. Temporary impacts to grazing area access points may occur during Project construction, but these would be minor and short term.

Implementation of all alternatives would have long-term, minor, adverse effects to undeveloped land. Undeveloped land would be converted to a developed transmission line ROW. On undeveloped private land, impacts would limit the types of future development within the easement.

Transportation, Utilities, and Communication Towers

Short-term, minor, adverse impacts to traffic would be expected along all alternatives. Based on the current level of service, roads in the Kingman area would be expected to be able to accommodate construction traffic associated with the Project. There is no level of service data for roads in Golden Valley, but fewer than 10 vehicles on average would be expected to commute to the Project area daily, and these would be expected to be accommodated by the existing roads. During the peak of construction, as many as 25 to 30 vehicles may commute to the Project area daily, but the existing road network in both Mohave County and Kingman is expected to be able to accommodate the increase in traffic. Temporary delays may be caused by large, slower-moving vehicles. No lane closures are anticipated. To ensure emergency response vehicles have adequate access during construction, UNSE would notify emergency responders of any temporary road closures or restrictions. During Project operation, impacts to traffic would be negligible because there would be very little traffic associated with operation and maintenance of the transmission line. The Project infrastructure is not expected to affect roads or road ROWs. In the event UNSE wishes to place infrastructure within a road ROW, they would seek approval and negotiate terms of use with the ROW holder.

Project construction, operation, and maintenance of all alternatives will not affect air traffic patterns. The Project is not in proximity to any airports.

Short- and long-term negligible effects to utilities are expected to result from the Project. No existing or planned electrical transmission lines or pipelines would be affected by construction and operation of any of the alternative alignments. The Western Wind Energy solar facility would not be directly affected by either the E1 or E2 alternatives, although future expansion of the wind facility and addition of wind turbines may be affected by the E2 Alternative, depending upon the placement of the turbines in relations to the 230 kV poles. The E1 Alternative avoids the Western Wind Energy parcel and would not impact current or future operations at the facility. Construction, operation, and maintenance of all Project alternatives would be expected to generate some construction waste which would end up in landfills, and the workforce would use waste facilities, water, and electricity for normal living purposes, but such use would not necessitate an expansion of wastewater treatment, electricity, communication service, or water services, nor would it necessitate an expansion of landfill facilities.

Radio and television interference from the transmission line is addressed in **Exhibit I**, and no long-term effects to radio towers and their broadcast are expected. No effects to radio broadcast towers are expected to result from any of the West Cerbat alternatives because they do not pass near any radio towers.

The microwave tower located between the CFRA and I-40 in the southern part of the study area is 3,300 feet from any of the alternatives; therefore, it is not expected to be impacted. The cellular tower located about 1 mile northeast of the US 93 and SR-68 intersection on the west side of US 93 is located within about 500 feet of the existing 69 kV transmission line. Construction of a 230 kV transmission line in the same corridor is not expected to result in direct or indirect impacts to the cellular tower facilities or to the operation of the cellular tower.

H.2.3 Zoning

Mohave County and the City of Kingman have designated zoning classifications for the Project area. These classifications are particularly relevant because approximately two-thirds of the East Cerbat alternatives and half of the West Cerbat alternatives are located on private land. The majority of lands within the study area are zoned as Agricultural-Residential, Heavy Manufacturing, and General. None of these categories or other categories crossed by any of the alternatives alignments restrict transmission lines or transmission line ROWs; therefore, no impacts to zoning would be expected as a result of implementation of any of the Project alternatives.

H.2.4 Planned and Proposed Land Use

Planned Land Use

BLM

Alternatives are within BLM-designated utility corridors (**Table H-8**). The entirety of the East Cerbat alternatives are within BLM-designated utility corridors; this includes the portions that extend through the CFRA. As such, no effects to planned BLM-administered land use are expected to result from implementation of the East Cerbat alternatives.

TABLE H-8
PERCENT OF ALTERNATIVE WITHIN A BLM-DESIGNATED UTILITY CORRIDOR

Alternative Segment	Percent of Alternative
East Cerbat Alternatives	
E1	100
E2	100
West Cerbat Alternatives	
W1	68
W2	68
W3	75
W4	75

Nearly three-quarters of the West Cerbat alternatives are within a BLM-designated utility corridor. In the southern portion of the study area, they depart from the designated utility corridor associated with a WAPA transmission line as the alternatives extend north parallel to the western boundary of the CFRA. This

segment of the alignment would conflict with the planned location of utility corridors on BLM-administered land. As such, all West Cerbat alternatives would not conform to the planned BLM-administered land use.

H.2.5 Arizona State Land

While no land use plans have been formally adopted for land managed by the ASLD in the Project area, it is likely that most of the ASLD lands within the Project area would maintain similar land use characteristics for the foreseeable future. As a result, impacts to use of ASLD land along any of the alternative alignments would be negligible.

H.2.6 Mohave County

The majority of private land within Mohave County is planned for rural development areas or low-density residential uses. As such, none of the alternative alignments would conflict with management goals outlined in the Mohave County General Plan.

H.2.7 City of Kingman

None of the alternative alignments would result in a General Plan Amendment, so impacts to planned land use would not occur.

Proposed Land Use

For all Project alternatives, the construction, operation, and maintenance of the 230 kV transmission line is expected to have no or negligible impacts to the majority of proposed land uses. Two proposed land uses, development of a subdivision and expansion of a wind farm, could have minor adverse impacts resulting from the construction of the Project.

The vacant Legend Ranch in the Golden Valley Subdivision is located west of US 93 along the common alignment of the East and West Cerbat alternatives, but no development plans have been proposed in the area. In addition, an existing 69 kV transmission line is already built in this area and the 230 kV transmission line would be built in the same ROW; therefore, only minor adverse impacts to any future residential development in this area would be expected.

An expansion of Western Wind Energy's wind turbine farm is proposed approximately 1,000 feet east of the E2 East Cerbat alternatives in the southern portion of the study area near the Harris Substation. The wind turbine farm currently consists of five turbines, and the proposal suggests doubling this number in its expansion. The E2 East Cerbat Alternative is located along the section line between the wind farm property and BLM-administered land, approximately 750 feet east of the closest existing wind turbine. Depending upon the location of the future turbines, potential indirect impacts may exist if the E2 East Cerbat Alternative is constructed. Because there would be no direct impacts to the wind farm and indirect impacts would most likely be related to access or changes to wind flow, only minor impacts to the proposed wind farm expansion would result.

I. EXHIBIT I—NOISE AND COMMUNICATION INTERFERENCE

As stated in Arizona Administrative Code R14-3-219:

> *Describe the anticipated noise emission levels and any interference with communication signals, which will emanate from the proposed facilities.*

EXHIBIT	CONTENTS
I-1	Golden Valley 230 kV Transmission Line EMF Analysis

I.1 Corona and Audible Noise

I.1.1 Transmission Line

Noise emanating from a transmission line is caused by corona. Corona is the electrical ionization of the air that occurs near the surface of the energized conductor and suspension hardware due to very high electric field strength. Certain electromagnetic effects are inherently associated with overhead transmission of electrical power at high voltage. These effects are produced by the electric and magnetic fields (EMFs) of the transmission line, with one of the primary effects being corona discharge. Corona effects are manifested as audible noise, radio interference, and television interference. These particular effects will be minimized by line location, line design, and construction practices. Results presented in this exhibit are based on consideration of the various possible construction configurations along the alternative routes. Corona may result in audible noise being produced by a transmission line.

Noise impacts are analyzed using an A-weighting of sound intensities. Noise generated by humans is represented by an equivalent A-weighted sound level over a given time period or by the average day-night noise averages (L_{dn}). Equivalent energy level (L_{eq}) is the average noise intensity over a given time period, typically 1, 8, or 24 hours; because L_{eq} accounts for loudness and duration, it is often referred to as the exposure level. Day-night noise averages are the average A-weighted equivalent sound level during a 24-hour period obtained by adding 10 decibels to the hourly average measured during the night. A-weighted sound pressure level (A-weighted decibels [dBA]) is measured using the A-weighting filter on a sound meter which emphasizes the sounds audible to humans. Corona noise levels are typically 40 to 50 dBA at the edge of the ROW. In comparison, a vacuum cleaner typically produces 60 to 80 dBA.

The amount of corona produced by a transmission line is a function of the voltage of the line, the diameter of the conductors, the locations of the conductors in relation to each other, the elevation of the line above sea level, the condition of the conductors and hardware, and the local weather conditions. Corona typically becomes a design concern for transmission lines at 345 kV and above and is less noticeable from lines that are operated at lower voltages, such as the proposed 230 kV transmission line.

The electric field gradient is greatest at the surface of the conductor. Large-diameter conductors have lower electric field gradients at the conductor surface and hence, lower corona than smaller conductors, everything else being equal. The conductors for the Project would be selected to have large diameters and thus, a reduced potential to create audible noise. Irregularities (such as nicks and scrapes on the conductor surface or sharp edges on suspension hardware) concentrate the electric field at these locations, increasing the

electric field gradient and the resulting corona at these spots. Similarly, foreign objects on the conductor surface, such as dust or insects, can cause irregularities on the surface that are a source for corona.

Corona also increases at higher elevations where the density of the atmosphere is less than at sea level. Audible noise varies with elevation with the relationship of A/300, where A is the elevation of the line above sea level measured in meters (EPRI 2005). Audible noise at a 600-meter (1,968.5-foot) elevation would be twice the audible noise at 300 meters (984.25 feet), all other things being equal.

Raindrops, snow, fog, hoarfrost, and condensation accumulated on the conductor surface are also sources of surface irregularities that can increase corona. During fair weather, the number of these condensed water droplets or ice crystals is usually small, and the corona effect is also small. However, during wet weather, the number of these sources increases (e.g., due to rain drops standing on the conductor) and corona effects are therefore greater. During wet or foul weather conditions, the conductor would produce the greatest amount of corona noise; yet noise generated by heavy rain hitting the ground would typically be greater than the noise generated by corona, thus masking the audible noise from the transmission line.

Corona produced on a transmission line can be reduced by the design of the transmission line and the selection of hardware and conductors used for the construction of the line; for instance, the use of conductor hangers that have rounded rather than sharp edges and no protruding bolts with sharp edges would reduce corona. The conductors themselves can be made with larger diameters and handled so that they have smooth surfaces without nicks, burrs, or scrapes in the conductor strands.

The transmission lines proposed for the Project will be designed to reduce corona generation. Baseline ambient noise levels were estimated using the relationship between population density and noise levels.

I.2 Construction Noise

Some level of noise will result from transmission line construction, operation, and maintenance. During construction, equipment used for assembly and erection of structures and wire pulling and splicing activities will generate noise. Noise from construction activities would be audible, particularly to the closest residents. Typical construction activities can create audible noise of about 80 dBA due to bulldozers, drills, and heavy equipment. However, this construction noise would not be considered a major impact because construction would occur during daytime hours when tolerance to noise is higher and the noise would be temporary, lasting only a few days at a time in any one location. Long-term noise impacts from transmission line operation and maintenance activities are expected to be minimal.

During construction, noise will be generated from the use of construction equipment and vehicles used to transport crews and materials. Uncontrolled noise levels for typical construction equipment are displayed in **Table I-1** (FHWA 2017). The maximum noise levels will range between 80 to 85 dBA at 50 feet from construction equipment. As a general rule of thumb, noise levels drop 6 dBA every time the distance from a point source is doubled.

TABLE I-1 TYPICAL NOISE LEVELS FOR CONSTRUCTION EQUIPMENT	
Equipment	**Typical Maximum Noise Levels (dBA at 50 feet)**
Front loader	80
Backhoe, excavator	80
Tractor, dozer	85
Grader, scraper	85
Dump truck	84
Pick-up truck	55
Concrete mixer truck	85
Crane (movable)	85
Pump	77
Generator	82
Compressor (air)	80
Pneumatic tools	85
Compactor (ground)	80
Auger drill rig	85
Source: FHWA 2017	

Mohave County has a general noise ordinance that prohibits loud and disturbing noise. There is an exemption for reasonable construction noise as long as it occurs between the hours of 6:00 a.m. and sunset; however, neither Mohave County nor the City of Kingman has a detailed noise standard that directly dictates impact assessment criteria in decibels. In lieu of such standards, construction criteria used by the U.S. Department of Transportation (USDOT) were used for this assessment (**Table I-2**). These criteria are not standardized, but they are considered reasonable guidelines for determining construction noise impacts (USDOT 2012). The acceptability standards are given in terms of the 1-hour equivalent noise level (L_{eq}), the 8-hour equivalent noise level (L_{eq}), and the weighted day-night average (L_{dn}) noise level.

TABLE I-2 GENERAL CONSTRUCTION NOISE ASSESSMENT CRITERIA ACCEPTABLE LIMITS					
Land Use	**One-hour L_{eq} (dBA)**		**8-hour L_{eq} (dBA)**		**Weighted L_{dn} (dBA)**
	Day	**Night**	**Day**	**Night**	**30-day average*,****
Residential	90	80	80	70	75
Commercial	100	100	85	85	80
Industrial	100	100	90	90	85

TABLE I-2
GENERAL CONSTRUCTION NOISE ASSESSMENT CRITERIA
ACCEPTABLE LIMITS

Land Use	One-hour L_{eq} (dBA)		8-hour L_{eq} (dBA)		Weighted L_{dn} (dBA)
	Day	Night	Day	Night	30-day average*,**

*Note: In urban areas with very high ambient noise levels (L_{dn} > 65 dBA), L_{dn} from construction operations should not exceed existing ambient plus-10 decibels.

**Note: 24-hour L_{eq}, not L_{dn}

Source: USDOT 2012

Existing land uses are detailed in **Exhibit H**. Sensitive noise receptors within 1,000 feet of the transmission line alternatives are provided in **Table I-3**. Sensitive noise receptors are generally defined as residences, schools, religious facilities, hospitals, and parks preserved for the outdoor experience (i.e., not city parks). All the noise receptors within **Table I-3** are residences or short-term visitors (e.g., recreational vehicle parks), with the exception of the single religious facility approximately 500 feet from the shared portion of the West Cerbat alternatives. In addition to these facilities, all Project alternatives will also pass along and within the CFRA, a park that provides a natural desert landscape utilized by hikers and bikers. Both East Cerbat alternatives are within—or within 1,000 feet of—the CFRA for 4.7 miles. The W1 and W2 alternatives are within—or within 1,000 feet of—the CFRA for 7.3 miles, and the W3 and W4 alternatives are within—or within 1,000 feet of—the CFRA for 5.1 miles.

TABLE I-3
SENSITIVE NOISE RECEPTORS WITHIN 1,000 FEET
OF TRANSMISSION LINE ALTERNATIVES

Alternative	Structure Count		
	Residences/ Short-term Visitors	Public Facilities	Total
East Cerbat Alternative			
E1	142	2	**144**
E2	142	2	**144**
West Cerbat Alternative			
W1	76	2	**78**
W2	76	2	**78**
W3	87	2	**89**
W4	80	2	**82**

In summary, there are nearly double the noise receptors along the East Cerbat alternatives. There is no difference in the amount of noise receptors between the two East Cerbat alternatives, but there is difference among the West Cerbat alternatives. The W3 West Cerbat Alternative has the most noise receptors along it. Users of parks and recreational facilities are also considered sensitive noise receptors, and both the East

and West Cerbat alternatives would affect the CFRA. The East Cerbat alternatives would have the least amount of transmission line within 1,000 feet of the park, 2.7 miles less than the W1 and W2 alternatives, which would have the most transmission line within 1,000 feet of the east CFRA. Based on typical usage factors, the average construction noise level is conservatively estimated to be 83 dBA at 50 feet from the centerline of the transmission line. The noise levels are anticipated to decrease according to typical point source distance attenuation (**Table I-4**). As such, at a distance over 100 feet, noise is expected to be within suitable limits. Within 100 feet from the transmission line, construction noise levels would slightly exceed the USDOT 8-hour L_{eq} standards for construction in residential areas. Impacts would be similar amongst all alternatives since the number of noise receptors within 100 feet is similar amongst all alternatives (i.e., approximately 10 noise receptors). Construction noise impacts will be temporary. Construction is focused around structures. Construction of transmission line structures can take anywhere from several days to several weeks, depending on various factors. This makes the duration of noise impacts within 100 feet of noise receptors brief, and thus, direct impacts are expected to be temporary and moderately adverse. To reduce noise impacts whenever a receptor is within approximately 100 feet of the active transmission construction area, any idling equipment should be parked as far away from the receptor as possible.

TABLE I-4
CONSTRUCTION NOISE LEVEL ESTIMATES*

Distance from centerline (feet)	Estimated Construction Noise Levels L_{eq} (dBA)	Estimated L_{dn} (dBA)
50	83	78
100	77	72
150	74	69
200	71	67
300	68	64
400	65	61
800	59	57

*Note: A background nighttime noise level of 45 dBA is assumed.

The majority of noise impacts (i.e., those beyond 100 feet) are expected to have minor, adverse, short-term, direct impacts. The noise levels will be below the USDOT standards for construction. It is expected that the majority of the work will occur during the daytime in accordance with the Mohave County guidelines. No nighttime work is planned, but in the event nighttime work is necessary, UNSE will notify residents who would be affected. In order to further limit noise impacts in general, equipment not in use for a reasonable amount of time should be turned off when possible.

I.3 Operation and Maintenance Noise

Operation of the transmission line and substation is expected to have long-term, minor, adverse effects. According to U.S. Department of Housing and Urban Development standards, permanent noise levels of 65 dBA or less are considered normally acceptable (HUD 2009). Noise from the transmission line is expected to be less than 25 dBA but could be as high as 50 dBA in certain weather conditions. The vast majority of the time, the noise from the transmission line will be inaudible outside the ROW. The

transmission line will generate noise from the corona effect, a phenomenon that causes a tiny electric discharge that can ionize air close to the conductors, creating a humming noise. During dry weather, corona effect noise from a double-circuit 230 kV transmission line is generally less than 25 dBA, and when the conductors are wet, noise can be as high as 50 dbA (CPUC 2010). Corona effects are typically not a design concern for transmission lines operating at 230 kV or less.

Maintenance of the transmission line is expected to result in negligible noise impacts. Routine inspections of the transmission line will occur infrequently. Assuming these inspections are performed by a small crew in a single vehicle during daylight hours, the magnitude of any noise impacts will be likely be less than 65 dBA at the edge of the ROW. Additionally, due to the infrequency of the routine patrols and the minimal noise level, these impacts are considered negligible.

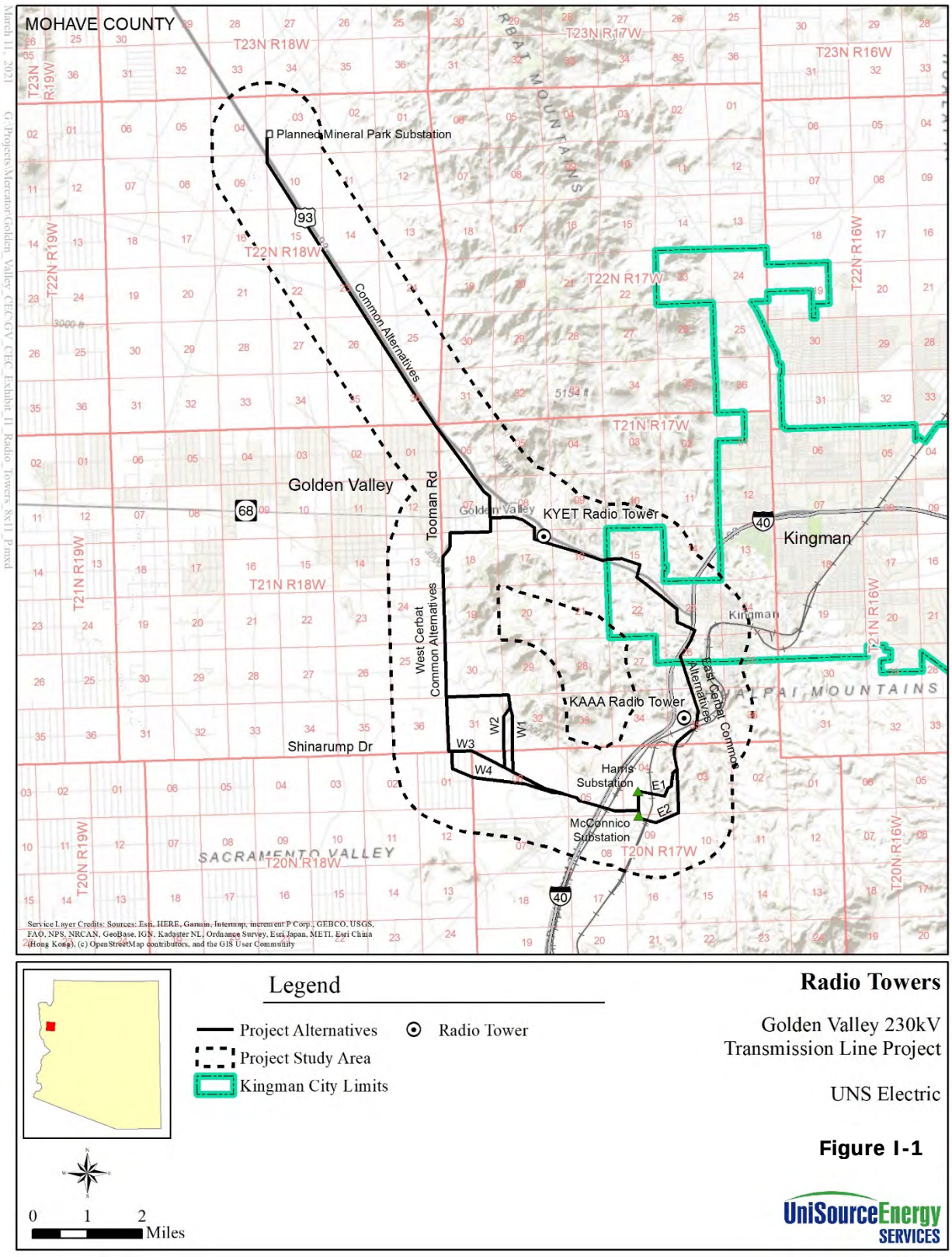
I.4 Radio Interference

Corona-generated radio interference is most likely to affect the directional pattern operation amplitude modulation (AM) radio broadcast band (535 to 1,605 kilohertz [kHz]); frequency modulation (FM) radio is rarely affected. Only directional pattern operation AM receivers located very near to transmission lines that are tuned to a weak station have the potential to be affected by radio interference. An example is the humming noise on an AM radio that happens when the radio is near a power line but diminishes as the radio moves away from the line. FM radio is rarely affected by transmission lines. FM radio receivers usually do not pick up interference from transmission lines because corona-generated radio frequency noise currents decrease in magnitude with increasing frequency and are quite small in the FM broadcast band (88 to 108 megahertz). In addition, the excellent interference rejection properties inherent in FM radio systems make them virtually immune to amplitude-type disturbances.

For an electrical transmission line, radio noise is most frequently caused by an equipment defect or an incidental emission. When there is a defect, sparking or gap discharge (i.e., sparking or arcing of electricity across transmission line hardware) has potential to impact radio frequencies into the ultrahigh frequency range (above 300 megahertz). Short-term moderately adverse effects resulting from radio noise are expected.

There are two radio towers located within the vicinity of the Project. The first is located along the E1 Cerbat Alternative at the junction of I-40 and US 66. The tower is owned by Cameron Broadcasting, Inc. The antenna is registered with the Federal Communications Commission (FCC) as KAAA and as a Non-Directional Antenna having a frequency of 1230 kHz. UNSE has coordinated with the owner of the tower to locate the line a distance greater than 1,150 feet as suggested by the owner. No interference is anticipated with this tower from the Project.

A second antenna is located along the E1 Cerbat alternative on the west side of US 93 and approximately 1 mile south of the SR-68 and I-40 intersection. The antenna is owned by Grand Canyon Gateway Broadcasting, LLC. The antenna is registered with the FCC as KYET and as a Non-Directional Antenna having a frequency of 1,170 kHz. UNSE has been in contact with the owner of this tower regarding their concern with potential interference resulting from the Project and has assured the owners that if interference results, UNSE will mitigate interference impacts as necessary.


MOHAVE COUNTY
Planned Mineral Park Substation
Common Alternatives
Golden Valley
Tooman Rd
KYET Radio Tower
Kingman
West Cerbat Common Alternatives
East Cerbat Alternatives
KAAA Radio Tower
Shinarump Dr
W1
W2
W3
W4
Harris Substation
E1
E2
McConnico Substation
T23N R18W
T23N R17W
T23N R16W
T23N R19W
T22N R18W
T22N R17W
T22N R16W
T22N R19W
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T20N R17W
T20N R16W
SACRAMENTO VALLEY
HUALAPAI MOUNTAINS
Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Legend
Project Alternatives
Project Study Area
Kingman City Limits
Radio Tower
0 1 2 Miles
Radio Towers
Golden Valley 230kV Transmission Line Project
UNS Electric
Figure I-1
UniSourceEnergy SERVICES

There is one active communications tower previously licensed by the FCC located along all routes. The tower was constructed in 2000. UNSE will coordinate with the tower owner during Project design as needed.

It is not anticipated that the Project will cause any additional interference with the existing Radio Towers in the area. However, when UNSE receives a complaint about radio interference, they will go through the process of identifying the source, and if the source is determined to be their equipment, they will take corrective actions as necessary.

I.5 Television Interference

Interference with traditional television reception from the transmission line's corona effects may occur during periods of bad weather, but this is usually only a concern for transmission lines of 345 kV or greater and only for receivers within 500 feet of the line. Because the upgrade line would be 230 kV, television interference is not expected.

I.6 Electric and Magnetic Fields

Electric fields are related to voltage and are generated by electrons. A higher voltage results in a stronger electric field. A cord of an appliance will generate an electric field regardless of whether the appliance is turned on. Electric field strength can be greatly reduced by things that act as a screen, such as a building or trees. Electric fields are measured in volts per meter or kV per meter. Magnetic fields are generated by electric current (i.e., the movement of electrons). As soon as an appliance is turned on, it generates a magnetic field. Magnetic fields are not blocked by barriers. Magnetic fields are measured in microteslas (μT).

EMFs are everywhere; they occur naturally in every atom of matter. The Earth's surface has a natural electric field which is created by electric charges in the upper atmosphere. The Earth also has a strong magnetic field, which is evidenced by the use of compasses for navigation. The magnetic field is created by electric currents in the magma of the Earth's core.

Use of electricity in residences and other facilities produces EMFs. In the United States, the average household background magnetic field away from appliances is about 0.055 to 0.11 μT, and the background electric field is approximately 0.003 to 0.03 kV per meter. EMFs are stronger closer to appliances, and the fields drop rapidly as the distance increases from the source (**Table I-5**) (EPA 1992).

TABLE I-5
TYPICAL 60-HZ MAGNETIC FIELD LEVELS FROM SOME COMMON HOME APPLIANCES

Appliance	Mean Magnetic Field 6 inches from Appliance (μT)	Mean Magnetic Field 2 feet from Appliance (μT)
Refrigerator	0.2	0.1
Coffee maker	0.7	—
Dishwasher	2.0	0.4

TABLE I-5
TYPICAL 60-HZ MAGNETIC FIELD LEVELS FROM SOME COMMON HOME APPLIANCES

Appliance	Mean Magnetic Field 6 inches from Appliance (μT)	Mean Magnetic Field 2 feet from Appliance (μT)
Electric range	3.0	0.2
Fluorescent lights	4.0	0.2
Garbage disposal	8.0	0.2
Copy machine	9.0	0.7
Electric shaver	10.0	—
Microwave oven	20.0	1.0
Power saw	20.0	0.5
Hairdryer	30.0	—
Vacuum Cleaner	30.0	1.0

Source: EPA 1992

Electric transmission lines produce EMFs. The EMFs are usually strongest directly underneath the transmission line and are reduced as one moves away from the transmission line. Actual field strengths vary depending on the height of the conductors from the point of measurement (**Figure I-1**). On average, EMFs for a 230 kV transmission line are near typical background levels experienced in homes at approximately 200 feet from the transmission line.

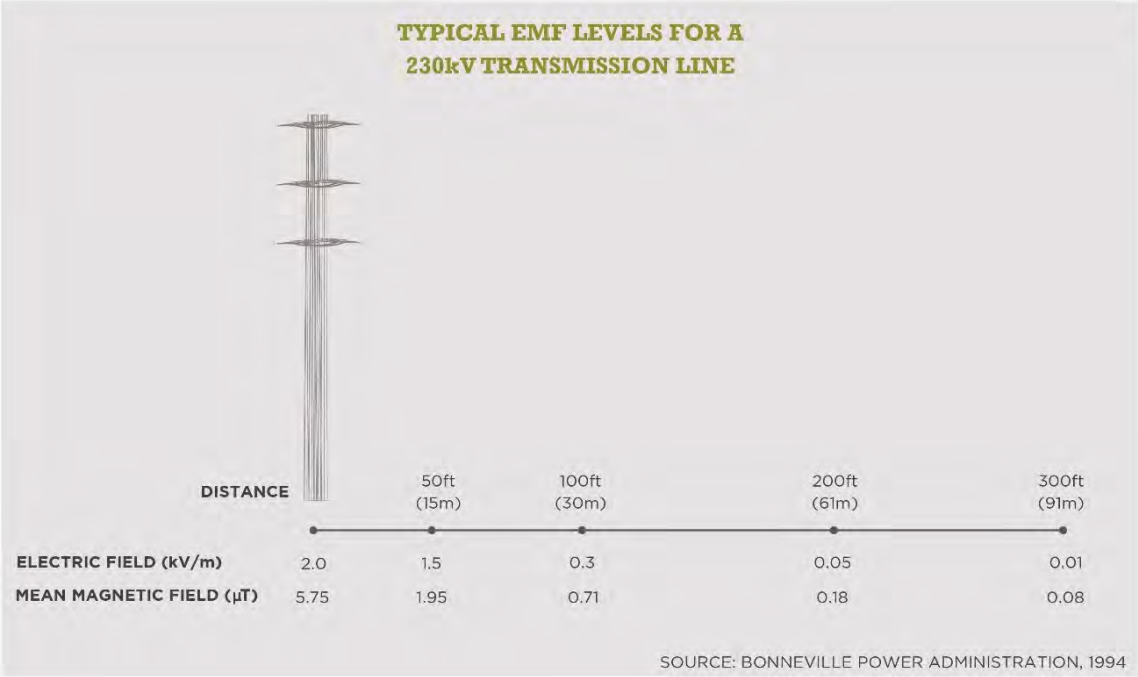

Figure I-2. Typical EMF levels for a 230 kV transmission line (NIEHS 2002).

A study was completed by Power Engineers, Inc. in March 2021 that calculated the EMF for the Project (**Exhibit I-1**). The study performed calculations to determine the predicted EMF from the transmission line and report the calculated EMF.

Table I-6 is from the study and shows a summary of the calculated EMF resultant values in the ROW, assuming 100 percent maximum current loading. As described in the study, values are calculated at the minimum conductor height (mid-span) at a height of 1 meter above the ground per IEEE Std 644-2019.

TABLE I-6
CALCULATED MAGNETIC FIELD RESULTS—100 PERCENT LOADING [mG]

Case	Edge of ROW	Maximum in ROW	Minimum Distance (in feet) to <0.1 mG	Plot
Golden Valley North Corridor (230 and 69 kV)	6.8	21	195	Figure I-2
Golden Valley West Cerbat Alernative (230 kV)	4.1	13.2	465	Figure 5

Additionally, **Figures I-2 and I-3** from the study shows a plot of the calculated magnetic fields across the ROW for each structure configuration at that location.

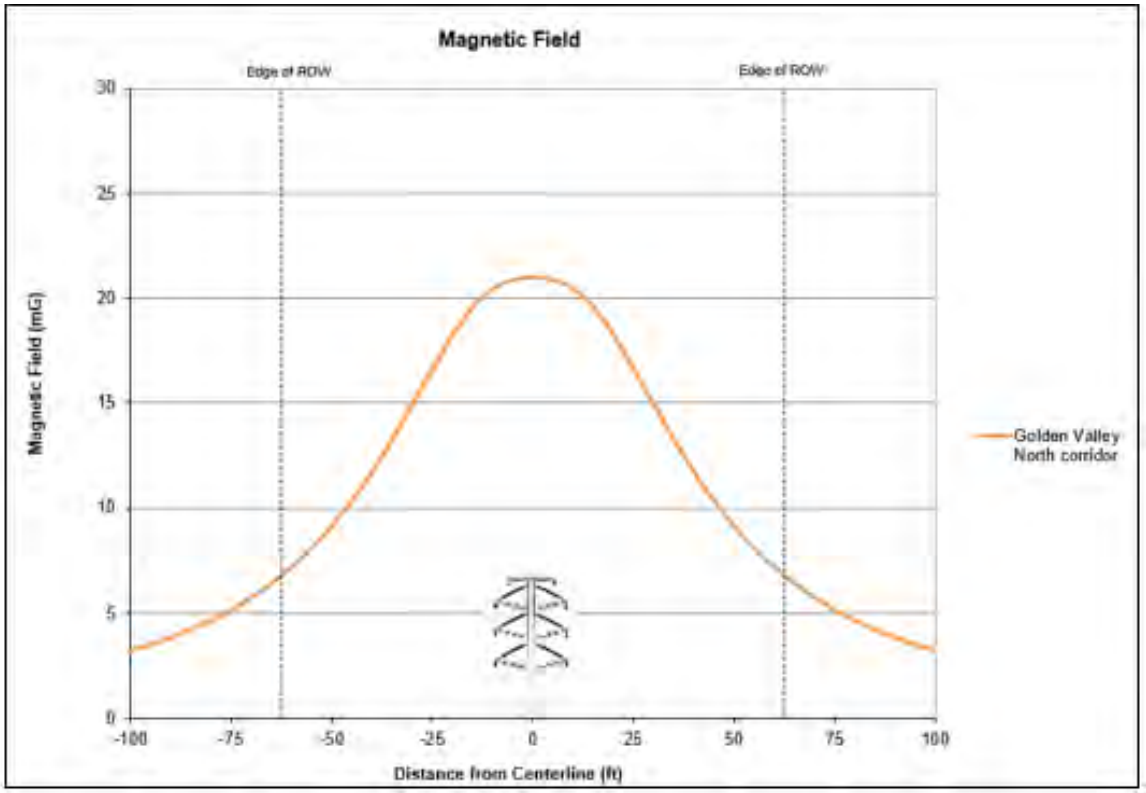

Figure I-3. Calculated Magnetic Field in the Golden Valley North Corridor (230 and 69 kV).

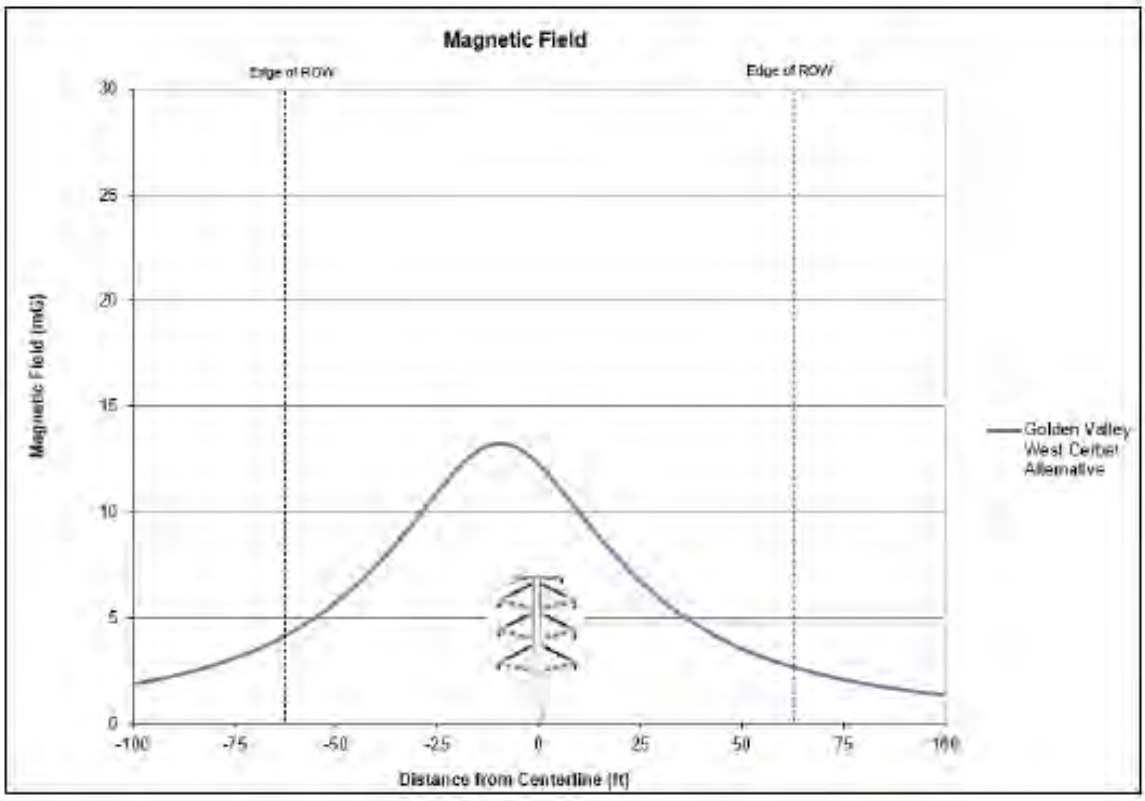

Figure I-4. Calculated Magnetic Field in the Golden Valley West Cerbat Alternatives (230 kV).

I.7 Exhibit I References

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EXHIBIT I-1

GOLDEN VALLEY 230 KV
TRANSMISSION LINE EMF ANALYSIS

March 3, 2021

UNISOURCE ELECTRIC INC.

Golden Valley 230 kV Transmission Line

EMF Analysis

Revision 0

PROJECT NUMBER:
166658
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GOLDEN VALLEY EMF ANALYSIS

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REVISION HISTORY						
REV.	ISSUE DATE	ISSUED FOR	PREP BY	CHKD BY	APPD BY	NOTES
A	2021-02-26	Appvl	RMV	KPP	BCF	Issued for client's review and approval
0	2021-03-03	Impl	RMV	KPP	BCF	Issued for implementation

"Issued For" Definitions:

- "Prelim" means this document is issued for preliminary review, not for implementation
- "Appvl" means this document is issued for review and approval, not for implementation
- "Impl" means this document is issued for implementation
- "Record" means this document is issued after project completion for project file

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INTRODUCTION

This study is to perform electric and magnetic field (EMF) calculations for a new UniSource Electric Inc. (UNSE) 230 kV transmission line that connects the existing Harris Substation to the proposed Mineral Park Substation. The new 230 kV transmission line consists of vertical construction that has sections joining an existing 69 kV circuit along the common and East Cerbat alternate routes. POWER Engineers, Inc.'s (POWER) engineering service for this study was to perform calculations to determine the predicted electric and magnetic fields from the transmission line and report the calculated electric and magnetic fields.

DATA

Electric and magnetic fields from a transmission line are based on the electrical and physical characteristics. Specifically, these factors are driven by: the voltage and current loading of the line; the physical conductor characteristics; relationships of each phase conductor to the other phases and shield wires; and the heights of the conductors from the ground. As a result, several variable factors will affect results. The following data was used for the analysis. Should any of this data change, the results will also change.

- For the 230 kV line, a maximum operating voltage of 105% of nominal voltage (241.5 kV) was used for electric and magnetic field analysis.
- For the 69 kV line, a maximum operating voltage of 105% of nominal voltage (72.5 kV) used for electric and magnetic field analysis.
- A maximum loading for each transmission line was provided by UNSE.
    - 123.9 amperes on the 230 kV line
    - 124.6 amperes on the 69 kV line
- A single 954 kcmil ACSR Cardinal conductor was used for each phase of the 230 kV line. Other conductors used in the analysis are specified in Appendix A.
- The shield wire was OPGW 96 fiber optic cable, which was assumed to be 0.563 inches in diameter.
- The phasing arrangement and spacing was assumed as labeled on the structure drawings provided for reference in Appendix A.
- The total right-of-way width was 125 feet, with the reference centered on the structure.
- The minimum conductor height for the lowest phase conductor was set to the clearance value of 30 feet for all lines.

Note that the data listed above and the phasing shown in Figure 6 and Figure 7 of appendix A was the best available at the time the study was conducted. Changes of phasing arrangement or loading can change the results shown in this study. The final design of the proposed line will be chosen when a route has been selected and all field constraints have been identified.

Figure 1 below shows the proposed alternative routes of the 230 kV transmission line from Harris Substation to the planned Mineral Park Substation. The EMF analysis was conducted at two locations along the proposed routes per the request of UNSE. Details of each location are provided in Appendix A.

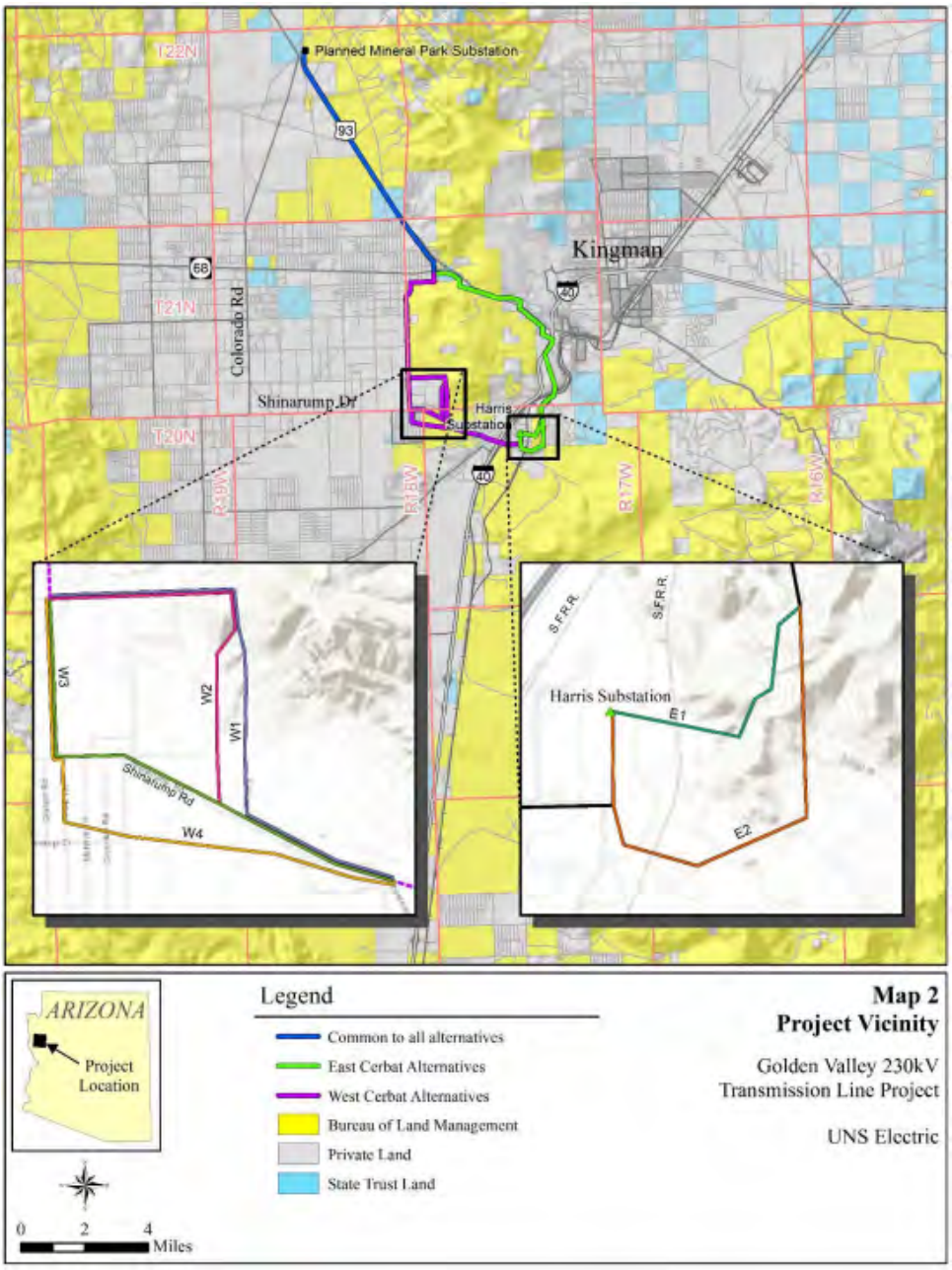


Figure 1: Irvington to East Loop Transmission Line Route Alternatives

ANALYSIS

The electric and magnetic field effects analysis was performed using Bonneville Power Administration's (BPA) Corona and Field Effects Program (CAFEP) software (Version 3) on the proposed transmission line structure configurations. CAFEP uses the electrical and physical characteristics of the transmission line to calculate electric and magnetic fields from the transmission lines.

The electric fields are primarily a function of the maximum operating voltage of the line. Magnetic fields are primarily a function of the line current loading, which varies over time. The electric and magnetic fields calculations were performed at 105% of the nominal voltage and 100% of the maximum line loading respectively.

The electric and magnetic field values are typically reported at various locations across the right-of-way. Values reported include the maximum electric and magnetic fields within the right-of-way for the given structures, the electric and magnetic fields at the edge of the right-of-way (the larger of the two edges), and the distance at which the electric and magnetic fields fall below 0.01 kV/ft and 0.1 mG respectively. Also included for reference are plots of the calculated electric and magnetic fields across the entire width of the right-of-way and slightly beyond the right-of-way.

For the analysis, electric and magnetic fields were analyzed at a minimum conductor height (mid-span and maximum sag), as this will produce the worst-case scenario.

Exposure to EMF is a common occurrence, both at home and at work. Table 1 lists median magnetic field strengths, measured in milligauss (mG), for common household items at discrete distances. A dash indicates no measurable difference after the item was turned on.

TABLE 1: TYPICAL MAGNETIC FIELD LEVELS (mG)

Appliance	Distance from Source (ft)			
	0.5	1	2	3
Baby Monitor	6	1	-	-
Electric Oven	9	4	-	-
Food Processor	30	6	2	-
Hair Dryer	300	1	-	-
Microwave Oven	200	4	10	2
Refrigerator	2	2	1	-
Video Display Terminal (PCs with color monitors)	14	5	2	-
Washing Machine	20	7	1	-

Source: National Institute of Environmental Health Sciences

RESULTS

Electric Field

The electric field strength is a measure of the force per unit charge at a given point in space relative to a charged object. It can be measured in volts or kilovolts per feet (kV/ft) or meter. Table 2 shows a summary of the calculated electric field strengths in the right-of-way for the tangent structure configuration. Values were calculated at the minimum conductor height (mid-span) at a height of one meter above the ground per IEEE Std 644-2019, "IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields from AC Power Lines".

TABLE 2: CALCULATED ELECTRIC FIELD RESULTS [kV/ft]

Case	Edge of ROW	Maximum in ROW	Minimum Distance (In Feet) To <0.01 kV/ft	Plot
Golden Valley North corridor (230 and 69 kV)	0.02	0.67	195	Figure 2
Golden Valley West Cerbat Alternative (230 kV)	0.01	0.76	265	Figure 3

Figure 2 and Figure 3 show a plot of the calculated electric fields across the right-of-way for each structure configuration at that location.

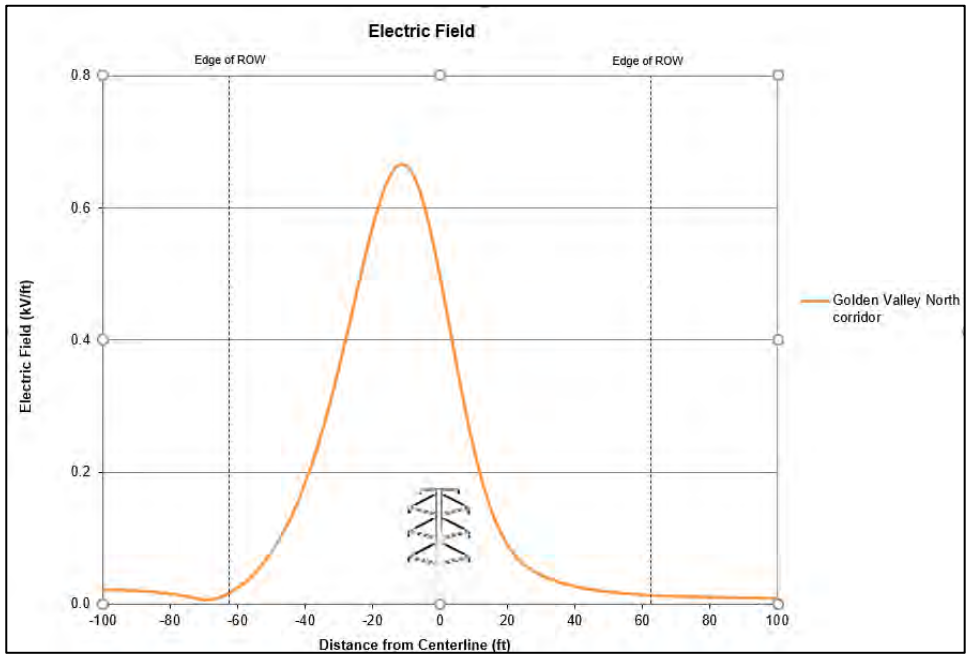


Figure 2: Calculated Electric Field in the Golden Valley North Corridor (230 and 69 kV)

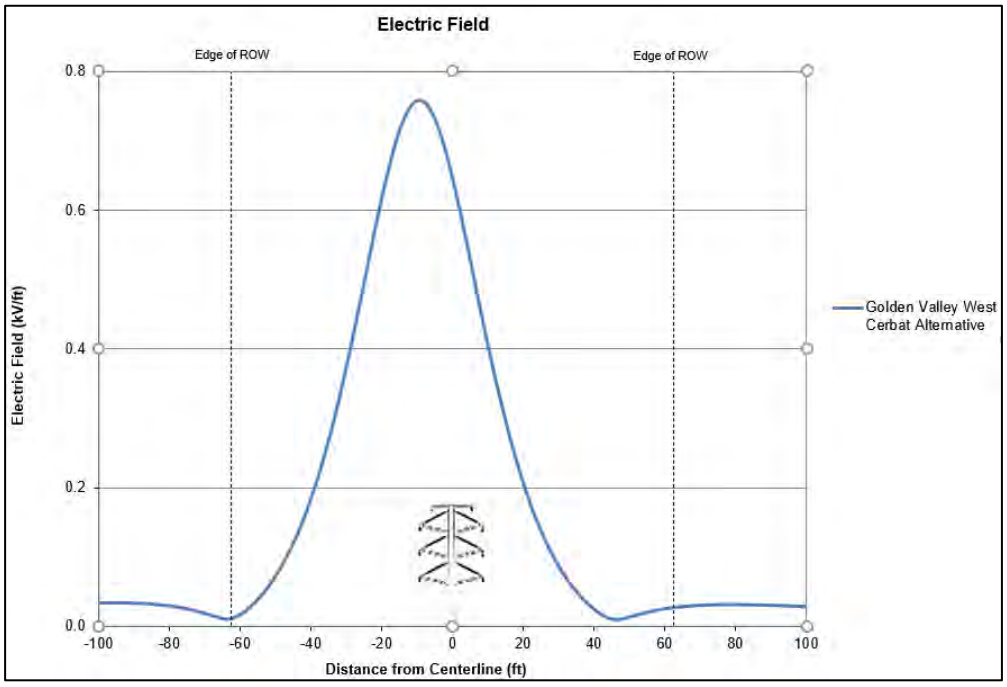


Figure 3: Calculated Electric Field in the Golden Valley West Cerbat Alternative (230 kV)

Magnetic Field

The reported magnetic field values are the magnetic flux density at a given point in space. Magnetic flux density is measured in gauss or milligauss (mG) or in micro-Teslas (μT). These values can be easily converted as one tesla equals 10,000 gauss, or simply 10 mG equals 1 μT.

Table 3 shows a summary of the calculated magnetic field resultant values in the right-of-way, assuming 100 % maximum current loading. Values are calculated at the minimum conductor height (mid-span) at a height of one meter above the ground per IEEE Std 644-2019.

TABLE 3: CALCULATED MAGNETIC FIELD RESULTS – 100% LOADING [mG]

Case	Edge of ROW	Maximum in ROW	Minimum Distance (in ft) To <0.1 mG	Plot
Golden Valley North corridor (230 and 69 kV)	6.8	21	195	Figure 4
Golden Valley West Cerbat Alternative (230 kV)	4.1	13.2	465	Figure 5

Figure 4 and Figure 5 show a plot of the calculated magnetic fields across the right-of-way for each structure configuration at that location.

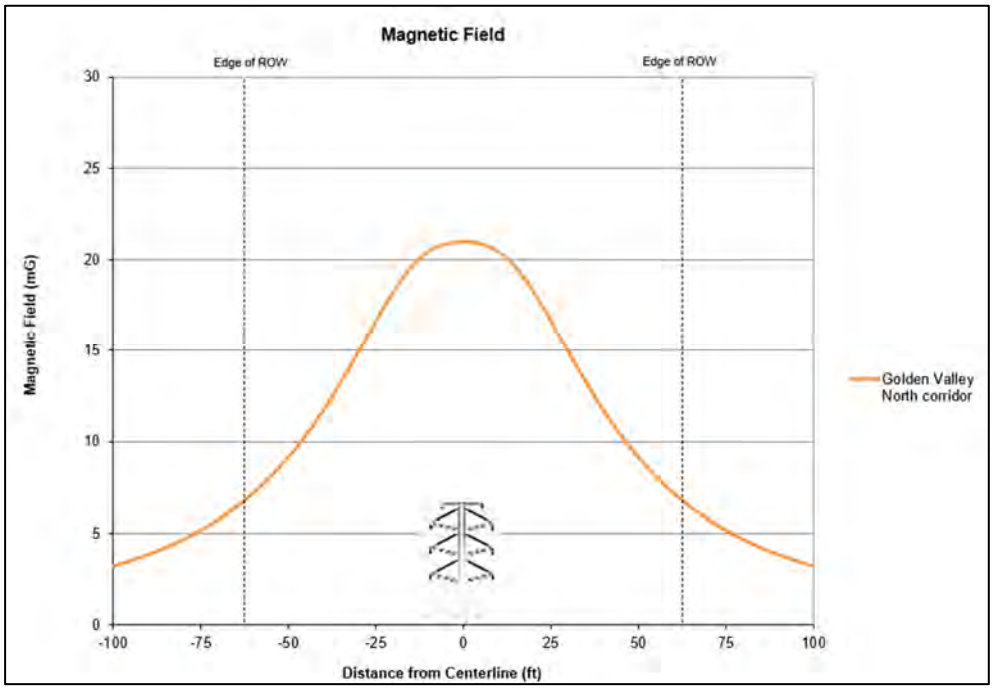


Figure 4: Calculated Magnetic Field in the Golden Valley North Corridor (230 and 69 kV)

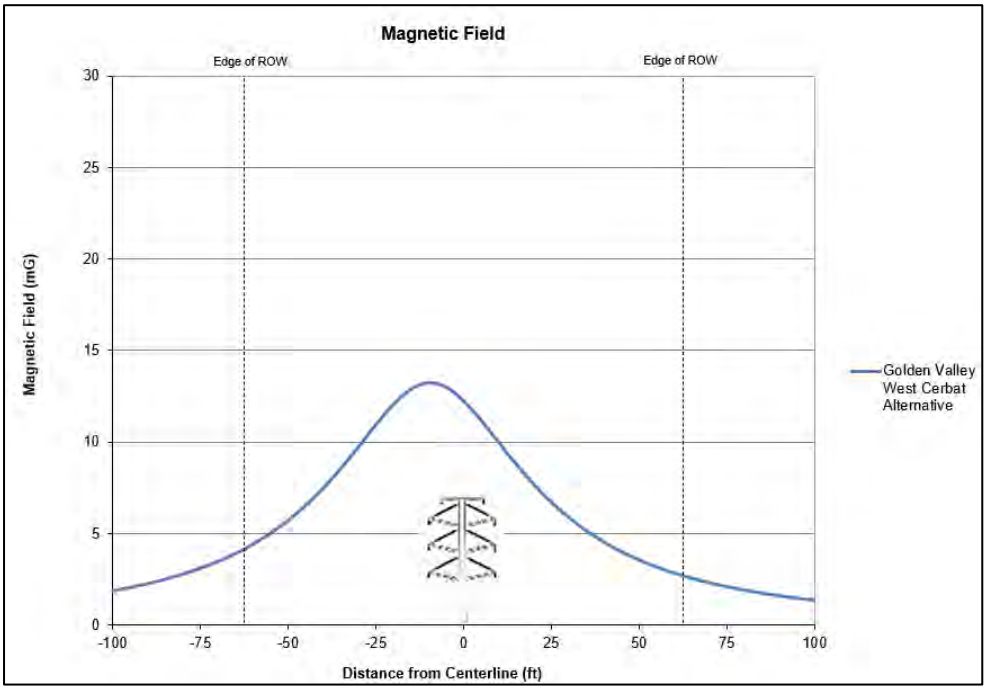


Figure 5: Calculated Magnetic Field in the Golden Valley West Cerbat Alternative (230 kV)

CONCLUSION

Based on the study criteria provided, calculated EMF values for the proposed 230 kV line between Harris Substation and Mineral Park Substation are comparable to common household appliances. The maximum calculated magnetic field in the Golden Valley north corridor of 21 mG, is less than the median magnetic field produced by a food processor from six inches away, 30 mG. At the edge of the right-of-way, the calculated magnetic field for both locations of about 7 mG, was found to be weaker than the median magnetic field while standing six inches away from an electric oven. A hair dryer or microwave oven from a half foot away can be found to produce stronger magnetic fields than what has been calculated at any of the locations analyzed along the proposed route. Table 3 may be further compared with Table 1 for a better understanding of the strength of the calculated magnetic fields produced by the proposed 230 kV line.

APPENDIX A – STRUCTURE DRAWINGS & DATA

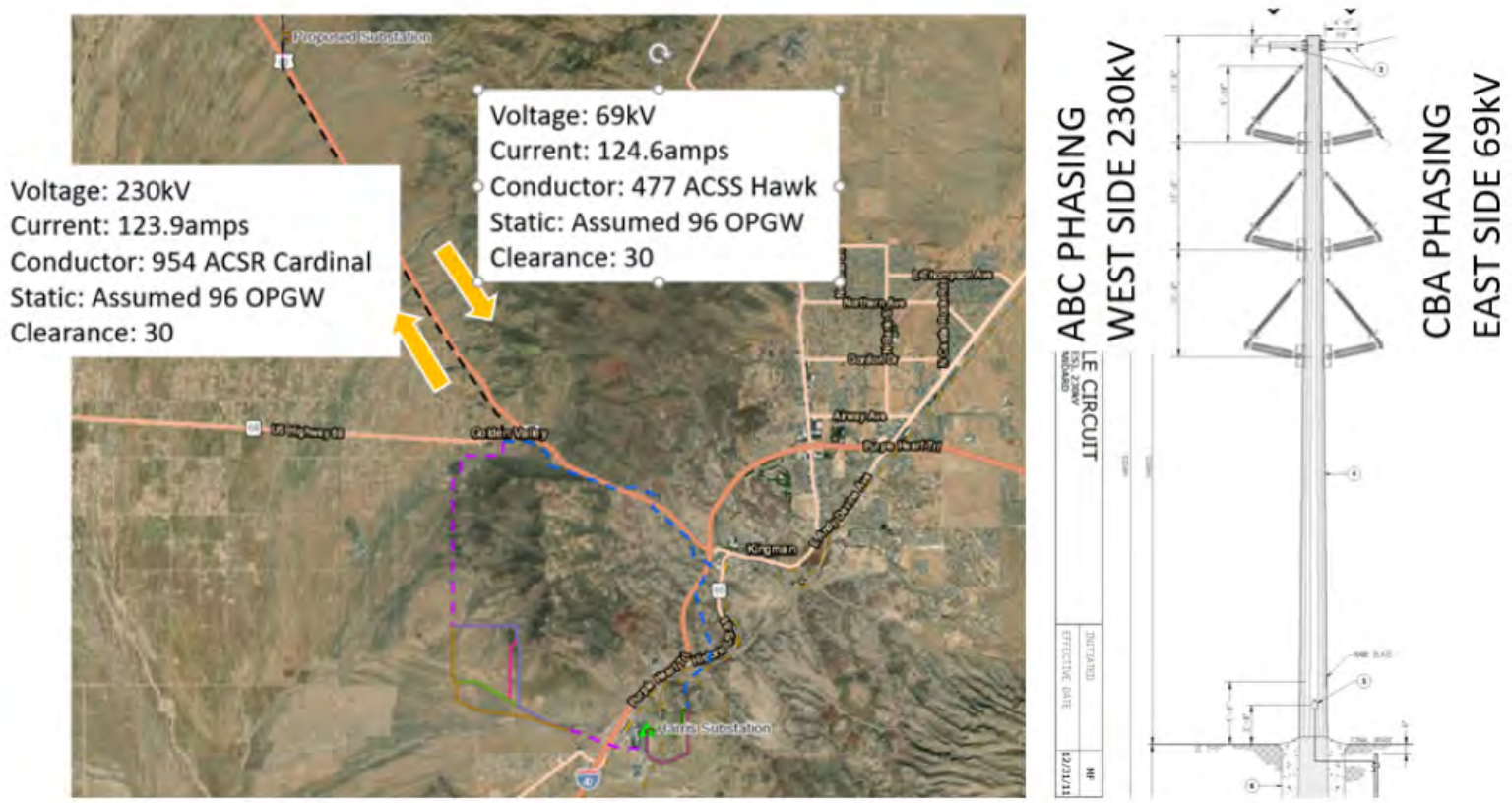


Figure 6: Golden Valley North Corridor Transmission Line Data

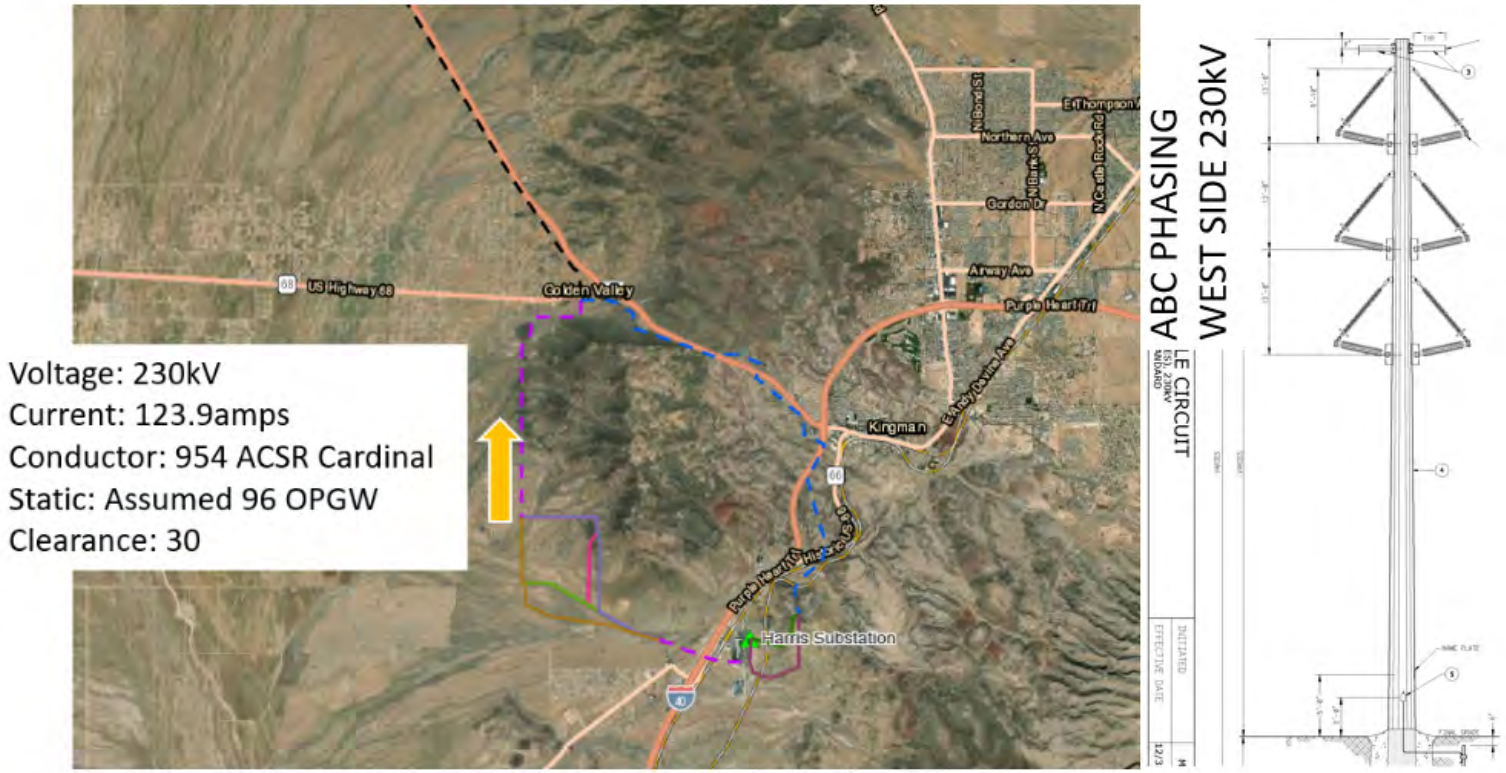


Figure 7: Golden Valley West Cerbat Alternative Corridors Transmission Line Data

J. EXHIBIT J—SPECIAL FACTORS

As stated in Arizona Administrative Code R14-3-219:

Describe any special factors not previously covered herein, which applicant believes to be relevant to an informed decision on its application.

EXHIBIT	CONTENTS
J-1	Factsheet—August 2007
J-2	Factsheet —January 2008
J-3	Factsheet—April 2008
J-4	Factsheet—November 2008
J-5	Factsheet—June 2016
J-6	Factsheet—March 2017
J-7	Factsheet—June 2019
J-8	Factsheet—July 2020
J-9	Newsletter—January 2021
J-10	Public Open House Presentation Materials—August 16, 2007
J-11	Public Open House Presentation Materials—February 12, 2008
J-12	Public Open House Presentation Materials—May 6 to 8, 2008
J-13	Public Open House Presentation Materials—June 28 to 29, 2016
J-14	Virtual Public Open House Presentation Materials—February 9, 2021
J-15	Public Open House Sign-in Sheets—August 16, 2007
J-16	Public Open House Sign-in Sheets—February 12, 2008
J-17	Public Open House Sign-in Sheets—May 6 to 8, 2008
J-18	Public Open House Sign-in Sheets—June 28 to 29, 2016
J-19	Virtual Public Open House Attendance List—February 9, 2021
J-20	Agency Scoping Letters and Mailing List—October 2007
J-21	Agency Letters Received—2007
J-22	Agency Scoping Letters and Mailing List—June 2016
J-23	Agency Letters Received—2016 and 2019
J-24	Elected Officials and Stakeholders Outreach Email—January 2021
J-25	Tribal Scoping Letters and Mailing List—May 2007
J-26	Tribal Scoping Letters and Mailing List—June 2016

J-27	Tribal Letters and Email Received
J-28	Postcard Mailing of Public Comment Period for Draft Environmental Assessment
J-29	Agency and Public Official Comments on Draft Environmental Assessment
J-30	Public Comments Received between 2007 and 2021

J.1 Public Scoping and Outreach

As described in the *Introduction*, the Project was initiated in 2006 when the Mineral Park Mine expressed a need for additional power. The need for the Project was slowed as the mind began slowing operations and eventually filed for bankruptcy in 2014. In 2015, UNSE reinitiated the Project as the result of ongoing studies for future load growth in and around the surrounding areas indicating the Project would aid in system reliability.

Public scoping was conducted both in 2007 and 2008, and again in 2016 when the Project was reintroduced by UNSE. This exhibit describes scoping activities conducted in 2007 and 2008, scoping activities conducted in 2016, as well as public outreach activities conducted in subsequent years up until the present. It identifies efforts made to notify interested agencies, Tribes, organizations, and members of the public about the proposed Project and to obtain input from those entities regarding development and evaluation of alternatives and issues addressed in the EA. This exhibit also includes the materials that have been provided to the public to inform them about the Project since 2007 as well all public comments that have been received since the beginning of the Project.

J.1.1 2007 and 2008 Scoping Activities

Public Scoping

Extensive public outreach was conducted during 2007 and 2008 when this Project was first proposed. Four factsheets that included Project information and public meeting announcements were mailed. These were mailed on August 6, 2007; January 30, 2008; May 28, 2008; and November 11, 2008 (**Exhibits J-1 to J-4**), and during this time period, over 5,000 residences, property owners, and businesses were scoped via factsheet mailings. Six newspaper notifications announcing public scoping meetings were posted, four in the *Kingman Daily Miner* (publication dates of February 1 and 3, 2008 and May 2 and 4, 2008) and two in *The Standard Newspaper* (publications dates of February 6, 2008 and April 30, 2008). Five public scoping meetings were held, all at the Black Mountain Elementary School in Golden Valley, on August 16, 2007; February 12, 2008; and May 6, 7, and 8, 2008. Presentation materials that were used in these meetings are included as **Exhibits J-10 through J-12**. Sign-in sheets from these meetings are included as **Exhibits J-15 through J-18**. In total, 161 individuals attended (**Table J-1**). Additionally, eight field tours were held. A total of 65 individuals participated in the field tours. Participants included representatives and resource specialists from BLM, UNSE, Transcon, the City of Kingman, Mohave County, as well as CFRA users, and property owners in the area. A telephone line was also established for individuals to leave messages and ask questions about the Project.

TABLE J-1 2007 AND 2008 PUBLIC MEETING ATTENDANCE		
Location	**Date**	**Attendance**
Black Mountain Elementary School 3404 Santa Maria Road Golden Valley, Arizona 86413	August 16, 2007	9
Black Mountain Elementary School	February 12, 2008	32
Black Mountain Elementary School	May 6, 2008	78
Black Mountain Elementary School	May 7, 2008	21
Black Mountain Elementary School	May 8, 2008	21
	Total Attendance	**161**

Public comments expressed during 2007/2008 scoping were primarily regarding the following concerns:

- Concerns about impacts from alternative routes through Golden Valley, and specifically through private land in Golden Valley
- Alternative suggestions to place away from Golden Valley, place in areas not as populated, place where existing lines would be followed, place away from residents, place underground, place along US 93, and place on BLM and state land, among others
- Concerns about the environment and defacing the land
- Concerns about possible declines in property values
- Concerns about impacts to landowners from development resulting from the Project
- Concerns about encroachment onto the CFRA
- Impacts to wildlife and wildlife habitats
- Aesthetic concerns regarding the size of poles and their placement near private property
- Concerns about water use
- Concerns about noise
- Health concerns relating to EMFs

Exhibit J-30 contains all public comments received during the 2007 and 2008 scoping period from comment forms submitted during public meetings, from mailings, and from call-ins to the telephone line.

Agency Scoping

Federal, state, and local agencies contacted for 2007/2008 scoping included (**Exhibit J-20**):

- Arizona Department of Agriculture, Plant Services Division
- Arizona Department of Environmental Quality
- Arizona Department of Transportation, Kingman District
- Arizona Game and Fish Department
- Arizona State Land Department, Natural Resources Conservation Section

- Arizona State Land Department, Real Estate Division, Planning Section
- Arizona State Land Department, Real Estate Division, Right-of-Way Section
- Arizona State Parks, State Historic Preservation Office
- City of Kingman, Parks and Recreation
- City of Kingman, City Council and Mayor
- City of Kingman, Planning and Zoning
- Mohave County Board of Supervisors
- Mohave County Parks Department
- Mohave County Planning and Zoning
- U.S. Army Corps of Engineers, Los Angeles District, Phoenix Office
- U.S. Department of Agriculture, Arizona Natural Resources Conservation Service
- U.S. Department of Transportation, Federal Highway Administration
- U.S. Fish and Wildlife Service, Arizona Ecological Services Field Office
- Western Area Power Administration

Exhibit J-21 also contains comments received from agency scoping.

Tribal Scoping

Native American Tribes contacted for 2007/2008 scoping included (**Exhibit J-25**):

- Ak Chin Indian Community, Council
- Colorado River Indian Tribes, Council
- Fort Mojave Indian Tribe, Chairman
- Fort Mojave Indian Tribe, Aha Macav Cultural Society
- Gila River Indian Community, Cultural Resource Specialist
- Him Dak Museum, Director
- Hopi Tribe, Chairman
- Hualapai Tribe, President
- Salt River-Pima Indian Community, Chairperson
- Yavapai-Apache Nation, Director

J.1.2 2016 Scoping Activities

Public Scoping

The public was notified of the Project through factsheets distributed directly by mail, notifications published in local newspapers and on a Project website, and radio announcements broadcast on several local radio stations. Additionally, two public meetings were held, one in Kingman and one in Golden Valley. These efforts are further described below. In total, 63 comments were received from the public.

Project Factsheet

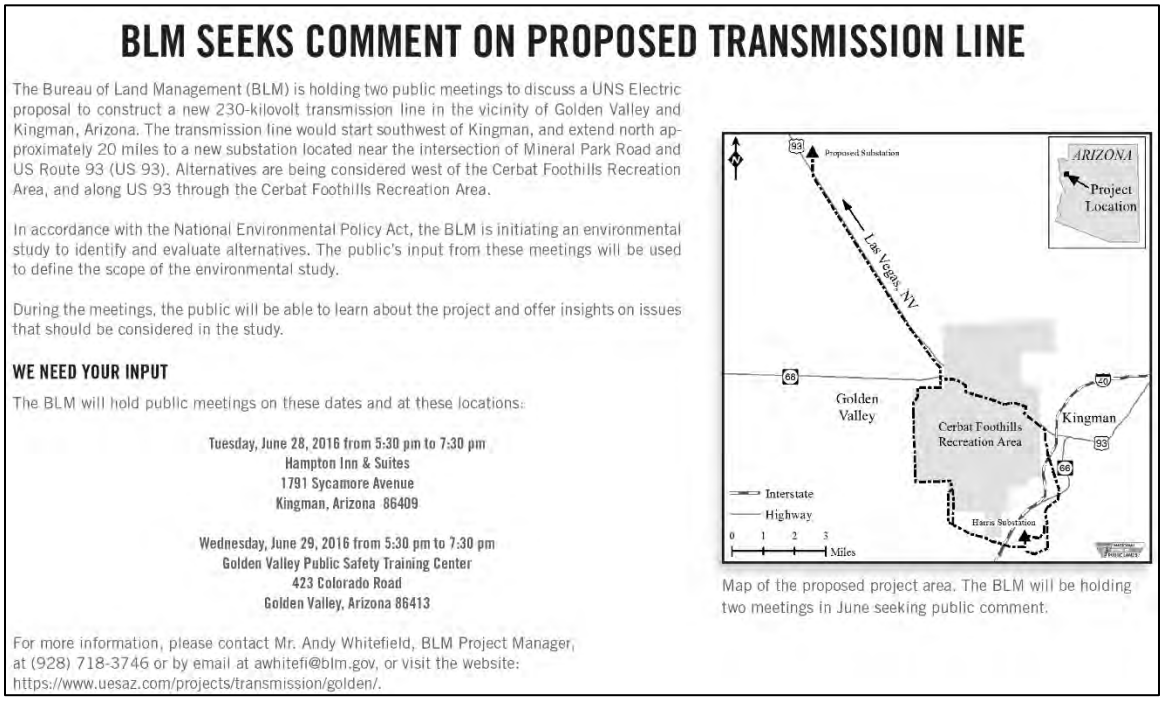
Project factsheets detailing Project information, public meeting times and locations, and a Project area map were mailed to the public. The factsheet also contained instructions for methods of submitting formal comments, an address for mailing comments, a BLM email address for emailed comments, and a phone line where a voice message could be left. The mailing list for factsheet distribution was compiled using data from the Mohave County website to include all residents within 1 mile of all alternatives. The mailing list was updated throughout the Project to include those who provided scoping comments or otherwise expressed interest in the Project. The factsheet was mailed June 15, 2016 to 2,765 recipients (**Exhibit J-5**).

Email Correspondence

Andy Whitefield, the BLM Project manager for this effort, sent emails to four individuals for whom mailing addresses could not be found.

Newspaper Notification

A newspaper notification with public meeting times and locations (**Figure J-1**) was published in the *Kingman Daily Miner* newspaper on June 14 and 19, 2016, and in the *Standard Newspaper* on June 22, 2016.



BLM SEEKS COMMENT ON PROPOSED TRANSMISSION LINE

The Bureau of Land Management (BLM) is holding two public meetings to discuss a UNS Electric proposal to construct a new 230-kilovolt transmission line in the vicinity of Golden Valley and Kingman, Arizona. The transmission line would start southwest of Kingman, and extend north approximately 20 miles to a new substation located near the intersection of Mineral Park Road and US Route 93 (US 93). Alternatives are being considered west of the Cerbat Foothills Recreation Area, and along US 93 through the Cerbat Foothills Recreation Area.

In accordance with the National Environmental Policy Act, the BLM is initiating an environmental study to identify and evaluate alternatives. The public's input from these meetings will be used to define the scope of the environmental study.

During the meetings, the public will be able to learn about the project and offer insights on issues that should be considered in the study.

WE NEED YOUR INPUT

The BLM will hold public meetings on these dates and at these locations:

Tuesday, June 28, 2016 from 5:30 pm to 7:30 pm
Hampton Inn & Suites
1791 Sycamore Avenue
Kingman, Arizona 86409

Wednesday, June 29, 2016 from 5:30 pm to 7:30 pm
Golden Valley Public Safety Training Center
423 Colorado Road
Golden Valley, Arizona 86413

For more information, please contact Mr. Andy Whitefield, BLM Project Manager, at (928) 718-3746 or by email at awhitefi@blm.gov, or visit the website: https://www.uesaz.com/projects/transmission/golden/.

Map of the proposed project area. The BLM will be holding two meetings in June seeking public comment.

Figure J-1. Newspaper notification.

Project Website

UNSE set up a Project website that contained the factsheet as well as archived factsheets from the previous iteration of the Project. The website went live on June 8, 2016.

Radio Announcement

The BLM prepared and provided an announcement to the following radio stations for broadcast: KZZZ 1490 AM, KJZK 90.7 FM, KAAA 1230 AM, and KYET 1170 AM. KAAA and KYET provided verbal confirmation that the announcement aired, though none of the stations were able to confirm days and times of broadcast. During the public meetings, several members of the public mentioned hearing the radio announcement.

Public Meetings

Two public meetings were held, one on June 28, 2016 at the Hampton Inn and Suites in Kingman, Arizona, and the other on June 29, 2016 at the Public Safety Training Center in Golden Valley, Arizona (**Table J-2**). Presentation materials used in these meetings are included as **Exhibit J-13**. Sign-in sheets from these meetings are included as **Exhibit J-18**. In total, 41 individuals attended. Both meetings were held between 5:30 p.m. and 7:30 p.m. on their respective dates. The purpose of the meetings was to present the proposed Project, answer questions, and accept public comments. Every attendee was provided a pre-addressed comment form that they could either fill out and submit during the meeting or take home and send in later. Poster boards illustrating the scoping process, the regulatory process, EA roles and responsibilities, resources to be addressed in the EA, transmission line monopole design, EMFs, methods for public involvement, and nine visual simulations of the proposed line were on display during the meetings that (**Exhibit J-13**).

TABLE J-2
2016 PUBLIC MEETING ATTENDANCE

Location	Date	Attendance
Hampton Inn and Suites 1791 Sycamore Avenue Kingman, Arizona 86409	June 28, 2016	29
Public Safety Training Center 423 Colorado Road Golden Valley, Arizona 86413	June 29, 2016	12
	Total Attendance	**41**

Agency Scoping

Transcon mailed a total of 26 agency scoping letters to 21 federal, state, and local agencies on June 20, 2016 on behalf of the BLM to (**Exhibit J-22**):

- Arizona Department of Agriculture, Plant Services Division
- Arizona Department of Environmental Quality, Northern Regional Office (Patrick Cunningham, Acting Director)
- Arizona Department of Real Estate (Roy Tanney)
- Arizona Department of Transportation, Kingman District
- Arizona Electric Power Cooperative, Inc. (William Wells, Land Services Administrator)
- Arizona Game and Fish Department (Regional Supervisor)

- Arizona State Land Department, Natural Resources Conservation Service (Maria Baier, State Land Commissioner)
- City of Kingman (Honorable Richard Anderson, Mayor; Jack Kramer, City Manager; Tom Duranceau, Planning Manager)
- Kingman Area Chamber of Commerce (Beverly Liles, President)
- Kingman Parks and Recreation Department (Guy Reynolds, Superintendent)
- Mohave County Board of Supervisors (Jean Bishop, County Supervisor)
- Mohave County Development Services Department (Nicholas Hont, Acting Director)
- Mohave County Parks Department (Shawn Blackburn, Director)
- Mohave County Public Works (Steven P. Lotoski, Director)
- Mohave Electric Cooperative (Carlos Tejada, Director)
- U.S. Army Corps of Engineers (William H. Miller Sr., Project Manager)
- U.S. Department of Agriculture, Arizona Natural Resources Conservation Service
- U.S. Fish and Wildlife Service (Brenda Smith and Steve Spangle)
- Utah Department of Transportation, Federal Highway Administration
- Western Area Power Administration (John Holt, Environmental Manager)

Five comments were received from agencies: one from USFWS, one from USDOT Federal Highway Administration, one from ADOT, one from the Mohave Board of Supervisors, and one from Mohave County Public Works.

Tribal Scoping

Tribal outreach was performed by the BLM by mailing tribal scoping letters on June 23, 2016 to the seven Tribes listed below (**Exhibit J-26**). Note that this is different from tribal consultation, which was performed later in the process after the cultural resources survey and report had been completed.

- Yavapai-Prescott Indian Tribe
- Yavapai-Apache Nation of the Camp Verde Indian Reservation
- Moapa Band of Paiute Indians of the Moapa River Indian Reservation
- Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony
- Hualapai Tribe of the Hualapai Indian Reservation
- Hopi Tribe of Arizona
- Chemehuevi Tribe of the Chemehuevi Indian Reservation

Comments were received from the Hopi, Chemehuevi, and Colorado River Indian Tribes (**Exhibit J-27**).

Elected Official Scoping

Elected officials were identified for scoping by UNSE Government Relations Department. The Project factsheet was emailed by UNSE to Congresswomen Penny Pew and Teresa Martinez on June 13, 2016. No formal comments were received in response.

Results of 2016 Scoping Process

Comments Received

Responses from public scoping were primarily received during the first 43 days of the scoping period, beginning on June 15, 2016 and formally ending on July 28, 2016, though comments were received and accepted into February 2020. Tribal scoping began on June 23, 2016 and will be ongoing for the duration of the Project. Agency scoping lasted 38 days, from June 20, 2016 to July 28, 2016, but any comments received were accepted throughout the Project. Throughout this time, BLM Project Manager Andy Whitefield collected comments with assistance from Transcon. A total of 68 comments were received from the public, agencies, and Tribes. The Project team grouped comments that identified issues into 16 categories to aid in the interpretation and analysis of comments. The categories, described in more detail under the *Summary of Issues* section, mostly mirror the resources evaluated in the EA. All comments received are included in **Exhibit J-30**.

Table J-3 summarizes concerns raised per category. Note that one comment can raise concerns for multiple categories; therefore, the totals listed in **Table J-3** exceed the total number of comments received. **Figure 2** illustrates comments received per category in relation to total comments received.

TABLE J-3
COMMENTS RECEIVED PER CATEGORY DURING 2016 SCOPING

Category	Commenter			Total Per Category
	Public	Agency	Tribe	
Air Quality	1	--	--	1
Alternatives	39	--	--	39
Biological Resources	14	1	--	15
Cultural Resources	--	--	1	1
Cumulative Effects	--	2	--	2
Environmental Justice	2	--	--	2
Health and Safety	8	--	--	8
Issues Outside NEPA	22	--	--	22
Land Use	20	3	--	23
Noise	1	--	--	1
Purpose and Need	4	--	--	4
Public Involvement Process	4	--	--	4
Socioeconomics	24	1	--	25
Soils	1	--	--	1
Visual Resources	22	--	--	28
Water Resources	1	--	--	1
TOTAL CONCERNS	**175**	**7**	**1**	**--**

Summary of Issues

There were 68 comments received, which collectively amounted to 183 concerns. The majority of concerns were regarding alternative selection (e.g., comments suggesting new or different alternatives), visual resources (e.g., impacts to viewsheds), socioeconomics (e.g., impacts to property value), and other issues (e.g., increased rates).

Total Issues Identified (2016)

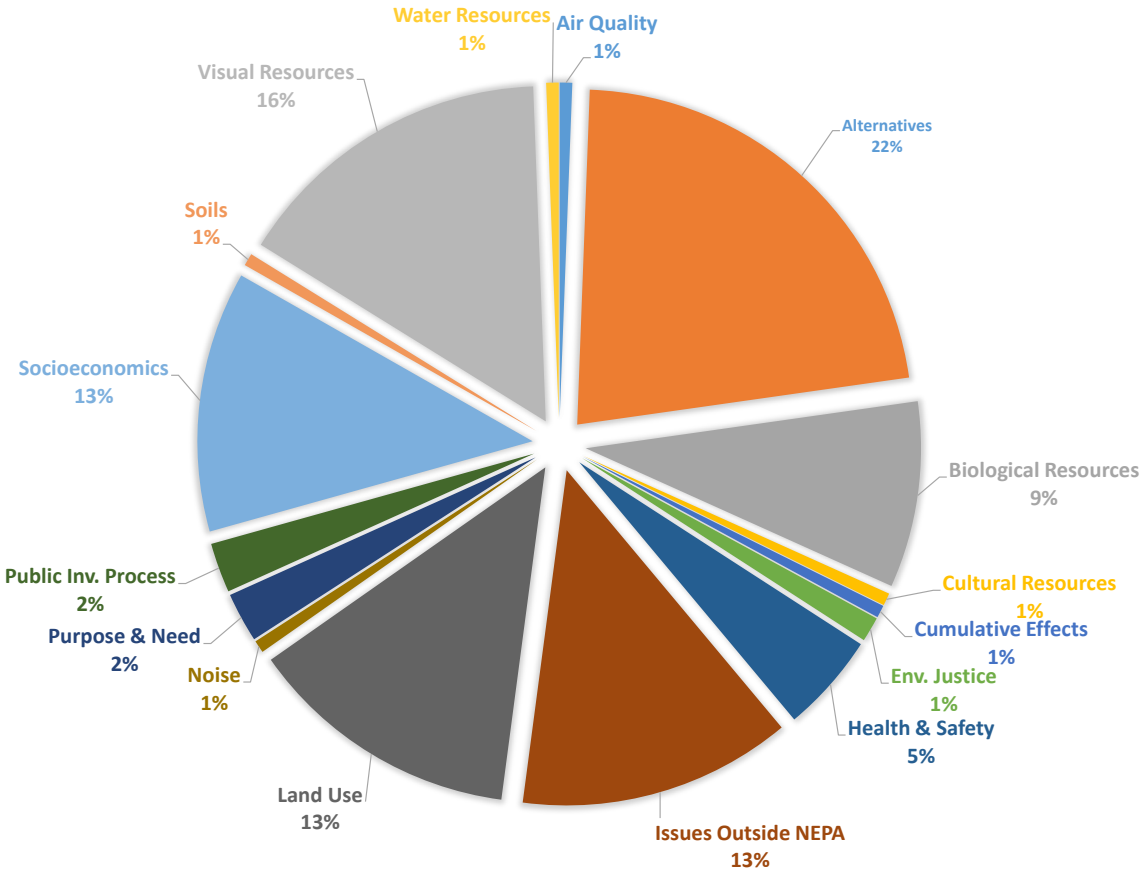


Figure J-2. Chart of concerns raised.

Air Quality

- 1 comment regarding the possibility of depleting air quality with the proposed Project

Alternatives

- There were 25 comments suggesting the Eastern Route be chosen:
    - 17 comments stating the Eastern Route makes for a better option because it already uses existing utility ROWs

  - 5 comments stating the Eastern Route makes for a better option because there are fewer residents and homes along that route
  - 2 comments stating less BLM land would be used if the Eastern Route was chosen
- There were 5 comments specifically suggesting the Western Route be chosen.
  - 5 comments saying the Eastern Route should not be chosen because many property owners along that route already sacrificed land in the past due the construction of I-40

Biological Resources

- 7 specific concerns about harming animal life in the proposed Project area
- 2 specific concerns about harming plant life in the proposed Project area
- 5 general concerns about harming the environment and wildlife in the proposed Project area
- 2 general concerns about harming the ecosystem in the proposed Project area
- 2 concerns about the destruction of animal habitat
- 2 specific concerns about protected and endangered species, particularly golden eagles and desert tortoise

Cultural Resources

- The Hopi and Chemehuevi Tribes each had a concern about possibly of encountering any cultural resources during surveys in the proposed Project area. The Yavapai-Apache Nation of Camp Verde had no concerns or comments other than to defer to the Hualapai Tribe regarding any cultural issues

Cumulative Effects

- 1 concern from the FHWA concerning the cumulative effects of new corridors
- Mohave County Public Works expressed concern that the West Cerbat alternatives (W4 Alternative) could affect their use of a material source pit off of Shinarump Road or its ability to renew its permit to use the pit

Environmental Justice

- 1 concern about the potential financial effects this proposed Project will have on someone living only on small social security checks

Health and Safety

- 8 general concerns about health and safety issues that may arise from living near transmission lines, for both people and their pets, including disease, electrocution, and overall well-being
- 2 concerns specifically about the effects of electromagnetic radiation and how it would impact those living near power lines
- 1 concern regarding potential crime construction of the proposed Project would bring as a result of traffic in the area

Land Use

- 7 concerns about disrupting operations of Cameron Broadcasting, Inc. (or KAAA) radio tower
- 1 comment about disrupting operations of the KYET-AM radio tower
- 1 comment confirming neither of the routes would affect the tower
- 1 concern about interfering with other electronics, including the radio, and the impact this would have on those who enjoy listening to the radio
- 1 comment with concern that the West Cerbat alternatives could affect the use of the material source pit off of Shinarump Road
- 1 comment with concern that all alternatives could impact, compromise, or lessen Mohave County's existing rights or pending applications pertaining to roads

Noise

- 1 concern for noise the transmission line would bring
- 1 concern for noise the construction process would bring

Purpose and Need

- 3 comments stating they understand the need for this proposed Project
- 3 comments stating they do not understand the need for the proposed Project and that it is only to expand industrialization

Socioeconomics

- 17 concerns about hurting the property value of their homes and other homes as well as the potential to make money with future development
- 2 comments about specifically hurting the Golden Valley real estate market
- 1 specific comment about the transmission line potentially hurting the tourism industry in Golden Valley
- 5 comments regarding potential compensation for this proposed Project, some stating they deserve significant compensation and some disappointed they will not be compensated for the loss or depreciation of their land

Soils

- 1 comment regarding potential soil erosion and the effect this would have on farmers and gardeners

Visual Resources

- 5 specific comments about the proposed transmission line obstructing views from their properties
- 18 general comments about degrading the visual quality by adding a visually unappealing transmission line
- 4 comments about disrupting the peaceful atmosphere that comes with living near mostly undeveloped land

- 2 concerns about the future industrialization this proposed Project may bring
- 4 comments regarding recreation and that hiking, walking, and biking would be less enjoyable if views are degraded and the area is torn up

Water Resources

- 1 concern about further depleting the water supply in Golden Valley and potentially hurting farmers as a result

Public Involvement Process

- 9 comments regarding issues with the public involvement process, including maps being presented during public meetings that misrepresented the location of homes in the area, UNSE's lack of communication with the public, the public's comments/concerns not being taken into account, and not enough notice being given about this proposed Project

J.1.3 Notifications and Outreach—Post-2016 Scoping

Several notifications were made to keep the public updated after the initial scoping activities performed in 2016. These are summarized below.

In March 2017, Transcon mailed a factsheet which contained a summary of the issues identified during scoping activities, introduced two new proposed alternatives which were added based on comments received during scoping, and provided data such as the alternatives' length across land jurisdictions and the percentage of each alternative within a BLM-designated utility corridor (**Exhibit J-6**). This factsheet was mailed to all persons/entities on the Project mailing list, which was updated to include persons/entities along the two new alternatives. It was also posted on the Project website.

In June 2019, a factsheet was posted on the Project website maintained by UNSE (**Exhibit J-7**). It updated the public by explaining the BLM was continuing to analyze the Project alternatives and explained that a slight modification had been made to the alignment of the East Cerbat alternatives—they would now cross I-40 where an existing UNSE transmission line crosses I-40.

In July 2020, another factsheet was posted on the Project website to continue to keep the public informed of the status of the Project and provide updates (**Exhibit J-8**). This factsheet updated the public as to the anticipated completion of the Draft EA and future notification that would occur for the public to be able to provide comments on the Draft EA.

J.1.4 2020 Draft EA Public Comment Period

BLM released the Draft EA to the public for comment on August 3, 2020. The 30-day comment period lasted until September 3, 2020. A postcard mailing occurred to persons/entities on the Project mailing list notifying them of the public comment period and how to submit their comments (**Exhibit J-28**). The Draft EA was also posted on the Project website.

Comments Received

Responses from public scoping were received by BLM Project Manager Andy Whitefield with assistance from Transcon. A total of 13 comments were received from the public, agencies, and Tribes. The Project team grouped comments that identified issues into 16 categories to aid in the interpretation and analysis of comments. The categories, described in more detail under the *Summary of Issues* section, mostly mirror the resources evaluated in the EA. Responses and public official comments are included within **Exhibit J-29**. All other public comments are included within Exhibit J-30.

Table J-4 summarizes concerns raised per category. Note that one comment can raise concerns for multiple categories; therefore, totals listed in **Table J-4** exceed the total number of comments received.

TABLE J-4
COMMENTS RECEIVED PER CATEGORY DURING DRAFT EA COMMENT PERIOD

Category	Commenter			Total Per Category
	Public	Agency	Tribe	
Air Quality	--	--	--	--
Alternatives	8	--	--	8
Biological Resources	1	1	--	2
Cultural Resources	--	--	--	--
Cumulative Effects	1	--	--	1
Environmental Justice	--	--	--	--
Health and Safety	4	--	--	4
Issues Outside NEPA	1	--	--	1
Land Use	9	--	--	9
Noise	2	--	--	--
Purpose and Need	2	--	--	--
Public Involvement Process	--	--	--	--
Socioeconomics	7	--	--	7
Soils	--	--	--	--
Visual Resources	6	--	--	6
Water Resources	--	--	--	--
TOTAL CONCERNS	**41**	**1**	**--**	**--**

Summary of Issues

There were 13 comments received, which collectively amounted to 42 concerns. The majority of concerns were regarding alternative selection and land use (e.g., comments suggesting new or different alternatives), socioeconomics (e.g., impacts to property value), and visual resources (e.g., impacts to viewsheds).

J.1.5 2021 Outreach Activities

Public Outreach

Most recently, UNSE conducted additional outreach specific to the CEC Application via newsletter mailing, virtual public meeting, and outreach to elected officials and stakeholders. Comments about the Project were also invited and continued to be accepted. These outreach activities and most recent comments are summarized below.

Newsletter

A newsletter was mailed on January 22, 2021 to 3,234 persons/entities on the mailing list. The newsletter provided an update about the Project regarding future required approvals and anticipated filings and hearings for the CEC, invited attendance at the planned virtual public meeting via a Zoom link, and invited comments about the Project (**Exhibit J-9**).

Virtual Public Meeting

A virtual public meeting was held on February 9, 2021 via a Zoom link posted on the Project website. Presentation materials used in the meeting are included as **Exhibit J-14**. An attendance list is included as **Exhibit J-19**. In total, five members of the public attended. The meeting was held from 6:00 p.m. to 7:30 p.m. The purpose of the meeting was to present the Project, provide updates with respect to anticipated CEC filings and hearings, answer questions, and inform the public how to provide comments. Attendees were able to ask UNSE and Transcon representatives questions during the live meeting session.

Comments Received

With the newsletter mailing, the public was encouraged to provide additional comments about the Project. The newsletter informed them of four different methods they could use to submit comments, including an online comment form accessible through the Project website, emailing comments to the Project email address, calling the Project telephone number, and mailing comments to Transcon. From the newsletter mailing on January 22, 2021 to March 6, 2021, there were 7 comments received. These are included within **Exhibit J-30**. Concerns were regarding location and use of existing utility corridor and ROWs, proximity to residences, impacts to property values, and visual and health impacts.

Elected Official and Additional Stakeholder Outreach

UNSE conducted additional outreach to elected officials and stakeholders in late January 2021 via emails inviting attendance at the virtual public meeting as well as individual briefings as requested. The January 2021 newsletter was attached to the email, and the message extended a briefing invitation (**Exhibit J-24**). **Table J-5** includes all persons receiving this outreach and their level of participation.

TABLE J-5 2021 ELECTED OFFICIAL AND STAKEHOLDER OUTREACH			
Agency / Organization	**Name**	**Title**	**Level of Participation**
Federal Elected Officials / Staff			
U.S. Congress	Julie Brown	Congressman Paul Gosar / District #4 Congressional	Newsletter emailed
U.S. Congress	Julie Schreiner	Congressman Paul Gosar / District #4 Congressional	Newsletter emailed
State Elected Officials / Staff			
Arizona Senator	Sonny Borrelli	District 5	Newsletter emailed
Arizona Representative	Leo Biasiucci	District 5	Newsletter emailed
Arizona Representative	Regina Cobb	District 5	Newsletter emailed
State of Arizona			
Arizona Department of Transportation	Alvin Stump	District Engineer	Newsletter emailed
Arizona State Land Department	Jon Froke	Planner III	Newsletter emailed
County Officials/Staff			
Mohave County	Travis Lingenfelter	Supervisor	Newsletter emailed
Mohave County	Hildy Anguis	Supervisor	Newsletter emailed
Mohave County	Buster Johnson	Chairman	Newsletter emailed
Mohave County	Jean Bishop	Supervisor	Newsletter emailed; briefed 2/11/2021
Mohave County	Ginny Anderson	Office of Supervisor Jean Bishop	Newsletter emailed
Mohave County	Ron Gould	Supervisor	Newsletter emailed
Mohave County	Sam Elters	County Manager	Newsletter emailed
Mohave County	Steve Latoski	Director of Public Works	Newsletter emailed
Mohave County	Philip Kitzinger	Communications Director	Newsletter emailed
Mohave County	Christine Ballard	Director of Planning and Zoning	Newsletter emailed
City Elected Officials/Staff			
City of Kingman	Jen Miles	Major	Newsletter emailed
City of Kingman	Ken Watkins	Vice Mayor	Newsletter emailed
City of Kingman	SueAnn Mello	Councilwoman	Newsletter emailed
City of Kingman	Deana Nelson	Councilwoman	Newsletter emailed
City of Kingman	Cherish Sammeli	Councilwoman	Newsletter emailed
City of Kingman	Jamie Scott Stehly	Councilwoman	Newsletter emailed
City of Kingman	Keith Walker	Councilman	Newsletter emailed
City of Kingman	Ron Foggin	City Manager	Newsletter emailed; briefed 2/8/2021

TABLE J-5 2021 ELECTED OFFICIAL AND STAKEHOLDER OUTREACH			
Agency/Organization	**Name**	**Title**	**Level of Participation**
City of Kingman	Christopher Young	Planning and Community Development Director	Newsletter emailed
City of Kingman	Coleen Haines	Communication and Public Affairs Director	Newsletter emailed
City of Kingman	Greg Henry	Engineer	Newsletter emailed
City of Kingman	Rob Owen	Public Works Director	Newsletter emailed
Sovereign Nations			
Chemehuevi Indian Tribe	Charles F. Wood	Chairman	Newsletter emailed
Hualapai Tribe	Peter Bungart	Historic Preservation Officer	Newsletter emailed
Hualapai Tribe	Dr. Damon R. Clarke	Chairman	Newsletter emailed
Fort Mohave Indian Tribe	Timothy Williams	Chairman	Newsletter emailed
AhaMakav Cultural Society	Linda Otero	Director	Newsletter emailed
Stakeholder Organizations			
Burlington Northern Santa Fe	Kate Kalinosky	Public Project Manager	Newsletter emailed
Burlington Northern Santa Fe	Cheryl Townlian	Assistant Director of Public Projects	Newsletter emailed
Nucor Steel Kingman	Matt Blitch		Newsletter emailed
Western Area Power Administration	John Steward		Newsletter emailed
Mohave Electric	Rick Campos		Newsletter emailed
Kingman Chamber of Commerce	Becky Fawson		Newsletter emailed
Transwestern	Russ Ulibarri		Newsletter emailed
Tri-city Council	Steve Latoski		Newsletter emailed

J.1.6 Future Public Notifications of CEC Application Filing and Hearings

A future public notification will occur in March 2021 to inform the public about the filing of the CEC application and describe opportunities for participation in the hybrid hearings. This will be via a postcard mailing to those persons / entities on the mailing list, posting of that information on the Project website, and posting of signs along the alternative alignments.

EXHIBIT J-1

FACTSHEET—AUGUST 2007

PROJECT FACT SHEET

UniSourceEnergy SERVICES
Energizing Arizona

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

PROJECT INFORMATION

UNS Electric, Inc. (UNSE) is a subsidiary of UniSource Energy Services and delivers electric service to more than 90,000 customers in northern Arizona. In order to meet increased electrical demands and growth, UNSE plans to construct a new electrical transmission line in the Golden Valley area near Kingman. The project involves the construction of a 230 kilovolt (kV) transmission line and two substations to serve the existing and planned electrical loads within Golden Valley and the Mineral Park Mine. The primary and initial electrical need is at the Mineral Park Mine, which is located approximately 20 miles northwest of Kingman along the east side of US Route 93 (US 93) on the western slope of the Cerbat Mountains.

The proposed substations and transmission line alignments are located on lands under the jurisdiction of the Bureau of Land Management, the State of Arizona, and on private land. A map on the reverse side of this page depicts areas currently under review for possible transmission line alignments. The new line would originate at an existing substation located near the McConnico facility in Kingman, extend along the east side of Golden Valley, and end at the Mineral Park Mine.

NEED FOR THE PROJECT

An increase in current and projected future electrical service needs in the area is resulting in the need for a new transmission line and substations. The immediate need is driven by the planned operations at the Mineral Park Mine, which include restoration of a mill at the mine that cannot operate effectively with the current electrical supply. Active milling operations at the mine are expected to create additional jobs in the area. Additionally, a new transmission line would enhance the electrical infrastructure to serve the developing Golden Valley area.

SITING STUDY

A siting study is being conducted to locate these facilities where they would be most compatible with existing and proposed environmental conditions. The study area is illustrated on the map on the reverse side of this page. The siting study incorporates the identification and evaluation of alternatives with public coordination.

ENVIRONMENTAL ANALYSIS

UNSE is required to conduct environmental studies and obtain the necessary permits for the proposed project. The project would cross Federal public land managed by the Bureau of Land Management, therefore, compliance with the National Environmental Policy Act and other relevant regulations must be satisfied. In addition, because the project involves a transmission line greater than 115,000 volts (115kV), it requires approval by the Arizona Corporation Commission. The Arizona Power Plant and Transmission Line Siting Committee would first review this project for environmental compatibility through their Certificate of Environmental Compatibility (CEC) process. Transcon Environmental, an Arizona-based environmental consulting firm, is assisting UNSE with siting and environmental compliance activities.

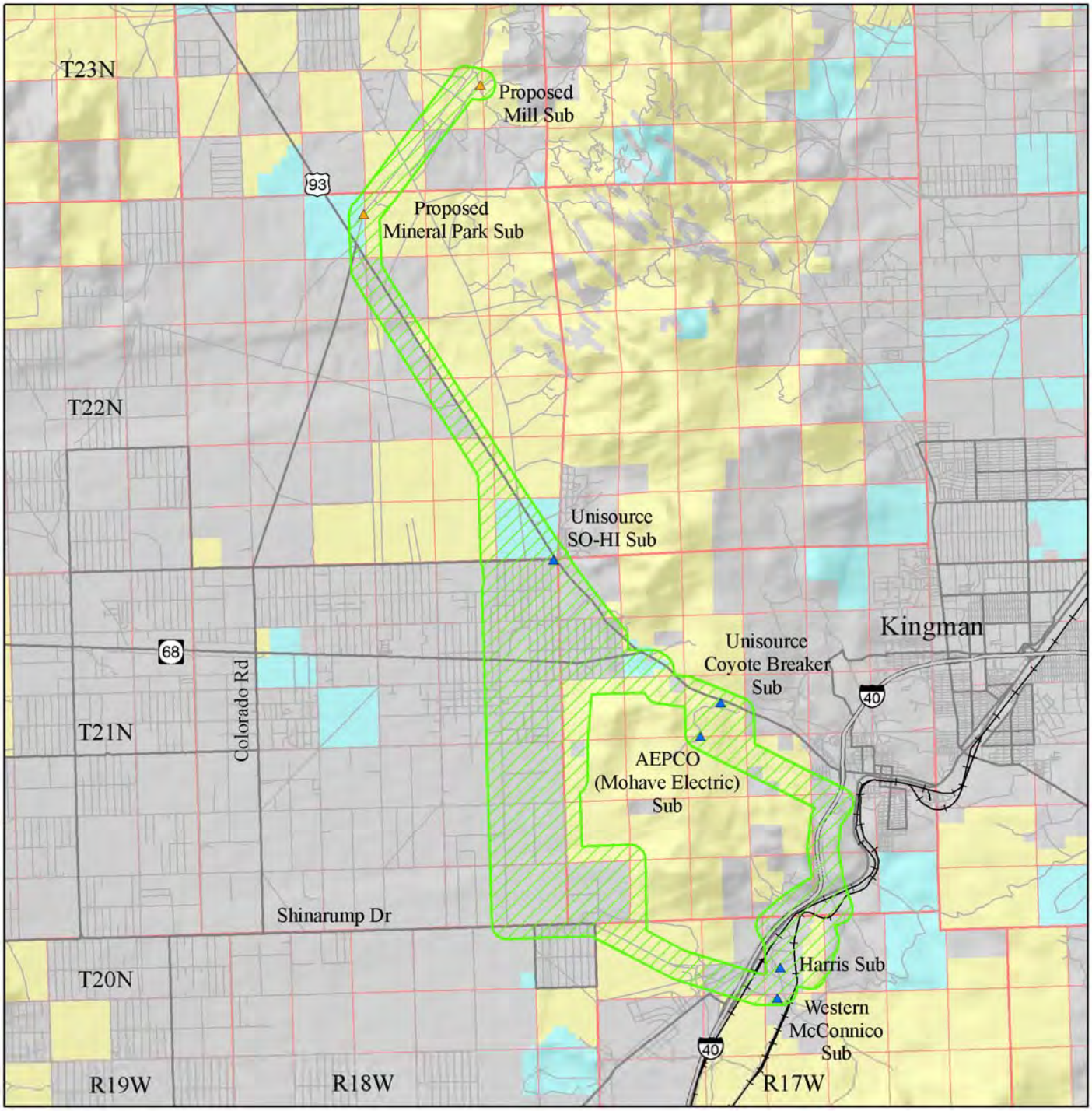
PROJECT TIMELINES

Contact with the public and interested agencies begins this month (August 2007), and environmental studies will take place through the summer and fall of 2007. The CEC process should be underway in late 2007. Construction of the project is anticipated to begin in 2008.

GETTING INVOLVED OR MAKING COMMENTS

A public open house is scheduled for August 16, 2007. It will be held at Black Mountain Elementary and Golden Valley Middle Schools, 3404 N. Santa Maria Road, Golden Valley, Arizona 86413, between 6:30 p.m. and 8:00 p.m.

Your comments regarding this project are welcome. Comments will assist UNSE and the involved agencies in making sound choices for the project. You may address written comments to Transcon Environmental, 3740 E. Southern Ave., Suite 218, Mesa, AZ 85206 or you may make written or verbal comments during the public open house. If you have questions regarding the proposed project, please call the Project Information Phone Line at (928) 415-0213 or toll-free at (866) 453-2401.



Legend

- Siting Area
- Existing Substation
- Proposed Substation
- Bureau of Land Management
- Private
- State

0 1 2 3 4 Miles

Project Location
Golden Valley
230kV Transmission
Line Project

TRANSCON ENVIRONMENTAL

EXHIBIT J-2

FACTSHEET—JANUARY 2008

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
PROJECT FACT SHEET #2

UniSourceEnergy SERVICES

PROJECT INFORMATION

This is the second Fact Sheet provided on the Golden Valley 230kV Transmission Line Project. Approximately 500 Fact Sheets were circulated in October 2007 to area landowners, agencies, organizations, business owners, and residents. The first Fact Sheet provided a description of the project and announced a public meeting to identify public concerns prior to initiating siting activities. This Fact Sheet provides an update on the process for selecting a new transmission line alignment, announces the remaining alternative routes, describes the next steps in the approval process, provides a status report on the permitting process, and announces a public meeting where people will have an opportunity to meet with the project team, review the project, and provide comments.

WHY THIS PROJECT IS NEEDED

The primary purpose of this project is to address the immediate electric needs at Mineral Park Mine including the operation of its mill. Active milling operations at the mine have created additional jobs in the area and more jobs are expected once the milling operations are underway. Additionally, a new transmission line would enhance the electrical infrastructure to serve the developing Golden Valley area.

SITING STUDY AND ENVIRONMENTAL ANALYSIS

The siting study determines where the transmission line can and should be placed. Route selection includes consideration of potential issues with transmission line operations, as well as potential affects of the route on the environment, current and anticipated land uses, and how the line will look on the landscape. During the initial public meeting, local landowners and other members of the public expressed a preference to locate the line, to the extent possible, on Bureau of Land Management (BLM) managed land and to use areas that already have existing lines. The BLM eliminated some areas from consideration across the Cerbat Foothills and urged the use of existing corridors.

After review of potential environmental impacts and issues expressed by the public, the planning team has identified two routes for consideration. Both routes utilize BLM land on the east side of Golden Valley and along Route 93 where an existing line would be rebuilt to allow for the new 230kV circuit. The routes diverge at the intersection of Tooman Road and Collins Drive, and include an eastern route (Alternative A) and a western route (Alternative B), both of which rejoin to a single route on BLM land north of Golden Valley. A map of the alternative routes is included in this newsletter.

The approval of this transmission line involves two different regulatory processes. The first process is performed by the BLM and involves the completion of an evironmental review as part of compliance with the National Environmental Policy Act. This process is underway and a preliminary Environmental Assessment (EA) is being reviewed by the BLM. The EA examines potential impacts to the environment and current, as well as anticipated, use of land in the project area. The BLM's review will result in a decision about whether or not to authorize the right-of-way across BLM lands. That decision may include conditions for approval (e.g., avoiding plants and animals during construction, re-seeding disturbed areas, etc.).

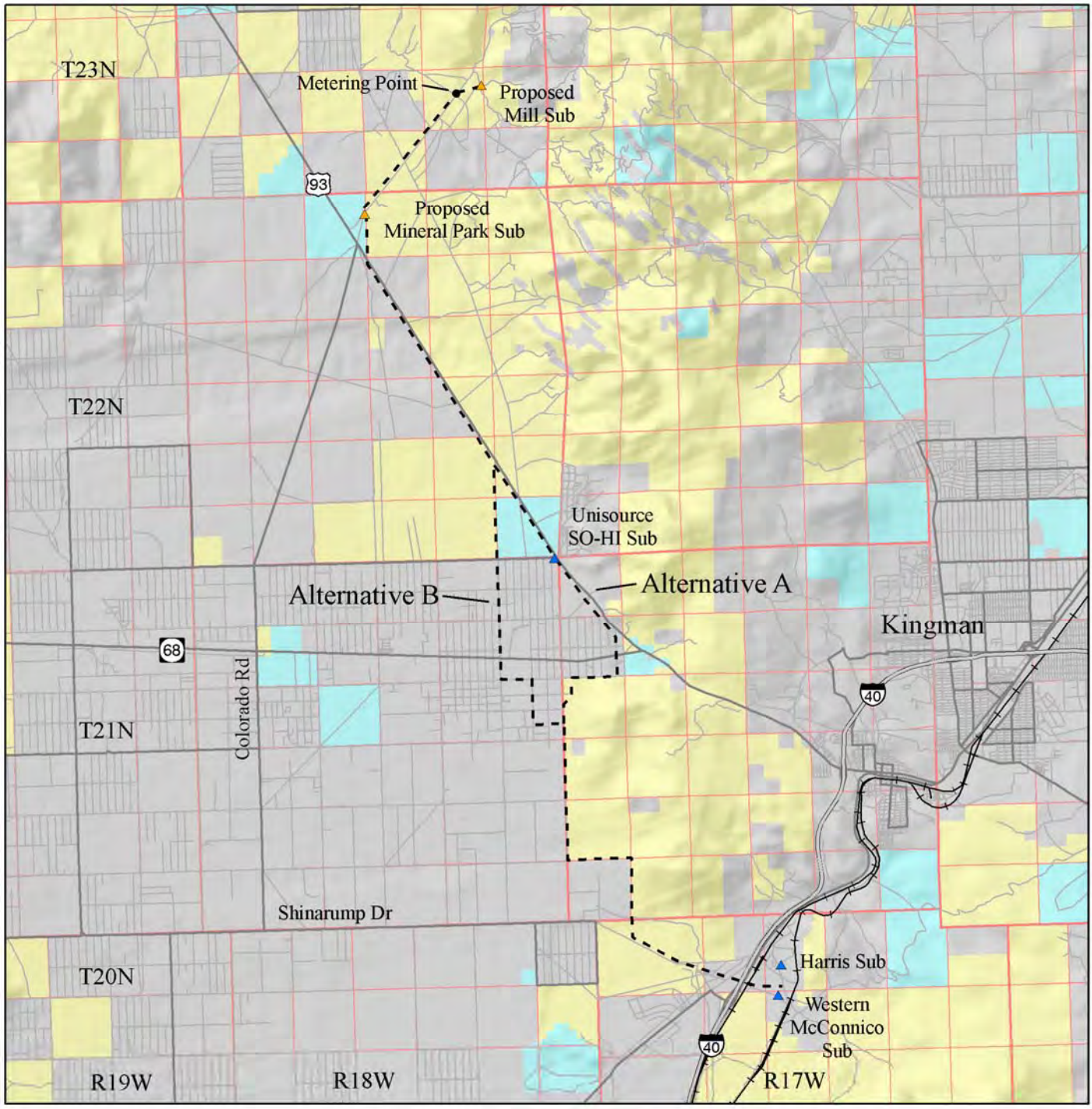
The second approval is performed by the Arizona Corporation Commission (ACC) and the Arizona Power Plant and Transmission Line Siting Committee (Committee). The Committee evaluates the application for the project, including the purpose and need for the project and to what extent the proposed transmission line is compatible with existing land use and the environment. This analysis incorporates information from the EA as well as other agency documents. If the Committee decides the project should proceed, it is sent to the ACC for final approval. The application to the ACC is being prepared, but it has not yet been submitted.

PROJECT TIMELINES

Contact with the public and agencies will continue. These contacts will assist in defining the final route submitted to the ACC. The application to the ACC is expected to be submitted in early 2008. If approved, construction would begin in the last half of 2008.

GETTING INVOLVED OR MAKING COMMENTS

A public open house is scheduled for February 12, 2008. It will be held at Black Mountain Elementary and Golden Valley Middle Schools, 3404 N. Santa Maria Road, Golden Valley, Arizona 86413, between 6:30 p.m. and 8:00 p.m. Your comments regarding this project are welcome. Comments will assist UniSource and the involved agencies in making sound choices for the project. You may address written comments to Transcon Environmental, 3740 E. Southern Ave., Suite 218, Mesa, AZ 85206 or you may make written or verbal comments during the public open house. If you have questions regarding the proposed project, please call the Project Information Phone Line at (928) 415-0213 or toll-free at (866) 453-2401.



Legend

- Project Alternatives
- Existing Substation
- Proposed Substation
- Bureau of Land Management
- Private
- State

0 1 2 3 4 Miles

Project Study Area
Golden Valley
230kV Transmission
Line Project

UNS Electric Inc.

TRANSCON ENVIRONMENTAL

EXHIBIT J-3

FACTSHEET—APRIL 2008

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
PROJECT FACT SHEET #3

UniSourceEnergy SERVICES

PROJECT INFORMATION
This is the third Fact Sheet provided on the Golden Valley 230kV Transmission Line Project. The first and second Fact Sheets were circulated in October 2007 and February 2008 to area landowners, agencies, organizations, business owners, and residents. This Fact Sheet provides an update on the evaluation process of alternatives and announces a series of public open houses. A map depicting the study area is contained on the opposite side of this Fact Sheet.

PROJECT BACKGROUND
In order to meet increased electrical demands and growth, UNS Electric, Inc. (UNSE) plans to construct a new electrical transmission line in the Golden Valley area near Kingman. The project involves the construction of a 230 kilovolt (kV) transmission line and two substations to serve the existing and planned electrical loads within Golden Valley and the Mineral Park Mine. The primary and initial electrical need is at the Mineral Park Mine, which is located approximately 20 miles northwest of Kingman along the east side of US Route 93 (US 93) on the western slope of the Cerbat Mountains. Additionally, the new transmission line will enhance the electrical infrastructure to the developing Golden Valley area.

SITING STUDY AND ENVIRONMENTAL ANALYSIS
The siting study determines where the transmission line can and should be placed. Route selection includes consideration of potential issues with transmission line operations, as well as potential effects of the route on the environment, current and anticipated land uses, and how the line will appear on the landscape. A study area has been defined and is illustrated on the map. Alternatives have previously been identified and evaluated by the project team. Comments from the public have been received on these alternatives. The public is invited to offer additional alternatives for consideration.

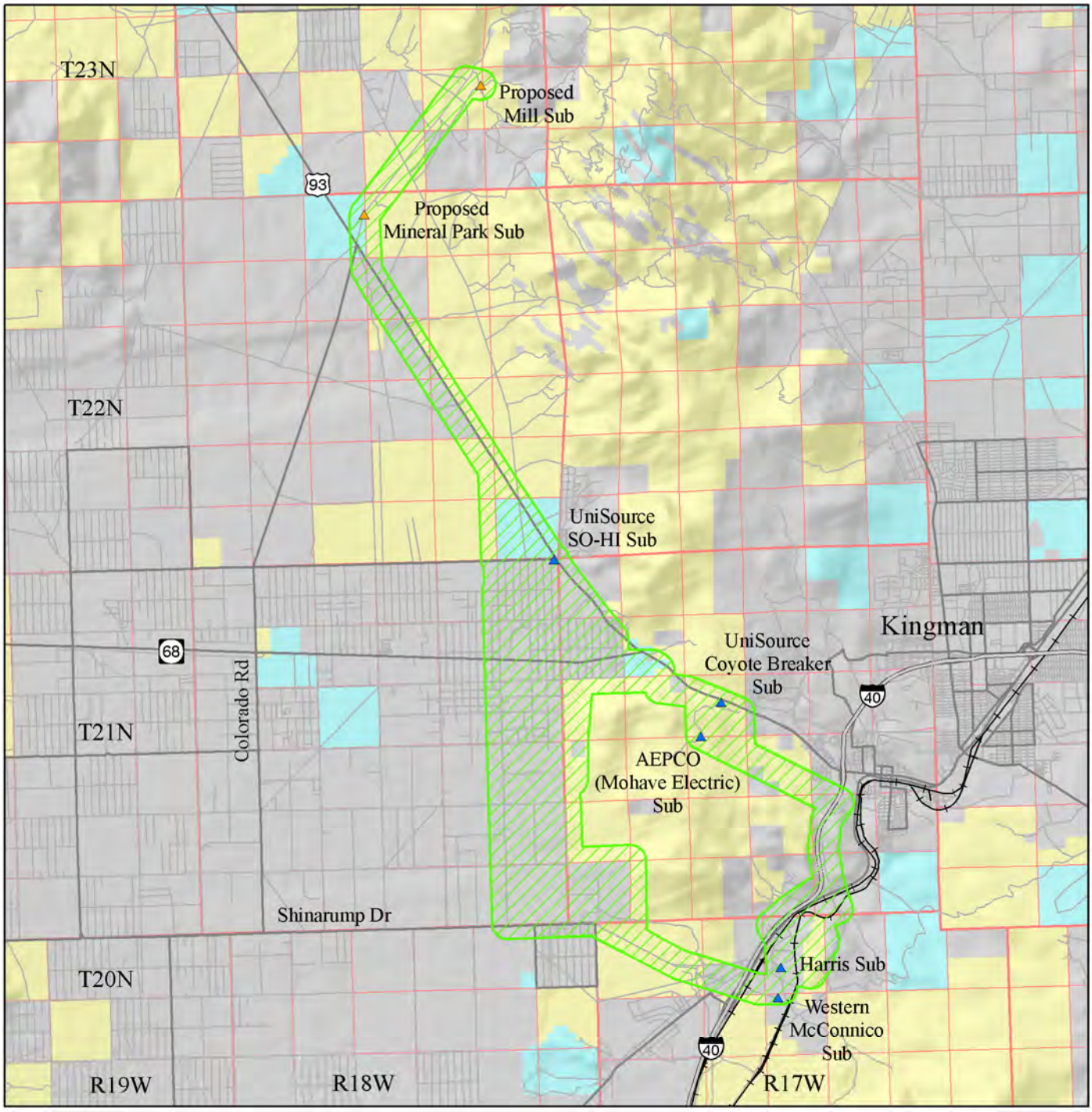
Once alternatives have been evaluated, UNSE will seek project approval and alternative selection from both the Bureau of Land Management (BLM) and Arizona Corporation Commission (ACC). First, an Environmental Assessment (EA) will be prepared, the BLM will review the EA, and make a decision about whether or not to authorize the right-of-way across BLM lands. Second, an application for a Certificate of Environmental Compatibilty will be submitted to the ACC, a public hearing will be held before the Arizona Power Plant and Transmission Line Siting Committee, and finally the ACC will make their determination.

PROJECT TIMELINES
Contact with the public and agencies will continue. These contacts will assist in defining the final route submitted to the ACC. The application to the ACC is expected to be submitted in 2008. If approved, construction could begin in the latter part of 2008 or early 2009.

GETTING INVOLVED OR MAKING COMMENTS
A series of public open houses have been scheduled on May 6, 7, and 8, 2008. Each of the open houses will be held at Black Mountain Elementary and Golden Valley Middle School, 3404 N. Santa Maria Road, Golden Valley, Arizona 86413, between 6:30 p.m. and 8:30 p.m. The open houses are designed to provide an informal forum in which the public may ask questions, receive answers, and provide comment. Specifically, UNSE would like to provide an opportunity at the open houses to:

- Discuss the process
- Suggest or offer alternatives
- Comment on alternatives
- Visit directly with siting and design team
- Discuss health and safety concerns
- Discuss right-of-way needs

Your comments regarding this project are welcome. Comments will assist UNSE and the involved agencies in making sound choices for the project. You may address written comments to Transcon Environmental, 3740 E. Southern Ave., Suite 218, Mesa, Arizona 85206, or you may make written or verbal comments during any of the public open houses. If you have questions regarding the proposed project, please call the Project Information Phone Line at (928) 415-0213 or toll-free at (866) 453-2401.



Legend

- Siting Area
- Existing Substation
- Proposed Substation
- Bureau of Land Management
- Private
- State

0 1 2 3 4 Miles

Project Location
Golden Valley
230kV Transmission
Line Project

UNS Electric Inc.

TRANSCON

EXHIBIT J-4

FACTSHEET—NOVEMBER 2008

PROJECT FACT SHEET #4
GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

UniSourceEnergy SERVICES
Energizing Arizona

PROJECT INFORMATION

This is the fourth Fact Sheet provided for the Golden Valley 230kV Transmission Line Project. The first three Fact Sheets, circulated in August 2007, January 2008, and April 2008, provided a description of the project and announced public meetings, and are available on the project website at: www.uesaz.com/Company/News/GoldenValley.asp. This Fact Sheet provides an update on the evaluation process and explains the alternative routes under consideration.

PROJECT BACKGROUND

In order to meet increased electrical demands and growth, UNS Electric, Inc. (UNSE) plans to construct a new electrical transmission line in the Golden Valley area northwest of Kingman. The project involves the construction of a 230kV transmission line to serve the existing and planned electrical loads within Golden Valley and the Mineral Park Mine, and the modification of two substations and future construction of the Mineral Park Substation. The primary and initial electrical need is at the Mineral Park Mine. Additionally, the new transmission line will enhance the electrical infrastructure to the developing Golden Valley area.

PROJECT STATUS

Public meetings were held in May to consider public concerns, answer questions, and take recommendations regarding alternative routes. Public input relayed sensitivities for alternatives crossing private land and those crossing near existing residences. The public also expressed preferences for using alternative corridors across public lands and following or replacing existing electric transmission lines. Following public meetings held in May, research and analysis were performed on the various alternatives recommended by the public. Individual discussions were held with stakeholders including: private property owners; representatives from Mohave County, City of Kingman, Bureau of Land Management (BLM), and Arizona Department of Transportation; trail users of the Cerbat Foothills Recreation Area; City of Kingman and County elected officials; and representatives from Golden Valley (e.g., Golden Valley Public Awareness Team). As a result of discussions and analysis, alternative routes were identified for detailed examination and refinement. Some of the alternatives initially presented by the public and others proved infeasible or imposed impacts over areas specially managed to prevent such uses. Other alternatives imposed impacts on landowners where no similar or compatible uses were present. Others were generally compatible with land uses and the environment, and maximized the use of designated corridors. A map depicting the alternatives under consideration is attached.

The process of analysis and selection of a final route requires the following agency or government approvals:

1. <u>BLM compliance with the National Environmental Policy Act</u>
   An evaluation of the alternatives and associated impacts will be summarized in an Environmental Assessment (EA). Prior to making their decision, BLM will make the EA available for public review and comment. The environmental assessment will be available on-line at: www.uesaz.com/Company/News/GoldenValley.asp.

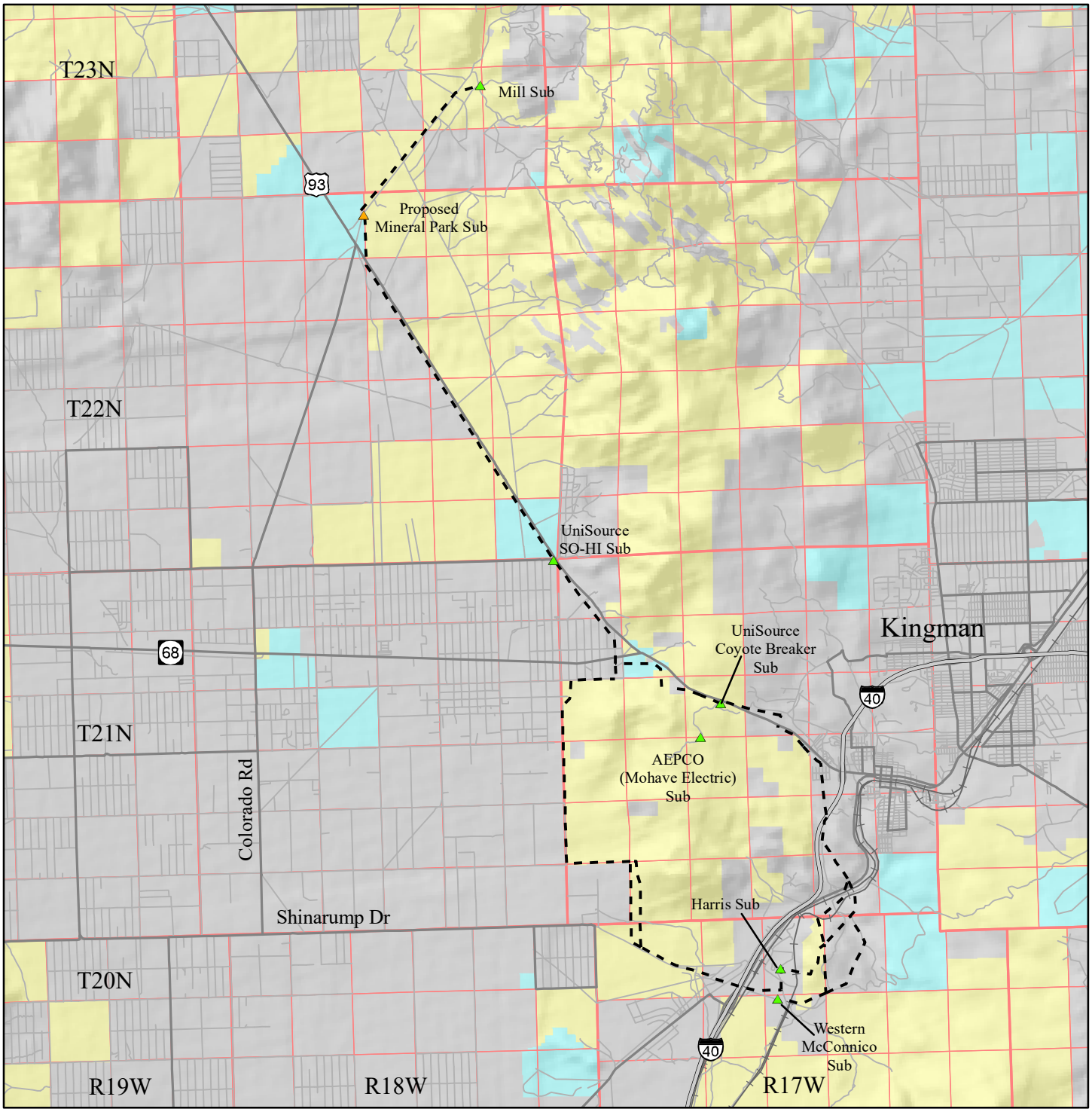
2. <u>Arizona Corporation Commission (ACC) issuance of a Certificate of Environmental Compatibility (CEC)</u>
   Following the submittal of the EA, the alternatives will be presented to the Arizona Power Plant and Transmission Line Siting Committee and the ACC for their consideration and approval. This process requires a detailed application that summarizes the environmental analysis. Public hearings are held as part of the review process and information regarding the process is available at: www.cc.state.az.us/Divisions/Utilities/Electric/LineSiting-FAQs.asp.

PROJECT TIMELINES

Contact with the public and agencies will continue. Availability of the EA and public meeting(s) will be announced. The CEC application to the ACC is expected to be submitted in 2009. If approved, construction will begin in 2009.

GETTING INVOLVED OR MAKING COMMENTS

Your comments regarding this project are welcome. Comments will assist UNSE and the involved agencies in making sound choices for the project. You may address written comments to Transcon Environmental, 3740 E. Southern Ave., Suite 218, Mesa, Arizona 85206. If you have questions regarding the proposed project, please call the Project Information Phone Line at (928) 415-0213 or toll-free at (866) 453-2401.



Legend

- Project Alternatives
- Existing Substation
- Proposed Substation
- Bureau of Land Management
- Private
- State

0 1 2 3 4 Miles

Project Location
Golden Valley
230kV Transmission
Line Project

UNS Electric Inc.

TRANSCON ENVIRONMENTAL

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EXHIBIT J-5

FACTSHEET—JUNE 2016

GOLDEN VALLEY 230KV TRANSMISSION LINE PROJECT
Project Fact Sheet

PROJECT INFORMATION

UNS Electric (UNSE), a subsidiary of UniSource Energy Services, delivers electric service to more than 80,000 customers in Mohave County, Arizona. In order to improve reliability, replace aged equipment, and accommodate future customer electricity demands, UNSE plans to construct a new 230 kilovolt (kV) electrical transmission line and substation near Golden Valley and Kingman, Arizona. The project will be located on lands managed by the Bureau of Land Management (BLM), the State of Arizona, the City of Kingman, and on private land (see enclosed map). The new line would originate at the Harris Substation southwest of Kingman, extend north approximately 20 miles, and end near the intersection of Mineral Park Road and US 93 at the new Mineral Park 230kV Substation.

This project was initiated in 2007 and stopped in 2008 when the primary need for the power, the Mineral Park Mine, no longer wanted to pursue the project. Public outreach was performed during that time and previous comments received will be reviewed and analyzed as part of this project.

NEED FOR THE PROJECT

UNSE has a need to develop a double-circuit 230kV transmission line from the Harris Substation to the new Mineral Park Substation to improve reliability, replace aged equipment, and accommodate a projected 5 to 35 megawatt increase in load over the next decade in the north Golden Valley area. Power within the UNSE Mohave service territory is transmitted primarily over a 69kV transmission network. The current 69kV transmission network has limited ability to serve the expected load growth in the northern portions of the service territory; it is also subject to outages of lines, transformers, or buses, which may lead to the interruption of power to customers. The proposed project would enhance the electrical infrastructure near Golden Valley and support long-term infrastructure plans for the UNSE network.

SITING STUDY

A siting study was previously conducted to locate the facilities where they would be most compatible with existing and proposed environmental conditions. Based on the study and public and agencies input, two alternatives were selected for analysis. The alternatives are illustrated on the enclosed map.

ENVIRONMENTAL ANALYSIS

UNSE is required to conduct environmental studies and obtain necessary permits for the proposed project. Because the project would cross federal public land managed by the BLM, it must be in compliance with the National Environmental Policy Act (NEPA) and other relevant regulations. To comply with NEPA, an Environmental Assessment (EA) is being prepared under the direction of the BLM Kingman Field Office. The EA will consider potential effects from the proposed project to the environment, including physical, biological, social, and economic resources. In addition, because the project involves a transmission line greater than 115kV, it requires approval by the Arizona Corporation Commission (ACC). The Arizona Power Plant and Transmission Line Siting Committee of the ACC will first review this project for environmental compatibility through their Certificate of Environmental Compatibility (CEC) process.

Transcon Environmental, an Arizona-based environmental consulting firm, is assisting UNSE with siting and environmental compliance activities.

PROJECT TIMELINES

Contact with the public and interested agencies will begin this month (June 2016), and environmental studies will take place through the summer of 2016. The CEC process is expected to be underway in early 2017, and the first phase of project construction is anticipated to begin in 2018.

GOLDEN VALLEY 230KV TRANSMISSION LINE PROJECT
Project Fact Sheet

GETTING INVOLVED OR MAKING COMMENTS

Two public open houses are scheduled to present the proposed project, answer questions, and accept public comments. The first will be held June 28, 2016 between 5:30 p.m. and 7:30 p.m. at the Hampton Inn & Suites, 1791 Sycamore Avenue, Kingman, Arizona 86409. The second will be held June 29, 2016 between 5:30 p.m. and 7:30 p.m. at the Golden Valley Public Safety Training Center, 423 Colorado Road, Golden Valley, Arizona 86413.

Your comments are welcome and important to establish the level and scope of analysis. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.

You may submit comments by:

- Mailing written comments to:

  Andy Whitefield, BLM Project Manager
  c/o Transcon Environmental, Inc.
  1745 South Alma School Road, Suite 220
  Mesa, Arizona 85210
- Providing written or verbal comments during the public open house
- E-mailing written comments to awhitefi@blm.gov
- Calling and leaving a message on the Project Information Phone Line at (844) 882-8899

For project information and updates, please visit the project website at:
https://www.uesaz.com/projects/transmission/golden/.

If you have questions regarding this project, please contact Mr. Andy Whitefield, BLM Project Manager, at (928) 718-3746 or by email at awhitefi@blm.gov.

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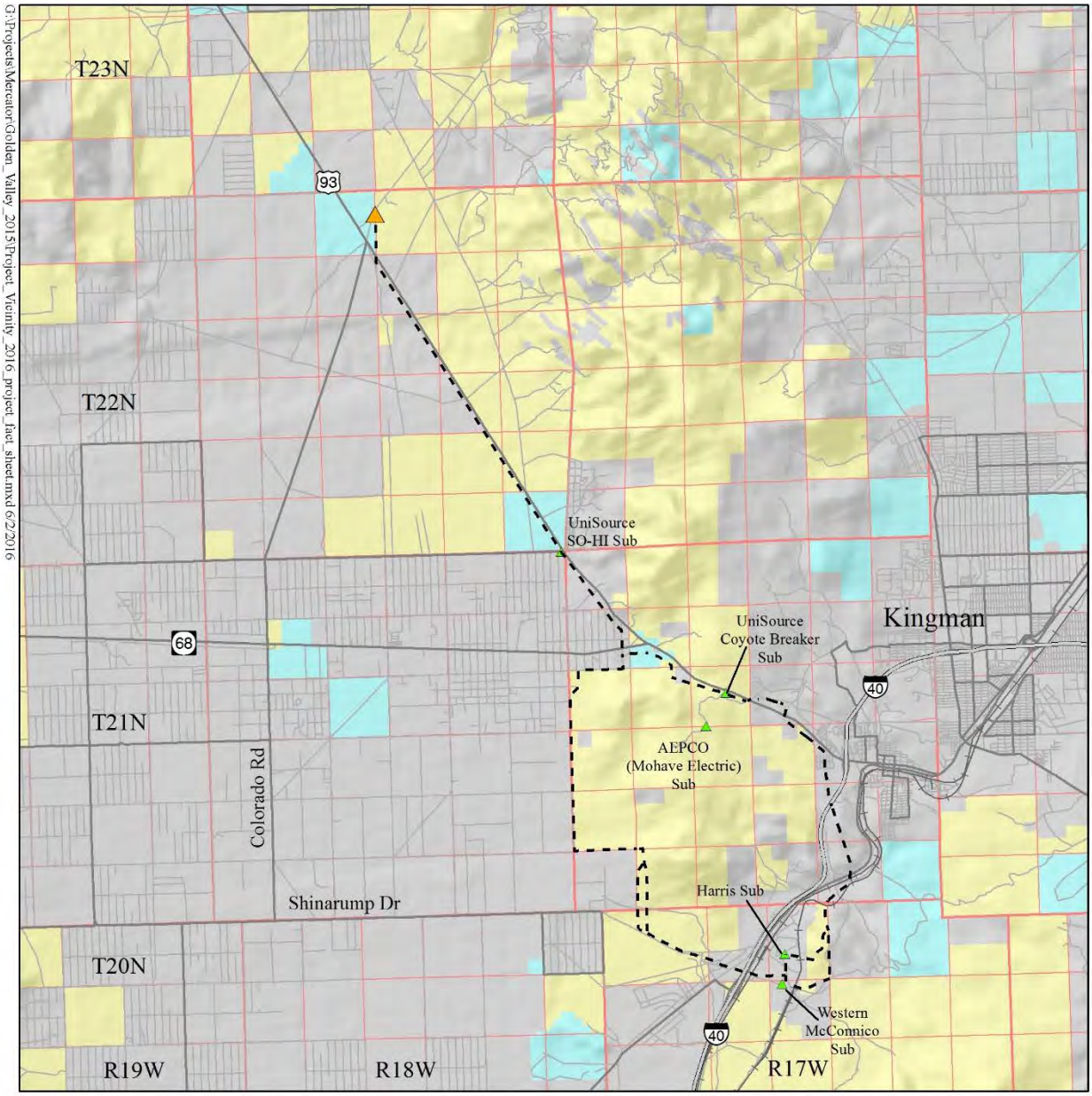


0 1 2 Miles

Legend

- Project Alternatives
- Proposed Substation
- Existing Substation
- Bureau of Land Management
- Private
- State

Project Vicinity Map

Golden Valley 230kV
Transmission Line Project

UNS Electric

NATIONAL SYSTEM OF PUBLIC LANDS

EXHIBIT J-6

FACTSHEET—MARCH 2017

GOLDEN VALLEY 230KV TRANSMISSION LINE PROJECT
Project Fact Sheet – March 2017 Update

BACKGROUND INFORMATION AND PROJECT UPDATE

UNS Electric (UNSE), a subsidiary of UniSource Energy Services, delivers electric service to more than 80,000 customers in Mohave County, Arizona. In order to improve reliability, replace aged equipment and accommodate future customer electricity demands, UNSE proposes to construct a new 230 kilovolt (kV) electrical transmission line and substation near Golden Valley and Kingman, Arizona. This project, which is being called the Golden Valley 230kV Transmission Line Project (project), would be located on lands managed by the Bureau of Land Management (BLM), the State of Arizona, the City of Kingman, and on private land (see maps on pages 3-5). The new transmission line would originate at the Harris Substation, located southwest of Kingman, and extend north nearly 20 miles to an area near the intersection of Mineral Park Road and U.S. Route 93 at the proposed Mineral Park Substation. The tables on the right compare alternative routes and describe each in relation to BLM-designated utility corridors, existing transmission lines and UNSE rights-of-way.

MILES OF ALTERNATIVES BY LAND OWNERSHIP

SEGMENT	PRIVATE	BLM	STATE	TOTAL LENGTH
WEST CERBAT ALTERNATIVES				
W1	7.5	8.9	1.2	17.6
W2	7.5	9.0	1.2	17.7
W3	9.0	7.2	1.2	17.4
W4	9.4	7.0	1.2	17.6
EAST CERBAT ALTERNATIVES				
E1	10.5	4.4	1.8	16.7
E2	11.1	4.8	1.8	17.7

ALTERNATIVES COMPARISON

WITHIN A BLM-DESIGNATED UTILITY CORRIDOR	
WEST CERBAT ALTERNATIVES	
W1	68%
W2	68%
W3	75%
W4	75%
EAST CERBAT ALTERNATIVES	
E1	100%
E2	100%
PARALLEL TO AN EXISTING TRANSMISSION LINE	
WEST CERBAT ALTERNATIVES	
W1	50%
W2	50%
W3	51%
W4	60%
EAST CERBAT ALTERNATIVES	
E1	72%
E2	72%
WITHIN A UNSE-TRANSMISSION LINE RIGHT-OF-WAY	
WEST CERBAT ALTERNATIVES	
W1	44%
W2	44%
W3	45%
W4	44%
EAST CERBAT ALTERNATIVES	
E1	72%
E2	68%

In June 2016, two public meetings were held in Kingman and Golden Valley, Arizona, to inform residents about the proposed project, answer questions, and accept public comments. Comments also were accepted via U.S. Postal Service and email through August 8, 2016. The scoping period was extended from July 28, 2016 to allow for additional input. The BLM received more than 60 comments raising over 160 concerns (see pie chart on page 2).

The BLM Kingman Field Office is currently drafting an Environmental Assessment (EA), which is required to comply with the National Environmental Policy Act (NEPA) and other relevant regulations. The EA, which will consider comments received from the public and other agencies, will analyze each alternative and potential impacts on biological resources, land use, socioeconomics including property values, visual resources and other resources.

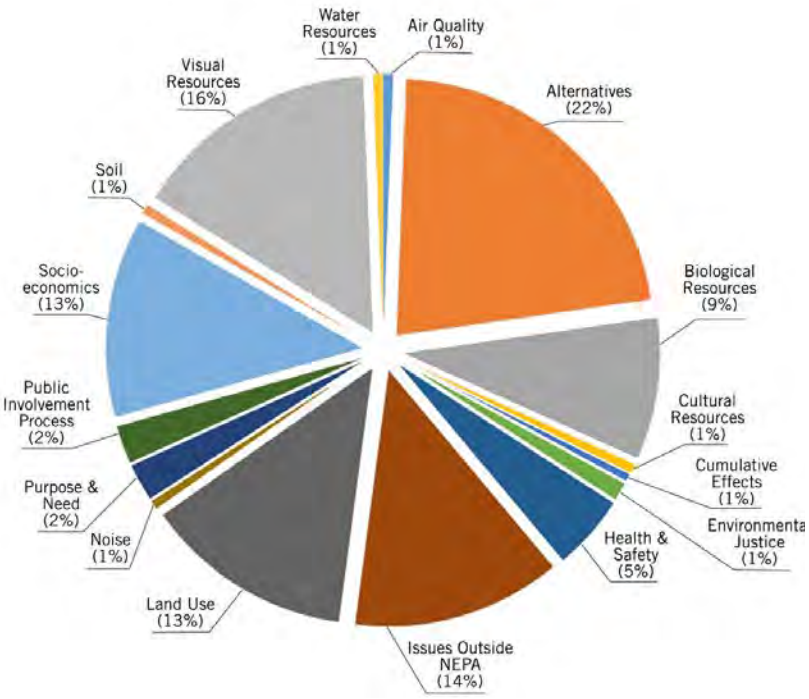
Four alternatives were presented at the June 2016 public meetings. The BLM added two additional alternatives for consideration and analysis after reviewing public comments. E1 and E2 Alternatives, referred to as the East Cerbat Alternatives, follow U.S. Route 93 through the Cerbat Foothills Recreation Area. The West Cerbat Alternatives are partially comprised of the W1 and W2 Alternatives, which follow the western edge of the Cerbat Foothills Recreation Area. Also part of the West Cerbat Alternatives are the W3 and W4 Alternatives, which the BLM added after reviewing public comments. The W3 Alternative would follow the north side of Shinarump Road and turn north to follow Tooman Road, and the W4 Alternative, which generally follows the Western Area Power Administration Davis–Prescott Transmission Line alignment located south of Shinarump Road, turns north to follow Pine Road and continues north along Tooman Road (see maps on pages 3-5).

GOLDEN VALLEY 230KV TRANSMISSION LINE PROJECT
Project Fact Sheet – March 2017 Update

PROJECT TIMELINE

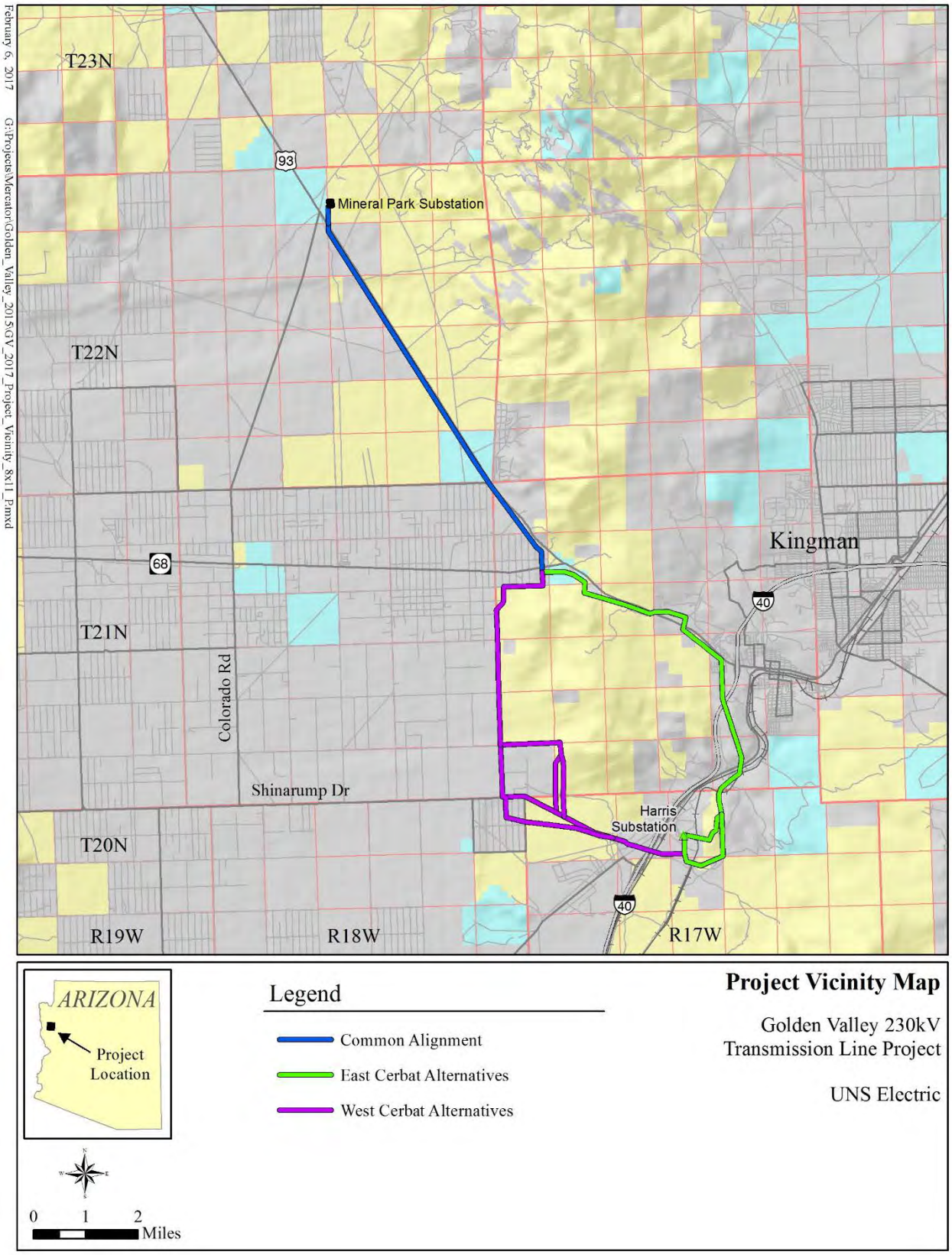
The first phase of public and agency scoping started in June 2016 and comments were collected until August 2016. Environmental studies were conducted through 2016 and into 2017. Once the draft EA is published, which is projected to occur in June, the public will have 30 days to submit comments. An additional notification will be sent when the draft EA is available for public review. Transcon Environmental, an Arizona-based environmental consulting firm, is assisting UNSE with siting and environmental compliance activities. The Arizona Corporation Commission (ACC) Arizona Power Plant and Transmission Line Siting Committee must review the project for environmental compatibility through their Certificate of Environmental Compatibility (CEC) process. There is currently no schedule for submitting an application to the ACC, although it is expected an application will be submitted following completion of the NEPA process, which will occur once a final EA is published.

Subject Matter of Concerns Raised by Commenters



FOR ADDITIONAL INFORMATION

Another notification will be mailed once the draft EA is published. The project website (uesaz.com/projects/transmission/golden/) has additional information including an interactive map for viewing the project alternatives. If you have questions regarding this project, contact Mr. Andy Whitefield, BLM Project Manager, at (928) 718-3746 or awhitefi@blm.gov.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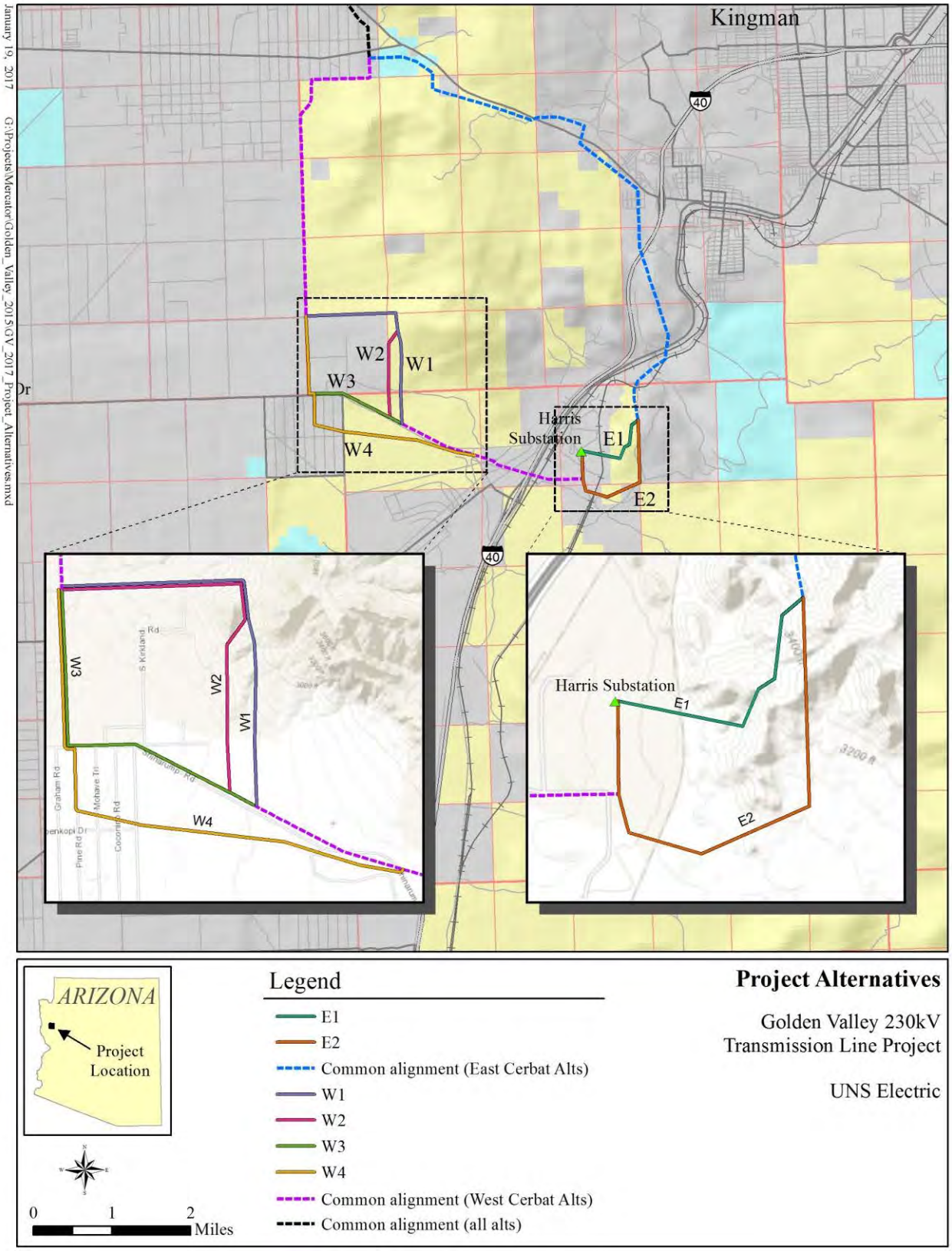
T23N
T22N
T21N
T20N
R19W
R18W
R17W
93
68
40
40
Mineral Park Substation
Kingman
Colorado Rd
Shinarump Dr
Harris
Substation
ARIZONA
Project
Location
Legend
Common Alignment
East Cerbat Alternatives
West Cerbat Alternatives
0 1 2
Miles
Project Vicinity Map
Golden Valley 230kV
Transmission Line Project
UNS Electric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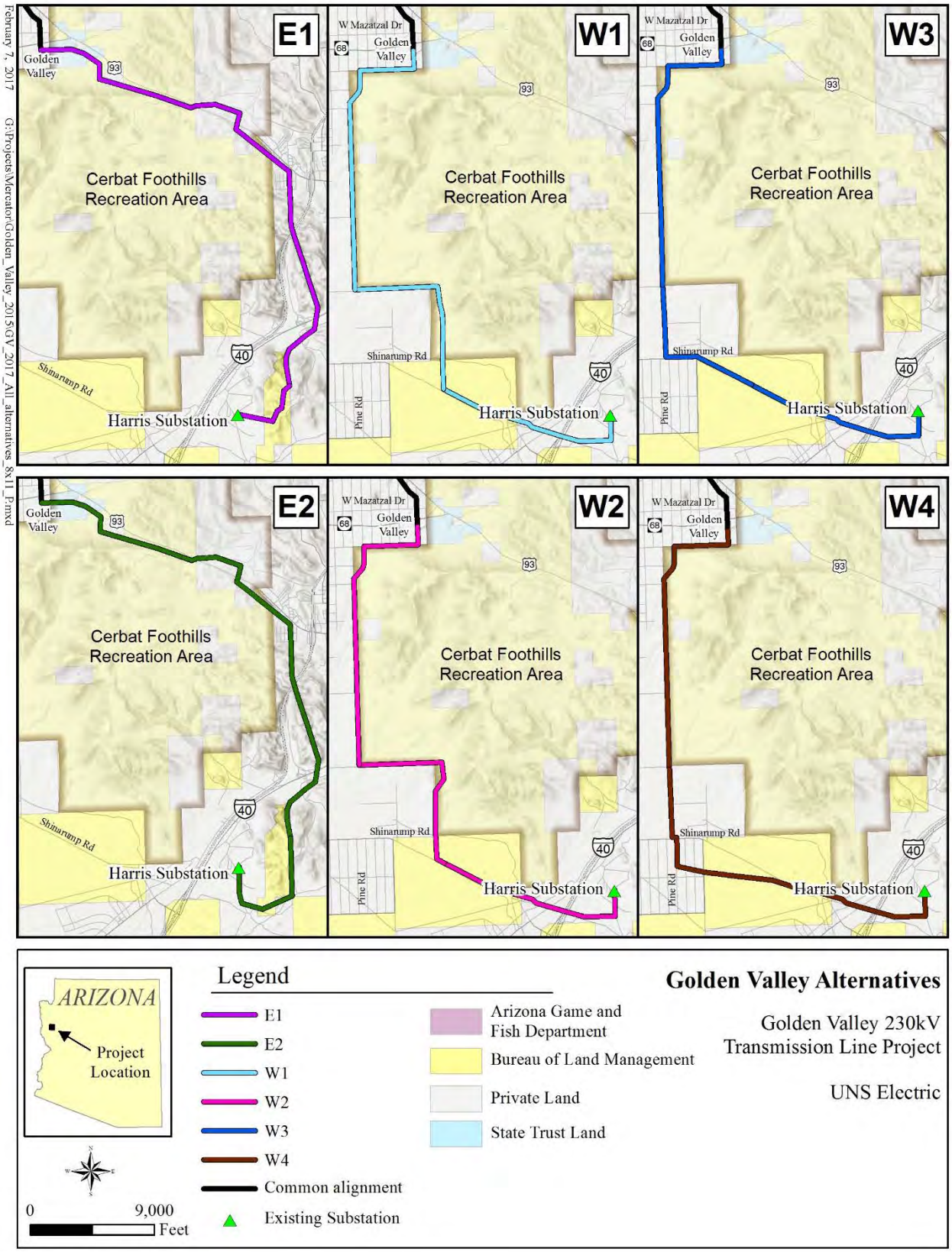
Kingman
40
W1
W2
W3
W4
Harris Substation
E1
E2
Harris Substation
E1
E2
ARIZONA
Project Location
0
1
2
Miles
Legend
E1
E2
Common alignment (East Cerbat Alts)
W1
W2
W3
W4
Common alignment (West Cerbat Alts)
Common alignment (all alts)
Project Alternatives
Golden Valley 230kV Transmission Line Project
UNS Electric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E1
W1
W3
E2
W2
W4
Golden Valley
W Mazatzal Dr
Cerbat Foothills Recreation Area
Shinarump Rd
Pine Rd
Harris Substation
93
68
40
ARIZONA
Project Location
Legend
E1
E2
W1
W2
W3
W4
Common alignment
Existing Substation
Arizona Game and Fish Department
Bureau of Land Management
Private Land
State Trust Land
0
9,000
Feet
Golden Valley Alternatives
Golden Valley 230kV Transmission Line Project
UNS Electric

EXHIBIT J-7

FACTSHEET—JUNE 2019

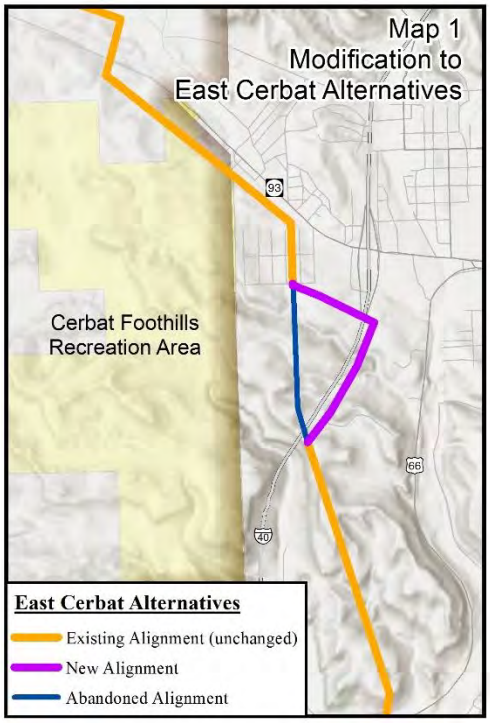
GOLDEN VALLEY 230 KILOVOLT TRANSMSSION LINE PROJECT
Fact Sheet – June 2019

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, has requested a grant of right-of-way from the Bureau of Land Management (BLM) for their proposed Golden Valley 230 Kilovolt (kV) Transmission Line Project (Project), an approximately 20-mile line that would improve reliability, replace aging equipment, and help meet Mohave County customers' future energy needs.

UNSE has provided project details to the BLM and has been working with the BLM to refine alternative alignments. The BLM Kingman Field Office is currently drafting an Environmental Assessment (EA), which is required to comply with the National Environmental Policy Act (NEPA) and other relevant regulations. This analysis considers how the Project could affect land use, natural resources, cultural resources, visual resources, socioeconomic conditions, and other factors.

The Project is still under review with the BLM. The BLM is considering six alternative alignments (see Map 2). The two East Cerbat alternatives generally follow U.S. Route 93 through the Cerbat Foothills Recreation Area. The four West Cerbat alternatives continue along, north of, or south of Shinarump Drive and then extend north along the western edge of the Cerbat Foothills Recreation Area.

UNSE recently modified the East Cerbat alternative alignments (see Map 1) to cross Interstate 40 (I-40) at the same location as an existing UNSE-owned 69kV transmission line, minimizing visual impacts and keeping transmission lines within a common corridor. The updated alignment would cross I-40 approximately one half-mile north of their original alignments.

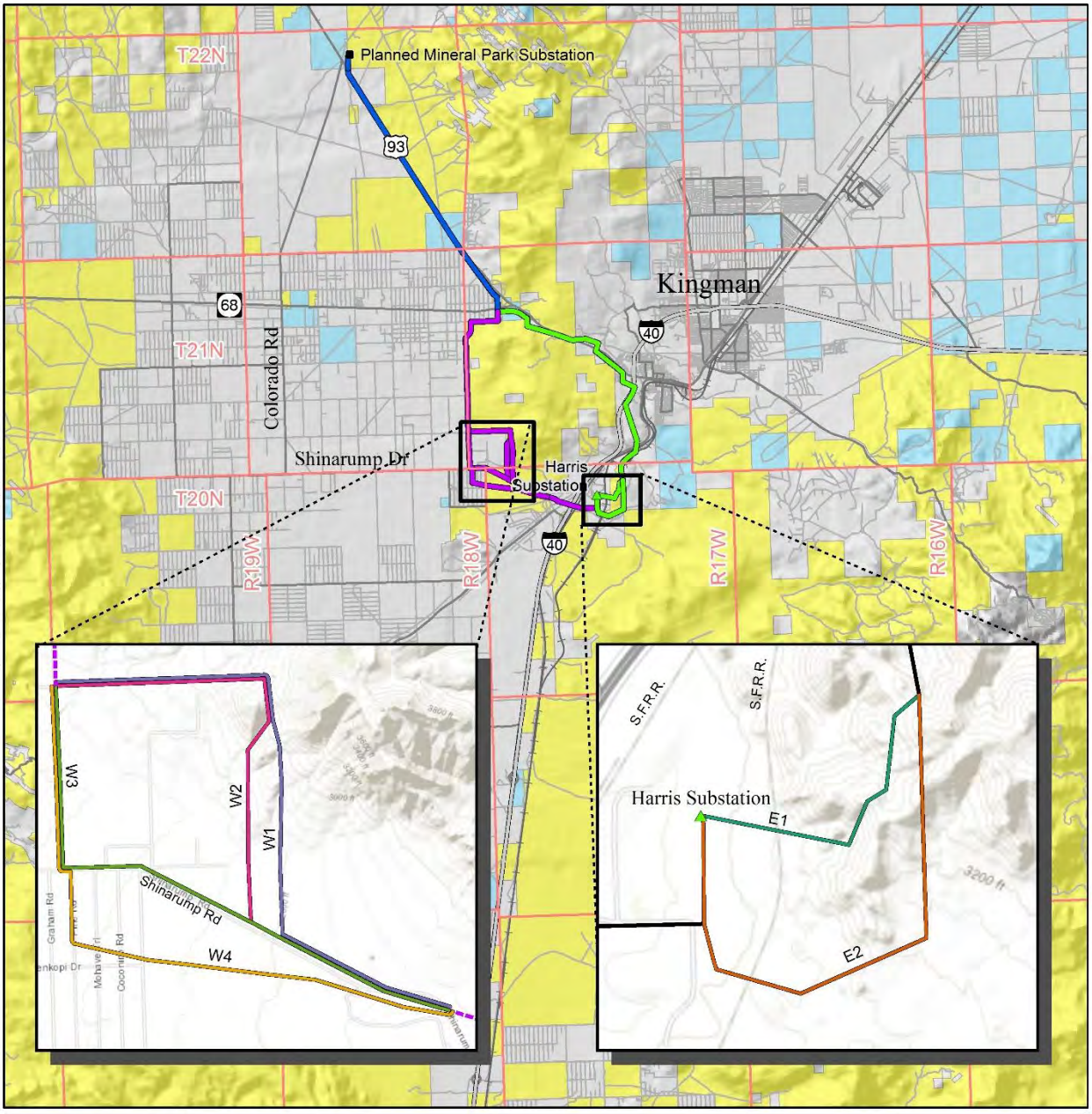


PROJECT PERMITTING

The draft EA is expected to be completed in late 2019. Once the EA is published, the public will have 30 days to submit comments. When the draft EA is available for review, notification will be sent via mail to the Project notification list.

The Arizona Corporation Commission (ACC) must approve a Certificate of Environmental Compatibility (CEC) for the Project before it can be built. After UNSE applies for a CEC, the Arizona Power Plant and Transmission Line Siting Committee will review the application in a public process that includes opportunities for the public to provide comments. If the applicant is successful, the Line Siting Committee will send a proposed CEC to the ACC for final review and approval. The schedule for the CEC process will depend on timing and results of the EA.

Learn more: https://www.uesaz.com/golden-valley/



Legend

- Common to all alternatives
- East Cerbat Alternatives
- West Cerbat Alternatives
- Bureau of Land Management
- Private Land
- State Trust Land

0 2 4 Miles

Map 2
Project Vicinity

Golden Valley 230kV
Transmission Line Project

UNS Electric

EXHIBIT J-8

FACTSHEET—JULY 2020

GOLDEN VALLEY 230 KILOVOLT TRANSMISSION LINE PROJECT

Fact Sheet – July 2020

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, has requested a grant of right-of-way from the Bureau of Land Management (BLM) for their proposed Golden Valley 230 Kilovolt (kV) Transmission Line Project (Project), an approximately 20-mile line that would improve reliability, replace aging equipment, and help meet Mohave County customers' future energy needs.

UNSE has provided project details to the BLM and has been working with the BLM to refine alternative alignments. The BLM Kingman Field Office is currently drafting an Environmental Assessment (EA), which is required to comply with the National Environmental Policy Act (NEPA) and other relevant regulations. This analysis considers how the Project could affect land use, natural resources, cultural resources, visual resources, socioeconomic conditions, and other factors.

The Project is still under review with the BLM. The BLM is considering six alternative alignments (see Map 2). The two East Cerbat alternatives generally follow U.S. Route 93 through the Cerbat Foothills Recreation Area. The four West Cerbat alternatives continue along, north of, or south of Shinarump Drive and then extend north along the western edge of the Cerbat Foothills Recreation Area.

UNSE recently modified the East Cerbat alternative alignments (see Map 1) to cross Interstate 40 (I-40) at the same location as an existing UNSE-owned 69kV transmission line, minimizing visual impacts and keeping transmission lines within a common corridor. The updated alignment would cross I-40 approximately one half-mile north of their original alignments.

PROJECT PERMITTING

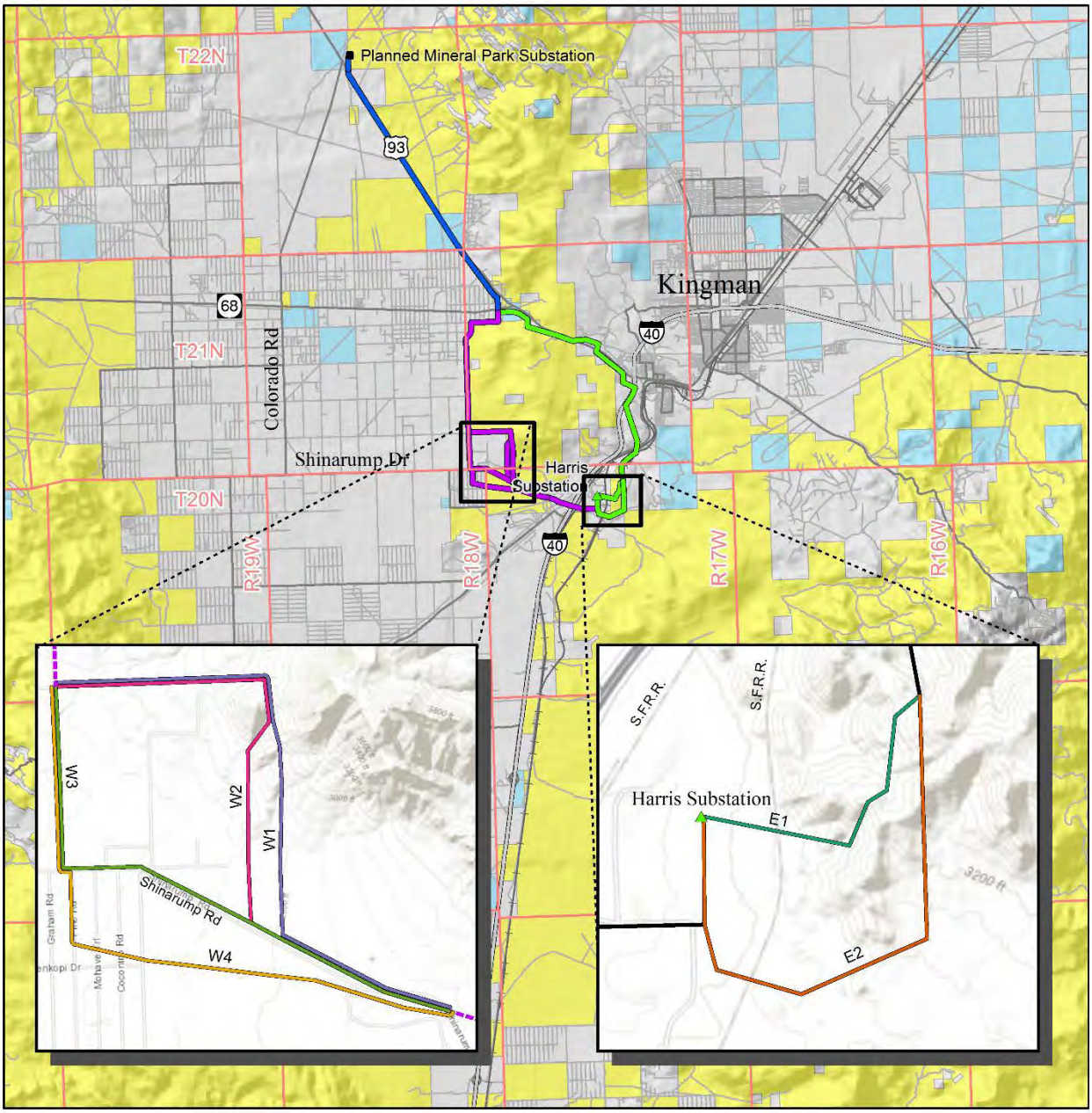
The draft EA is expected to be completed in mid-2020. Once the EA is published, the public will have 30 days to submit comments. When the draft EA is available for review, notification will be sent via mail to the Project notification list.

The Arizona Corporation Commission (ACC) must approve a Certificate of Environmental Compatibility (CEC) for the Project before it can be built. After UNSE applies for a CEC, the Arizona Power Plant and Transmission Line Siting Committee will review the application in a public process that includes opportunities for the public to provide comments. If the applicant is successful, the Line Siting Committee will send a proposed CEC to the ACC for final review and approval. The schedule for the CEC process will depend on timing and results of the EA.

Learn more: https://www.uesaz.com/golden-valley/

GOLDEN VALLEY 230 KILOVOLT TRANSMISSION LINE PROJECT

Fact Sheet – July 2020



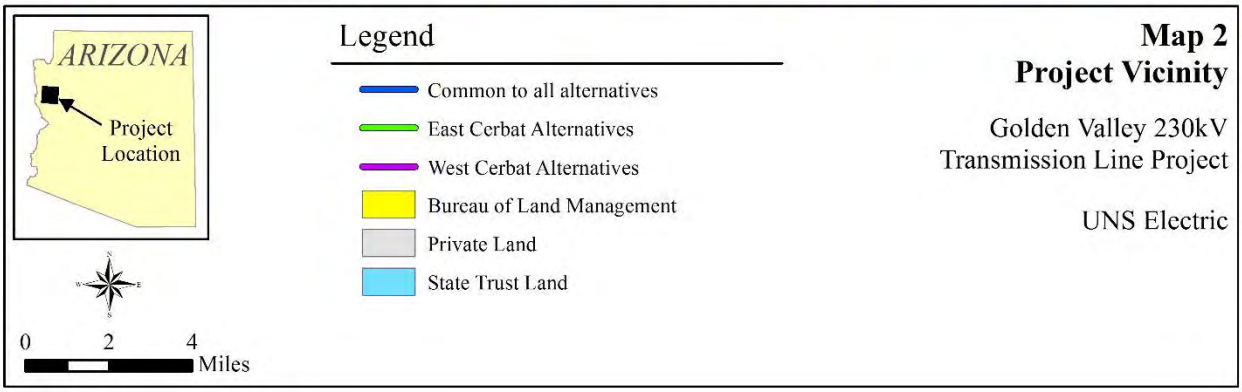


EXHIBIT J-9

NEWSLETTER—JANUARY 2021

UniSourceEnergy SERVICES
C/O Transcon Environmental
1745 S. Alma School Rd., Ste. 220
Mesa, Arizona 85210

Golden Valley 230 Kilovolt Transmission Line Project

UniSourceEnergy SERVICES

Virtual Public Open House Meeting

Tuesday, Feb. 9, 2021 | 6-7:30 p.m.

UniSource will provide a project update and answer questions during a live virtual open house meeting.

To attend, visit the project website at:
uesaz.com/golden-valley
and click on the Zoom link.

Grid Improvements for More Reliable Service

UniSource's proposed Golden Valley 230 Kilovolt Transmission Line will improve reliability, replace aging equipment and satisfy customers' future energy needs in and around the north Golden Valley area

Energy Grid Update

Golden Valley 230 Kilovolt Transmission Line Project

January 2021

UniSourceEnergy SERVICES

UNS Electric, Inc. (UNSE), which provides electric service as UniSource Energy Services, is planning to build a new 230-kilovolt (kV) transmission line and substation in Mohave County near Kingman and the Golden Valley area.

The Golden Valley 230kV Transmission Line Project (Project) will improve service reliability by replacing aging equipment and provide greater electric capacity to accommodate a projected 5-35 megawatt (MW) increase in peak energy demand over the next decade in the area.

UNSE evaluated six alternative routes for the project as shown in the map on page 3. All alternatives originate at the Harris Substation, located adjacent to the Nucor Steel Plant approximately 3 miles southwest of Kingman, and end at the site of the proposed Mineral Park Substation, located approximately 10 miles northwest of Kingman near U.S. Highway 93 and Mineral Park Road. All six potential routes, identified as the East Cerbat Alternatives (E1 and E2) and the West Cerbat Alternatives (W1, W2, W3, and W4) share a common alignment to the north.

All routes cross private land and land administered by the Arizona State Land Department (ASLD) and Bureau of Land Management (BLM). The East Cerbat alternatives also cross City of Kingman

UniSource plans to install new 230 kilovolt lines that will help to improve service for customers in and around the Kingman and Golden Valley areas.

land. Both East Cerbat alternatives generally follow U.S. Route 93 through the Cerbat Foothills Recreation Area. The four West Cerbat alternatives continue north or south of Shinarump Drive, then extend north along the western edge of the recreation area.

Public participation began in 2007 as part of the required National Environmental Policy Act (NEPA) process after operators of the Mineral Park Mine expressed a need for additional service. Although the request was withdrawn in 2008, UNSE continued planning for the project to improve service and accommodate the anticipated energy needs of customers in the area.

BLM, acting as lead federal agency, began to collect public input as part of the NEPA process. Six alternatives were identified through an extensive public outreach process that included input from area residents, landowners, business owners and government agencies.

The BLM's Environmental Assessment (EA) identifies Alternative E1 as its preferred alternative. For a link to the EA, visit the Golden Valley 230 kV project page at uesaz.com/golden-valley.

REQUIRED APPROVALS and TIMELINE

The Arizona Corporation Commission (ACC) must give final approval for UNSE to construct and operate the project. UNSE plans to file an application for a Certificate of Environmental Compatibility (CEC) with the ACC in spring 2021.

A hearing before the Arizona Power Plant and Transmission Line Siting Committee is expected to be held in spring 2021. The preferred route in the application will be the same as that as recommended by the BLM, the East Cerbat 1 (E1) alternative. UNSE will provide additional public notice when more details about the hearing are available.

VIRTUAL OPEN HOUSE and PUBLIC PARTICIPATION

UNSE will hold a live virtual open house meeting on **Tuesday, February 9, 2021, 6-7:30 p.m**. To attend the meeting, visit uesaz.com/golden-valley and click on the Zoom link.

To listen to the virtual open house, please call 1-669-900-6833 and use passcode 47030154 during the scheduled meeting time.

UNSE representatives will present information about the project and answer questions live during the meeting. A recording will be posted later on the project website.

In addition to participating in the virtual open house meeting, residents and other stakeholders are encouraged to share their comments using one of these methods:

- Filling out an online comment form at uesaz.com/golden-valley
- Sending comments via email Goldenvalley230@uesaz.com
- Calling (520) 745-7111
- Mailing a letter with comments to:
  ATTN: Golden Valley 230kV Transmission Project
  C/O George Miller
  Transcon Environmental
  1745 S. Alma School Rd., Ste. 220
  Mesa, Arizona 85210

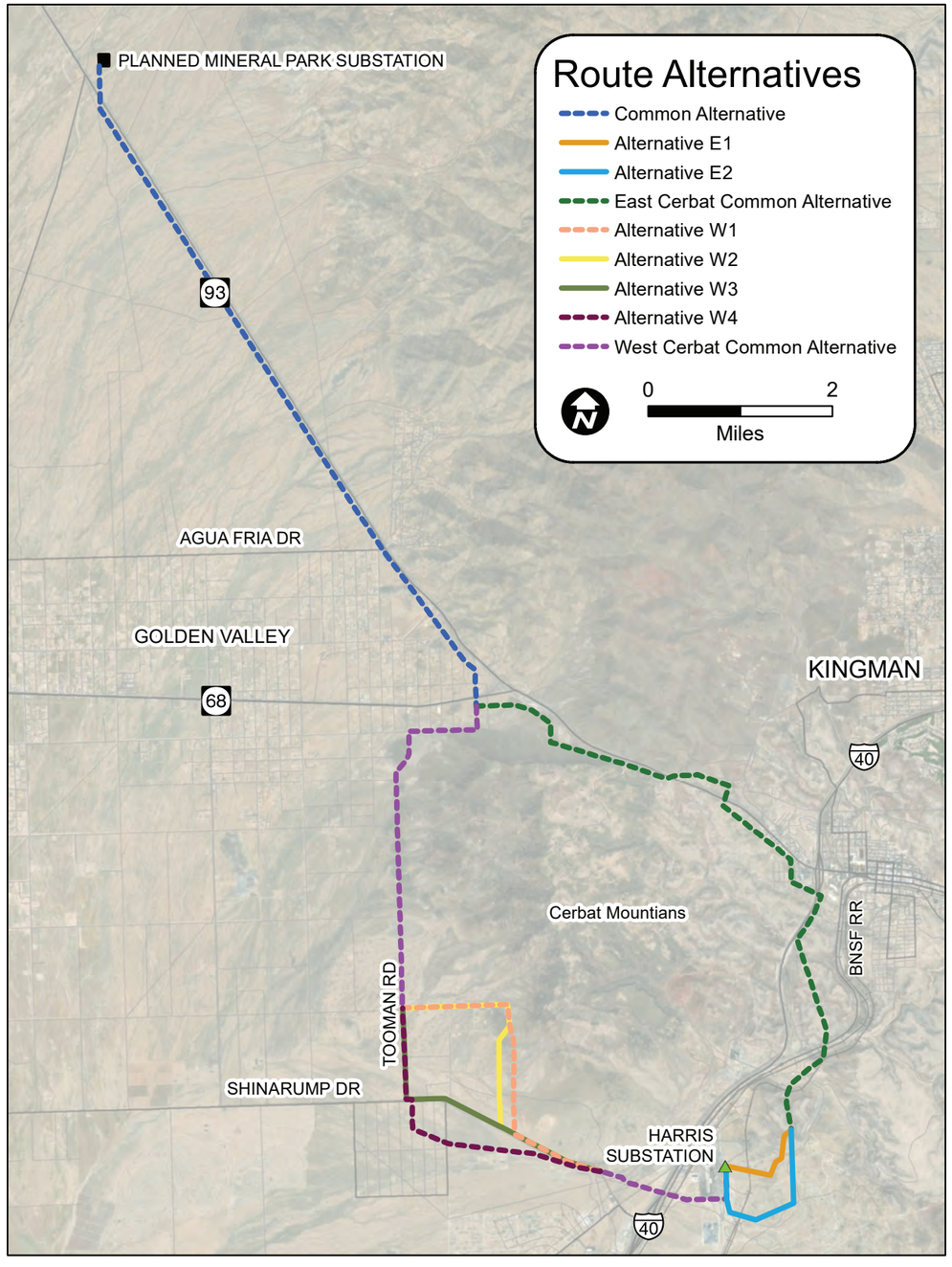


EXHIBIT J-10

PUBLIC OPEN HOUSE PRESENTATION
MATERIALS—AUGUST 16, 2007

ENVIRONMENTAL PROCESS

WE ARE HERE →

PUBLIC COMMENT

↓

ENVIRONMENTAL RESOURCES EVALUATION

↓

IMPACT ASSESSMENT AND MITIGATION PLANNING

↓

SUBMITTAL OF ENVIRONMENTAL ASSESSMENT
TO THE BUREAU OF LAND MANAGEMENT

↓

NATIONAL ENVIRONMENTAL POLICY ACT
COMPLIANCE DETERMINATION

↓

SELECTION OF PROJECT ALIGNMENT

↓

SUBMITTAL TO ARIZONA POWER PLANT AND
TRANSMISSION LINE SITING COMMITTEE

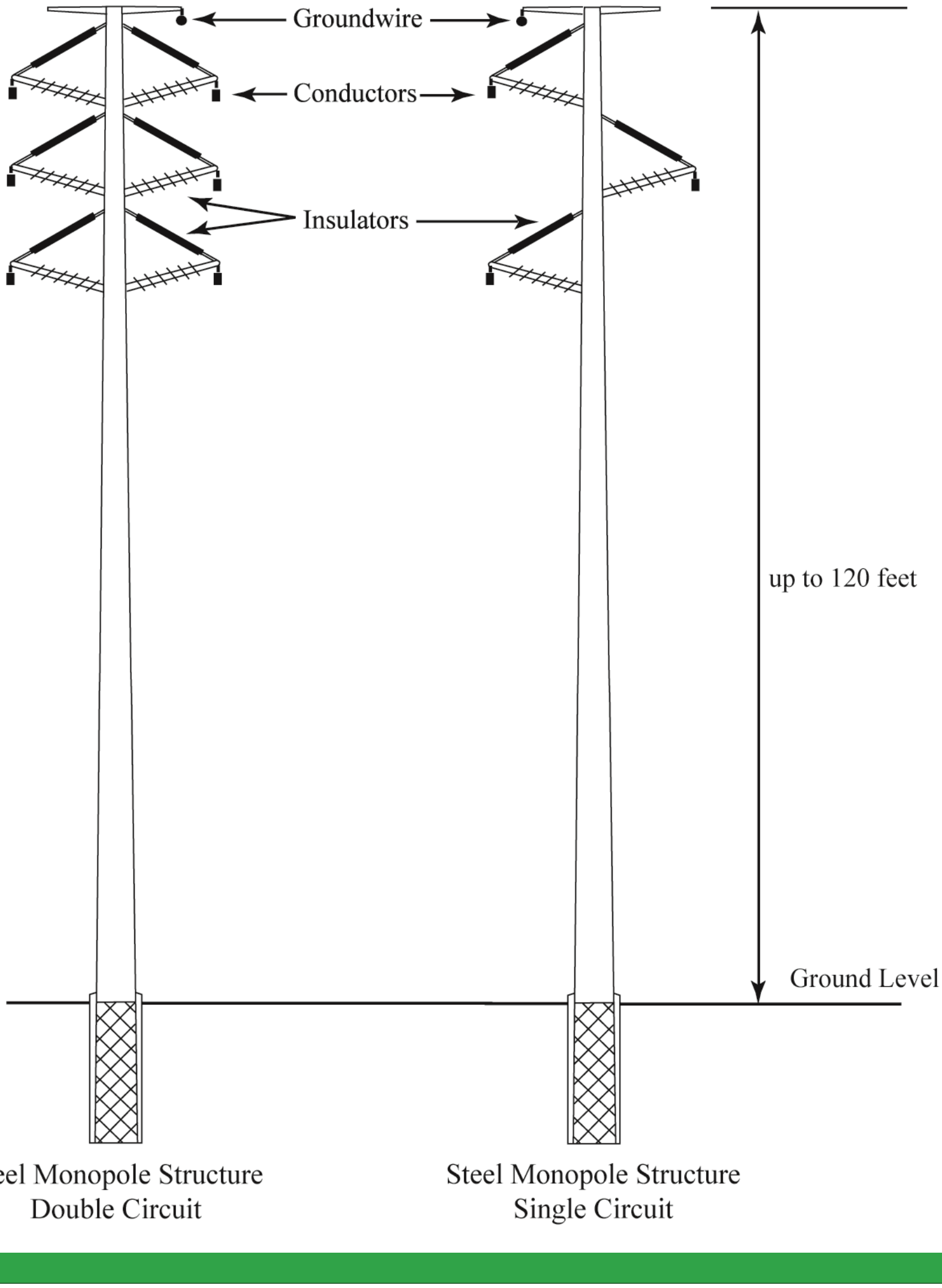
↓

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY CERTIFICATION

↓

PROJECT CONSTRUCTION

POLE STRUCTURE DIAGRAM



UniSource Energy SERVICES

WELCOMES

YOU TO THE PUBLIC MEETING FOR THE

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

EXHIBIT J-11

PUBLIC OPEN HOUSE PRESENTATION
MATERIALS—FEBRUARY 12, 2008

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

February 12, 2008

UniSource Energy SERVICES

Golden Valley 230kV Transmission Line Project

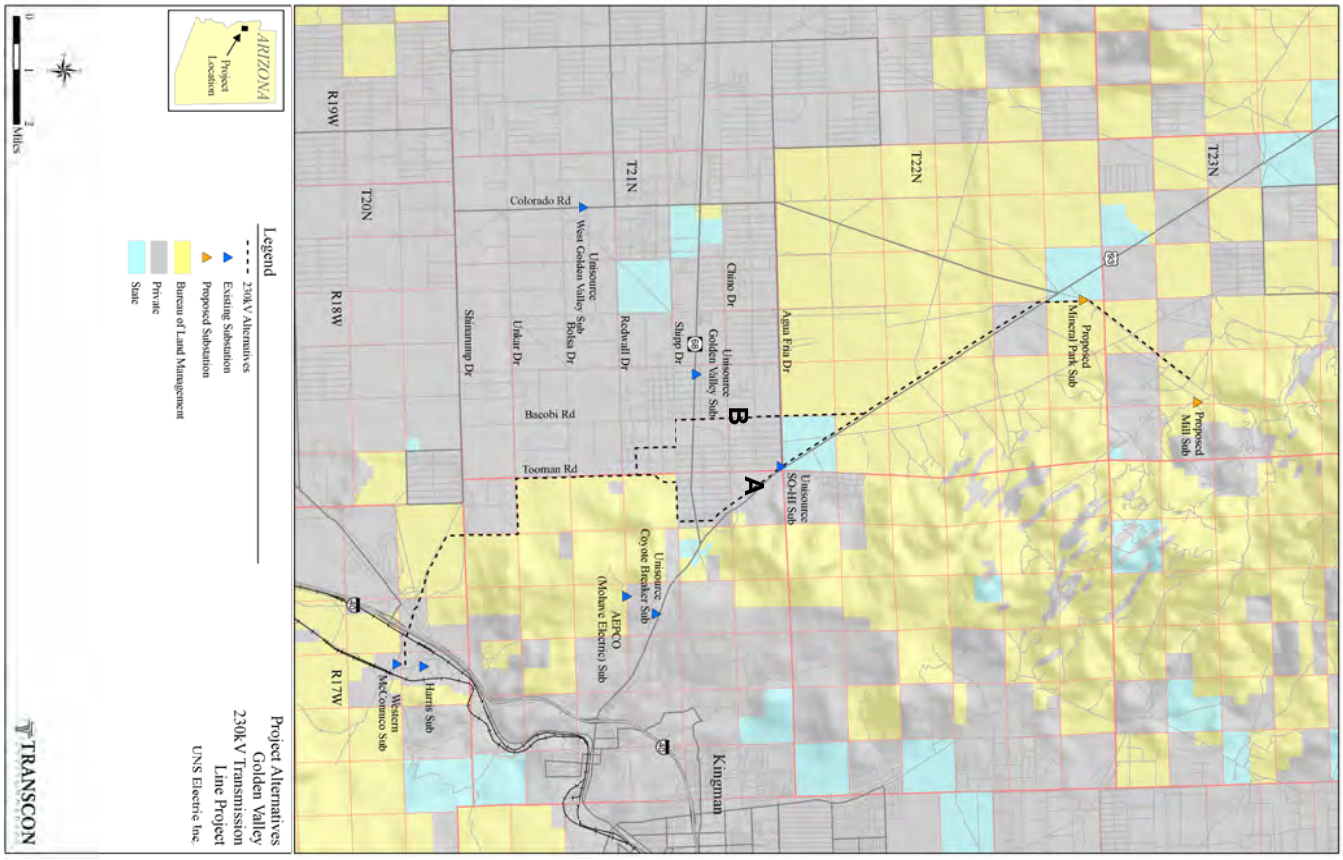
Presentation Outline

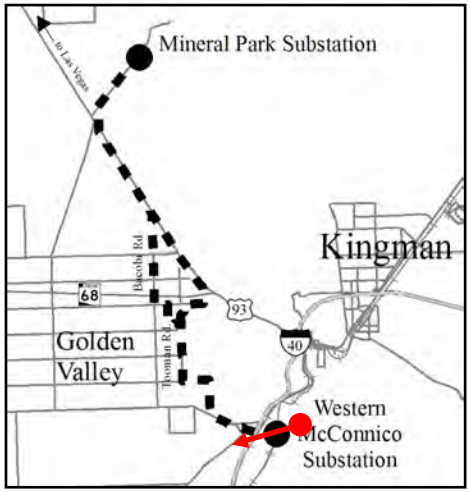
1. Project Area Overview
2. Regulatory Process
3. Photo Simulations
4. Involvement

UniSource Energy SERVICES

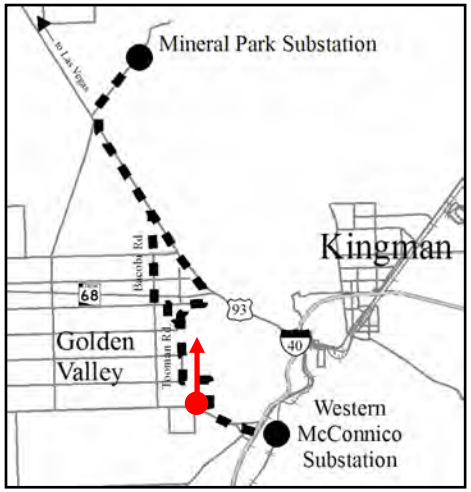
Golden Valley 230kV Transmission Line Project

Project Area Overview

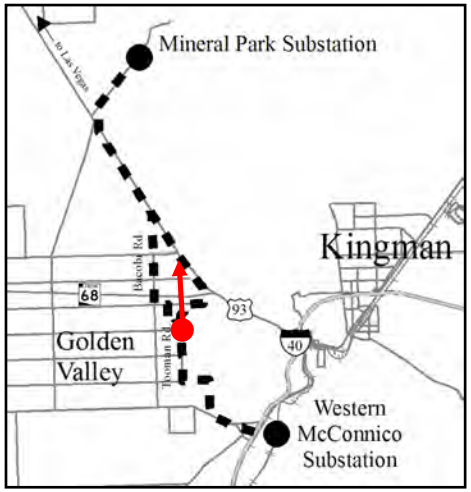




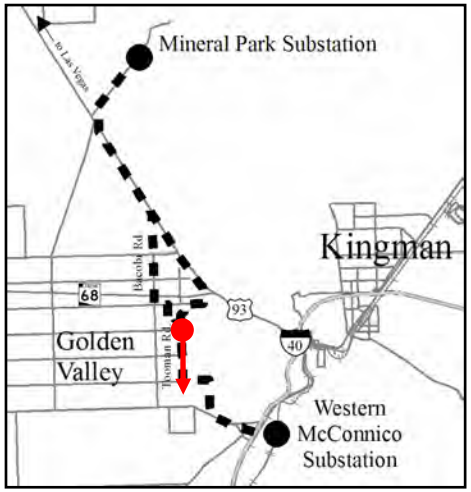
McConnico Substation



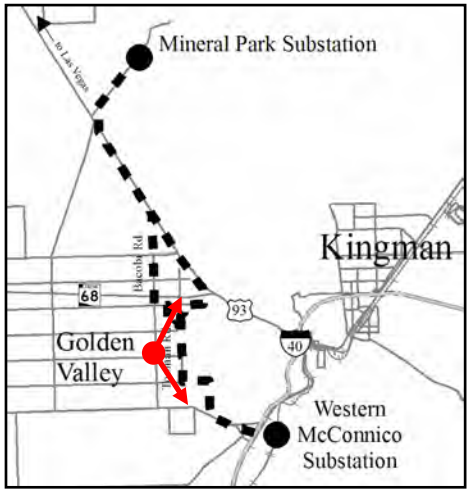
Kirkland Road


Mineral Park Substation
to Las Vegas
Kingman
68
93
40
Golden
Valley
Western
McConnico
Substation

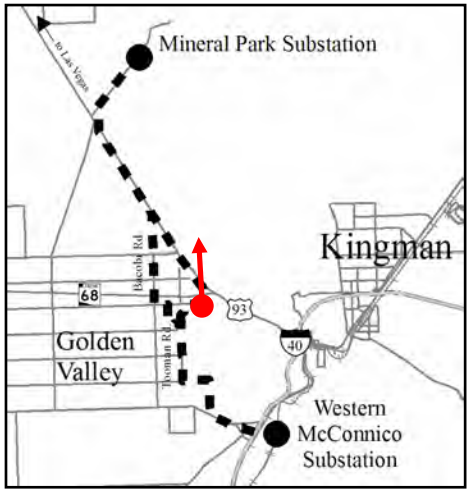
Tooman Road


Mineral Park Substation
Kingman
Golden Valley
Western McConnico Substation
68
93
40

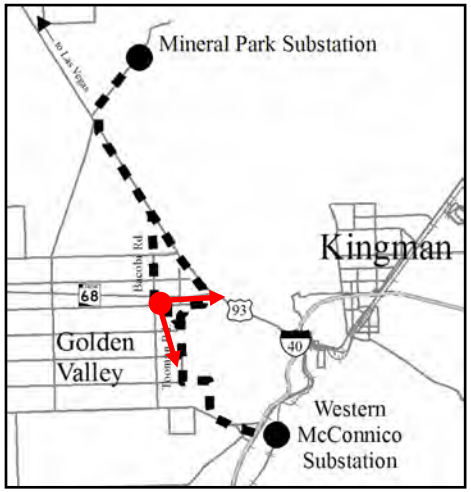
Tooman Road



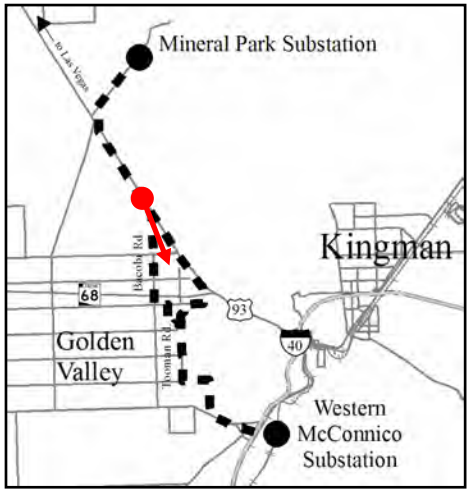
Cerbat Foothills


Mineral Park Substation
to Las Vegas
Kingman
68
93
40
Golden
Valley
Western
McConnico
Substation

Kofa Road

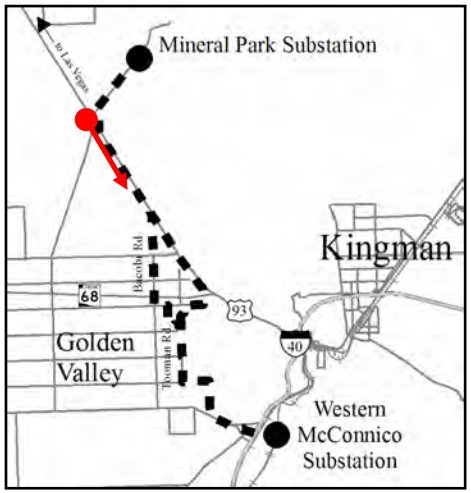


Cerbat Foothills

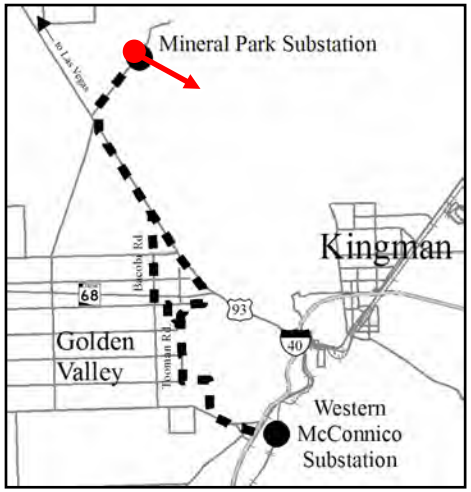

Mineral Park Substation
to Las Vegas
Kingman
68
93
40
Golden
Valley
Western
McConnico
Substation

Route 93

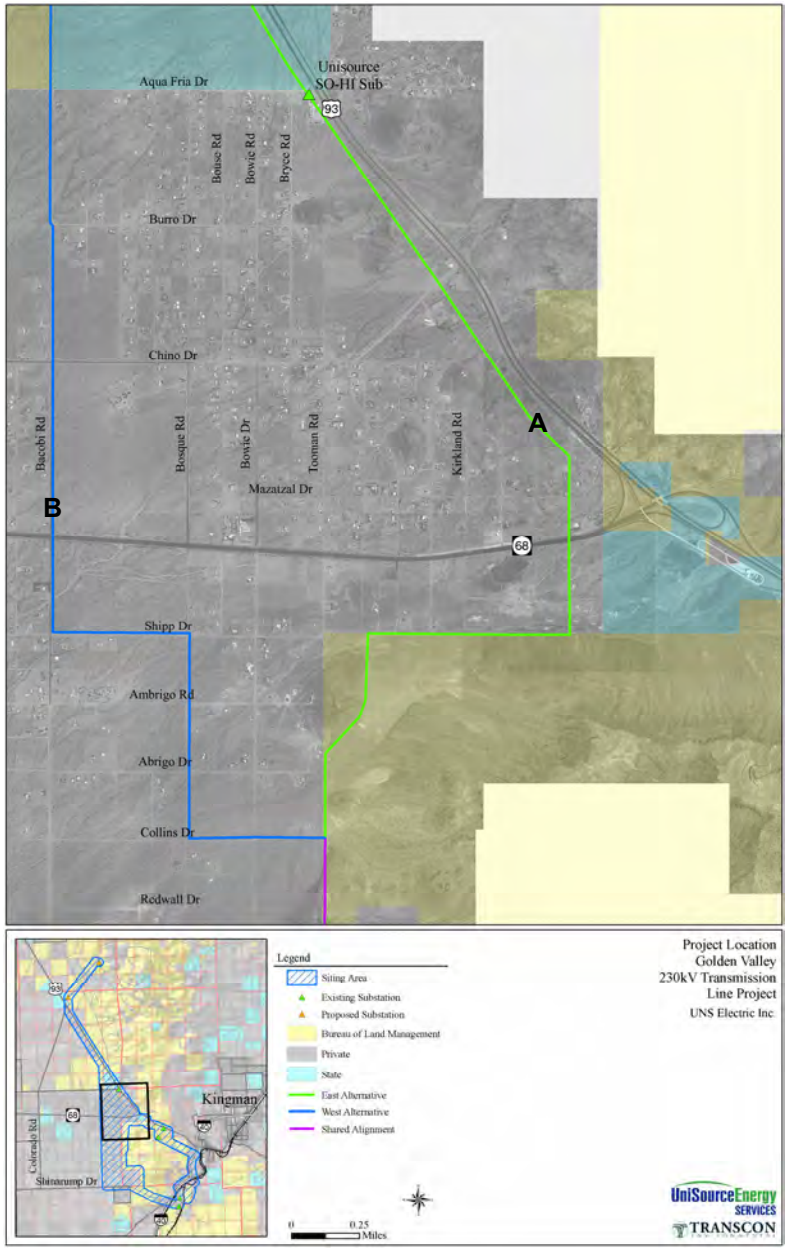

SOUTH
93


Mineral Park Substation
to Las Vegas
Kingman
68
93
40
Golden
Valley
Western
McConnico
Substation

Route 93

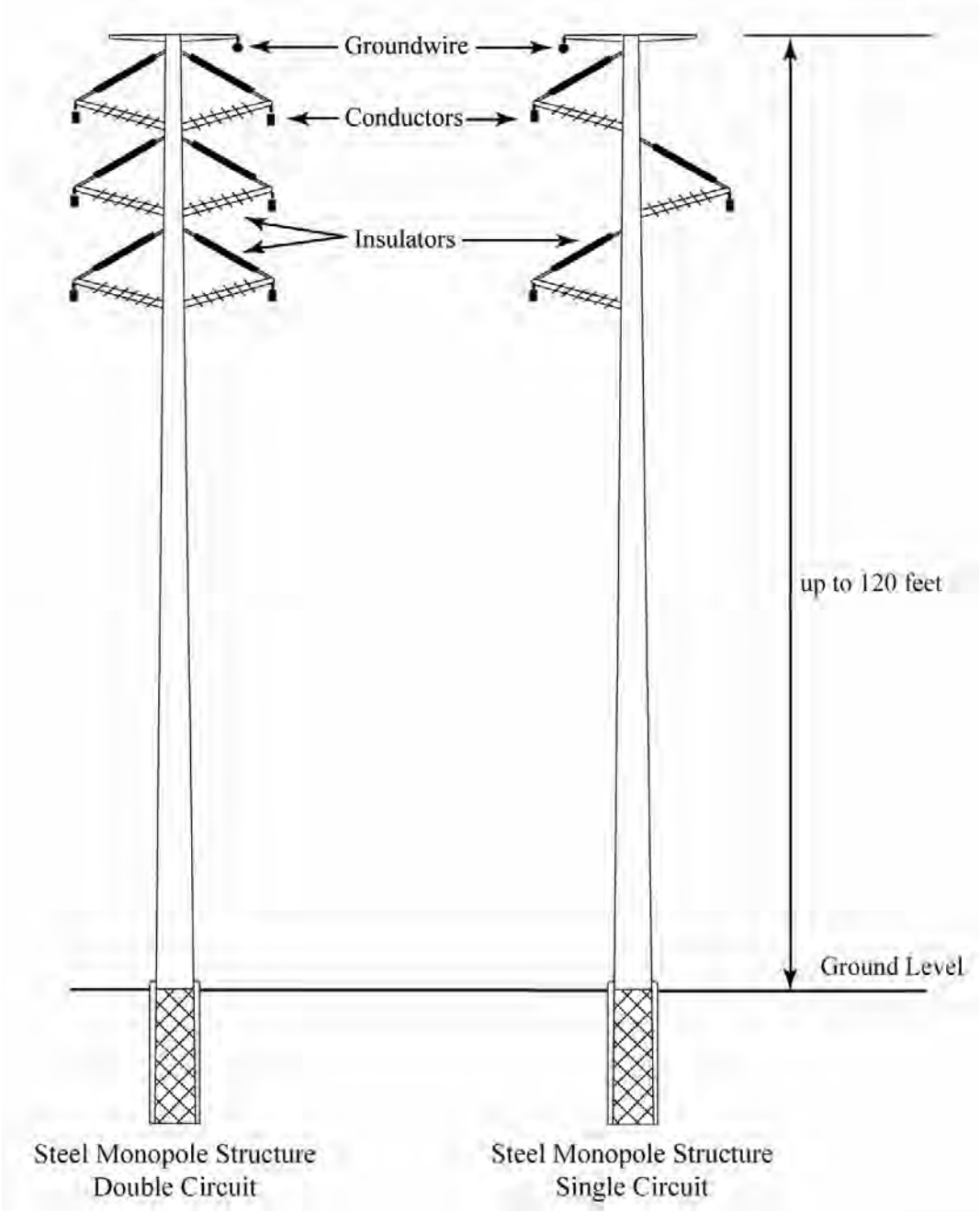


Mineral Park Substation


Aqua Fria Dr
Unisource
SO-HI Sub
93
Boise Rd
Bowie Rd
Bryce Rd
Burro Dr
Chino Dr
Bacobi Rd
Bosque Rd
Bowie Dr
Tooman Rd
Kirkland Rd
A
B
Mazatzal Dr
68
Shipp Dr
Ambrigo Rd
Abrigo Dr
Collins Dr
Redwall Dr
Legend
Siting Area
Existing Substation
Proposed Substation
Bureau of Land Management
Private
State
East Alternative
West Alternative
Shared Alignment
Kingman
Colorado Rd
Shinarump Dr
0
0.25
Miles
Project Location
Golden Valley
230kV Transmission
Line Project
UNS Electric Inc
UniSourceEnergy
SERVICES
TRANSCON

Golden Valley 230kV Transmission Line Project

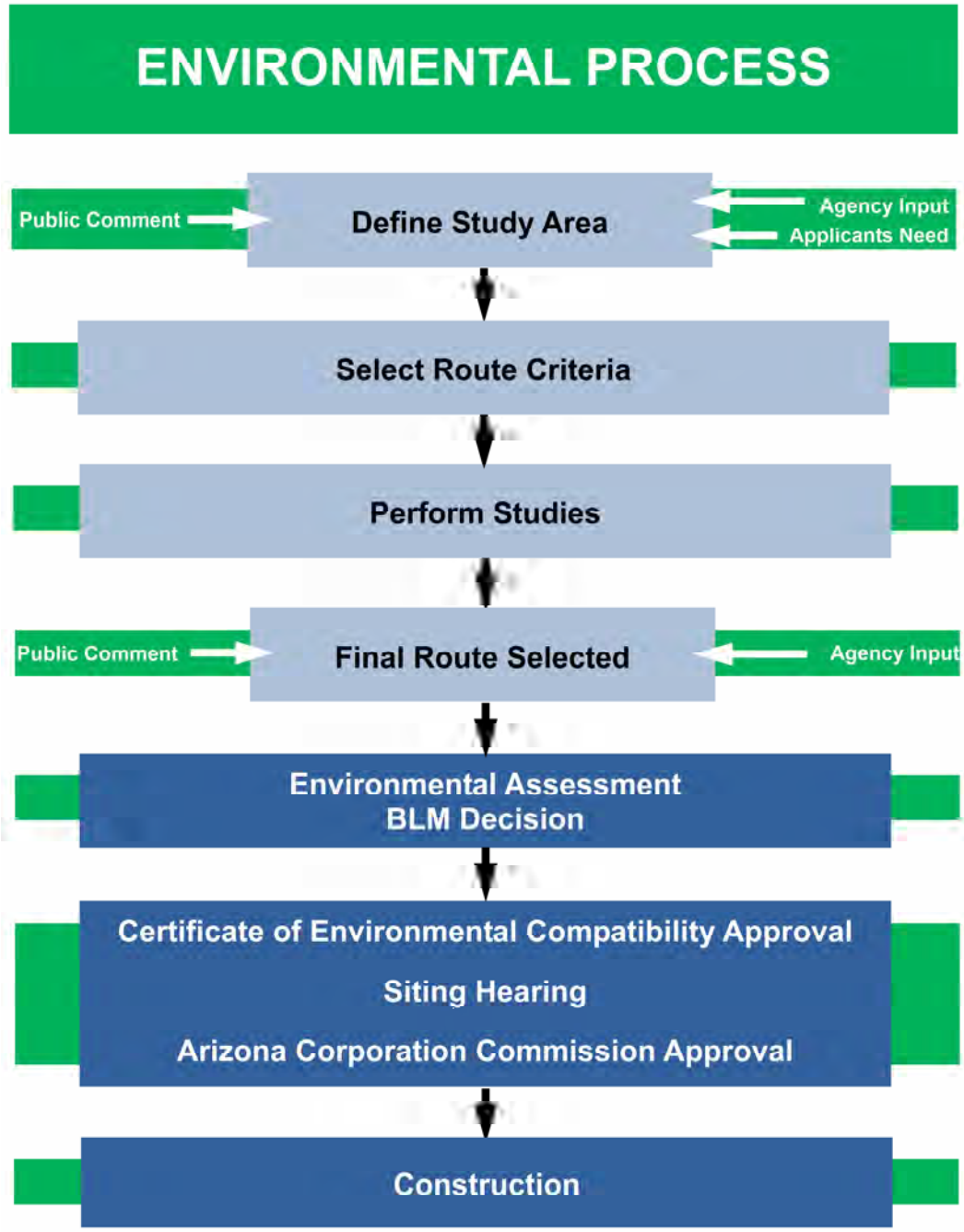
Pole Structure



UniSource Energy SERVICES

Golden Valley 230kV Transmission Line Project

Regulatory Process



UniSource Energy SERVICES

Golden Valley 230kV Transmission Line Project

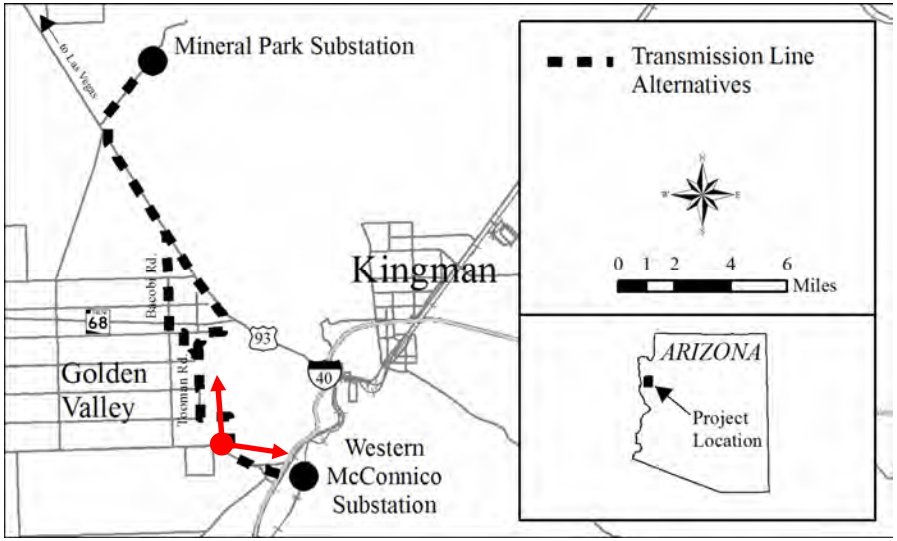
Photo Simulations

UniSource Energy SERVICES

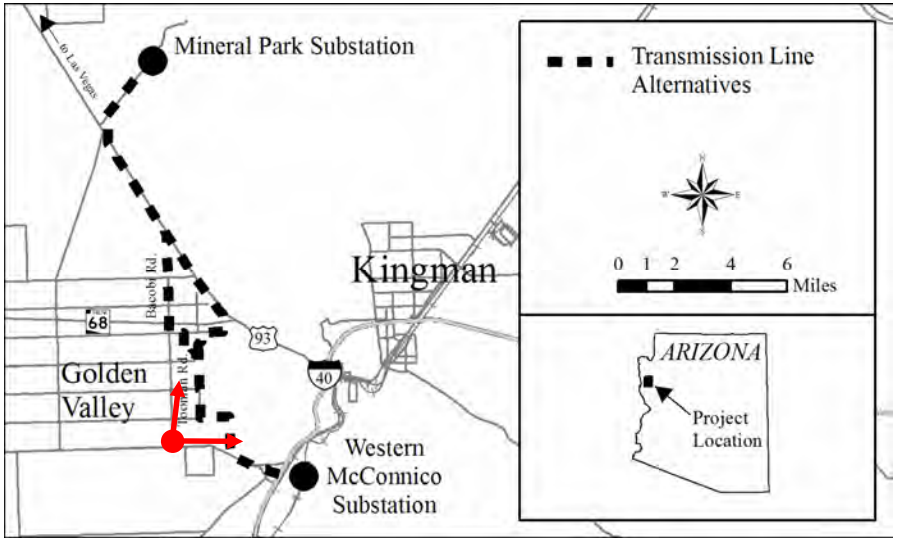
What is a photo simulation?

A photo simulation takes a digital photo image and superimposes an object that is not actually there in order to create a realistic portrayal of the proposed activity.

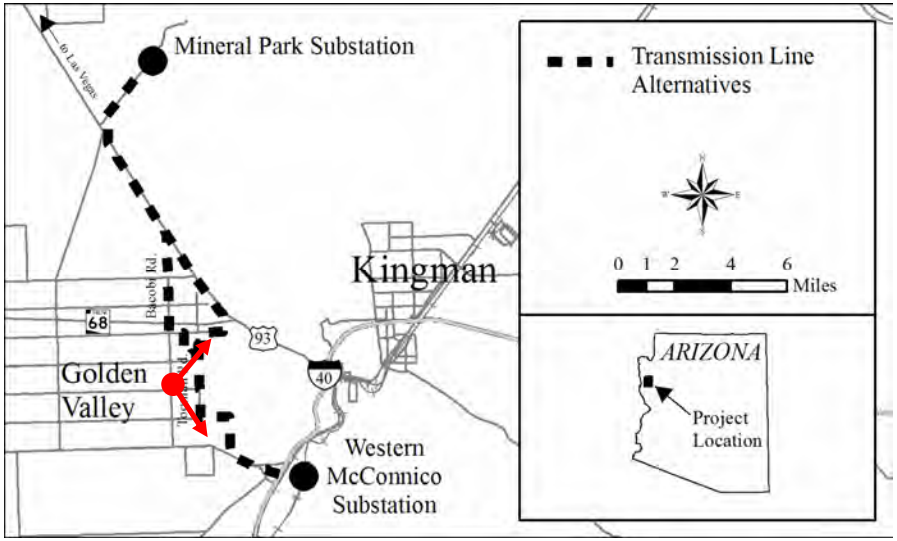
Intersection of Kirkland Road and Shinarump Drive



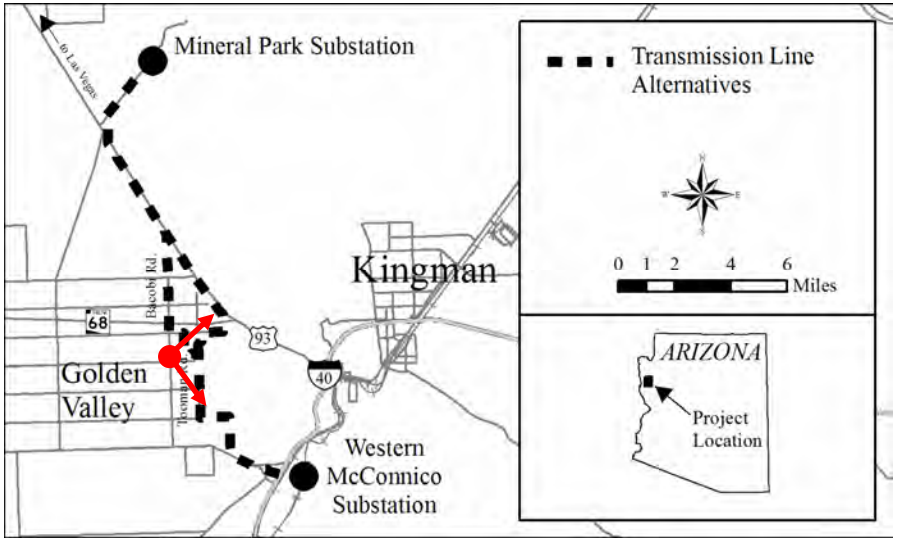
Intersection of Bacobi Road and Shinarump Drive



Intersection of Bacobi Road and Chuar Drive



Intersection of Bacobi Road and Redwall Drive



Golden Valley 230kV Transmission Line Project

Involvement

How to get involved:

Call

(928) 415-0213
(866) 453-2401 toll-free

Letter

Transcon Environmental
3740 E. Southern Ave., Suite 218
Mesa, AZ 85206

Comment Form

Available at the project information table

UniSource Energy SERVICES

EXHIBIT J-12

PUBLIC OPEN HOUSE PRESENTATION
MATERIALS—MAY 6 TO 8, 2008

ENVIRONMENTAL PROCESS

Define Study Area

Public Comment

Agency Input
Applicants Need

Select Route Criteria

Perform Studies

Final Route Selected

Public Comment

Agency Input

Environmental Assessment
BLM Decision

Certificate of Environmental Compatibility Approval

Siting Hearing

Arizona Corporation Commission Approval

Right-of-Way Acquisition

Construction

UniSourceEnergy SERVICES

RIGHT-OF-WAY

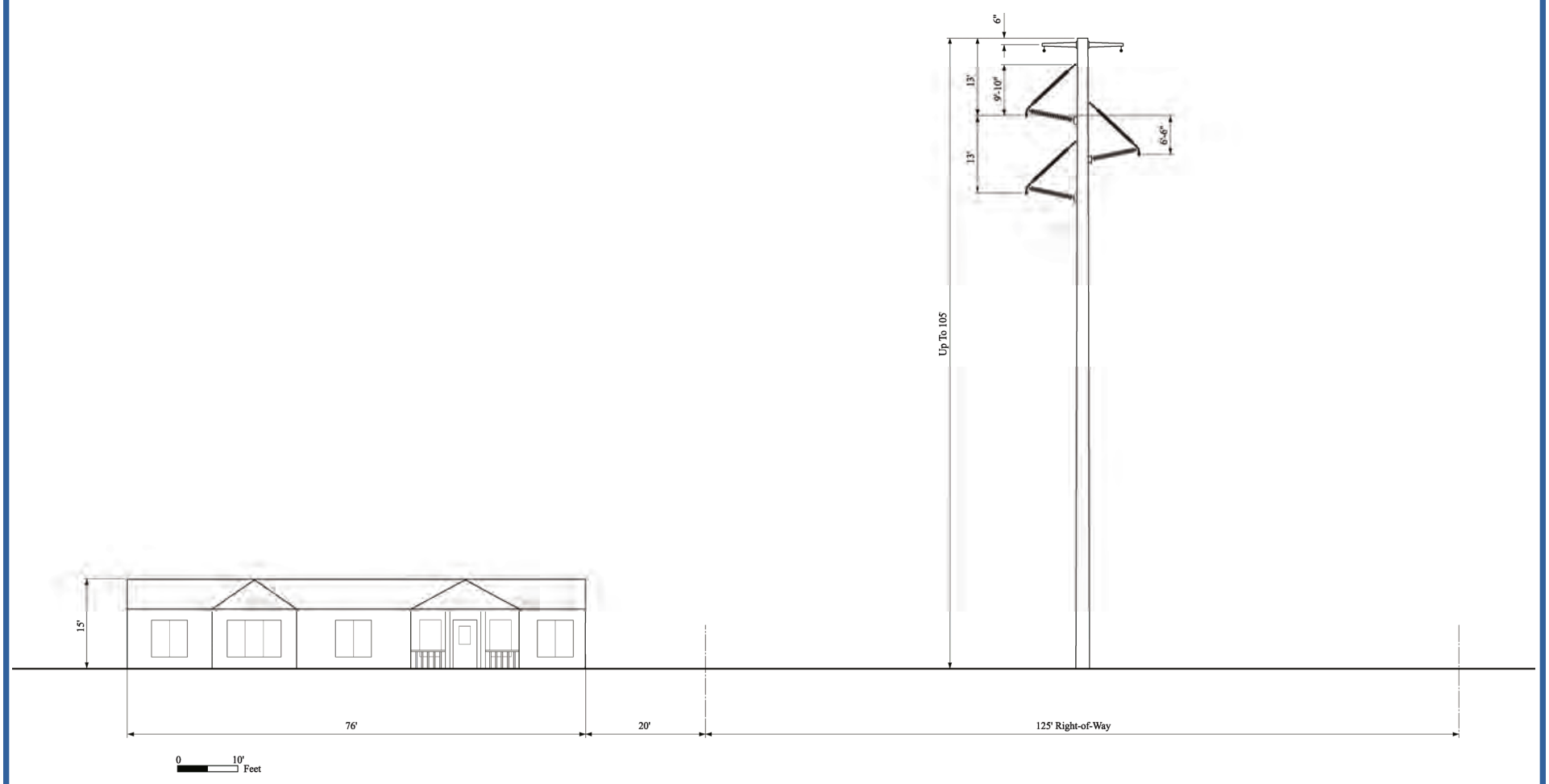


Figure depicts a cross section of the proposed transmission line right-of-way.

The Right-of-Way Process:

Once an alignment for the Right-of-Way has been selected, the following steps will occur:

- Identify all impacted parcels of land (public and private)
- Identify land owners, lien holders, existing easements, and claims on the parcels
- Prepare legal descriptions of the proposed right-of-way
- Determine the market value of the land needed for the proposed right-of-way
- Contact property owners to make offers of just compensation
- Negotiate with property owners and come to an agreement or compensation
- Open escrow and begin the transfer of funds and easement titles
- Pursue a “Show of Cause Hearing” if an agreement of compensation cannot be reached

Upon the showing of a “Just Cause” the Court will:

- Issue an Order of Immediate Possession* that will allow the utility to construct
- Set a trial date to determine just compensation for the easement

*An Order of Immediate Possession is not a Title, but a right to construct public improvements upon the area while the land value is determined by the Trial process.

For questions concerning right-of-way and eminent domain please refer to our
Right-of-Way Specialist Mike Gibelyou (928) 681-8923

UniSourceEnergy SERVICES

Proposed Golden Valley 230 kV Transmission Line

Example of the proposed 230 kV Transmission Tower (about 105' in height)

Existing 69 kV (about 50' in height) and Proposed 230 kV Transmission Tower (about 105' in height)

Project Need

- Mineral Park Mine
- Development in Golden Valley Area

Project Timeline

- Arizona Power Plant and Transmission Line Siting Committee Hearing—Late 2008
- Construction—Early 2009

Getting Involved or Making Comments

Project Information Phone Line

Toll Free:
(866) 453-2401

Written Comments

Transcon Environmental
3740 East Southern Avenue, Suite 218
Mesa, Arizona 85206

UniSourceEnergy SERVICES

TRANSMISSION LINE SITING CRITERIA

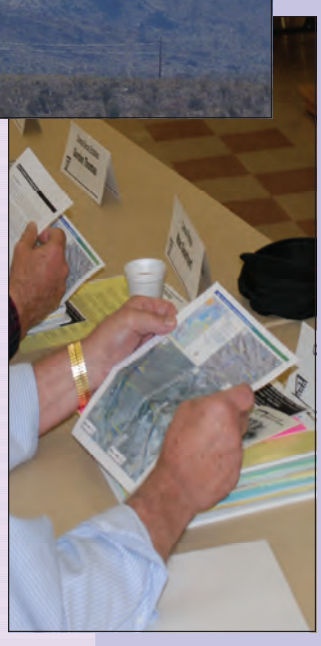
Consider:

- Land Use
- Natural Resources
- Cultural Resources
- Visual Resources
- Public Comment

Identify:

☐ OPPORTUNITIES and CONSTRAINTS

- Existing rights-of-way
- Utility Corridors
- Property Boundaries
- Roads
- Previously Disturbed Areas
- Topography
- Avoidance Areas

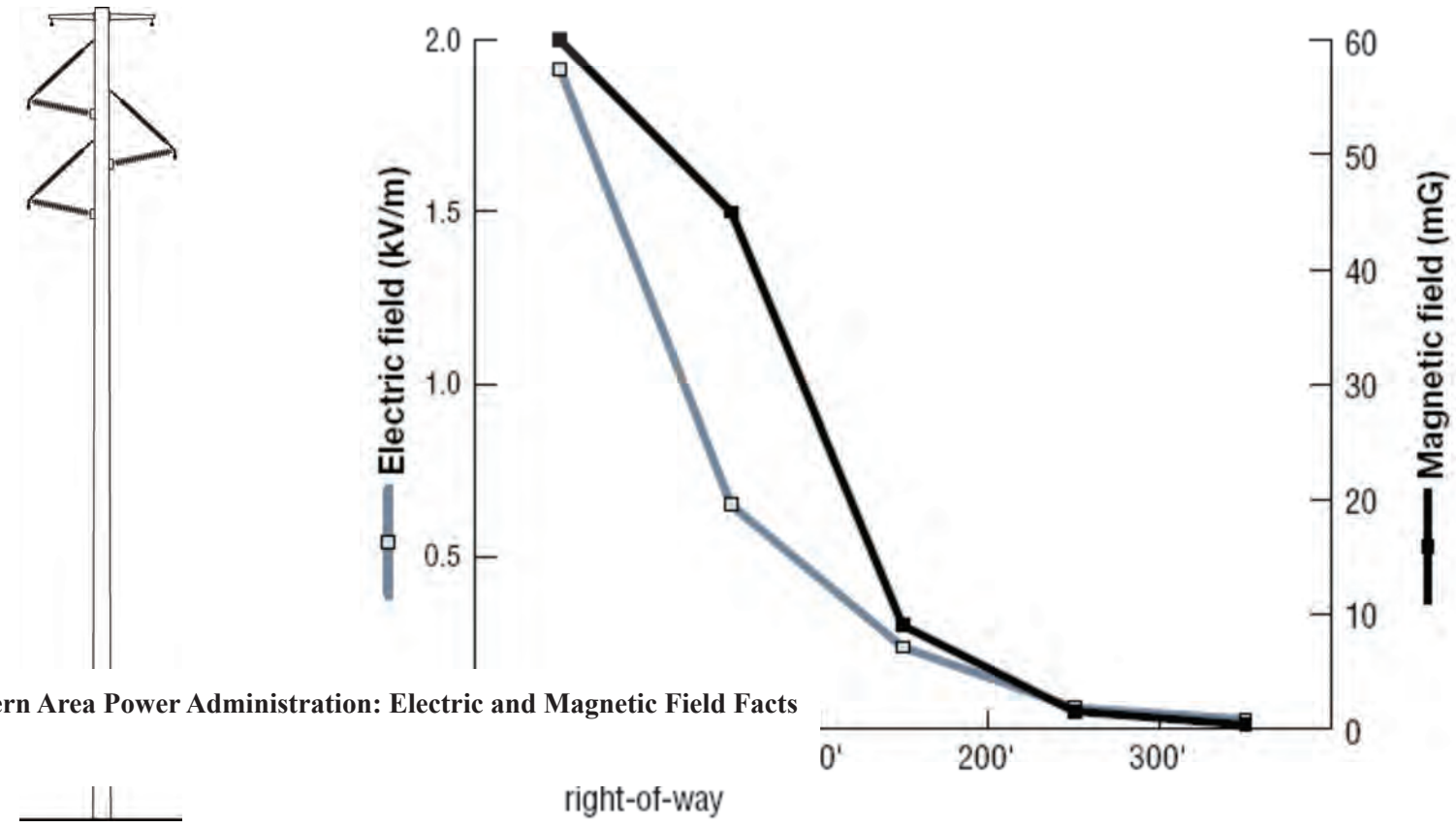


Evaluate:

- Land Use
- Biological Resources
- Cultural Resources
- Visual Resources

UniSourceEnergy SERVICES

Electric and Magnetic Fields (EMFs)



Source: Western Area Power Administration: Electric and Magnetic Field Facts

EMF STRENGTH OF VARIOUS ELECTRICAL SOURCES AT VARIOUS DISTANCES

Common Household Item[1]	Distance	Strength	Distance	Strength	Distance	Strength
Microwave Oven	0.5 feet	200 mG	1.0 feet	4 mG	—	—
Vacuum Cleaner	0.5 feet	300 mG	1.0 feet	60 mG	—	—
Hair Dryer	0.5 feet	300 mG	1.0 feet	1 mG	—	—
Electric Shaver	0.5 feet	100 mG	1.0 feet	20 mG	—	—
115kV Transmission Line [2]	0 feet	29.7 mG	49 feet	6.5 mG	200 feet	0.4 mG
230kV Transmission Line [2]	0 feet	57.5 mG	49 feet	6.5 mG	200 feet	1.8 mG

[1] Median field strength milligauss (mG) for typical 60Hz electric current.
[2] Typical powerline right-of-way is 49 feet; "0" distance measurements were taken directly below lines of unknown height. Mean field strengths are based on 321 measurements; field strength may, depending on loads, be twice the mean.

Source: USNIEHS, DOE 1995.

Additional EMF information resources are available from:

- California Department of Health Services, California EMF Program
  http://www.dhs.ca.gov/ps/deodc/ehib/emf/general.html
- Medical College of Wisconsin, Electromagnetic Fields and Human Health
  http://www.mcw.edu/gcrc/cop/powerlines-cancer-FAQ/toc.htm
- Environmental Health Information Service
  http://ehis.niehs.nih.gov/
- World Health Organization
  http://www.who.int/emf

UniSourceEnergy SERVICES

UniSource Energy SERVICES

WELCOMES

YOU TO THE PUBLIC MEETING FOR THE

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

EXHIBIT J-13

PUBLIC OPEN HOUSE PRESENTATION
MATERIALS—JUNE 28 TO 29, 2016

2016

WELCOME

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

UniSource Energy SERVICES

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

SCOPING PROCESS

PURPOSE OF SCOPING

- INTRODUCE THE PROPOSED PROJECT
- OBTAIN PUBLIC AND INTERESTED PARTIES' INPUT
- HELP DETERMINE THE RANGE OF ISSUES TO BE ADDRESSED IN THE ENVIRONMENTAL ASSESSMENT
- HELP DETERMINE THE SIGNIFICANCE OF THE ISSUES TO BE ADDRESSED IN THE ENVIRONMENTAL ASSESSMENT

PARTICIPANTS

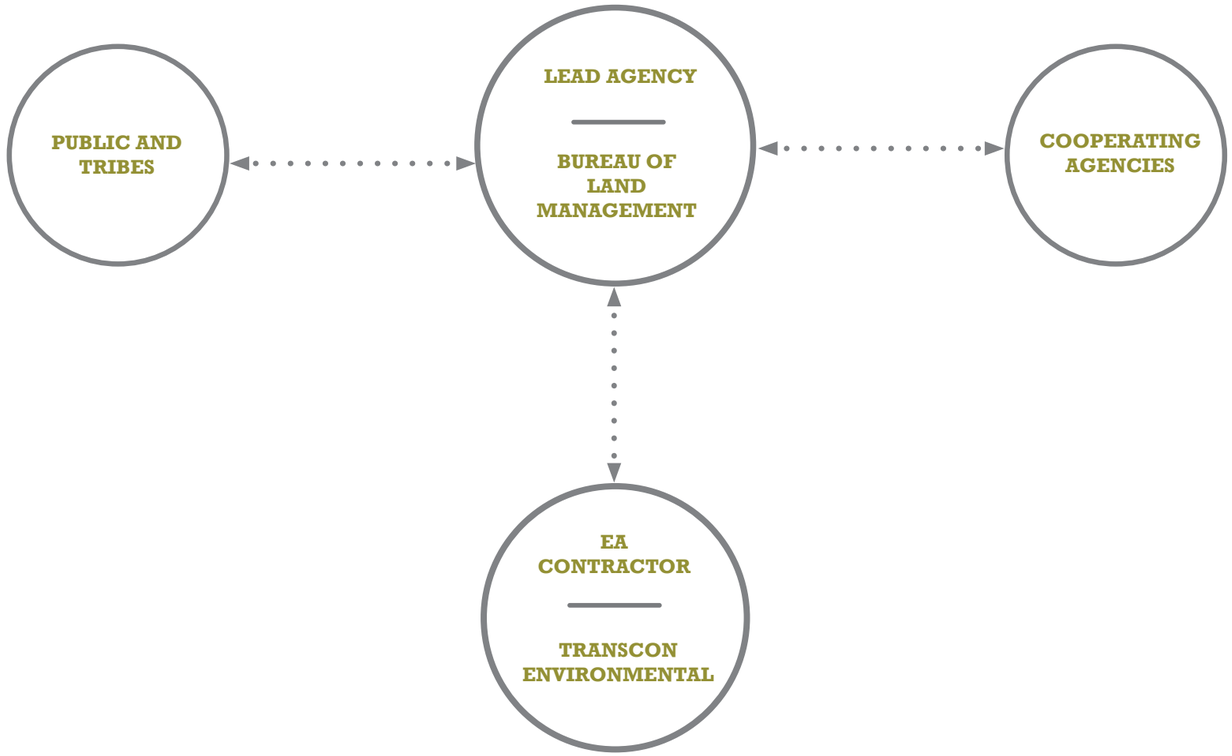
- PUBLIC
- AFFECTED FEDERAL, STATE, AND LOCAL AGENCIES
- NATIVE AMERICAN TRIBES

OPPORTUNITIES TO COMMENT

- PRESENT WRITTEN COMMENTS AT SCOPING MEETINGS
- E-MAIL COMMENTS TO:
  BLM'S ANDY WHITEFIELD BY
  JULY 28, 2016
  AWHITEFI@BLM.GOV
- SEND WRITTEN COMMENTS TO:
  ANDY WHITEFIELD - BLM PROJECT MANAGER
  C/O TRANSCON ENVIRONMENTAL
  1745 S. ALMA SCHOOL ROAD, SUITE 220
  MESA, ARIZONA 85210

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

EA ROLES AND RESPONSIBILITIES



PUBLIC AND TRIBES

INDIVIDUALS AND ORGANIZATIONS PROVIDE BLM WITH COMMENTS DURING THE SCOPING PERIOD, ATTEND PUBLIC MEETINGS OR WORKSHOPS, REVIEW AND COMMENT ON THE DRAFT ENVIRONMENTAL ASSESSMENT.

NATIVE AMERICAN TRIBES ARE CONSULTED WITH ON THE ENVIRONMENTAL ASSESSMENT AS WELL AS UNDER SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT.

LEAD AGENCY

BLM SEEKS PUBLIC INPUT AND COMMENTS, SUPERVISES THE ENVIRONMENTAL ASSESSMENT PROCESS, AND DIRECTS TRANSCON IN ENVIRONMENTAL STUDIES AND IN THE PREPARATION OF THE ENVIRONMENTAL ASSESSMENT.

COOPERATING AGENCIES

ASSIST BLM IN PREPARING THE ENVIRONMENTAL ASSESSMENT. THE BLM WILL ADOPT THE ENVIRONMENTAL ASSESSMENT TO SUPPORT ITS ACTIONS ON THE PROPOSED PROJECT.

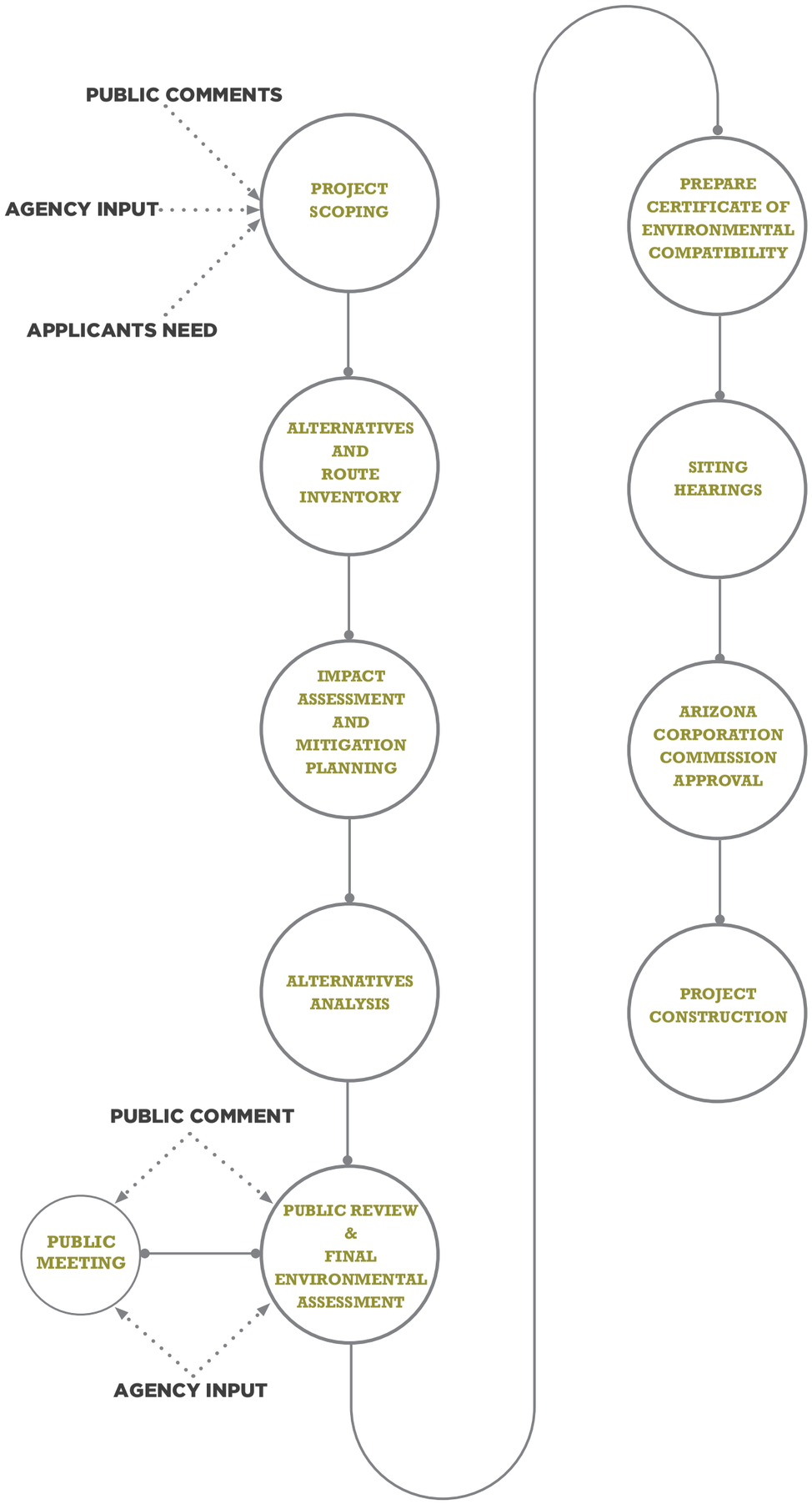
EA CONTRACTOR

TRANSCON CONDUCTS IMPACT ANALYSES AND PREPARES ENVIRONMENTAL ASSESSMENT DOCUMENTS, AS DIRECTED BY BLM.

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

REGULATORY PROCESS

REGULATORY PROCESS

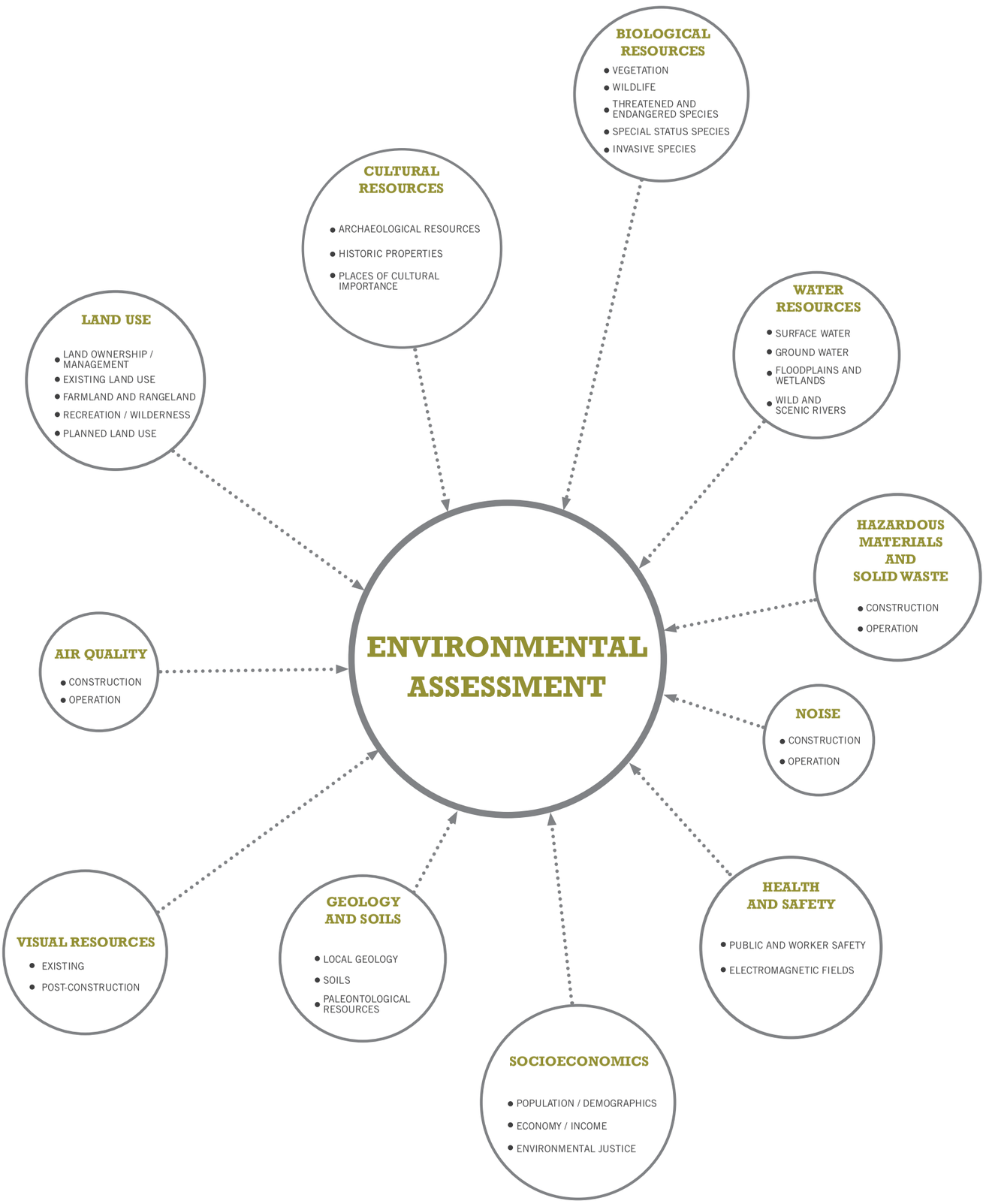


U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

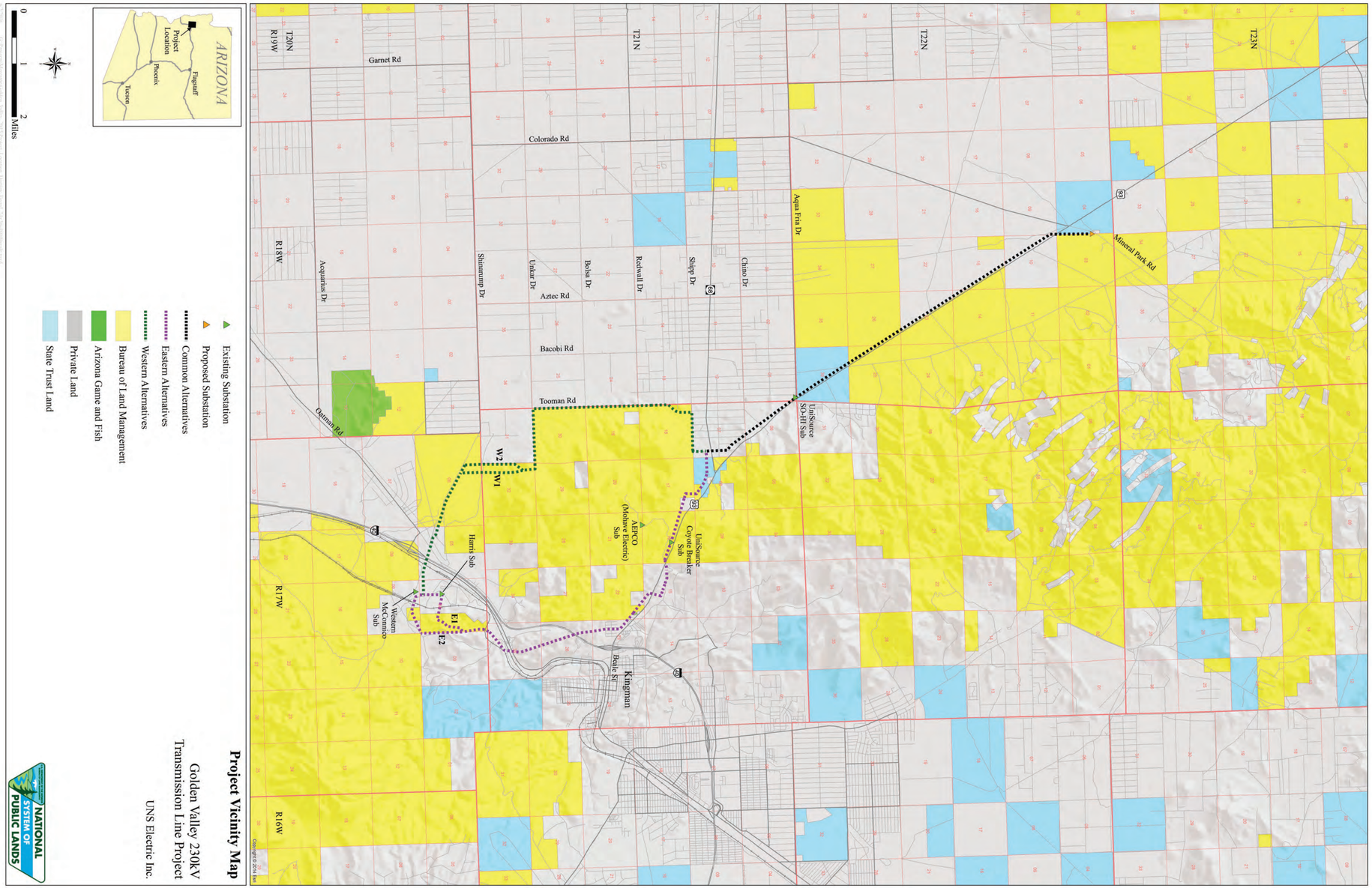
ENVIRONMENTAL RESOURCES

RESOURCES TO BE ADDRESSED IN THE ENVIRONMENTAL ASSESSMENT



GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

PROJECT AREA OVERVIEW



Project Vicinity Map

Golden Valley 230kV
Transmission Line Project

UNS Electric Inc.

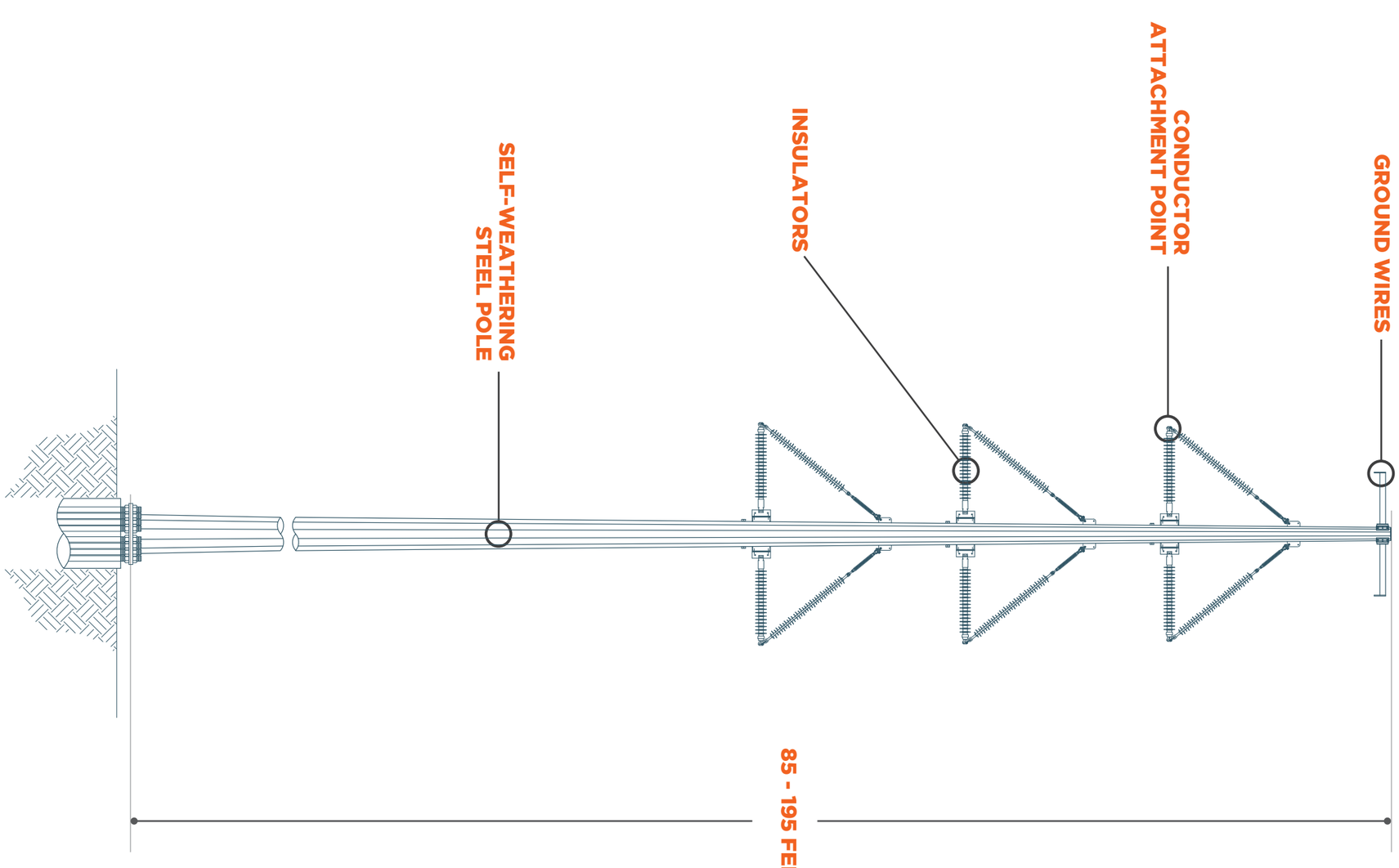
- Existing Substation
- Proposed Substation
- Common Alternatives
- Eastern Alternatives
- Western Alternatives
- Bureau of Land Management
- Arizona Game and Fish
- Private Land
- State Trust Land

NATIONAL SYSTEM OF PUBLIC LANDS

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

TYPICAL POLE STRUCTURE

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT



GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

DOUBLE CIRCUIT 230kV / 69kV

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

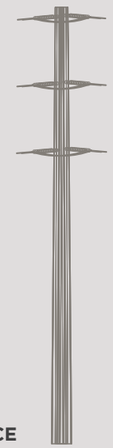
ELECTRIC & MAGNETIC FIELDS

ELECTRIC AND MAGNETIC FIELDS (EMFs) ARE FORCES THAT SURROUND ANY ELECTRICAL DEVICE

TYPICAL 60 Hz MAGNETIC FIELD LEVELS FROM SOME COMMON HOME APPLIANCES

	MAGNETIC FIELD 6 INCHES FROM APPLIANCE (mG)	MAGNETIC FIELD 2 FEET FROM APPLIANCE (mG)
ELECTRIC SHAVER	100	-
VACUUM CLEANER	300	10
ELECTRIC OVEN	9	-
DISHWASHER	20	4
MICROWAVE OVEN	200	10
HAIR DRYER	300	-
COMPUTER	14	2
FLUORESCENT LIGHTS	40	2
FAX MACHINE	6	-
COPY MACHINE	90	7
GARBAGE DISPOSAL	80	2

TYPICAL EMF LEVELS FOR A 230kV TRANSMISSION LINE



DISTANCE	50ft (15m)	100ft (30m)	200ft (61m)	300ft (91m)
ELECTRIC FIELD (kV/m)	2.0	1.5	0.3	0.05	0.01
MEAN MAGNETIC FIELD (mG)	57.5	19.5	7.1	1.8	0.8

SOURCE: BONNEVILLE POWER ADMINISTRATION, 1994

ELECTRIC FIELDS

- PRODUCED BY VOLTAGE; INCREASES IN STRENGTH AS VOLTAGE INCREASES
- DECREASES IN STRENGTH WITH DISTANCE
- WEAKENED BY BUILDINGS, SKIN, AND VEGETATION

MAGNETIC FIELDS

- PRODUCED AS CURRENT FLOWS THROUGH WIRES OR ELECTRIC DEVICES
- INCREASES IN STRENGTH AS CURRENT INCREASES
- DECREASES IN STRENGTH WITH DISTANCE
- OBSTACLES DO NOT WEAKEN MAGNETIC FIELD STRENGTH

EMF INFORMATION RESOURCES

- ENVIRONMENTAL HEALTH INFORMATION SERVICES - HTTP://EHIS.NIEHS.NIH.GOV
- WORLD HEALTH ORGANIZATION - HTTP://WWW.WHO.INT/EMF

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

PUBLIC INVOLVEMENT

HOW TO GET INVOLVED

CALL

TOLL FREE : (844) 882-8899

EMAIL

ANDY_WHITEFI@BLM.GOV

LETTER

ANDY WHITEFIELD - BLM PROJECT MANAGER
C/O TRANSCON ENVIRONMENTAL
1745 S. ALMA SCHOOL ROAD, SUITE 220
MESA, ARIZONA 85210

COMMENT FORM

AVAILABLE AT THE PROJECT INFORMATION TABLE

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

VISUAL SIMULATION

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY

230kV Transmission Line Project

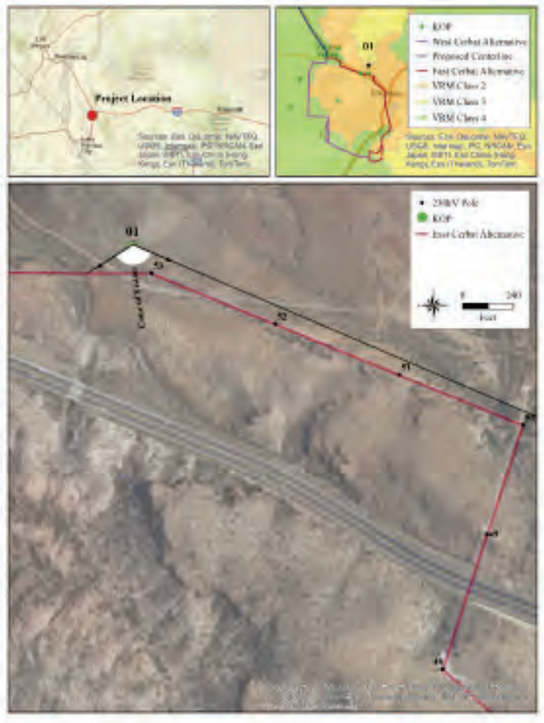
SIMULATION 01

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 39 mm
- 35 mm equivalent focal length: 48 mm
- Camera height: 5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Non-motorized trail users
- Location: Rattler trail located within the Corbet Foothills Recreation Area north of US 93
- Latitude: 35.200830, Longitude: -114.090060
- View Point Elevation at Eye Level: 3,649 ft
- Looking: South
- Poles Depicted on Map within Cone of Vision: East Corbet Alternative poles 48-55

Simulation Notes
- Photo taken 6/4/2016, 12:10
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view
- This view is approximately 130 feet northwest of the nearest pole portrayed in the simulation
- Six poles and corresponding conductors in whole or part are visible in the simulation
- New poles and conductors would replace existing poles and conductors
- The simulation is based on the best information available 6/14/2016. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.

Recommended Viewing Configuration



GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

VISUAL SIMULATION

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY

230kV Transmission Line Project

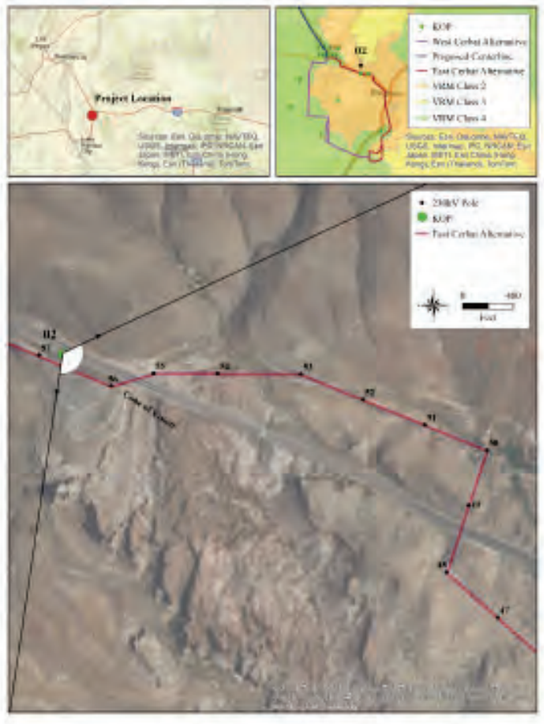
SIMULATION 02

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.5 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 33 mm
- 35 mm equivalent focal length: 53 mm
- Camera height: 5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Southbound travelers on US 93
- Location: US 93 west northwest of Kingman, AZ
- Latitude: 35.200739, Longitude: -114.097399
- View Point Elevation or Eye Level: 3,724 ft
- Looking: East southeast
- Poles Depicted on Map within Cone of Vision: East Corbar Alternative poles 47-56

Simulation Notes
- Photo taken 6/3/2016, 13:35
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 540 feet northwest of the nearest pole portrayed in the simulation.
- Eight poles and corresponding conductors in whole or part are visible in the simulation.
- New poles and conductors would replace existing poles and conductors.
- The simulation is based on the best information available 6/14/2016. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.

Recommended Viewing Configuration



GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

VISUAL SIMULATION

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY

230kV Transmission Line Project

SIMULATION 03

East Cerbat Alternative

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C; 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Non-motorized trail users hiking along the trail
- Location: Overlook on Badger Trail northeast of US 93 and SR 68 within the Cerbat Foothills Recreation Area
- Latitude: 35.226150, Longitude: -114.122090
- View Point Elevation at Eye Level: 3,778 ft
- Looking: Southwest
- Poles Depicted on Map within Cone of Vision: East Cerbat Alternative poles 60-78

Simulation Notes
- Photo taken 6/4/2016, 13:03
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 3,000 feet northeast of the nearest pole portrayed in the simulation.
- The locations of nineteen poles are indicated in the simulation. Two poles in the background and portions of new access roads are also not visible.
- New poles and conductors would replace existing poles and conductors.
- The simulation is based on the best information available 6/14/2016. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.

Recommended Viewing Configuration

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

VISUAL SIMULATION

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY

230kV Transmission Line Project

SIMULATION 03

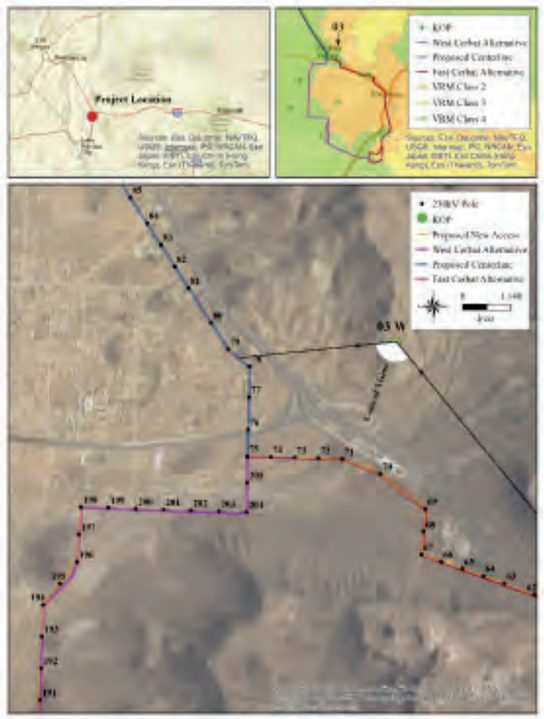
West Cerbat Alternative

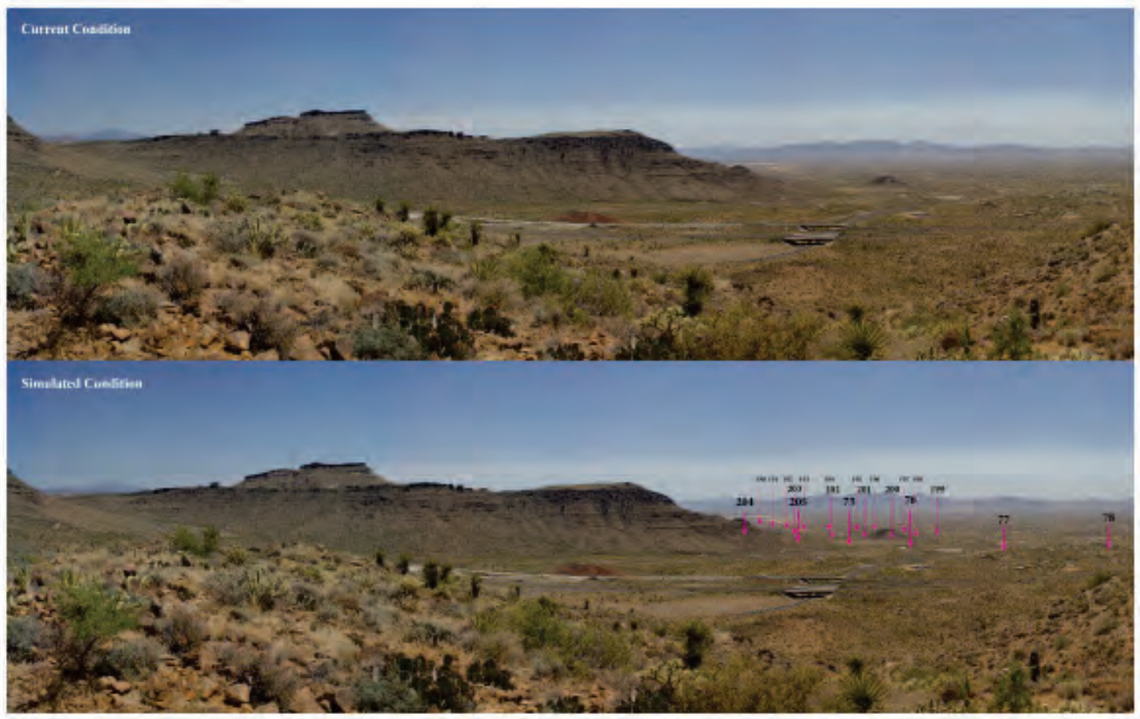
Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Non-motorized trail users hiking along the trail
- Location: Overlook on Badger Trail northeast of US 93 and SR 68 within the Cerbat Foothills Recreation Area
- Latitude: 35.226150, Longitude: -114.122090
- View Point Elevation at Eye Level: 3,778 ft
- Looking: Southwest
- Poles Depicted on Map within Cone of Vision: West Cerbat Alternative poles 191-205, 75-78

Simulation Notes
- Photo taken 6/4/2016, 15:03
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 3,000 feet east of the nearest pole portrayed in the simulation.
- Nineteen poles are visible in the simulation. Portions of access roads are somewhat visible.
- The simulation is based on the best information available 6/14/2016. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.

Recommended Viewing Configuration





GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

VISUAL SIMULATION

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY

230kV Transmission Line Project

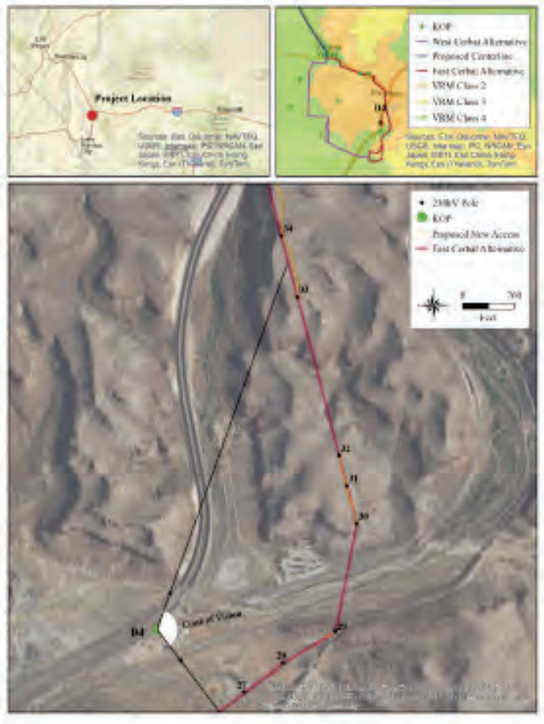
SIMULATION 04

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Northbound travelers on US 93 or US 66, and local commercial facilities
- Location: Interstate 40 and US 66 south of Kingman AZ.
- Latitude: 35.160870, Longitude: -114.076190
- View Point Elevation at Eye Level: 3,089 ft
- Looking: East
- Poles Depicted on Map within Cone of Vision: East Corbat Alternative poles 27-35

Simulation Notes
- Photo taken 6/4/2016, 11:33
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 1,500 feet northwest of the nearest pole portrayed in the simulation.
- The top portions of seven poles are visible in the simulation. Conductors are difficult to see.
- The simulation is based on the best information available 6/14/2016. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.

Recommended Viewing Configuration



GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

VISUAL SIMULATION

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY
230kV Transmission Line Project

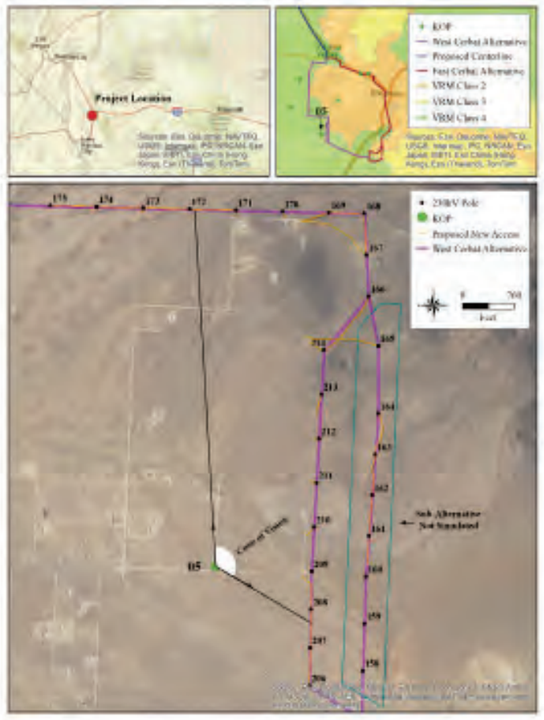
SIMULATION 05

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences in the area that are approximately a quarter mile from the project
- Location: Private property north of Shumway Drive
- Latitude: 35.156390, Longitude: -114.134070
- View Point Elevation or Eye Level: 2,743 ft
- Looking: East southeast
- Poles Depicted on Map within Cone of Vision: West Corbal Alternative poles 208-214, 166-171

Simulation Notes
- Photo taken 6/8/2016, 15:29
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 1,300 feet west of the nearest pole portrayed in the simulation.
- Eleven poles and portions of new access roads are visible in the simulation. Conductors are difficult to see. Two poles are not visible from this angle.
- The sub-alternative (parallel line to the right in the map) is not simulated.
- The simulation is based on the best information available 6/14/2016. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.

Recommended Viewing Configuration



GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

VISUAL SIMULATION

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY

230kV Transmission Line Project

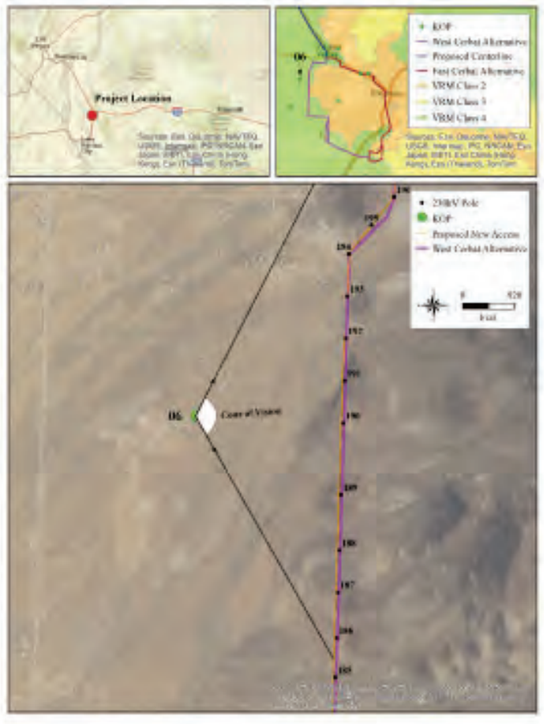
SIMULATION 06

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences in the area that are approximately a half mile from the project.
- Location: Private property east of Bacobi Road
- Latitude: 35.199880, Longitude: -114.156110
- View Point Elevation at Eye Level: 2,894 ft
- Looking: East
- Poles Depicted on Map within Cone of Vision: West Corbar Alternative poles 186-196

Simulation Notes
- Photo taken 6/3/2016, 14:03
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 2,560 feet northwest of the nearest pole portrayed in the simulation.
- Eleven poles and portions of new access roads are visible in the simulation. Conductors are difficult to see.
- The simulation is based on the best information available 6/14/2016. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.

Recommended Viewing Configuration



GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

VISUAL SIMULATION

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY

230kV Transmission Line Project

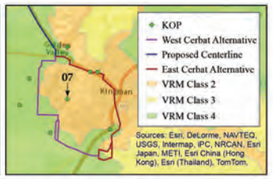
SIMULATION 07

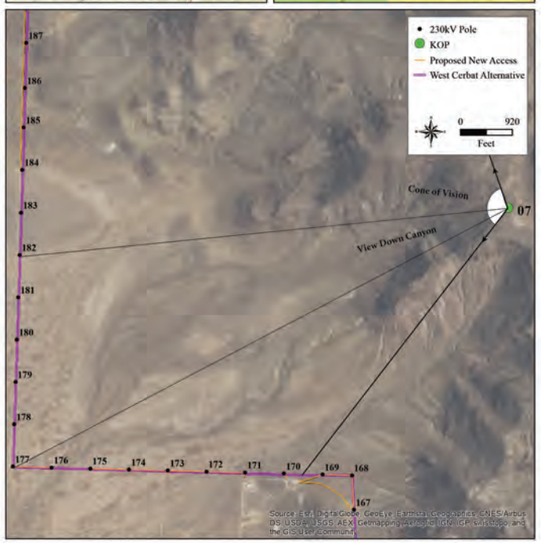
Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5 ft
- F-stop: 8
- ISO: 100

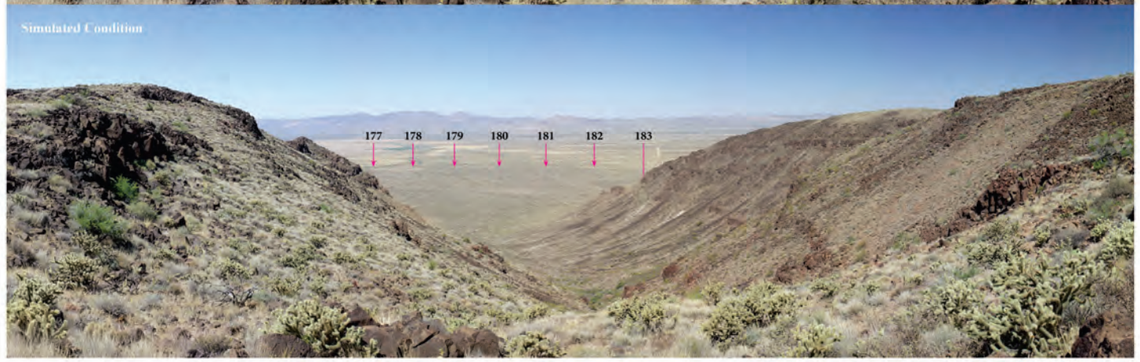
KOP
- Representative of view for: Trail users hiking cross-country or brief glimpses from the non-motorized Foothills Rim Trail
- Location: Cerbat Foothills Recreation Area
- Latitude: 35.184310, Longitude: -114.118740
- View Point Elevation at Eye Level: 3,923 ft
- Looking: West
- Poles Depicted on Map within Cone of Vision: West Cerbat Alternative poles 170-187
- Poles Depicted on Map within View down the Canyon: West Cerbat Alternative poles 177-183

Simulation Notes
- Photo taken 6/4/2016, 10:00
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view.
- This view is approximately 8,600 feet east southeast of the nearest pole portrayed in the simulation.
- Six poles are nearly invisible in this simulation. Work sites will be accessed via short spurs off of an existing road that is not visible in the photograph from this angle. Other poles depicted in the map are not visible.
- The simulation is based on the best information available 6/14/2016. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.

Recommended Viewing Configuration







GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

VISUAL SIMULATION

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

GOLDEN VALLEY

230kV Transmission Line Project

SIMULATION 08

Camera
- Camera: Canon t2i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm
- Focal length: 32 mm
- 35 mm equivalent focal length: 51 mm
- Camera height: 5 ft
- F-stop: 8
- ISO: 100

KOP
- Representative of view for: Residences and state traffic approximately one mile from the project
- Location: Intersection of Bucchi Road and Chase Drive
- Latitude: 35.179083, Longitude: -114.165366
- View Point Elevation at Eye Level: 2,677 ft
- Looking: East
- Poles Depicted on Map within Cone of Vision: West Corbar Alternative poles 154-157, 206-214, 166-205

Simulation Notes
- Photo taken 6/4/2016, 11:12
- The base image is multiple stitched images intended to represent an approximately 124 degree horizontal field of view
- This view is approximately 5,370 feet northwest of the nearest pole portrayed in the simulation.
- Arrows are pointing to structures visible in this simulation. Many structures are faintly visible on the north and south ends. Portions of some access roads in steeper terrain are also visible.
- The simulation is based on the best information available 6/14/2016. Preliminary and subject to change based on final engineering and other factors.
- The simulation should be held approximately 23 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and divide by 0.7 to determine viewing distance.

Recommended Viewing Configuration

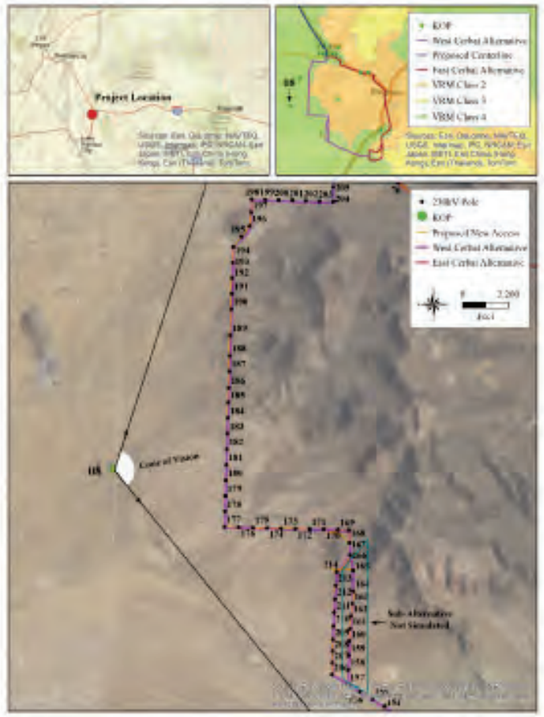


EXHIBIT J-14

VIRTUAL PUBLIC OPEN HOUSE PRESENTATION
MATERIALS—FEBRUARY 9, 2016

Golden Valley 230kV Transmission Line Project

Open House Meeting

In support of the Certificate of Environmental Compatibility

(Virtual)

Presented:

Tuesday, February 9, 2021

6 – 7:30 p.m.

UniSourceEnergy SERVICES

Please note this meeting is being recorded.

February 2021

Transcon environmental

Planners & Scientists

Golden Valley 230 Kilovolt Transmission Line

Introductions

Presenters:

Eric Raatz, UNS Electric (UNSE)

George Miller, Transcon Environmental

Moderator:

Anthony Lombardi, UNS Electric (UNSE)

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February 2021

Transcon environmental

Planners & Scientists

Golden Valley 230 Kilovolt Transmission Line

Asking Questions and Submitting Comments

- This webinar is set up to bring attendees into the webinar in listen-only mode to minimize background noise
- UNSE encourages attendees to ask questions. There will be a formal Q & A session at the end of the presentation
- Other ways to learn and comment. Please visit: https://www.uesaz.com/golden-valley/
- Here you will find;
  - More information about the Project
  - Past meeting materials
  - Additional ways in which to provide comments

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Golden Valley 230 Kilovolt Transmission Line

Asking Questions and Submitting Comments

- Asking a WRITTEN question:
  - Click the “Q&A” button
  - Type your question
  - Select “send”
  - Moderator will facilitate answering questions at the end of the presentation

- Asking a VERBAL question:
  - Raise your hand using “Raise Hand” button or *9 from the phone
  - Moderator will call your name if submitted online or call out your last 4 digits of phone number
  - Unmute your microphone by clicking the unmute button (online) or by pressing *6 (phone) to ask your question

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Golden Valley 230 Kilovolt Transmission Line

Why a Virtual Open House?

- Bureau of Land Management finished Environmental Assessment review
- UNSE must obtain a Certificate of Environmental Compatibility (CEC) from the Arizona Power Plant & Line Siting Committee
- Federal, state, and local ordinances, as well as guidance from public health officials, continue to advise against larger in-person public gatherings

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Golden Valley 230 Kilovolt Transmission Line

Purpose & Need

- Project would serve projected increase in energy demand now and in the future for the North Golden Valley and surrounding areas
- The Golden Valley service territory is currently served by a 69kV transmission network
- Project would also improve reliability, replace aged equipment, and enhance electrical infrastructure near Golden Valley

Golden Valley 230 Kilovolt Transmission Line

Project Description

A new, 230 kilovolt (kV) above-ground electric transmission line near Kingman, Mohave County, Arizona. The project would be located on Bureau of Land Management (BLM), State of Arizona, and private land jurisdictions. The Project would interconnect the following substations;

- Harris 230kV Substation (expansion required)
- Planned Mineral Park 230kV Substation

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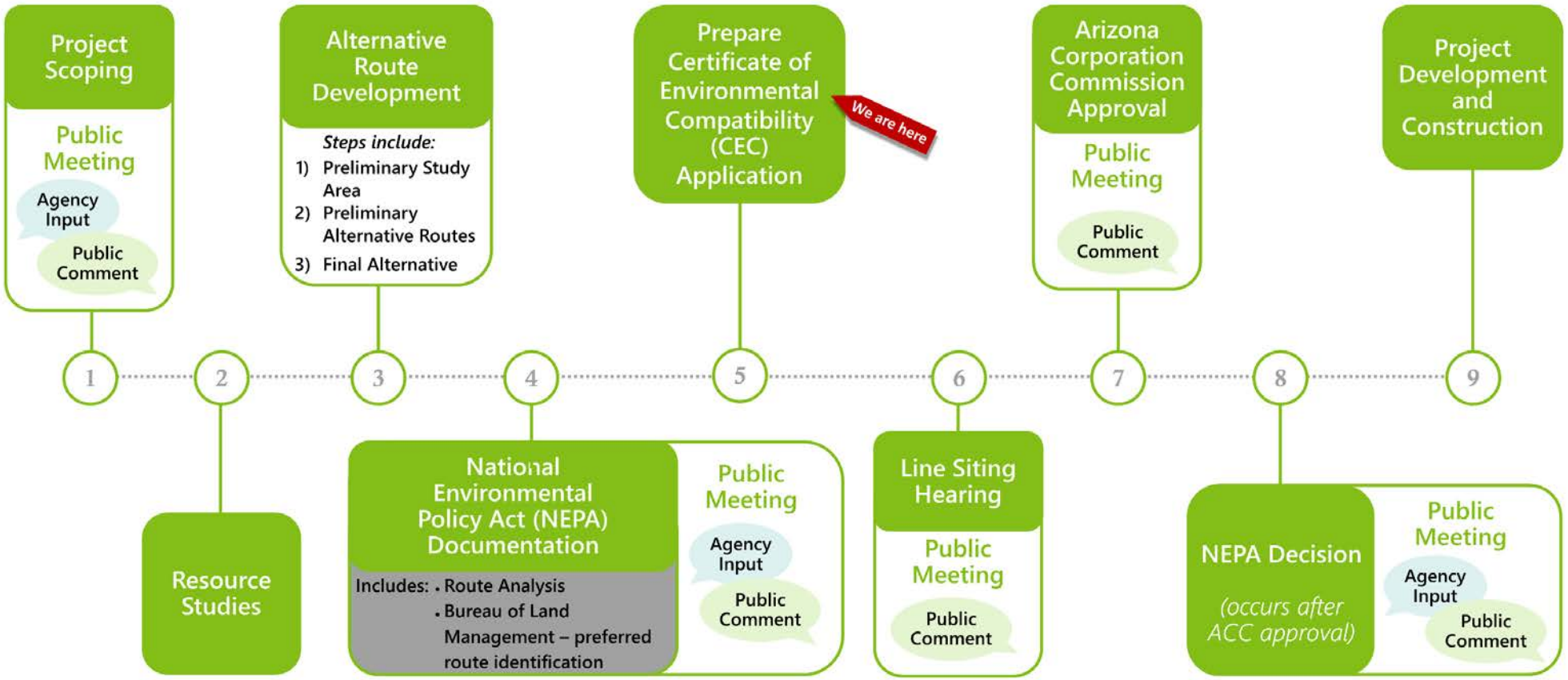
Golden Valley 230 Kilovolt Transmission Line

Project Development Process



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Golden Valley 230 Kilovolt Transmission Line

Public Outreach Efforts

- 2007 – 2008
  - Public Open House Meetings:
    - One in 2007, four in 2008
  - Eight field tours conducted with stakeholders and members of public
- 2015 – Present
  - Public Open House Meetings:
    - Two in 2016
- Mailed Newsletters / Fact Sheets / Postcards (also posted on project website)
- Newspaper Notifications and Radio Announcements
- Project Website, Call-in Numbers / Phone Lines
- Individual Meetings with Landowners, Interest Groups (e.g., CFRA interest group)
- Agency and Tribal Scoping

Golden Valley 230 Kilovolt Transmission Line

Philosophy & Criteria

When developing a project UNSE makes every effort to:

- Design routes that will utilize existing road rights-of-way and utility corridors in an effort to minimize disturbance to surrounding areas

- Work with neighbors and other stakeholders to identify concerns and develop alternatives that are in the best interest of the community

Golden Valley 230 Kilovolt Transmission Line

Development of Alternatives

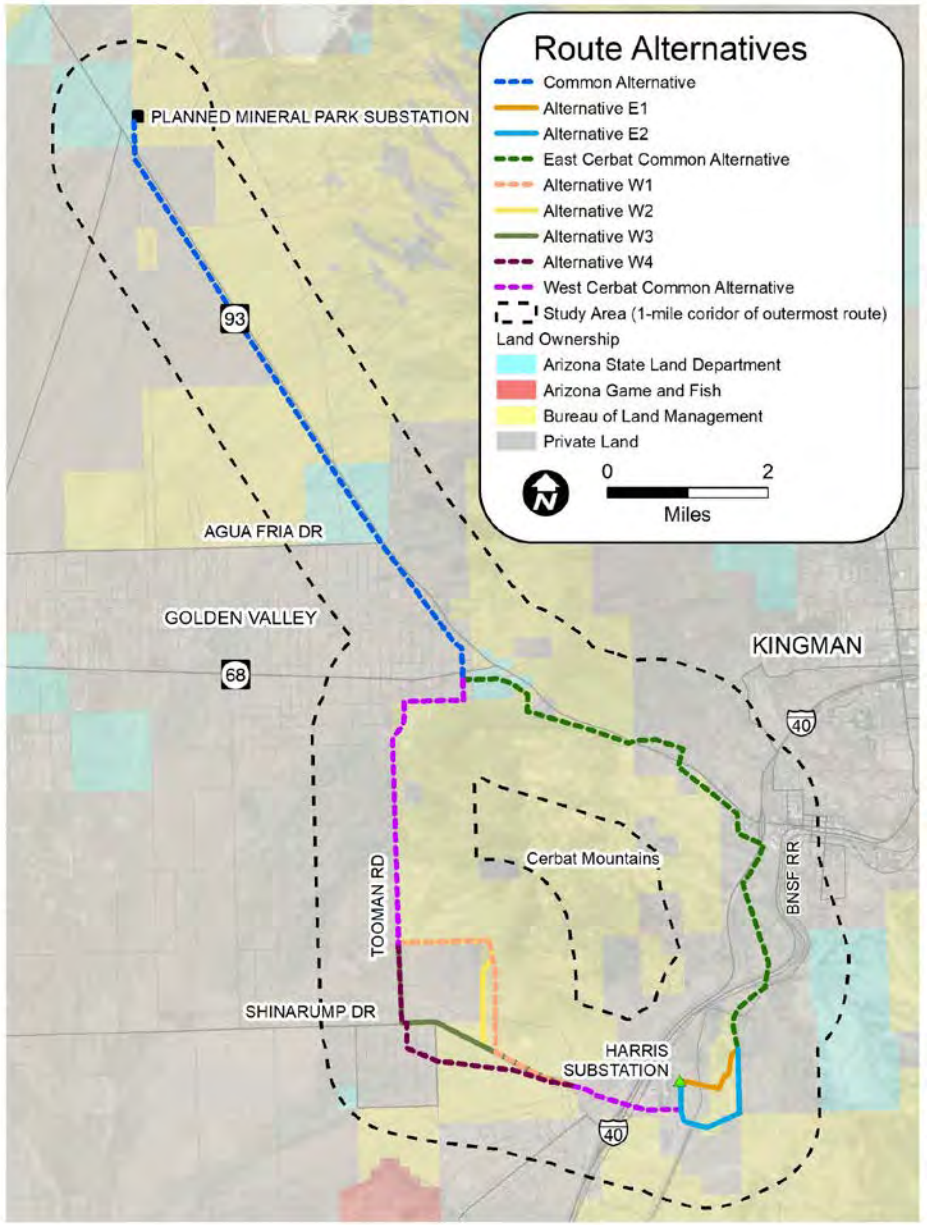
- Six alternative routes were analyzed in the Draft Environmental Assessment prepared by the Bureau of Land Management

- Six alternative routes were developed based upon:
  - Public input received on the original proposal in 2007 and 2008.
  - Input received from BLM as lead Federal agency, as well as input from other public agencies and entities.
  - Input received from public throughout the public scoping and NEPA process.

Golden Valley 230kV Transmission Line

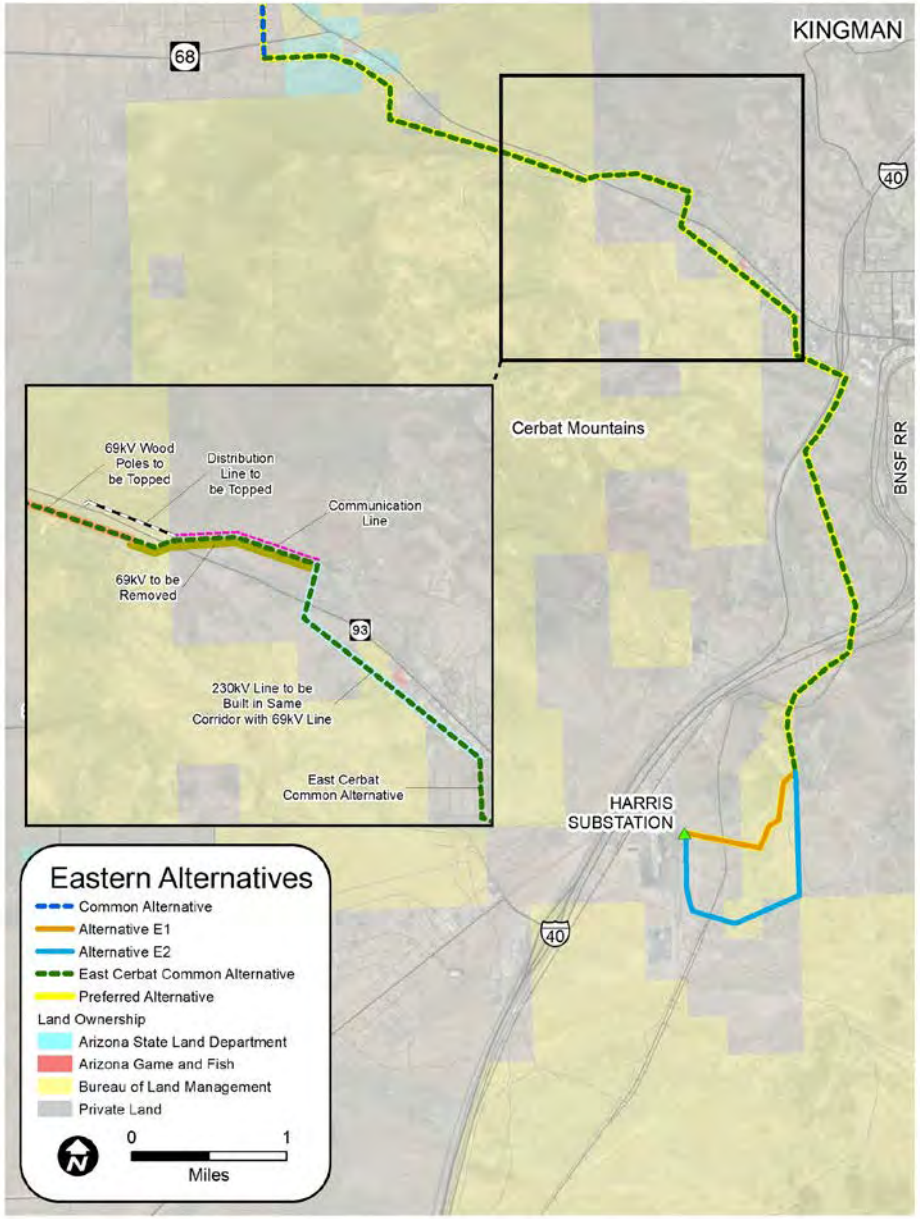
Six alternative routes were evaluated for the Project:

- 2 East Cerbat Alternatives
- 4 West Cerbat Alternatives



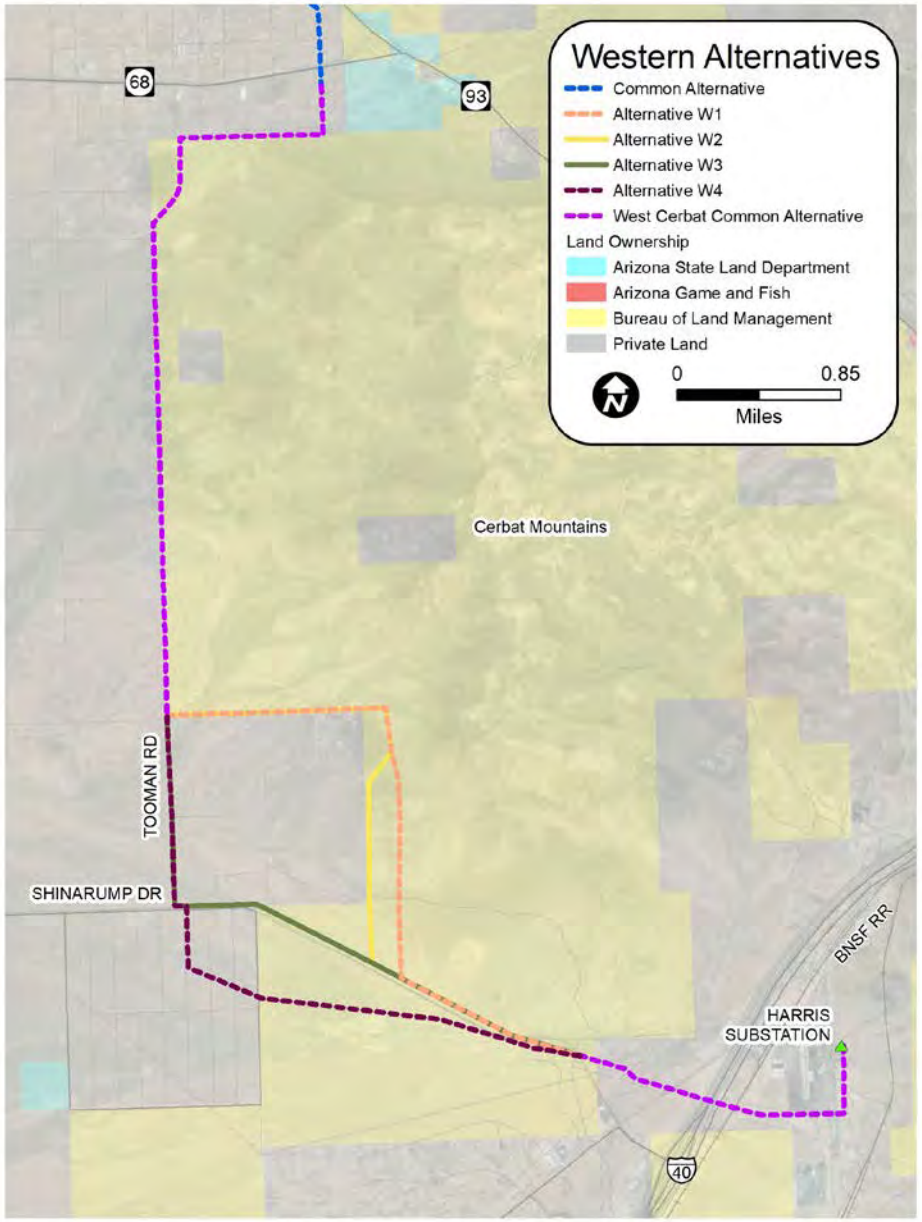
Golden Valley 230kV Transmission Line

East Alternatives
E1 (preferred)
E2



Golden Valley 230kV Transmission Line

West Alternatives
W1
W2
W3
W4



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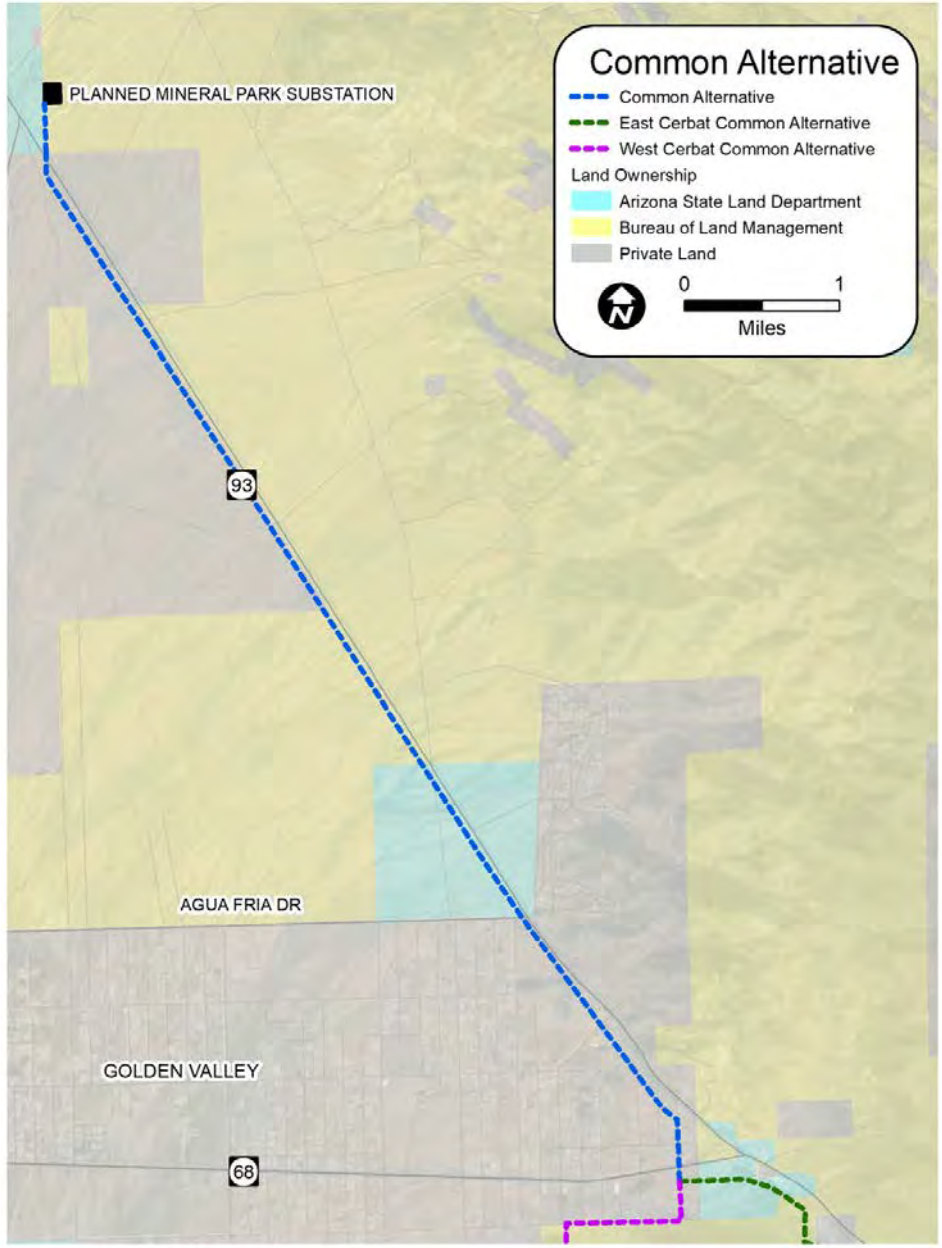
Golden Valley 230kV Transmission Line

Common Route

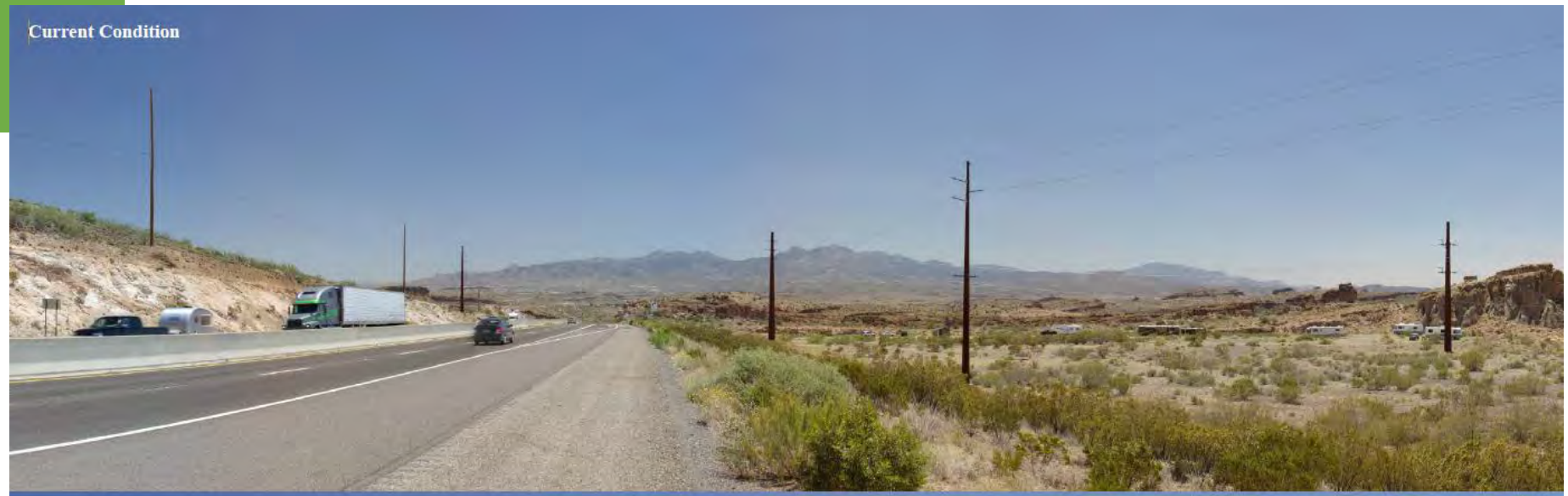


UniSourceEnergy SERVICES

Golden Valley 230kV Transmission Line Visual Sims

UniSourceEnergy SERVICES

Golden Valley 230kV Transmission Line Visual Sims



UniSourceEnergy SERVICES

Golden Valley 230kV Transmission Line Visual Sims

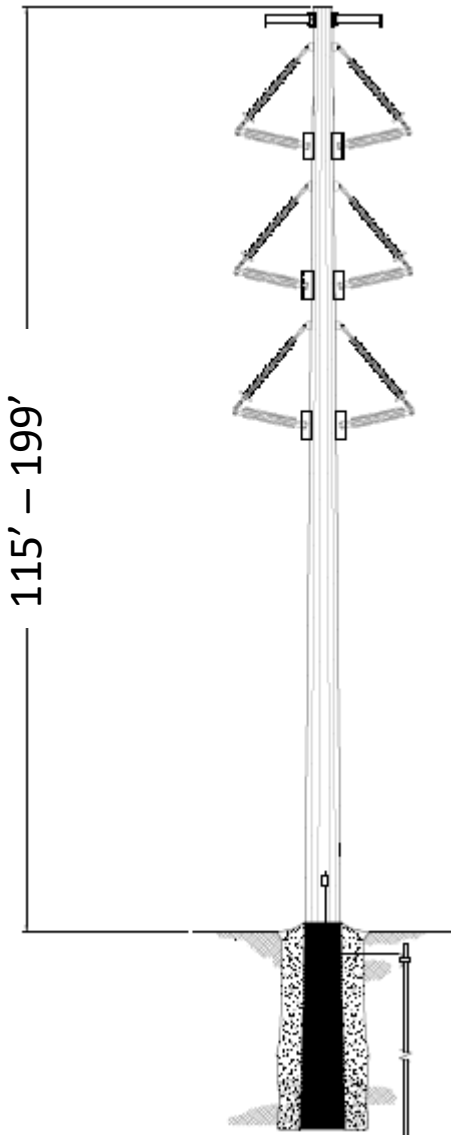
UniSourceEnergy SERVICES

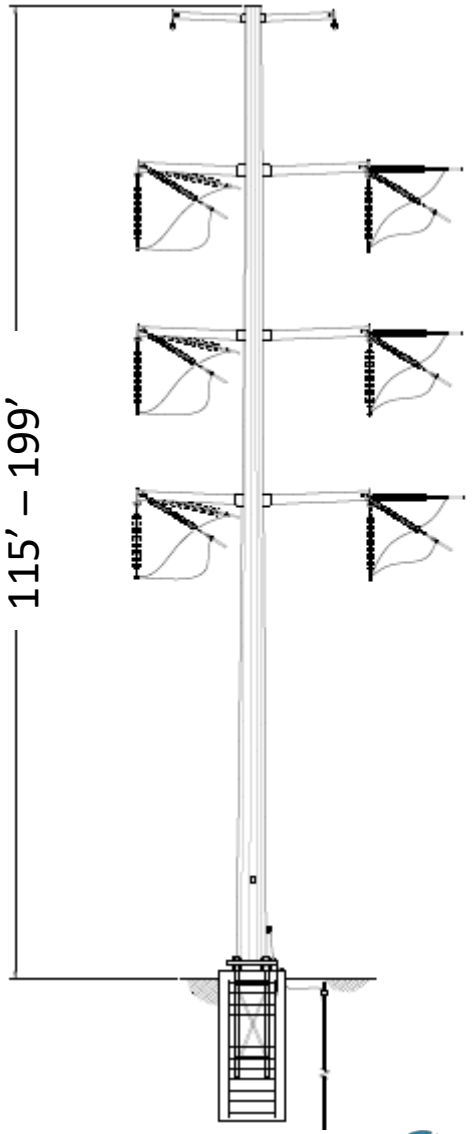
Golden Valley 230kV Transmission Line Visual Sims

UniSourceEnergy SERVICES

Golden Valley 230kV Transmission Line Project Details

- Project consists of expansion of existing Nucor substation
- Approximately 20 miles of new 230kV transmission line
- Project would have one new substation (Mineral Park Substation)
- Poles would be tubular, weathering-steel monopole structures





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Golden Valley 230 Kilovolt Transmission Line

Application for a Certificate of Environmental Compatibility (CEC)

- Project is subject to Arizona's Power Plant and Line Siting Statute and requires approval of the Line Siting Committee and the Arizona Corporation Commission
- UniSource plans to submit a CEC Application in Q1, 2021
- Hearings are tentatively planned to begin in Q2, 2021
- Public notification with confirmation of the hearing date will be mailed and posted to the project website in mid-March
- In-Service date of Project not yet determined, need forecasted in ten-year planning window

Golden Valley 230 Kilovolt Transmission Line

More Information

For more project information please visit the UniSource project webpage:

www.uesaz.com/golden-valley/

Here you can find:

- A PDF of this Virtual Open House presentation
- A posting of all questions and answers from this Virtual Open House
- A recording of this Virtual Open House in a couple of days
- Fact sheets and public meeting materials
- The Draft EA
- An Interactive map

Golden Valley 230 Kilovolt Transmission Line

Submitting Comments

Submitting Comments

How to submit comments after the meeting:

- Via Phone by calling: 520-745-7111
- Via email at: Goldenvalley230@uesaz.com
- Via comment form at: https://uns.wufoo.com/forms/golden-valley-230-kv/
- By U.S. Mail to:

  ATTN: Golden Valley 230kV Transmission Project
  C/O George Miller
  Transcon Environmental
  1745 S. Alma School Rd., Ste. 220
  Mesa, Arizona 85210

UniSourceEnergy SERVICES

February 2021

Transcon environmental
Planners & Scientists

Golden Valley 230 Kilovolt Transmission Line

Virtual Open House Meeting

Our presentation is complete and we are available for questions.

Please raise your hand or enter a question into the Q&A

Please note this meeting is being recorded

UniSourceEnergy SERVICES

February 2021

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EXHIBIT J-15

PUBLIC OPEN HOUSE SIGN-IN SHEETS—AUGUST 16, 2007

PLEASE SIGN-IN

UniSource Energy SERVICES

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

Public Meeting at Black Mountain Elementary and Golden Valley Middle School, August 16, 2007

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS 142
Judy Ehlers	Landowner	Street: 1425 S Verde GV. PO Box: City: G.V State: AZ Zip Code: 86413
Nora Bowlin	Landowner	Street: 1425 S Verde PO Box: City: GV State: AZ Zip Code: 84413
Nemomi	Landowner	Street: 1284 Shipp PO Box: City: G.V State: AZ Zip Code: 8413
Michael Tratos	Landowner	Street: 7999 CADENZA LN PO Box: City: LAS VEGAS State: NV Zip Code: 89123
Sally Olson	Landowner	Street: 1060 S Bixby PO Box: City: Golden Valley State: AZ Zip Code: 86413
Tom Sockwell Sandy Sockwell	County Supervisor	Street: 4266 San Felipe Rd PO Box: City: Bullhead City State: AZ Zip Code: 86429

PLEASE SIGN-IN

UniSource Energy SERVICES

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

Public Meeting at Black Mountain Elementary and Golden Valley Middle School, August 16, 2007

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Wayne + Cheryl Smith	landowner	Street: 4245 N Shadow Rd PO Box: City: Kingman State: AZ Zip Code: 86409
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:

EXHIBIT J-16

PUBLIC OPEN HOUSE SIGN-IN SHEETS—FEBRUARY 12, 2008

PLEASE SIGN-IN

UniSource Energy SERVICES

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

Public Meeting at Black Mountain Elementary and Golden Valley Middle Schools, February 12, 2008

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
DANA KLEIN	OWNER	Street: 23225 Collins St. PO Box: City: WOODLAND Hills State: CA Zip Code: 91367
JOSH KLEIN	Interested party potential LESSEE	Street: 6402 CHERUM RD PO Box: City: KINGMAN State: AZ Zip Code: 86409
PATRICIA KLEIN	OWNER	Street: 23225 COLLINS ST. PO Box: — City: WOODLAND HILLS State: CA Zip Code: 91367
Debbie Wabaschyn	Owner	Street: 13855. Bacobi Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
Joyce Cook	BLM	Street: 2755 Mission Blvd. PO Box: City: Kingman State: AZ Zip Code: 86401
Carrie Gross	Owner	Street: 3711 N mobile Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Elaine Olson	landowner	Street: 10605 Bilbo phone 565-5743 PO Box: City: GV State: AZ Zip Code: 86413
Tony KVC	REALTOR PROPOWNER	Street: 5804 KINGMAN REEF LN PO Box: City: KINGMAN State: AZ Zip Code: 86409
H. R. Burgett	Property Owner	Street: P.O. Box 4502 PO Box: City: Hualapai State: Az Zip Code: 86412
James Kanelos	11	Street: 4402 Oatmen Rd. PO Box: City: G.V. State: AZ Zip Code: 86413
LANCE BUCKHAMMER	LANDOWNER	Street: 3807 N BRYCE RD PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
James Gross	LANDOWNER	Street: Gross Ranch PO Box: 768 City: KINGMAN State: AZ Zip Code: 86401
MIKE GROSS	LANDOWNER & CATTLE GRAZER	Street: PO Box: 768 City: KINGMAN State: AZ Zip Code: 86402

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
MARVIN YARBROUGH	UES ELECTRIC	Street: ~~[illegible]~~ 2498 AIRWAY PO Box: 3099 City: KINGMAN State: AZ Zip Code: 86409
JOHN HENNING	POWER ENGINEERS	Street: PO Box: 1066 City: HAILEY State: ID Zip Code: 83333
Gary Knick	Power Engineers	Street: PO Box: City: Boise State: ~~Id~~ Zip Code: 83616
Miles Mays	Power Engineers	Street: PO Box: City: Boise State: ID Zip Code: 83709
Bob Spengler	Mineral Park Mine	Street: HC37 Box 500 PO Box: City: Kingman State: AZ Zip Code: 86413
Lori Wolfson Randolph Wolfson	Live on Bacobi Rd	Street: 3437 N. Bacobi Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
FRANK JENKINS 3967 BRYCE RD GOLDEN VALLEY 86413	ACCROSS ST. FROM SUB STATION	Street: PO Box: City: State: Zip Code:

PLEASE SIGN-IN

UniSourceEnergy SERVICES

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

Public Meeting at Black Mountain Elementary and Golden Valley Middle Schools, February 12, 2008

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
H.L. Henderson	Realtor Resident	Street: 2451 Everglades DR PO Box: Lake Havasu City City: State: AZ Zip Code: 86403
E. Jacobs C. Jacobs	Resident. Owner	Street: 1201 Virginia City Ave PO Box: City: Las Vegas. State: NV Zip Code: 89106
G. Akers	Resident	Street: 2113 S. Dragoon PO Box: City: Golden Valley State: Az Zip Code: 86413
D. Reuter	Resident	Street: 4411 S Kaba Rd PO Box: City: Golden Valley State: Az Zip Code: 86413
Sally Taylor James Ditmer	resident	Street: 3776 N. Bagdad Rd PO Box: City: GV State: Az Zip Code: 86413
Sharon Snyder Len Haughton	Resident	Street: 3860 Burro PO Box: City: GV State: Az Zip Code: 86413

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
GARY Boles		Street: 1257 S. CIBOLA RD. PO Box: City: Golden Valley State: AZ Zip Code: 86413
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Rudy Barboa	Golden Valley Fire Dept	Street: 3327 Mayer Rd PO Box: City: Golden Valley State: Az Zip Code: 86413
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:

EXHIBIT J-17

PUBLIC OPEN HOUSE SIGN-IN SHEETS—MAY 6 TO 8, 2008

PLEASE SIGN-IN

UniSource Energy SERVICES

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

Public Open House at Black Mountain Elementary and Golden Valley Middle School, May 6, 2008

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Jack H Carr	Citizen	Street: 3412 N. Dunt PO Box: City: Golden Valley State: AZ Zip Code: 86413
James E Bradbury	Citizen	Street: 3369 Hunt PO Box: City: Golden Valley State: AZ Zip Code: 86413
Larry + Donna Steinriede	Citizen	Street: 4354 Williams Ave. PO Box: City: GV State: AZ Zip Code: 86413
Allen Gallion	Citizen	Street: 3676 N. Bacobi Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
Jim Shumaker	Citizen	Street: 3689 N Baghdad Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
MARY & PAUL CLARK	CITIZENS	Street: 4310 Ranch Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
H.R. Dennett	G.V. 230 kV Site Committee	Street: Hwy 93 PO Box: P.O. Box 4602 City: Kingman State: AZ Zip Code: 86402
Karen Pettit	Resident	Street: 4271 River Valley Ct PO Box: City: Ft Mohave State: AZ Zip Code: 86426
Kelly Pettit	landowner	Street: 3704 N. Bacobi Rd. PO Box: City: Golden Valley State: AZ Zip Code: 86413
Diana Harris	landowner	Street: 5198 W East PO Box: City: Golden Valley State: AZ Zip Code: 86413
Gerald G. Shaw	Landowner	Street: 3560 N Vista Pt PO Box: City: GV State: AZ Zip Code:
MIKE ROBLES SR.	LAND OWNER	Street: PO Box: 1162 City Kingman State: AZ Zip Code: 86402
MIKE ROBLES JR	LAND OWNER	Street: 2094 S. KLONDYKE Rd PO Box: City: G.V. State: AZ Zip Code: 86413

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Ruben A. Sanchez	BLM	Street: 2755 Mission Blvd PO Box: City: Kingman State: AZ Zip Code: 86401
Joyce Cook	BLM	Street: 2755 Mission Blvd PO Box: City: Kingman State: AZ Zip Code: 86401
Cheryl M Baker	Landowner	Street: 7035 Hano PO Box: City: G.V. State: AZ Zip Code: 86413
Jules Baker	"	Street: 703 S Hano PO Box: City: G.V. State: AZ Zip Code: 86413
Mike Gross	LANDOWNER RANCHER	Street: 3467 Bosque PO Box: City: Golden Valley State: AZ Zip Code: 86413
BARBARA BRING	LANDOWNER HOME	Street: 4195 HWY 68 3906 W SHIPP DR PO Box: UNIT C-PMB 245 City: GOLDEN VALLEY State: AZ Zip Code: 86413
LARRY BRING	LAND OWNER HOME	Street: 4195 HWY 68 3906 W SHIPP DR. PO Box: UNIT C-PMB 245 City: Golden Valley State: AZ Zip Code: 86413

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Jim Kanelos	93 area Farm	Street: 7402 Dortman Rd. PO Box: City: Golden Valley State: AZ Zip Code: 86413
DENNIS ATTERTON	LANDOWNER	Street: 3581 N BACOBI PO Box: City: GV State: Zip Code: 86413
BETTY ATTERTON	LANDOWNER	Street: 3581 N BACOBI PO Box: City: GV State: AZ Zip Code: 86413
JANICE HARTMAN	LANDOWNER	Street: 3469 ABRIGO DR. PO Box: City: Golden Valley State: AZ Zip Code: 86413
AARON ROYSTER	MEDIA	Street: 3015 STOCKTON HILL ROAD PO Box: City: KINGMAN State: AZ Zip Code: 86401
DR. Olga McVay	landowner [redacted]	Street: 3932 W. Shipp Drive PO Box: 5433 US HWY 68 City: Golden Valley State: AZ Zip Code: 86413
MARIANF. Friedline	LAND OWNER	Street: 4920 DAVIS Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Robertson	Landowner	Street: 4150 Pine Rd. PO Box: City: Golden Valley State: AZ Zip Code: 86413
Clarence Watson	Landowner	Street: 3947 Crystal Dr PO Box: City: Golden Valley State: AZ Zip Code: 86413
Kathleen Plummer	Land owner	Street: 3946 Crystal Dr PO Box: City: Golden Valley State: AZ Zip Code: 86413
David Matheson	Business OWNER	Street: 3211 N. Bacobi Rd. PO Box: City: G.V. State: AZ Zip Code: 86413
Dorothy Backelew	Home owner Business owner	Street: 3699 N. Neptune way PO Box: 3211 N. Bacobi Rd. City: Golden Valley State: Az Zip Code: 86413
Douglas Dusharm	User of Recreation Area	Street: 2264 Pueblo Dr. PO Box: ⊘ City: Kingman State: AZ Zip Code: 86401
Bob + Shirley Wolfe	Landowner	Street: 5340 Sierro Dr. PO Box: no City: Golden Valley State: AZ Zip Code: 86413

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
FRED SAYRE	RESIDENT NO COMPUTER-PLEASE SEND ANY INFO TX	Street: 5630 - W - ARROYO DR. PO Box: City: Golden Valley State: AZ Zip Code: 86413
BLANCHE SCOTT	Resident Land owner	Street: 1464 S. BACOBI PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
Nick + Debbie Castiglione	Resident land owner	Street: 960 S Hope Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
SITAN WANDA ZARRABE	Resident LAND OWNER	Street: 452 S. TOOMAM PO Box: City: G.V. State: AZ Zip Code: 86413
John Hacker	Resident G.V. Landowner	Street: PO Box 3002 1 PO Box: City: Kingman State: AZ Zip Code: 86402
Doug + Kathy Lann	G V Landowner	Street: 3609 N Bacobi Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
DON VAN BRUNT	Landowner & industrial Consultant	Street: 2484 S. OLD HWY 66 AZ 86401 PO Box: City: KINGMAN State: AZ Zip Code: 86401

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
CAIRON & SHARON NICHOL	GV LANDOWNER	Street: 3609 N BALDIA ST PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
ENID (BOBBI) BORK	GV LANDOWNER	Street: 7776 W. BOLSA DR. PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
Mary Cummings	GV landowner	Street: 4057 Shipp Dr. PO Box: City: Golden Valley State: AZ Zip Code: 86413
Jeffery Cummins, Jr.	Concerned citizen	Street: 4057 Shipp Dr. PO Box: City: Golden Valley State: AZ Zip Code: 86413
Rick Vroman	LANDOWNER	Street: 3706 CRYSTAL DR PO Box: City: Golden Valley State: ARIZ Zip Code: 86413
Ruth Fox	landowner Kirkland : Shinarump	Street: 82787 Charlestown PO Box: Indio, CA City: State: CA Zip Code: 92201
Pat Fox	Kirkland : Shinarump land owner	Street: 82787 Charlestown PO Box: City: Indio, CA State: Zip Code: 92201

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
JAMES P. POWER	RESIDENT	Street: 4198 W. REDWALL DR PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
BEN W SCOTT	Resident	Street: 1464 S BACOBI PO Box: — City: Golden Valley State: AZ Zip Code: 86413
Eslinda Cummins	Resident	Street: PO Box: 4057 Shipp Dr. City: Golden Valley State: A.Z. Zip Code: 86413
MARC GLAWSON	LANDOWNER — RESIDENT	Street: 722 BOWIE ROAD PO Box: City: GOLDEN VALLEY State: ARZ Zip Code: 86413
Dana Baker	Realtor Resident Landowner	Street: 4938 N. Davis Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
Shila Houston	Landowner	Street: 2440 S Kirkland Rd PO Box: City: Cottonwood State: AZ Zip Code: 86413
Virginia Anderson	Landowner	Street: 2352 S. Kirkland Rd. PO Box: City: Golden Valley State: AZ Zip Code: 86413

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS 3295 N Bouse RD
Kennett LoEcuyer		Street: PO Box: City: GOLD VALLEY State: AZ Zip Code:
Linda M. Yardas	landowner	Street: 3401 Tamarisk Dr (So-Hi) PO Box: City: Golden Valley State: AZ Zip Code: 8641[illegible]
IVAN & SHARON SCHWARTZLOSE	LAND OWNER	Street: 330E KIRKLAND RD PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
SHIRLEY BEDOW	LAND OWNER	Street: 5565 W BURRO DR PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
Mona Flannery	resident	Street: PO Box: 3659 Hwy 68 City: [illegible] State: AZ Zip Code: 86413
JACK & SHERI SOWERS	RESIDENT	Street: PO Box: P.O. Box 24 City: Kingman State: AZ Zip Code: 86402
		Street: PO Box: City: State: Zip Code:

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
FRANK McCafferty	resident	Street: 712 South Bosque Road PO Box: City: Golden Valley State: AZ Zip Code: 86413
David C Pitts	Resident	Street: 359C N Bonita Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
PETE JENKINS	RESIDENT	Street: 4162 W ABRIEGO PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
Melissa Betz	resident	Street: 872 S. Aztec PO Box: City: G V. State: AZ Zip Code: 86413
David Lobato	resident	Street: 872 S. Aztec Rd PO Box: City: G V. State: AZ Zip Code: 86413
Trisha Nelson	resident	Street: 872 S. Aztec Rd. PO Box: City: Golden Valley State: AZ Zip Code: 86413
		Street: PO Box: City: State: Zip Code:

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
HAROLD DONDANVille	landowner	Street: 3525 N Santa Maria Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
DEAN FRY	RESIDENT	Street: 4162 W. ABRIGO DR PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:

PLEASE SIGN-IN

UniSource Energy SERVICES

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

Public Open House at Black Mountain Elementary and Golden Valley Middle School, May 7, 2008

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Robert DAY		Street: 8855 AZTEC PO Box: City: Golden Valley State: AZ Zip Code: 86413
ED HICKS	LANDOWNER HOME OWNER	Street: 489 S KOA No Rd PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
JOSH KLEIN	LANDOWNER'S FAMILY	Street: 6402 CHERUM RD PO Box: City: KINGMAN State: AZ Zip Code: 86409
Verna Schwab	owner	Street: Various properties 565-9300 PO Box: 787 City: Kingman State: AZ Zip Code: 86402
Ruben Sanchez	BLM	Street: 2755 Mission Blvd PO Box: City: Kingman State: AZ Zip Code: 86401
Krystal + Jose Saucedo	Landowner	Street: 4488 W. DIABLO SE RD PO Box: City: GoldenValley State: AZ Zip Code: 86413

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Howard Boyce	HAM RADIO OPERATOR	Street: 3244 N Boyce Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
Ronald Gray	LIVE HERE	Street: 3553 HOPIE RD PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
Karen Smith	Landowner + Resident	Street: 1280 S. Verde Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
Cheryl & Michael Theriot	sitting area	Street: 3681 N. Bouse Rd PO Box: City: Golden Valley State: AZ Zip Code: 86413
Raoul & Carole Collins	Residential Prop Owner	Street: 3578 Bowie RD PO Box: POBox 6501 City: Kingman State: Az Zip Code: 86402
Tim Mayo Sherri Bolden	Landowner Landowner	Street: 3842 AURA PO Box: City: Golden Valley State: AZ Zip Code: 86413
Jack Ehrhardt	30 yr Resident	Street: 4105 N. Adams St. PO Box: City: Kingman State: AZ Zip Code: 86401

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Lori Wolfson Randolph Wolfson	Home owner	Street: 3437 N. Baceo. Rd PO Box: City: G.V State: Az Zip Code: 86413
Kevin Dawson	Mohave County Planning & Zoning Dept	Street: 3675 E. Hwy 66 PO Box: P.O. Box 7000 City: Kingman State: AZ Zip Code: 86401
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Richard H Pinney	Landowner 2.5 Acr.	Street: 4115 N Izzy Katz Dr PO Box: City: G State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:
		Street: PO Box: City: State: Zip Code:

PLEASE SIGN-IN

UniSource Energy SERVICES

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

Public Open House at Black Mountain Elementary and Golden Valley Middle School, May 8, 2008

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
JEAN WAGNER	LOWER COLORADO RIVER RESOURCE CONSERVATION DISTRICT (LC RC&D)	Street: 2419 Crescent Ave PO Box: City: Kingman State: AZ Zip Code: 86401
Jeff Cummins	LANDOWNER RESIDENT	Street: 4057 SHIPP DRIVE PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
Belinda Cummins	land owner Resident	Street: 4057 Shipp Dr. PO Box: City: Golden Valley State: A.Z. Zip Code: 86413
Ed Hiebert	Land Owner	Street: 489 S. Rom Vo Rd PO Box: City: GV, State: Az Zip Code: 86413
Gerald G. Shone	Land Owner	Street: 3540 N Verde Rd PO Box: City: GV State: Az Zip Code: 86413
Wanda J Barraba	Land Owners	Street: 452 So. Tooman Rd. PO Box: City: Golden Valley State: Az. Zip Code: 86413

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Rose Cummins	resident	Street: 4057 Shipp Drive PO Box: City: Golden Valley State: AZ Zip Code: 86413
Mary Cummins		Street: 4057 Shipp Dr. PO Box: City: Golden Valley State: A.Z. Zip Code: 86413
Randy Preston	Resident Kingman, AZ	Street: 2202 Stocktonhill Rd PO Box: City: Kingman State: AZ Zip Code: 86401
Nina + Steve Pendley	Resident	Street: 4585 N Horse Mesa Rd. PO Box: City: G.V. State: AZ Zip Code: 86413
STAN LARRABee	"	Street: 452 So TOOMAN PO Box: City: GV State: AZ Zip Code: 86413
Jim Camper	resident	Street: 4142 W. Miramar Dr. PO Box: City: GV. State: AZ Zip Code: 8643
Verna Schwab	Property resident owner	Street: Bosque - Parker - Bonita - Oregoneta PO Box: POB 787 City: Kingman State: Az Zip Code: 86402

NAME	AFFILIATION AND/OR INTEREST IN THE PROJECT (landowner, resident, etc.)	ADDRESS
Evangeline Standley	landowner resident	Street: 2047 S - Estrella rd. PO Box: City: Golden Valley State: AZ. Zip Code: 86413
HYRNA A HORNBACK	landowner	Street: 378 S. DAVIS RD PO Box: POB 301 City: KINGMAN State: AZ Zip Code: 86402
JIM KLOEPFER	HOME + BUISNESS OWNER RESIDENT.	Street: ~~3 MONTH~~ 3740 N. VERDUGO RD. PO Box: NONE City: KINGMAN State: AZ Zip Code: 86401
ROBERT ODLE	LANDOWNER	Street: 4550 APACHE WAY #35 PO Box: City: GOLDEN VALLEY State: AZ Zip Code: 86413
LEN MARCEAU	RESIDENT	Street: 511 PARK ST PO Box: City: KINGMAN State: AZ Zip Code: 86401
Ruben A Sanchez	BLM	Street: 2755 PO Box: City: Kingman State: AZ Zip Code: 86401
RAN HANKS	Citizen	Street: 1010 Eastern St PO Box: City: Kingman State: Az Zip Code: 86401

EXHIBIT J-18

PUBLIC OPEN HOUSE SIGN-IN SHEETS—JUNE 28 TO 29, 2016

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
SCOPING MEETING

NATIONAL SYSTEM OF PUBLIC LANDS

PLEASE SIGN-IN

NAME	REPRESENTING	CONTACT INFORMATION
Ruta Fox	self property owner	Address: 2278 S. Kirtland Rd City: GV State: AZ Zip: 86413 Phone: 760-668-0864 Email: rutafox@aol.com
DR. O. Riggs		Address: City: GV State: Zip: Phone: Email: DR.O.Riggs@gmail.com
Diana + Richard Anderson	Selves	Address: 525 Lomas Flojas City: Kingman State: AZ Zip: 86409 Phone: (928) 757-0487 Email: deericanderson@yahoo.com
W Lucy Hackley		Address: PO Box 1292 City: Kingman State: AZ Zip: 86402 Phone: 928-753-5204 Email: hlhackley@frontier.com
Shawn Banfield	Self	Address: 1981 Emery Park Rd City: Golden Valley State: AZ Zip: 86413 Phone: 928 377 0179 Email:

HAMPTON INN & SUITES, KINGMAN ARIZONA

JUNE 28, 2016

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
SCOPING MEETING

NATIONAL SYSTEM OF PUBLIC LANDS

PLEASE SIGN-IN

NAME	REPRESENTING	CONTACT INFORMATION
STEVEN C ROBINSON	Golden Valley Fire District	Address: 3439 N Bowie Rd City: GV State: _____ Zip: 86413 Phone: (928) 279-3952 Email: s.robinsson@goldenvalleyfire.org
Leah Armendariz	self	Address: _____ City: _____ State: _____ Zip: _____ Phone: 702-486-8547 Email: leaharmendariz.CR@gmail.com
Chris Ballard	Mohave Co	Address: P.O. Box 7000 City: Kingman State: Az Zip: 86401 Phone: 928-757-0903 Email: christine.ballard@mohavecounty.us
GARY WATSON	Mohave Co.	Address: 700 west Beale City: Kingman State: Az. Zip: 86401 Phone: 928-715-3499 Email: gary.watson@mohavecounty.us
FRANK JENKINS	GVI	Address: 3967 BRYCE R.D. City: Golden Valley State: AZ Zip: 86413 Phone: 565-4035 Email: _____

HAMPTON INN & SUITES, KINGMAN ARIZONA

JUNE 28, 2016

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
SCOPING MEETING

NATIONAL SYSTEM OF PUBLIC LANDS

PLEASE SIGN-IN

NAME	REPRESENTING	CONTACT INFORMATION
Patrick Cunningham	Cunningham Family	Address: 8713 E. Heatherbrae Dr City: Scottsdale State: AZ Zip: 85251 Phone: 6023777803 Email: patrickLaw8713@gmail.com
Jana Sell MIKE FLYNN		Address: 3756 MARTINGALE AVE City: Kgm State: AZ Zip: 86409 Phone: Email:
WILLIAM BONFIELD		Address: ~~1~~ 2158 S. KIRKLAND RD City: GOLDEN VALLEY State: AZ Zip: 86413 Phone: (928) 565-4080 Email:
David Pitts		Address: 3590 W. Bonita Rd City: Golden Valley State: AZ Zip: 86413 Phone: 928 565 4933 Email: pittsdcbusiness@yahoo.
ROGER SAYLES		Address: PO BOX 5409 City: MOHAVE VALLEY State: AZ Zip: 86446 Phone: 702 373-1730 Email: RSALES021@ GMAIL.COM

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
SCOPING MEETING

NATIONAL SYSTEM OF PUBLIC LANDS

PLEASE SIGN-IN

NAME	REPRESENTING	CONTACT INFORMATION
Jean Bishop	Mohave County	Address: PO Box 7000 City: Kingman State: AZ Zip: 86401 Phone: 928 715-1560 Email: Jean.Bishop@MohaveCounty
Pat Fox	Gold Valley	Address: 2278 Skirkland Rd. City: Golden Valley State: Az. Zip: 86413 Phone: 760-347-5796 Email: PatsFox@Aol.com
Cheryl Smith		Address: 4245 N Shadow Rd City: Kingman State: AZ Zip: 86409 Phone: 928-692-7917 Email:
MICHAEL CAMPBELL	Ruyi Express	Address: 543 Tour Players Rd City: Las Vegas State: ~~CA~~ NV Zip: 89148 Phone: 626-592-7595 Email: Ruyiexpress@yahoo.com
Gavin & Shirley Douglas	Kelvin Road G.V.	Address: 3415 N. Kelvin Road City: Golden Valley State: AZ Zip: 86413 Phone: 928-565-9198 Email:

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
SCOPING MEETING

NATIONAL SYSTEM OF PUBLIC LANDS

PLEASE SIGN-IN

NAME	REPRESENTING	CONTACT INFORMATION
Krystal GABrielson	Me	Address: 3426 N. Mayer Rd City: Golden Valley State: AZ Zip: 86413 Phone: 928-727-9371 Email: specialK44990@t.i.r.com
Joe Palermo	Self	Address: 3593 w skipp City: G.V. State: AZ Zip: 86413 Phone: 928-279-0083 Email:
Courtney Rosengrant	Self	Address: 1374 Wapiti Rd / PO Box 6403 City: Kingman State: AZ Zip: 86402 Phone: 602-672-6652 Email: Catgonefishg@yahoo.com
Fred Anderson	Self	Address: 4601 N Mormon Flt Rd City: Golden Valley State: AZ Zip: 86413 Phone: Email:
FIDEL QUEZADA	CRISTINA RAMOS	Address: PO Box 6973 City: KINGMAN State: AZ Zip: 86402 Phone: 928-727-3031 Email:

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
SCOPING MEETING

NATIONAL SYSTEM OF PUBLIC LANDS

PLEASE SIGN-IN

NAME	REPRESENTING	CONTACT INFORMATION
Nancy Vanaman Michael Vanaman		Address: 60-600 Scenic Dr. #246 City: Mountain Center State: CA Zip: 92561 Phone: _____ Email: MDVPYN@aol.com
		Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____
		Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____
		Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____
		Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
SCOPING MEETING

NATIONAL SYSTEM OF PUBLIC LANDS

PLEASE SIGN-IN

NAME	REPRESENTING	CONTACT INFORMATION
Chris Cranny	Mohave County Development Services	Address: City: State: Zip: Phone: Email:
Edward Blackburn	Myself	Address: 2389 Klondyke Rd City: Golden Valley State: AZ Zip: 86413 Phone: 928-303-4768 Email: Edstruck1@Hotmail
Alan Strandlien	myself	Address: 7550 W. Brook Dr. City: Golden Valley State: AZ Zip: 86413 Phone: 565-4355 Email: dstrandlien@cmc.com
Pamela Rowlett	SELF	Address: PO Box 3812 City: Kingman State: AZ Zip: 86402 Phone: pknana1960@gmail Email: 279-5046
Eloy Armendariz	Self	Address: City: State: Zip: Phone: Email: Eloy.Armendariz1485@gmail.

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
SCOPING MEETING

NATIONAL SYSTEM OF PUBLIC LANDS

PLEASE SIGN-IN

NAME	REPRESENTING	CONTACT INFORMATION
Paul Mathews	Me	Address: 2350 S. Klondike Rd City: Golden Valley State: AZ Zip: 86413 Phone: 928 377-7922 Email: —
Marlene Tsirandian	NA	Address: 7550 W. Brook Dr. City: Golden Valley State: AZ Zip: 86413 Phone: (928) 565-4355 Email: NA
CHRIS ANDREW	N/A	Address: 2352 KIRKLAND City: GOLDEN VALLEY State: AZ Zip: 86413 Phone: 928-530-0294 Email: —
Kathleen Mishler	me	Address: 5485 N Laguna Rd City: Golden Valley State: AZ Zip: 86413 Phone: 928-201-2307 Email: weetwo0913@yahoo.com
Rick Armstrong		Address: 1949 S Estrella City: LV State: AZ Zip: 86413 Phone: 9283033641 Email: txcarmech@gmail.com

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT
SCOPING MEETING

NATIONAL SYSTEM OF PUBLIC LANDS

PLEASE SIGN-IN

NAME	REPRESENTING	CONTACT INFORMATION
Robert Torgerson		Address: 4311 Hwy 68 City: Golden Valley State: Az Zip: 86413 Phone: _____ Email: _____
MARC GAWSON		Address: 729 BOWIE ROAD City: GV State: AZ Zip: 86413 Phone: 928-377-1778 Email: _____
		Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____
		Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____
		Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____

EXHIBIT J-19

VIRTUAL PUBLIC OPEN HOUSE
ATTENDENCE LIST—FEBRUARY 29, 2016

GOLDEN VALLEY 230KV TRANSMISSION LINE PROJECT

Attendance List for Virtual Public Meeting (presented via Zoom link)

Date: February 9, 2021
Time: 6:00 p.m. to 7:30 p.m.

Presenters:

Eric Raatz, UNSE
Anthony Lombardi, UNSE (Moderator)
George Miller, Transcon

In attendance:*

Becky
Crystal Dillahunty
Ruta
Rebecca (UNSE)
June
Ed Beck (UNSE)
Joe B (UNSE)
Leslie C (UNSE)
Myrna Galaz (Transcon)
Corinne
Crystal (Transcon)

*Attendees signed in when logging in to Zoom link. Anthony Lombardi recorded their names.

EXHIBIT J-20

AGENCY SCOPING LETTERS AND MAILING LIST—OCTOBER 2007

October 31, 2007

Name
Agency
Address
City, State Zip

Re: Golden Valley 230kV Transmission Line Project

Dear Mr./Ms. _____:

UniSource Energy Services (UES) is proposing the construction of a 230 kilovolt (kV) transmission line between the Harris Substation (Section 4, Township 20N, Range 17W, Gila and Salt River Baseline and Meridian (GSRBM)) and an electrical substation located near Mineral Park Mine (Section 26, Township 23N, Range 18W, GSRBM). Additionally, UES is proposing to construct a new 230/69kV electrical substation to be located in Section 3, Township 21N, Range 18W, GSRBM. All project facilities are located in the Kingman area within Mohave County, Arizona. The Bureau of Land Management (BLM) is processing an application for a grant of right-of-way for the project and is the lead agency for National Environmental Policy Act (NEPA) compliance activities.

The purpose of the project is to provide additional electrical capacity to Mineral Park Mine, and improve and provide power to the growing area northwest of Kingman, Arizona. In order to accomplish the proposed project activities, UES is requesting a permanent right-of-way 125 feet wide for the length of the transmission line and 10 acres located on lands under the jurisdiction of the BLM.

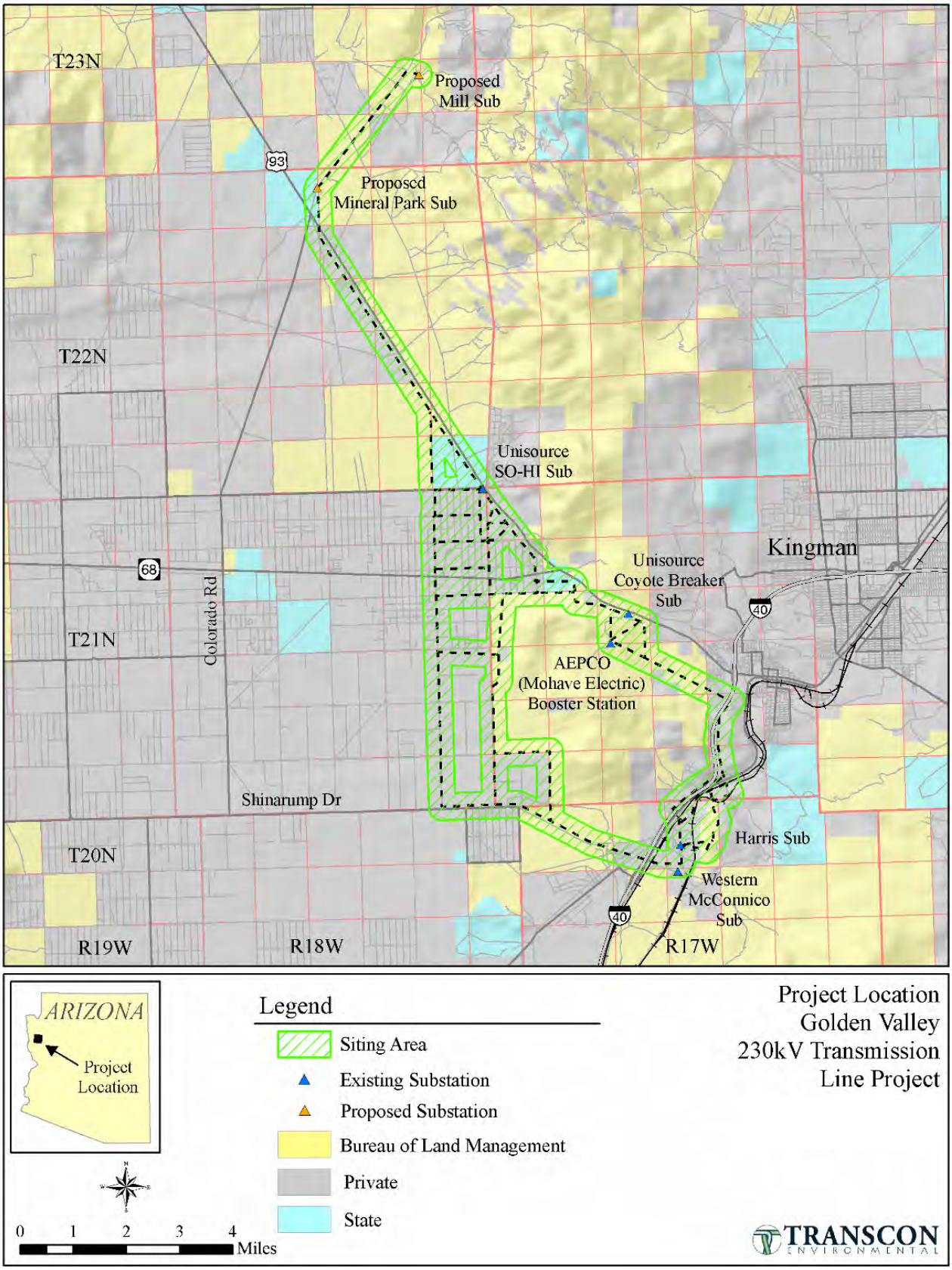
A final location of the transmission line's alignment has not been determined. A siting area has been defined and is illustrated on the attached project map. The transmission line siting area is located in Sections 23, 25, 26, 27, 33, 34, and 35, T23N, R18W; Sections 3, 4, 9, 10, 14, 15, 22, 23, 25, 26, 35, and 36, T22N, R18W; Section 6, T22N, R17W; Sections 6, 7, 8, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 29, 30, 32, 34, and 35, T21N, R17W; and Sections 1, 2, 11, 11, 12, 13, 14, 23, 24, 25, and 26, T21N, R18W.

We welcome your comments regarding this proposed project. All comments should be submitted in writing within 30 days to the BLM's authorized NEPA representative, Transcon Environmental, at 3740 E. Southern Ave., Suite 218, Mesa, Arizona 85206 or by e-mail to info@transconusa.com.

If you need any further information or want to discuss this project, please contact me at (480) 807-0095.

Sincerely,

Michael Warner
Project Manager


T23N
Proposed
Mill Sub
93
Proposed
Mineral Park Sub
T22N
Unisource
SO-HI Sub
Kingman
68
Unisource
Coyote Breaker
Sub
40
Colorado Rd
T21N
AEPCO
(Mohave Electric)
Booster Station
Shinarump Dr
Harris Sub
T20N
Western
McConnico
Sub
40
R19W
R18W
R17W
ARIZONA
Project
Location
Legend
Siting Area
Existing Substation
Proposed Substation
Bureau of Land Management
Private
State
0 1 2 3 4
Miles
Project Location
Golden Valley
230kV Transmission
Line Project
TRANSCON
ENVIRONMENTAL

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

AGENCY MAILING LIST

10/31/07

AGENCY	
Sallie McGuire US Army Corps of Engineers Los Angeles District Phoenix Office 3636 N. Central Avenue Suite 760 Phoenix, AZ 85012-1936	Steve Spangle Field Supervisor U.S. Fish and Wildlife Service 2321 W. Royal Palm Road, Suite 103 Phoenix, Arizona 85021
Ron Moulton Regulatory and Restructuring Project Manager Western Area Power Administration P.O. Box 6457 Phoenix, AZ 85005-6457	Planning Manager Federal Highway Administration 400 E. Van Buren, Suite 410 Phoenix, AZ 85004
James McGinnis Manager Arizona Native Plant Law Arizona Department of Agriculture Plant Services Division 1688 W. Adams Phoenix, Arizona 85007	Becky Reed Arizona Department of Environmental Quality 1110 W. Washington Phoenix, Arizona 85007
Bob Broscheid Habitat Branch Chief Arizona Game and Fish Department Habitat Branch - Project Evaluation Program 2221 W. Greenway Rd Phoenix, AZ 85023	Michael Somerville State Conservationist Arizona Natural Resource Conservation Service State Headquarters 230 North 1st Avenue, Suite 509 Phoenix, AZ 85003-1706
David McKay, State Conservationist Natural Resource Conservation Service Arizona State Headquarters 230 N. First Avenue, Suite 509 Phoenix, AZ 85003-1733	Jody Latimer, Manager Natural Resource Conservation Section Arizona State Land Department 1616 West Adams Phoenix, AZ 85007
Gordon Taylor Real Estate Division Planning Section Arizona State Land Department 1616 W. Adams Phoenix, AZ 85007	Ruben Ojeda Right-of-Way Manager Real Estate Division Arizona State Land Department 1616 W. Adams Phoenix, AZ 85007
James Garrison State Historic Preservation Officer Arizona State Parks 1300 W. Washington Phoenix, AZ 85007	Planning Manager Arizona Department of Transportation Kingman District 3660 E. Andy Devine Kingman, AZ 86401
County Supervisor Mohave County Board of Supervisors 700 W. Beale Kingman, AZ 86401	Park Superintendent Mohave County Parks Department 3675 E. Andy Devine Kingman, AZ 86401
Planning Manager Mohave County Planning and Zoning 3675 E. Andy Devine Kingman, AZ 86401	Planning Manager City of Kingman Parks and Recreation 3333 Harrison Kingman, AZ 86401

CC:

Joyce Cook Bureau of Land Management Kingman Field Office 2755 Mission Boulevard Kingman, AZ 86401	Rebecca McCarthy Unisource Energy Services 4350 East Irvington Road Mail Stop OH209 PO Box 711 Tucson, AZ 85702
Robert Spengler Mineral Park, Inc. H.C. 37 Box 500 8275 Mineral Park Rd. Kingman, AZ 86401	

EXHIBIT J-21

AGENCY LETTERS RECEIVED—2007

From: Toni Warner [info@transconusa.com]
Sent: Wednesday, November 07, 2007 6:42 PM
To: 'Michael Warner'; George Miller; Clark Bryner
Subject: FW: Golden Valley 230 kV Transmission Line

Attachments: NWP12 enclosure 2007.doc

From: Blaine, Marjorie E SPL [mailto:Marjorie.E.Blaine@usace.army.mil]
Sent: Wednesday, November 07, 2007 5:51 PM
To: info@transconusa.com
Subject: Golden Valley 230 kV Transmission Line

Mr. Warner:

This is in reply to your letter dated October 31, 2007 regarding UniSource Energy Services proposed 230kV Transmission Line between the Harris Substation and a substation near Mineral Park Mine.

The Corps of Engineers regulates the discharge of dredged and/or fill material into waters of the U.S. including wetlands under Section 404 of the Clean Water Act. It is highly probable the proposed project will cross ephemeral washes and there may be such washes on the proposed site for the substation. Unfortunately, your letter did not provide enough information. However, if there are any washes, drainages, channels, wetlands, or any other type of watercourse within the alignment and on the proposed substation site, a Section 404 jurisdictional delineation under the *Rapanos* Guidance may be required unless the proposed activity can meet the terms and conditions of Nationwide Permit 12 (Utility Line Activities) for "nonnotification".

I have attached a copy of this Nationwide Permit for your review. In order for a project to qualify for "nonnotification", the entire proposed project must meet the nonnotifying terms and conditions of the specific NWP (12), all of the "401" conditions, all of the general, and all of the regional conditions. If the project does not meet all of the above terms and conditions, a jurisdictional delineation is required; notification pursuant to General Condition 27 would be required for any jurisdictional waters of the U.S. if the project could meet the NWP parameters. If not, an individual permit would be required.

The attachment is provided for your planning information only; it does not constitute the Corps' determination of jurisdiction or whether the proposed project meets the terms and conditions of NWP12 or any other NWP.

Please contact me if you have any questions. Thank you for your letter.

Marjorie Blaine
Senior Project Manager/Biologist
U.S. Army Corps of Engineers
Tucson Project Office, Regulatory Division
5205 E. Comanche Street
Tucson, AZ 85707
(520)584-1684 (phone)
(520)584-1690 (fax)
<<NWP12 enclosure 2007.doc>>

Toni Warner

COPY

From: Douglass Witte [dwitte@land.az.gov]
Sent: Monday, November 26, 2007 10:12 AM
To: info@transconusa.com
Subject: Golden Valey 230 kv project

Michael Warner
Project Manager

Thank you for your letter dated 10/31/07. It is apparent that portions of your project involve State Trust Land and will require you to apply for a ROW from the State of Arizona. A native plant survey will be required as part of that application process and you client will be required to compensate the Trust for native plant disturbance / destruction.

Doug Witte
ASLD Natural Resource Section Manager
(602) 542-2699

Toni Warner

From: Edward Dietrich [edietrich@land.az.gov]
Sent: Friday, November 23, 2007 10:03 AM
To: Michael Warner
Subject: Golden Valley 230kV Transmission Line

Dear Michael:

On behalf of the ASLD, I would like to voice our preference for a routing of the subject line that does not cut through parcels of State Land. Our preference is always to follow the section boundaries. I note on your map of the proposed line locations, that one proposal clearly crosses state land on a diagonal following Highway 93 in what appears to be T22N R18W Sec. 36.
There appears to be a second area where this issue is also present in T21N R17W Sec. 8.

Thank you for the opportunity to comment on this proposed line location.

Edward W. Dietrich
Senior Project Manager
Real Estate Division Planning Section
Arizona State Land Dept.
1616 West Adams
Phoenix, Arizona 85007
Phone 602-542-2653
Fax 602-364-0406
e-mail edietrich@land.az.gov

THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT
5000 W. CAREFREE HIGHWAY
PHOENIX, AZ 85086-5000
(602) 942-3000 • WWW.AZGFD.GOV

November 20, 2007

Mr. Michael Warner
Transcon Environmental
3740 E. Southern Ave.
Suite 218
Mesa, AZ 85206

Re: Special Status Species Information for **Golden Valley 230kV Transmission Line Project.**

Dear Mr. Warner:

The Arizona Game and Fish Department (Department) has reviewed your request, dated October 31, 2007, regarding special status species information associated with the above-referenced project. The Department's Heritage Data Management System (HDMS) has been accessed and current records show that the special status species listed on the attachment have been documented as occurring in the project vicinity (3-mile buffer)[1].

The Department understands the proposed project activities would involve the installation of a 230kV transmission line between Harris Substation and an electrical substation located near Mineral Park Mine. The Department offers the following general comments, based on the limited information provided:

- If the transmission line is below ground, keep trenching and backfilling crews close together to minimize the amount of open trenches at any given time. Trenching should occur during the cooler months (October – March) when wildlife is less active. However, there may be exceptions (e.g. critical wintering areas) that need to be assessed on a site-specific basis. Avoid leaving trenches open overnight. Where trenches cannot be back-filled immediately, escape ramps should be constructed at least every 40 meters. Escape ramps can be short lateral trenches or wooden planks sloping to the surface. The slope should be less than 45 degrees (1:1). Trenches that have been left open overnight should be inspected and animals removed prior to backfilling.
    - ➢ In low areas where the trench crosses drainages, the soil should be compacted to reduce the potential for erosion. The banks should be contoured back to a natural state and revegetated with native plants to ensure bank stabilization and minimize sediment loading. During the design of wash and stream crossings, consider potential short and long term impacts of construction on stream flow, flow hydraulics, and channel morphology

[1] The Department's HDMS data are not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity.

- If the transmission line is above ground, it must be designed to prevent or minimize risk of electrocution of raptors.
- Minimize habitat alterations by following existing disturbed areas. When disturbed areas are not an option, altered areas should be returned to the original grade following construction.
- Please survey for desert tortoise and Western burrowing owls. Specific guidelines for each species are included with this letter.
- Limit project activities during the breeding season for birds, generally May through late August, depending on species in the local area. Raptors breed in early February through May. Conduct avian surveys to determine bird species that may be utilizing the area and develop a plan to avoid disturbance during nesting season.
- Avoid work near bridges with bats during maternity season, usually May through late August. If possible, complete work at night when the least amount of bats are roosting.
- Coordinate plant salvage efforts with the Arizona Department of Agriculture, in accordance with the Arizona Native Plant Law. In addition, the applicable land management agencies should be consulted regarding guidelines for revegetation efforts.
- Contact the Army Corp. of Engineers for Best Management Practices and guidelines for minimizing and mitigating impacts to riparian areas.

The Department would appreciate the opportunity to provide an evaluation of impacts to wildlife or wildlife habitats associated with project activities occurring in the subject area when specific details become available. If you have any questions regarding this letter, please contact me at (623) 236-7606. General status information, county and watershed distribution lists and abstracts for some special status species are also available on our web site at http://www.azgfd.gov/hdms.

Sincerely,

Ginger L. Ritter
Project Evaluation Specialist

GLR:gr

cc: Project Evaluation Program Supervisor
Habitat Program Manager, Region III

AGFD #M07-11151853

Special Status Species within 3 Miles of the Golden Valley 230kV Transmission Line Project

NAME	COMMON NAME	ESA	USFS	BLM	STATE
Athene cunicularia hypugaea	Western Burrowing Owl	SC		S	
Charina trivirgata gracia	Desert Rosy Boa	SC	S	S	
Eumops perotis californicus	Greater Western Bonneted Bat	SC			
Gopherus agassizii (Sonoran Population)	Sonoran Desert Tortoise	SC			WSC
Heloderma suspectum cinctum	Banded Gila Monster	SC		S	

AGFD #M07-11151853.

Arizona Game and Fish Department, Heritage Data Management System, November 20, 2007.
Project Evaluation Program.

GUIDELINES FOR HANDLING SONORAN DESERT TORTOISES ENCOUNTERED ON DEVELOPMENT PROJECTS

Arizona Game and Fish Department
Revised January 17, 1997

The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

Desert tortoises of the Sonoran population are those occurring south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist. Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position at all times and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 105 degrees fahrenheit unless an alternate burrow is available or the tortoise is in imminent danger.

A tortoise may be moved up to two miles, but no further than necessary from its original location. If a release site, or alternate burrow, is unavailable within this distance, and ambient air temperature exceeds 105 degrees fahrenheit, the Department should be contacted to place the tortoise into a Department-regulated desert tortoise adoption program. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, will also be placed in desert tortoise adoption programs. *Managers of projects likely to affect desert tortoises should obtain a scientific collecting permit from the Department to facilitate temporary possession of tortoises.* Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

Please keep in mind the following points:

- These guidelines do not apply to the Mohave population of desert tortoises (north and west of the Colorado River). Mohave desert tortoises are specifically protected under the Endangered Species Act, as administered by the U.S. Fish and Wildlife Service.

- These guidelines are subject to revision at the discretion of the Department. We recommend that the Department be contacted during the planning stages of any project that may affect desert tortoises.

- Take, possession, or harassment of wild desert tortoises is prohibited by state law. Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.

RAC:NLO:rc

COPY

City of Kingman
310 NORTH FOURTH STREET • KINGMAN • ARIZONA • 86401 • 928 • 753-5561
www.ci.kingman.az.us

November 15, 2007

Michael Warner
Transcom Environmental
3740 E. Southern Avenue, Suite 218
Mesa, AZ 85206

RE: Golden Valley 230kV Transmission Line Project

Dear Mr. Warner,

This City of Kingman has received your notice regarding a UES proposal for construction of a 230 kV transmission line between the Harris Substation and an electrical substation located near Mineral Park Mine.

The map attached to this notice shows a large "siting area" of approximately 50 square miles. This siting area includes city owned property in Section 15, Township 21 North, Range 17 West. This city property is part of the Cerbat Foothills Recreation Area. Along with the Bureau of Land Management and Arizona Game and Fish, the City of Kingman drafted and adopted the CFRA management plan.

The plan sets forth specific actions to maximize recreational use and enjoyment of the recreation area, while minimizing degradation to the natural environment. The city and BLM have spent considerable effort and resources to develop an extensive trail system throughout the CFRA. There are existing trails in the siting area shown on the city property on the north side of Highway 93 and the BLM property south of the highway.

With such a wide siting area, it is hard to provide specific comments on the new transmission line proposal. However, the City of Kingman would object to any alignment that encroached onto the Cerbat Foothills Recreation Area in general, and on city property in Section 15 specifically.

If you have any questions or would like to discuss this further, please call me at (928) 753-8133. My email address is rowen@cityofkingman.gov.

Sincerely,

Rob Owen
Special Projects Administrator
City of Kingman

c. Jack Kramer, Acting City Manger
Darel Fruhwirth, Parks Director
Bruce Asbjorn, BLM Kingman Field Office

SHPO-2007-1829 (34710) LC

REC 126457

RECEIVED

NOV 01 2007

TRANSCON

ENVIRONMENTAL

October 31, 2007

James Garrison
State Historic Preservation Officer
Arizona State Parks
1300 W. Washington
Phoenix, AZ 85007

Re: Golden Valley 230kV Transmission Line Project

Dear Mr. Garrison:

UniSource Energy Services (UES) is proposing the construction of a 230 kilovolt (kV) transmission line between the Harris Substation (Section 4, Township 20N, Range 17W, Gila and Salt River Baseline and Meridian (GSRBM)) and an electrical substation located near Mineral Park Mine (Section 26, Township 23N, Range 18W, GSRBM). Additionally, UES is proposing to construct a new 230/69kV electrical substation to be located in Section 3, Township 21N, Range 18W, GSRBM. All project facilities are located in the Kingman area within Mohave County, Arizona. The Bureau of Land Management (BLM) is processing an application for a grant of right-of-way for the project and is the lead agency for National Environmental Policy Act (NEPA) compliance activities.

The purpose of the project is to provide additional electrical capacity to Mineral Park Mine, and improve and provide power to the growing area northwest of Kingman, Arizona. In order to accomplish the proposed project activities, UES is requesting a permanent right-of-way 125 feet wide for the length of the transmission line and 10 acres located on lands under the jurisdiction of the BLM.

A final location of the transmission line's alignment has not been determined. A siting area has been defined and is illustrated on the attached project map. The transmission line siting area is located in Sections 23, 25, 26, 27, 33, 34, and 35, T23N, R18W; Sections 3, 4, 9, 10, 14, 15, 22, 23, 25, 26, 35, and 36, T22N, R18W; Section 6, T22N, R17W; Sections 6, 7, 8, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 29, 30, 32, 34, and 35, T21N, R17W; and Sections 1, 2, 11, 11, 12, 13, 14, 23, 24, 25, and 26, T21N, R18W.

We welcome your comments regarding this proposed project. All comments should be submitted in writing within 30 days to the BLM's authorized NEPA representative, Transcon Environmental, at 3740 E. Southern Ave., Suite 218, Mesa, Arizona 85206 or by e-mail to info@transconusa.com.

If you need any further information or want to discuss this project, please contact me at (480) 807-0095.

Sincerely,

We will await the BLM's Section 106 consultation.
Thank you. Mike Garrison
for SHPO 11-27-07

Michael Warner
Project Manager

United States Department of the Interior
U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
Telephone: (602) 242-0210 Fax: (602) 242-2513

COPY

In Reply Refer to:

AESO/SE
22410-2008-TA-0060

November 14, 2007

Mr. Michael Warner
Transcon Environmental
3740 East Southern Avenue Suite 218
Mesa, Arizona 85206

Dear Mr. Warner:

Thank you for your October 31, 2007, correspondence, received in our office on November 5, 2007. You requested our review of the Golden Valley 230kV Transmission Line Project, near Kingman, Mohave County, Arizona, in compliance with section 7 of the Endangered Species Act of 1973 (ESA) as amended (16 U.S.C. 1531 et seq.). The Kingman Office of the Bureau of Land Management is processing an application for a grant of right-of-way and is required to certify compliance with the ESA as well as the National Environmental Policy Act (NEPA).

This project proposes the construction of a 230 kilovolt (kV) transmission line between the Harris Substation and an electrical substation located near Mineral Park Mine. Additionally, UniSource Energy Services is proposing to construct a new 230/69kV electrical substation in the area.

Based on the information that you have provided, the Fish and Wildlife Service believes that no endangered or threatened species or critical habitat will be affected by this project; nor is this project likely to jeopardize the continued existence of any proposed species or adversely modify any proposed critical habitat; however, we would appreciate the chance to review the Environmental Assessment written in compliance with NEPA guidelines. Should project plans change or if additional information on the distribution of listed or proposed species becomes available, this determination may need to be reconsidered.

We appreciate your coordination with us on this matter. We also encourage you to coordinate the review of these projects with the Arizona Game and Fish Department. Should you require further assistance or if you have any questions, please contact Brian J. Wooldridge (x105) or Brenda Smith (x101) of our Flagstaff Suboffice at (928) 226-0614.

Sincerely,

for Steven L. Spangle
Field Supervisor

cc: Chief Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ

W:\Brian Wooldridge\Golden Valley 230kV Trans Line.doc:cgg

EXHIBIT J-22

AGENCY SCOPING LETTERS AND MAILING LIST—JUNE 2016

Phoenix: (480) 807-0095
Salt Lake City: (801) 649-5141
San Francisco: (415) 375-9965
www.transcon.com

June 20, 2016

Name
Agency
Address
City, State Zip

Re: Golden Valley 230kV Transmission Line Project

To Whom It May Concern:

The Bureau of Land Management (BLM) has received an application from UNS Electric (UNSE) to construct a 230 kilovolt (kV) transmission line from the existing Harris Substation (Section 4, Township 20 North, Range 17 West, Gila and Salt River Baseline and Meridian) to a proposed substation near the intersection of Mineral Park Road and US Route 93 (Section 3 or 4, Township 22 North, Range 18 West, Gila and Salt River Baseline and Meridian). The proposed transmission line is generally located near the community of Golden Valley and the city of Kingman in Mohave County, Arizona. A map of the project vicinity is enclosed.

The purpose of the proposed project is to improve reliability, replace aged equipment, and accommodate a projected 5 to 35 megawatt increase in load that is expected to occur over the next decade in the north Golden Valley area. UNSE is requesting a permanent 125-foot-wide right-of-way for the entire length of the transmission line. Two alternatives are being considered for the transmission line: the East Cerbat alternative and West Cerbat alternative (see enclosed map). Currently, there is not a "preferred alternative." The primary distinguishing feature between the two alternatives is the alignment through the southern portion of the project area, near the Cerbat Foothills. The East Cerbat alternative is located along the east side of the Cerbat Foothills, generally following US 93; the West Cerbat alternative is located on the west side of the Cerbat Foothills, generally following the boundary of BLM and private land along Tooman Road. Beginning at the intersection of State Route 68 and Kofa Road, both alternatives follow the same alignment to Mineral Park Road. The new substation will be located either on lands under BLM jurisdiction or on private land. In addition to these alternatives, the no-action alternative is also being considered.

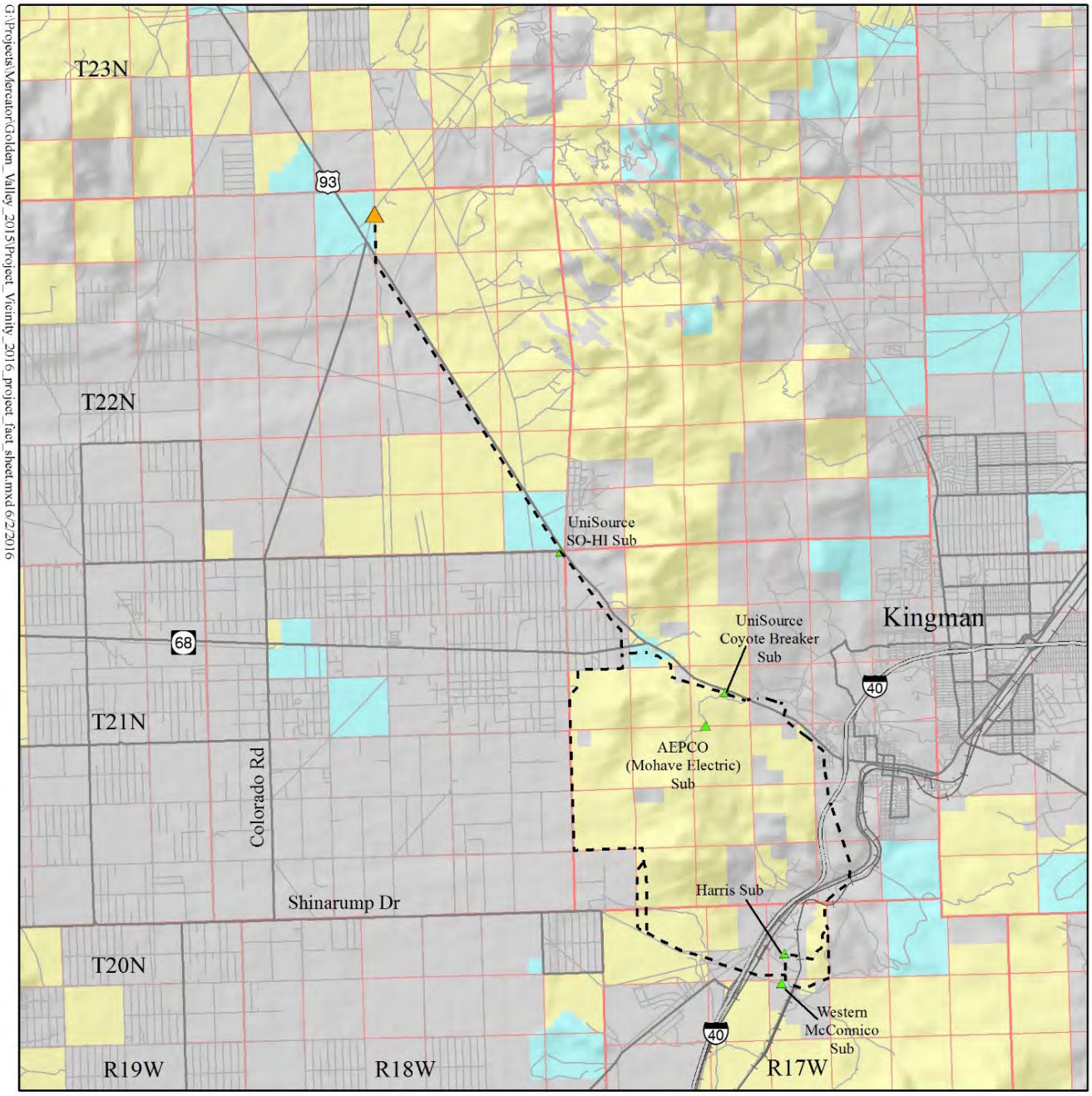
The BLM is the lead agency for National Environmental Policy Act compliance activities for this project. Transcon Environmental, Inc., an Arizona-based environmental consulting firm, is assisting the BLM with environmental compliance activities. Please submit all comments in writing within 30 days to:

Andy Whitefield, BLM Project Manager
c/o Transcon Environmental, Inc.
1745 South Alma School Road, Suite 220
Mesa, Arizona 85210

Comments can also be submitted via e-mail to awhitefi@blm.gov. For additional information, or to discuss this project further, please contact Mr. Whitefield at (928) 718-3746.

Sincerely,

Greg Gryniewicz, Project Manager
Transcon Environmental, Inc.



0 1 2 Miles

Legend

- Project Alternatives
- Proposed Substation
- Existing Substation
- Bureau of Land Management
- Private
- State

Project Vicinity Map

Golden Valley 230kV
Transmission Line Project

UNS Electric

NATIONAL SYSTEM OF PUBLIC LANDS

GOLDEN VALLEY 230kV TRANSMISSION LINE PROJECT

AGENCY MAILING LIST

JUNE 2016

AGENCY	
Arizona Department of Agriculture Plant Services Division 1688 W. Adams St. Phoenix, AZ 85007	Arizona Department of Environmental Quality Northern Regional Office 1801 W. Route 66, Ste. 117 Flagstaff, AZ 86001
Patrick Cunningham, Acting Director Arizona Department of Environmental Quality 1110 W. Washington St. Phoenix, AZ 85006	Arizona Department of Environmental Quality 1110 W. Washington St. Phoenix, AZ 85007
Roy Tanney Arizona Department of Real Estate 2910 N. 44th St., Ste. 100 Phoenix, AZ 85018	Chris Olson, District Engineer Arizona Department of Transportation Kingman District 3660 E. Andy Devine Ave. Kingman, AZ 86401
William Wells Land Services Administrator Arizona Electric Power Cooperative P.O. Box 2165 Benson, AZ 85602	Regional Supervisor Arizona Game and Fish Department 5325 N. Stockton Hill Rd. Kingman, AZ 86401
Maria Baier, State Land Commissioner Arizona State Land Department 1616 W. Adams St. Phoenix, AZ 85007	Arizona State Land Department Natural Resource Conservation Service 1616 W. Adams St. Phoenix, AZ 85007
Arizona State Parks Department 23751 N. 23rd Ave., Ste. 190 Phoenix, AZ 85085	Honorable Richard Anderson, Mayor City of Kingman 310 N. Fourth St. Kingman, AZ 86401
Jack Kramer, City Manager City of Kingman 310 N. Fourth St. Kingman, AZ 86401	Tom Duranceau, Planning Manager City of Kingman 310 N. Fourth St. Kingman, AZ 86401
Beverly Liles, President Kingman Area Chamber of Commerce 120 W. Andy Devine Ave. Kingman, AZ 86402	Guy Reynolds, Superintendent Kingman Parks & Recreation Department 3333 N. Harrison Rd. Kingman, AZ 86409
Jean Bishop, County Supervisor Mohave County Board of Supervisors P.O. Box 7000 Kingman, AZ 86402	Nicholas Hont, Acting Director Mohave County Development Services Department 3675 E. Andy Devine Ave. Kingman, AZ 86401
Shawn Blackburn, Director Mohave County Parks Department 3675 E. Andy Devine Ave. Kingman, AZ 86401	Steven P. Lotoski, Director Mohave County Public Works 3675 E. Andy Devine Ave. Kingman, AZ 86401
Carlos Tejada, Director Mohave Electric Cooperative P.O. Box 1045 Bullhead City, AZ 86430	William H. Miller Sr., Project Manager U.S. Army Corps of Engineers 3636 N. Central Ave., Ste. 509 Phoenix, AZ 85012

USDA Arizona Natural Resources Conservation Service 230 N. First Ave., Ste. 509 Phoenix, AZ 85003	Brenda Smith U.S. Department of Fish and Wildlife Service 323 N. Leroux St., Ste. 201 Flagstaff, AZ 86001
Steve Spangle U.S. Department of Fish and Wildlife Service 2321 W. Royal Palm Rd., Ste. 103 Phoenix, AZ 85021	U.S. Department of Transportation Federal Highway Administration 1200 New Jersey Avenue SE Washington D.C. 20590
John Holt, Environmental Manager Western Area Power Administration P.O. Box 6457 Phoenix, AZ 85005	

EXHIBIT J-23

AGENCY LETTERS RECEIVED—2016 AND 2019

ARIZONA DEPARTMENT OF TRANSPORTATION

Northwest District Kingman
3660 E. Andy Devine Ave.
Kingman AZ, 86401
928-681-6019

DESIGN REVIEW COMMENTS

Developer:	**UniSource**	***Location:***	**Kingman-US 93**
Contractor:		***Engineering Firm:***	
ADOT Manager:	**Anthony Martinez**	***Date:***	**1/13/16**

ACTION CODES:

A= WILL COMPLY *B= CONSULTANT/DESIGNER TO EVALUATE
*C= ADOT TEAM TO EVALUATE *D= DESIGN TEAM RECOMMENDS NO FURTHER ACTION
* REQUIRES A WRITTEN EXPALANATION AND FINAL DISPOSITION BY CONSULTANT/DESIGNER

ITEM NO.	DWG, SHT, PAGE NO.	COMMENTS	DISPOSITION INIT.	FINAL
230kV transmission line project review comments				
		Eric L. Stanford- ADOT Utility Engineering Coordinator		
1		Initial environmental review/clearance needs to be conducted up front.		
2		Permitting of UNS' lines should conform to access control considerations		
3		Locations of any UNS facilities should be permitted taking into consideration future potential designs or concepts as much as possible to avoid future relocation issues.		
4		Utilization of ADOT ROW should be accomplished in accordance with the ADOT Policy for Accommodating Utilities in Highway Rights-of-Way.		
5		Existing permitted utilities in ADOT ROW should be researched for possible conflicts.		
		Chuck Budinger-Northwest District Environmental Coordinator		
6		Provide area of land disturbance within ADOT ROW.		
7		Provide area of land disturbance outside ADOT ROW.		
8		Copies of finalized EA, BE and Cultural Reports shall be sent to the respective agencies.		
9		Concurrence of those agencies with the conclusions of the environmental documents.		
10		Provide area disturbed within washes along the ROW.		
		Viki Bever's comments-Utility & Railroads Manager		
11		If this is the line we have talked about in the past. As it travels along the interstate, it is outside of our ROW. Therefore, the only time it is in our ROW is for a crossing. (It would be a non-prior right permit.)		

MOHAVE COUNTY BOARD of SUPERVISORS

P.O. Box 7000
700 West Beale Street
Kingman, Arizona 86402-7000
Telephone (928) 753-8618 Cell (928) 715-1560
TDD - (928) 753-0726
Website – – www.mohavecounty.us

Chairman Jean Bishop
Mohave County Supervisor District 4

Delivered by Email to: awhitefi@blm.gov

July 7, 2016

Mr. Andy Whitefield,
BLM Project Manager
C/O Transcon Environmental, Inc.
1745 South Alma School Road, Suite 220
Mesa, Arizona 85210

Re: GOLDEN VALLEY 230KV TRANSMISSION LINE PROJECT

Dear Mr. Whitefield:

Thank you for restarting your public process on the latest 230 KV line routes last week in Kingman with an open house. I am pleased to provide comments on the two proposed routes.

I write to support the Western Route of the proposed Unisource 230 KV transmission line that runs along almost entirely public federal lands, and to oppose the Eastern Route that runs through largely private lands.

I oppose the Eastern Route for two reasons:

1. The proposed Eastern Route will likely obstruct the operation of the Cameron Broadcasting Tower for one of our local radio stations, KAAA, located at the mouth of Cook Canyon on private property. This is because the Unisource 230 KV monopoles will cause unacceptable pattern distortion if they are closer than 1150 feet to the tower. See enclosed Cameron Broadcasting Letter of September 30, 2008.

2. The proposed route of a 230KV transmission line between Cook and Box Canyons travels almost entirely through private property. This route would seriously limit citizens' private property rights, and their opportunities for both residential and commercial development of the property that will enhance Mohave County's jobs and tax base. On the other hand, the Western Route will serve the public purposes that UniSource seeks ("improve reliability, replace aged equipment, and accommodate future customer electricity demands"), using public federal lands managed by the Bureau of Land Management.

I do note some private citizens have already sacrificed some of their lands for the public good to build Interstate 40 in Cook Canyon, and it seems to me that they should not be forced to sacrifice some of their land's remaining value to the public for a 230KV line.

Please include my office on any notices for site visits, National Environmental Policy Act (NEPA) mailings and meetings, and in all remaining public meetings conducted under the ACC process.

Thank you again for conducting this public outreach process.

Sincerely,

Chairman Jean Bishop
Mohave County Board of Supervisors, District 4

MOHAVE COUNTY PUBLIC WORKS

pw.mohavecounty.us
Telephone (928) 757-0910
Steven P. Latoski, P.E., PTOE
Public Works Director

3715 Sunshine Drive
P.O. Box 7000, Kingman, Arizona 86402-7000

Fax (928) 757-0913
TDD (928) 753-0729
Michael P. Hendrix, P.E.
County Manager / County Engineer

October 18, 2019

RECEIVED

OCT 2 2 2019

BLM KINGMAN FIELD OFFICE

Ms. Amanda Dodson, Field Manager
Bureau of Land Management
Kingman Field Office
2755 Mission Blvd.
Kingman, AZ 86401

RE: 2800 (C010)
AZA 036830

Dear Ms. Dodson;

The County is in opposition of any alignment that may impact, compromise or lessen the County's existing rights or subjugate the County's pending applications pertaining to roads and material pits along the proposed alignment.

A particular subject of concern is the Shinarump Material Pit Free Use Permit located in Section 6 Township 20 Range 17. The County opposes any proposal that reduces the Shinarump Pit permitted area, its status under the current, active Free Use Permit or ability to renew the Shinarump Pit Free Use Permit after its 10-year expiration.

Mohave County asserts that any work performed by the applicant in Mohave County rights-of-way would require prior coordination through the Public Works Department.

Sincerely,

Steven P. Latoski, P.E., PTOE
Public Works Director

U.S. Department of Transportation
Federal Highway Administration

ARIZONA DIVISION

4000 North Central Avenue
Suite 1500
Phoenix, Arizona 85012-3500
(602) 379-3646
Fax: (602) 382-8998
http://www.fhwa.dot.gov/azdiv/index.htm

July 21, 2016

In Reply Refer To:
ADMS -25
999-M(161)
Golden Valley 230kV Transmission Line

Mr. Andy Whitefield, BLM Project Manager
c/o Transcon Environmental, Inc.
1745 South Alma School Road, Suite 220
Mesa, Arizona 85210

Dear Mr. Whitefield,

The Federal Highway Administration, Arizona Division has received your letter regarding the application from UNES Electric to construct a 230 kilovolt (kV) transmission line from the existing Harris Substation to a proposed substation near the intersection of Mineral Park Road and US-93.

From a transportation standpoint, we would like to bring two things to your attention. The first is that US-93 in the area of the transmission line project has been designated by Congress through the Moving Ahead for Progress in the 21st Century (MAP-21) and Fixing America's Surface Transportation (FAST) Acts as a future Interstate 11 corridor. Because highways that are designated as Interstate freeways have limited access control associated with them, it is important for the transmission line project to keep access control issues in mind during the development of the project. While it is unlikely that US-93 will be brought up to full Interstate standards in the near future, it is important to plan for limited access control for areas where the transmission line project considers crossing the highway or if maintenance activities would be anticipated along the highway.

Secondly, the future Interstate 11 project will require a major reconstruction of the I-40/US-93 service interchange to bring it up to Interstate standards as a system interchange. A west Kingman Traffic Interchange study was initiated several years ago; however it has more recently been put on hold. It is likely that the study will resume or be incorporated into a future NEPA study for the Interstate 11 project. In the early stages of the Interchange study initial alternatives had been identified to the west of the I-40/US-93 interchange. Those alternatives appear to be in the same general location as the transmission line along the eastern edge of the Bureau of Land Management (BLM) land.

The Federal Highway Administration requests that the BLM keeps us informed as this project progresses. We further recommend that BLM also coordinate with the Arizona Department of

Transportation, to ensure proper planning and compatibility of the proposed transmission line with the future Interstate 11. For further information, please contact Alan Hansen at (602) 382-8964.

Sincerely,

Alan R Hansen

for Karla S. Petty
Division Administrator

ec:
Tom Deitering
Randy Everett
Tremaine Wilson
Kimberly Utley
ARH: CM

United States Department of the Interior
Fish and Wildlife Service
Arizona Ecological Services Office
9828 N. 31st Avenue Ste C3
Phoenix, AZ 85051
Telephone: (602) 242-0210 Fax: (602) 242-2513

AESO/SE
02EAAZ00-2016-CPA-0045

August 1, 2016

Andy Whitefield, Project Manager
c/o Transcon Environmental, Incorporated
1745 South Alma School Road, Suite 220
Mesa, Arizona 85210

Re: Proposed Golden Valley 230 kV Transmission Line Project

Dear Mr. Whitefield:

Thank you for the opportunity to review and provide comments on the Environmental Assessment (EA) for the Proposed Golden Valley 230 kV Transmission Line Project. This project proposes to construct a new 230 kilovolt (kV) electrical transmission line from the existing Harris Substation to a proposed substation near the intersection of Mineral Park Road and U.S. Highway 93 in Mohave County, Arizona. The proposed project would require a 125-foot wide right-of-way for the entire length of the transmission line. There are currently two proposed routes being considered for the transmission line. A preferred route has not been selected at this time; however, the primary difference between the two proposed routes is the alignment of the southern portion, near the Cerbat Foothills southwest of Kingman, Arizona.

Based on the information that you have provided, we have concerns about potential effects from this project to golden eagles and other raptors in the area. We know of several nesting golden eagles in the vicinity of your proposed project, and migratory eagles are also known to use the area.

Golden eagles are protected under the Bald and Golden Eagle Protection Act (Eagle Act). The Eagle Act prohibits anyone, without a U.S. Fish and Wildlife Service permit, from taking (including disturbing) eagles, and including their parts, nests, or eggs. For information about the Eagle Act, please see:
https://www.fws.gov/birds/policies-and-regulations/laws-legislations/bald-and-golden-eagle-protection-act.php

We recommend implementing protective measures during construction and operation of facilities and equipment as found in the *Suggested Practices for Raptor Protection on Power Lines and Mitigating Bird Collisions with Power Lines*, available from the Avian Power Line Interaction Committee (APLIC) (http://aplic.org) and Edison Electric Institute (EEI) (http://eei.org) websites. These measures would also minimize potential electrocution impacts to other raptor species.

Additionally, the southern portion of the proposed routes goes through habitat for the Sonoran desert tortoise (*Gopherus morafkai*). Although this species is not currently listed under the Endangered Species Act, a Candidate Conservation Agreement (CCA) was prepared and is being implemented statewide by several different parties, including the Bureau of Land Management. We encourage you to review the CCA and work with our office as well as the Arizona Game and Fish Department to implement applicable conservation measures for the Sonoran desert tortoise.

We encourage you to continue to coordinate with us on this project. We are available to meet and discuss this facility, potential impacts to Federal trust resources, and appropriate best management practices with you.

In keeping with our trust responsibility to American Indian Tribes, for proposed actions that may affect Indian lands, Tribal trust resources, or Tribal rights, we encourage you to invite affected Tribes and Bureau of Indian Affairs to participate in the planning process and, by copy of this letter, are notifying the Hopi, Fort Mohave, and Colorado River Indian Tribes, the Yavapai-Apache Nation, as well as Bureau of Indian Affairs. We also encourage you to continue to coordinate the review of this project with the Arizona Game and Fish Department.

We appreciate your coordination with us on this matter. For further information please contact Brian Wooldridge (928-556-2106) or Shaula Hedwall (928-556-2118) of our Flagstaff office. Please refer to the consultation number, 02EAAZ00-2016-CPA-0045 in future correspondence concerning this project.

Sincerely,

Brenda H. Smith

for Steven L. Spangle
Field Supervisor

ccs: (electronic)
Chief Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Regional Supervisor, Arizona Game and Fish Department, Kingman, AZ
Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ (Attn: Jeff Servoss)
Environmental Specialist, Environmental Services, Western Regional Office, Bureau of Indian Affairs, Phoenix, AZ
Director, Hopi Cultural Preservation Office, Kykotsmovi, AZ
Director, Aha Makav Cultural Society, Fort Mojave Indian Tribe, Mohave Valley, AZ
Director, Apache Cultural Program, Yavapai-Apache Nation, Camp Verde, AZ
Director, Yavapai Cultural Program, Yavapai-Apache Nation, Camp Verde, AZ
Cultural Compliance Technician, Museum, Colorado River Indian Tribes, Parker, AZ

W:\Brian Wooldridge\Brendas signature\Golden Valley 230kV Trnsmission Line EA Comments Ltr.docx:cgg

EXHIBIT J-24

ELECTED OFFICIALS AND STAKEHOLDERS
OUTREACH EMAIL—JANUARY 2021

From: ERaatz@tep.com
To: George Miller
Cc: Myrna Galaz
Subject: FW: UniSource: Golden Valley Transmission Line Project and Virtual Open House Meeting
Date: Friday, February 5, 2021 8:25:04 AM
Attachments: image001.png
UES Golden Valley Newsletter Jan2021.pdf

Email sent to those listed on the stakeholders tab from the stakeholders spreadsheet.

Thank you,
Eric

From: Raatz, Eric
Sent: Tuesday, January 26, 2021 4:51 PM
Cc: Marinez, Adriana <AMarinez@tep.com>; Lombardi, Anthony <ALOMBARDI@UESAZ.com>
Subject: UniSource: Golden Valley Transmission Line Project and Virtual Open House Meeting

Good afternoon,

UniSource Energy Services plans to build a new 230-kilovolt (kV) transmission line and substation within the ten-year planning horizon to strengthen reliability and serve growing energy needs in Mohave County near Kingman and the Golden Valley area.

As part of this project, UniSource invites you and the public to participate in an upcoming virtual open house meeting where the company will provide an overview of the project and approval processes involved in obtaining the right to construct the Project.

> **Virtual Open House Meeting**
> **Golden Valley 230-kV Transmission Line Project**
> **Tuesday, Feb. 9, 2021 from 6 to 7:30 p.m.**
> **To participate live, visit the project webpage at uesaz.com/golden-valley. A Zoom link for the meeting will be posted shortly before the meeting begins. UniSource will later post a recording of the meeting on this page. Materials presented during the meeting will be available on the project webpage the day of the meeting.**
> **To listen, call 1-669-900-6833, and use passcode 47030154**

The attached newsletter, which includes details about the upcoming meeting and how to submit comments, will be mailed to residences and businesses within and around the project study area. To comment or learn more, we encourage you to visit the project webpage.

Please let me know if you would be interested in a stakeholder briefing and I will be happy to set something up.

Thank you,
Eric

Eric S. Raatz, P.E.
Mgr, Operations Planning
Tucson Electric Power
520.745.3196 (O)
520.982.0829 (C)

tep-powercat

EXHIBIT J-25

TRIBAL SCOPING LETTERS AND MAILING LIST—MAY 2007

May 30, 2007

Name
Tribe/Nation
Address
City, State Zip

Re: Golden Valley 230kV Transmission Line Project

Dear Mr./Ms. _____:

UniSource Energy Services (UES) is proposing the construction of a 230 kilovolt (kV) transmission line between the Harris Substation (Section 4, Township 20N, Range 17W, Gila and Salt River Baseline and Meridian) and an electrical substation located near Mineral Park Mine (Section 26, Township 23N, Range 18W, Gila and Salt River Baseline and Meridian). Additionally, UES is proposing to construct a new 230/69kV electrical substation to be located in Section 3, Township 21N, Range 18W, Gila and Salt River Baseline and Meridian. All project facilities are located in the Kingman area, within Mohave County, Arizona. The Bureau of Land Management (BLM) is processing an application for a grant of right-of-way for the project and is the lead agency for National Environmental Policy Act (NEPA) compliance and Section 106 of the National Historic Preservation Act activities.

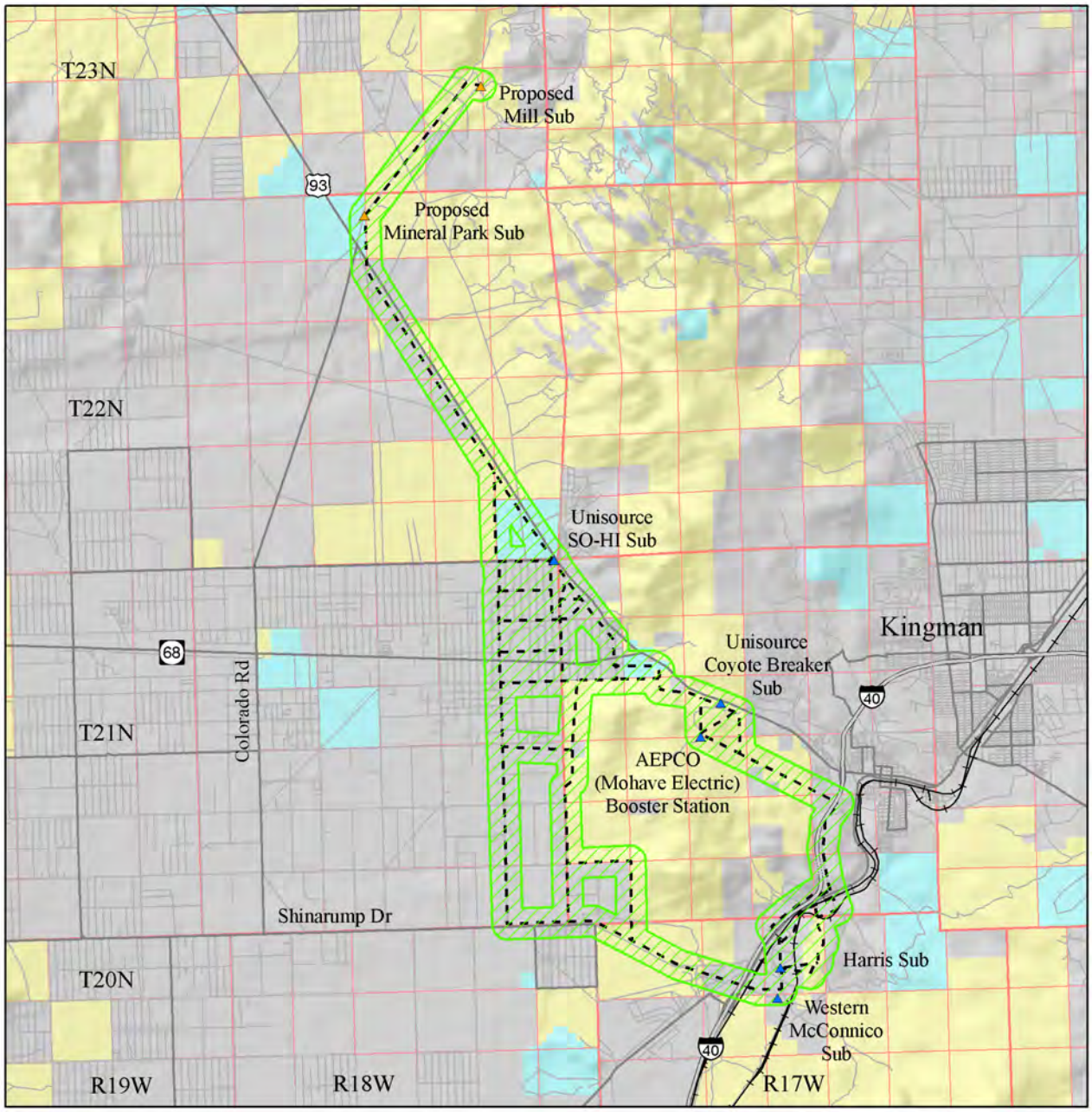
The purpose of the project is to provide additional electrical capacity to Mineral Park Mine, and improve and provide power to the growing area northwest of Kingman, Arizona. In order to accomplish the proposed project activities, UES is requesting a permanent right-of-way 125 feet-wide for the length of the transmission line and 10 acres located on lands under the jurisdiction of the BLM. A final location of the transmission line's alignment has not been determined. A siting area has been defined and is illustrated on the attached project map. The transmission line siting area is located in Sections 23, 25, 26, 27, 33, 34, and 35, T23N, R18W; Sections 3, 4, 9, 10, 14, 15, 22, 23, 25, 26, 35, and 36, T22N, R18W; Section 6, T22N, R17W; Sections 6, 7, 8, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 29, 30, 32, 34, and 35, T21N, R17W; and Sections 1, 2, 11, 11, 12, 13, 14, 23, 24, 25, and 26, T21N, R18W.

Cultural resources are among the various environmental resources being considered as part of environmental compliance activities. It is understood that resources and places of traditional cultural significance may be present within the proposed project area. We would like to know if you are aware of any unique, unusual, special, ethnographic, or archaeological resources in the proposed project vicinity.

Please provide your comments within 30 days. All comments should be submitted in writing within 30 days to the BLM's authorized NEPA representative, Transcon Environmental, at 3740 E. Southern Ave., Suite 218, Mesa, Arizona 85206, or via e-mail to info@transconusa.com. If you need any further information or want to discuss this project, please contact me at (480) 807-0095.

Sincerely,

Michael Warner
Project Manager



Legend

- Siting Area
- Existing Substation
- Proposed Substation
- Bureau of Land Management
- Private
- State

0 1 2 3 4 Miles

Project Location
Golden Valley
230kV Transmission
Line Project

TRANSCON ENVIRONMENTAL

GOLDEN VALLEY 230KV TRANSMISSION LINE PROJECT

TRIBAL MAILING LIST
5/30/2007

TRIBE	
Him Dak Museum	Elaine Peters, Director Ak-Chin Him Dak Eco Museum & Archives 47685 N. Eco Museum Rd. Maricopa, Arizona 85239
Delia M. Carlyle, Chairperson Ak Chin Indian Community Council 42507 W. Peters & Nall Rd. Maricopa, AZ 85239	CRIT Museum
Colorado River Indian Tribes	Fort Mohave Tribal Council
William Rhodes, Governor Gila River Indian Community PO Box 97 Sacaton, AZ 85247	Barnaby V. Lewis, Cultural Resource Specialist Gila River Indian Community Cultural Resources Management Program PO Box 2140 Sacaton, AZ 85247
Leigh Kuwanwisiwma Hopi Cultural Preservation Office PO Box 123 Kykotsmovi, AZ 86039	Benjamin Nuvamsa, Chairman Hopi Cultural Preservation Office PO Box 123 Kykotsmovi, AZ 86039
Hualapai Tribal Council	Diane Enos, President Salt River Pima-Maricopa Indian Community 10005 E. Osborn Scottsdale, AZ 85256
Dezbah Hatathli, Natural Resources and Land Compliance Salt River Pima-Maricopa Indian Community 10005 E. Osborn Scottsdale, AZ 85256	Vivian Juan-Saunders, Chairperson Tohono O'odham Tribal Council PO Box 837 Sells, Arizona 85634
Peter Steere, Program Manager Cultural Affairs Program Tohono O'odham Nation PO Box 837 Sells, Arizona 85634	Jamie Fullmer, Chairperson Yavapai-Apache Tribal Council 2400 W. Datsi Street Camp Verde, AZ 86322
Don Decker, Director Yavapai-Apache Nation Apache Cultural Program 2400 W. Datsi Street Camp Verde, AZ 86322	Katherine Marquez, Director Yavapai-Apache Nation Yavapai Cultural Program 2400 W. Datsi Street Camp Verde, AZ 86322
Yavapai-Prescott Indian Tribe	

CC:

Robert Spengler Mineral Park, Inc. H.C. 37 Box 500 8275 Mineral Park Rd. Kingman, AZ 86401	Rebecca McCarthy Unisource Energy Services 4350 East Irvington Road Mail Stop OH209 PO Box 711 Tucson, AZ 85702
Joyce Cooke Bureau of Land Management Kingman Field Office 2755 Mission Boulevard Kingman, AZ 86401	

EXHIBIT J-26

TRIBAL SCOPING LETTERS AND MAILING LIST—JUNE 2016

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Kingman Field Office
2755 Mission Boulevard
Kingman, Arizona 86401
www.az.blm.gov

June 23, 2016

In Reply Refer To:
8100 (C010)

CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7015 1730 0000 3692 8219

Mr. Edward D. Smith, Chairman
Chemehuevi Tribe of the Chemehuevi Indian Reservation
P. O. Box 1976
Havasu Lake, CA 92363

Dear Chairman Smith:

The Bureau of Land Management, Kingman Field Office (BLM-KFO) would like to consult with you regarding an application for a right of way (ROW). The BLM has received an application from UNS Electric (UNSE) to construct a 230 kilovolt (kV) transmission line from the existing Harris Substation (section 4, Township 20 North, Range 17 West, Gila and Salt River Baseline and Meridian) to a proposed substation near the intersection of Mineral Park Road and US Route 93 (section 3 or 4, Township 22 North, Range 18 West, Gila and Salt River Baseline and Meridian). The proposed transmission line would be generally located near the communities of Golden Valley and Kingman, Arizona. In addition to BLM administered public lands, the proposed transmission line would cross private and state trust lands, and, depending on the alternative, may cross lands owned by the City of Kingman.

The proposed transmission line is to develop a double-circuit 230kV transmission line to improve reliability, replace aged equipment, and accommodate a projected 5 to 35 megawatt (MW) increase in load over the next decade in the north Golden Valley area.

In its current application, UNSE has applied for a 125 to 200 foot-wide ROW for the length of the proposed transmission line. The proposed substation would be located either on BLM administered public lands or on private land; if on BLM land, a minimum of ten acres of land would be required. Currently, there is not a proposed "preferred alternative." Two alternative are being considered for both the route of the transmission line (East Cerbat alternative and West Cerbat alternative) and the location of the Mineral Park Substation (North Substation alternative and South Substation alternative). The no action alternative is also being considered.

The primary distinction between the two alternative transmission line routes is whether it follows the southern and southwestern edge of the Cerbat Foothills Recreation Area on the east side of Golden Valley, or whether it generally follows Interstate 40 and US Route 93. From where the alternative routes converge west of Coyote Pass to the proposed Mineral Park Substation both alternatives follow the same alignment. Refer to the enclosed map for the locations of these.

The primary distinguishing feature between the substation alternatives is the North Substation alternative is located just north of US Route 93 on BLM administered public land and the South Substation alternative is located just south of US Route 93 on private land.

In 2007 UNSE applied for a similar transmission line project that would have supplied the Mineral Park Mine with 230kV electrical capacity for its mining operation. Processing that application halted in 2010. Although similar in scope, the current proposal is not associated with providing electricity for mining operations. As part of the environmental review for its previous application, two Class III intensive cultural surveys were completed.

Cultural resources are among the environmental resources being considered. As noted above, a portion of the areas that would be affected by the proposed transmission line have been subject to Class III intensive cultural resources surveys. A third Class III intensive survey is being conducted in the areas of the proposed substation locations. Once that survey is completed the information will be consolidated into one report. When complete, a copy of this report will be available upon request, and its results will be summarized and provided to the Tribe in a future consultation letter.

BLM KFO invites you to comment on these proposed actions in accordance with the National Environmental Policy Act, the National Historic Preservation Act, as amended, and the American Indian Religious Freedom Act to ensure that any concerns you may have about the project are fully considered and incorporated into the environmental analysis. In addition, we acknowledge the special expertise possessed by the Tribe in identifying and assessing properties that hold traditional religious and cultural importance, and request your assistance in identifying any such properties that may be affected by this proposed undertaking.

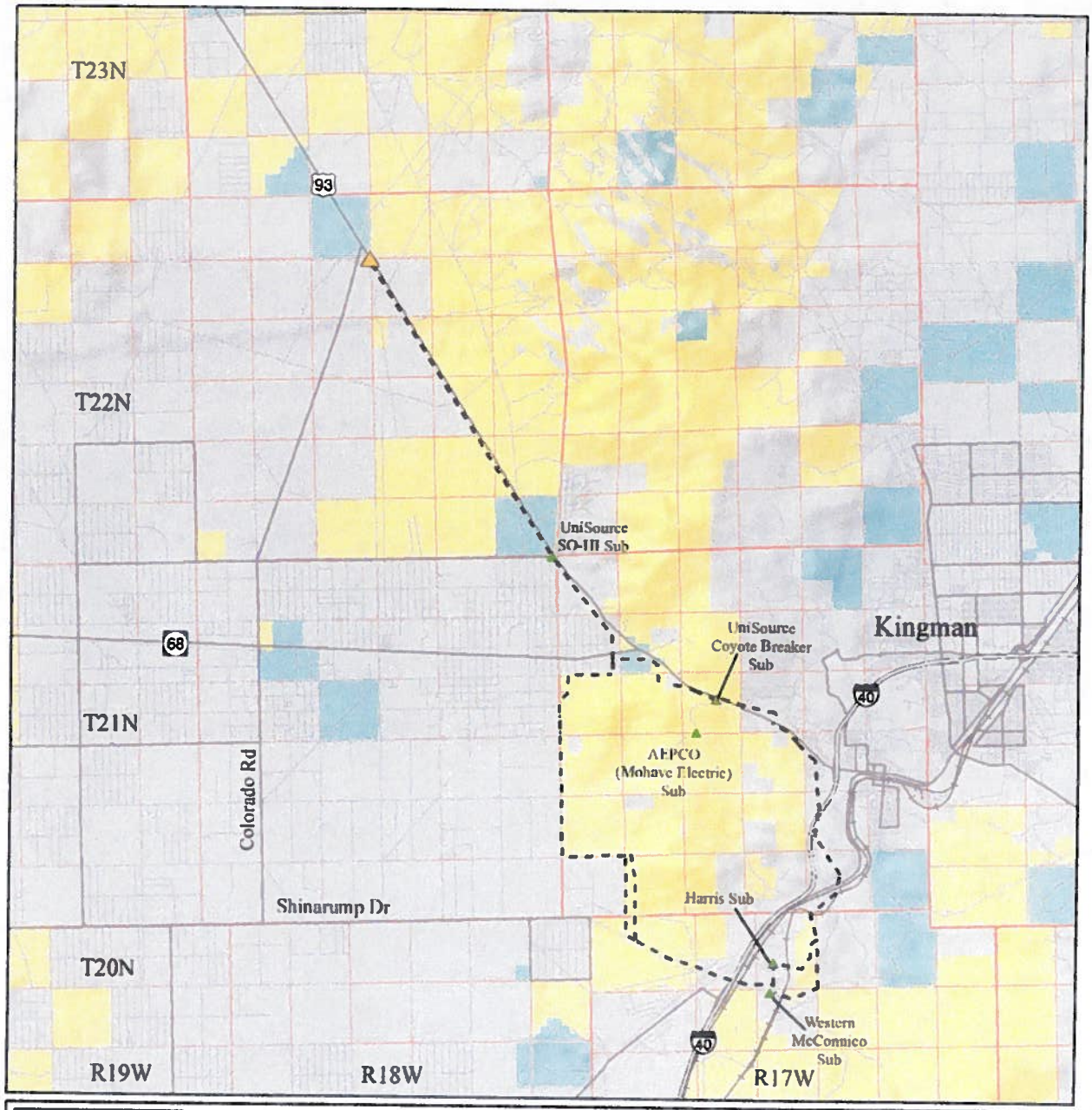
Thank you for your consideration of this proposed project. If you would like to arrange a meeting, a project area visit, or would like additional information, please contact me at 928-718-3701 or our cultural resource specialist, Shane Rumsey at 928-718-3752; you can also email us at adodson@blm.gov or srumsey@blm.gov. Thank you for your time, we look forward to hearing from you.

Sincerely,

Victoria Arse /
acting FM for

Amanda M. Dodson
Field Manager

cc: Dr. Jay Cravath, Director
Chemehuevi Cultural Resources
P. O. Box 1976
Havasu Lake, CA 92363



0 1 2 Miles

Legend

- Project Alternatives
- Proposed Substation
- Existing Substation
- Bureau of Land Management
- Private
- State

Project Vicinity Map

Golden Valley 230kV
Transmission Line Project

UNS Electric

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City, State, ZIP+4®: Havasu Lake CA 92363

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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City, State, ZIP+4®: Havasu Lake CA 92363

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Edward D. Smith, Chairman
Chemehuevi Tribe
PO Box 1976
Havasu Lake CA 92363

9590 9403 0905 5223 4947 52

2. Article Number (Transfer from service label)
7015 1730 0000 3692 8219

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Juliana Escobar ☐ Agent ☐ Addressee

B. Received by (Printed Name): Juliana Escobar
C. Date of Delivery: 6/27/16

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

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1. Article Addressed to:

Dr. Jay Cravath, Director
Chemehuevi Cultural Resources
PO Box 1976
Havasu Lake CA 92363

9590 9403 0905 5223 4947 45

2. Article Number (Transfer from service label)
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X Juliana Escobar ☐ Agent ☐ Addressee

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Kingman Field Office
2755 Mission Boulevard
Kingman, Arizona 86401
www.az.blm.gov

June 23, 2016

In Reply Refer To:
8100 (C010)

CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7015 1730 0000 3692 8257

Mr. Herman G. Honanie, Chairman
Hopi Tribe of Arizona
P.O. Box 123
One Main St. Tribal Headquarters
Kykotsmovi, AZ 86039

Dear Chairman Honanie:

The Bureau of Land Management, Kingman Field Office (BLM-KFO) would like to consult with you regarding an application for a right of way (ROW). The BLM has received an application from UNS Electric (UNSE) to construct a 230 kilovolt (kV) transmission line from the existing Harris Substation (section 4, Township 20 North, Range 17 West, Gila and Salt River Baseline and Meridian) to a proposed substation near the intersection of Mineral Park Road and US Route 93 (section 3 or 4, Township 22 North, Range 18 West, Gila and Salt River Baseline and Meridian). The proposed transmission line would be generally located near the communities of Golden Valley and Kingman, Arizona. In addition to BLM administered public lands, the proposed transmission line would cross private and state trust lands, and, depending on the alternative, may cross lands owned by the City of Kingman.

The proposed transmission line is to develop a double-circuit 230kV transmission line to improve reliability, replace aged equipment, and accommodate a projected 5 to 35 megawatt (MW) increase in load over the next decade in the north Golden Valley area.

In its current application, UNSE has applied for a 125 to 200 foot-wide ROW for the length of the proposed transmission line. The proposed substation would be located either on BLM administered public lands or on private land; if on BLM land, a minimum of ten acres of land would be required. Currently, there is not a proposed "preferred alternative." Two alternative are being considered for both the route of the transmission line (East Cerbat alternative and West Cerbat alternative) and the location of the Mineral Park Substation (North Substation alternative and South Substation alternative). The no action alternative is also being considered.

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Cultural resources are among the environmental resources being considered. As noted above, a portion of the areas that would be affected by the proposed transmission line have been subject to Class III intensive cultural resources surveys. A third Class III intensive survey is being conducted in the areas of the proposed substation locations. Once that survey is completed the information will be consolidated into one report. When complete, a copy of this report will be available upon request, and its results will be summarized and provided to the Tribe in a future consultation letter.

BLM KFO invites you to comment on these proposed actions in accordance with the National Environmental Policy Act, the National Historic Preservation Act, as amended, and the American Indian Religious Freedom Act to ensure that any concerns you may have about the project are fully considered and incorporated into the environmental analysis. In addition, we acknowledge the special expertise possessed by the Tribe in identifying and assessing properties that hold traditional religious and cultural importance, and request your assistance in identifying any such properties that may be affected by this proposed undertaking.

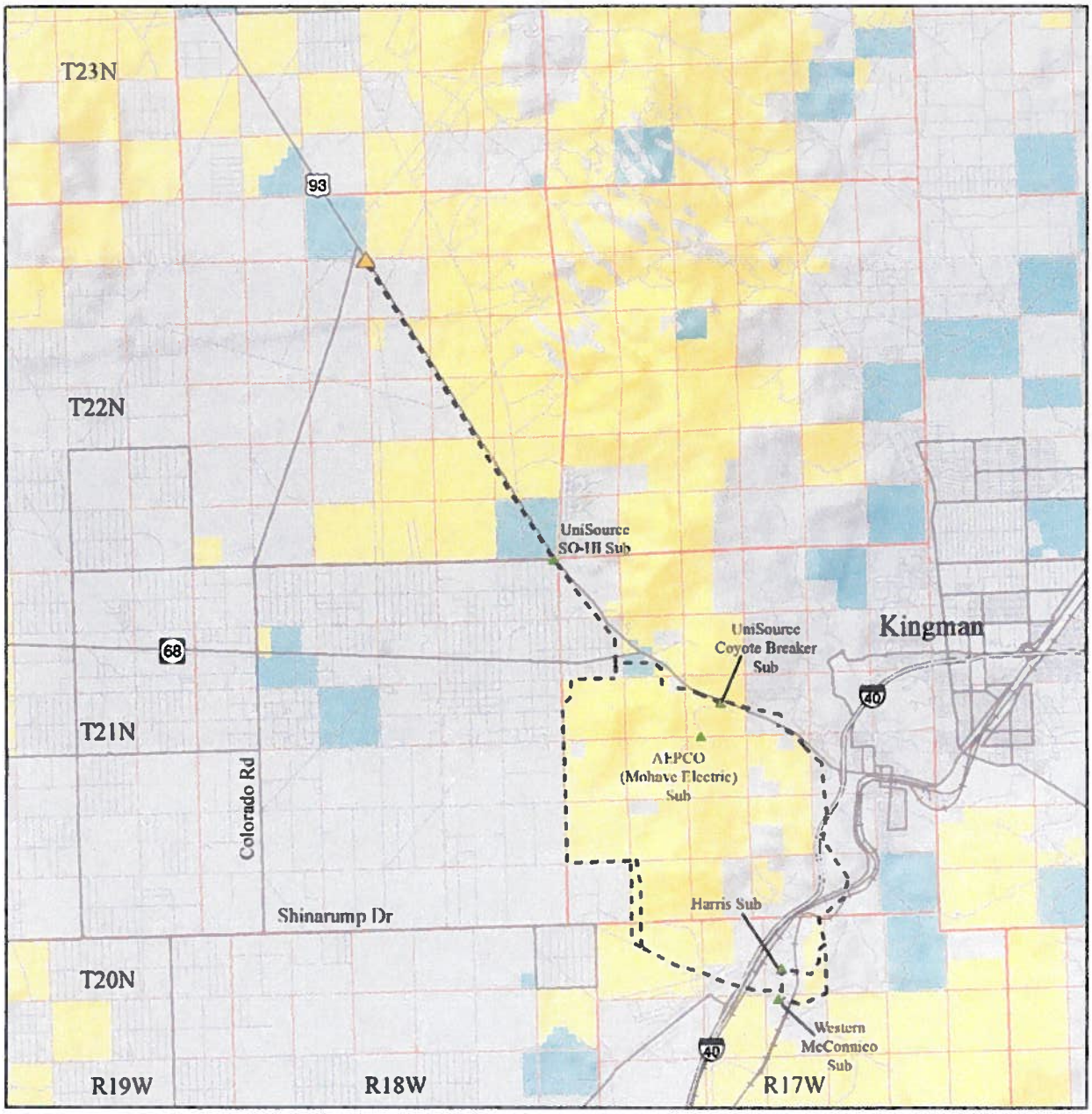
Thank you for your consideration of this proposed project. If you would like to arrange a meeting, a project area visit, or would like additional information, please contact me at 928-718-3701 or our cultural resource specialist, Shane Rumsey at 928-718-3752; you can also email us at adodson@blm.gov or srumsey@blm.gov. Thank you for your time, we look forward to hearing from you.

Sincerely,

Victoria Arze
Acting FM for

Amanda M. Dodson
Field Manager

cc: Mr. Leigh Kuwanwisiwma, Director
Hopi Cultural Preservation Office
P.O. Box 123
One Main St. Tribal Headquarters
Kykotsmovi, AZ 86039



0 1 2 Miles

Legend

- Project Alternatives
- Proposed Substation
- Existing Substation
- Bureau of Land Management
- Private
- State

Project Vicinity Map

Golden Valley 230kV Transmission Line Project

UNS Electric

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1. Article Addressed to:

Herman G. Honanie, Chairman
Hopi Tribe
PO Box 123, One Main St.
Kykotsmovi AZ 86039

9590 9403 0905 5223 4945 16

2. Article Number *(Transfer from service label)*
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☐ Agent
☐ Addressee

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KYKOTSMOVI AZ SPS-86039 JUN 27 2016

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Leigh Kuwanwisiwma, Director
Hopi Cultural Preservation Office
PO Box 123, One Main Street
Kykotsmovi AZ 86039

9590 9403 0905 5223 4945 09

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KYKOTSMOVI AZ SPS-86039 JUN 27 2016

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Kingman Field Office
2755 Mission Boulevard
Kingman, Arizona 86401
www.az.blm.gov

June 23, 2016

In Reply Refer To:
8100 (C010)

CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7015 1730 0000 3692 8264

Ms. Sherry Counts, Chairwoman
Hualapai Tribe of the Hualapai Indian Reservation
P.O. Box 310
Peach Springs, AZ 86434

Dear Chairwoman Counts:

The Bureau of Land Management, Kingman Field Office (BLM-KFO) would like to consult with you regarding an application for a right of way (ROW). The BLM has received an application from UNS Electric (UNSE) to construct a 230 kilovolt (kV) transmission line from the existing Harris Substation (section 4, Township 20 North, Range 17 West, Gila and Salt River Baseline and Meridian) to a proposed substation near the intersection of Mineral Park Road and US Route 93 (section 3 or 4, Township 22 North, Range 18 West, Gila and Salt River Baseline and Meridian). The proposed transmission line would be generally located near the communities of Golden Valley and Kingman, Arizona. In addition to BLM administered public lands, the proposed transmission line would cross private and state trust lands, and, depending on the alternative, may cross lands owned by the City of Kingman.

The proposed transmission line is to develop a double-circuit 230kV transmission line to improve reliability, replace aged equipment, and accommodate a projected 5 to 35 megawatt (MW) increase in load over the next decade in the north Golden Valley area.

In its current application, UNSE has applied for a 125 to 200 foot-wide ROW for the length of the proposed transmission line. The proposed substation would be located either on BLM administered public lands or on private land; if on BLM land, a minimum of ten acres of land would be required. Currently, there is not a proposed "preferred alternative." Two alternative are being considered for both the route of the transmission line (East Cerbat alternative and West Cerbat alternative) and the location of the Mineral Park Substation (North Substation alternative and South Substation alternative). The no action alternative is also being considered.

The primary distinction between the two alternative transmission line routes is whether it follows the southern and southwestern edge of the Cerbat Foothills Recreation Area on the east side of Golden Valley, or whether it generally follows Interstate 40 and US Route 93. From where the alternative routes converge west of Coyote Pass to the proposed Mineral Park Substation both alternatives follow the same alignment. Refer to the enclosed map for the locations of these.

The primary distinguishing feature between the substation alternatives is the North Substation alternative is located just north of US Route 93 on BLM administered public land and the South Substation alternative is located just south of US Route 93 on private land.

In 2007 UNSE applied for a similar transmission line project that would have supplied the Mineral Park Mine with 230kV electrical capacity for its mining operation. Processing that application halted in 2010. Although similar in scope, the current proposal is not associated with providing electricity for mining operations. As part of the environmental review for its previous application, two Class III intensive cultural surveys were completed.

Cultural resources are among the environmental resources being considered. As noted above, a portion of the areas that would be affected by the proposed transmission line have been subject to Class III intensive cultural resources surveys. A third Class III intensive survey is being conducted in the areas of the proposed substation locations. Once that survey is completed the information will be consolidated into one report. When complete, a copy of this report will be available upon request, and its results will be summarized and provided to the Tribe in a future consultation letter.

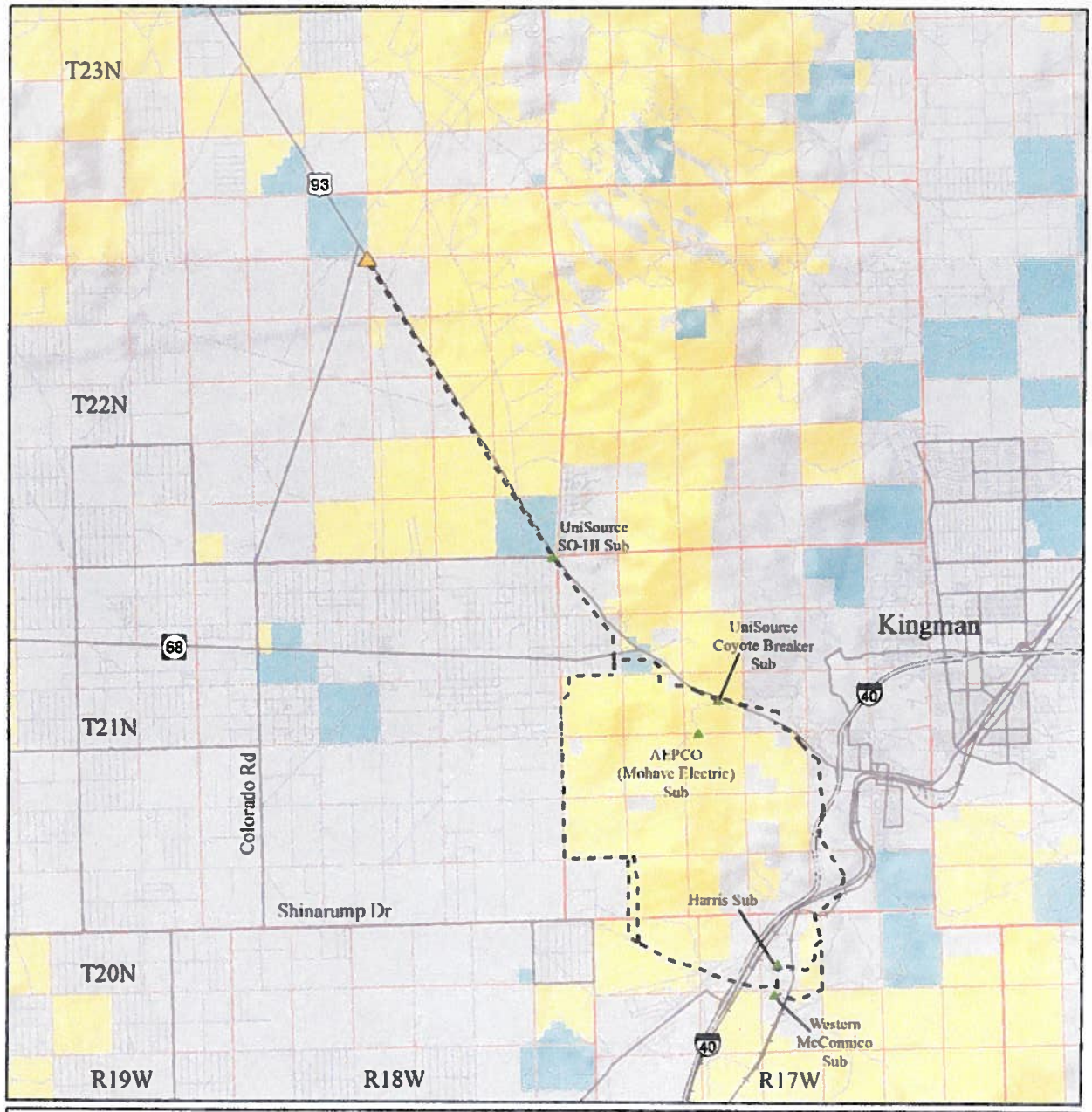
BLM KFO invites you to comment on these proposed actions in accordance with the National Environmental Policy Act, the National Historic Preservation Act, as amended, and the American Indian Religious Freedom Act to ensure that any concerns you may have about the project are fully considered and incorporated into the environmental analysis. In addition, we acknowledge the special expertise possessed by the Tribe in identifying and assessing properties that hold traditional religious and cultural importance, and request your assistance in identifying any such properties that may be affected by this proposed undertaking.

Thank you for your consideration of this proposed project. If you would like to arrange a meeting, a project area visit, or would like additional information, please contact me at 928-718-3701 or our cultural resource specialist, Shane Rumsey at 928-718-3752; you can also email us at adodson@blm.gov or srumsey@blm.gov. Thank you for your time, we look forward to hearing from you.

Sincerely,

Victoria Rose
Acting FM for
Amanda M. Dodson
Field Manager

cc: Ms. Dawn Hubbs, Director
Hualapai Department of Cultural Resources
Tribal Historic Preservation Officer
Hualapai Tribe of the Hualapai Indian Reservation
P. O. Box 310
Peach Springs, AZ 86434



0 1 2 Miles

Legend

- Project Alternatives
- Proposed Substation
- Existing Substation
- Bureau of Land Management
- Private
- State

Project Vicinity Map

Golden Valley 230kV
Transmission Line Project

UNS Electric

7015 1730 0000 3692 8363

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PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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City, State, ZIP+4® Peach Springs AZ 86434

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1. Article Addressed to:
Sherry Counts, Chairwoman
Hualapai Tribe
PO Box 310
Peach Springs AZ 86434

9590 9403 0905 5223 4945 30

2. Article Number (Transfer from service label)
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X [signature] ☐ Agent ☐ Addressee

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1. Article Addressed to:
Dawn Hubbs, Director
Hualapai Dept of Cultural Resources
Hualapai Tribe
PO Box 310
Peach Springs AZ 86434

9590 9403 0905 5223 4945 23

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C. Date of Delivery 6/27/16

D. Is delivery address different from item 1? ☐ Yes
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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Kingman Field Office
2755 Mission Boulevard
Kingman, Arizona 86401
www.az.blm.gov

June 23, 2016

In Reply Refer To:
8100 (C010)

CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7015 1730 0000 3692 8271

Mr. Benny Tso, Chairman
Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony
One Paiute Drive
Las Vegas, NV 89106

Dear Chairman Tso:

The Bureau of Land Management, Kingman Field Office (BLM-KFO) would like to consult with you regarding an application for a right of way (ROW). The BLM has received an application from UNS Electric (UNSE) to construct a 230 kilovolt (kV) transmission line from the existing Harris Substation (section 4, Township 20 North, Range 17 West, Gila and Salt River Baseline and Meridian) to a proposed substation near the intersection of Mineral Park Road and US Route 93 (section 3 or 4, Township 22 North, Range 18 West, Gila and Salt River Baseline and Meridian). The proposed transmission line would be generally located near the communities of Golden Valley and Kingman, Arizona. In addition to BLM administered public lands, the proposed transmission line would cross private and state trust lands, and, depending on the alternative, may cross lands owned by the City of Kingman.

The proposed transmission line is to develop a double-circuit 230kV transmission line to improve reliability, replace aged equipment, and accommodate a projected 5 to 35 megawatt (MW) increase in load over the next decade in the north Golden Valley area.

In its current application, UNSE has applied for a 125 to 200 foot-wide ROW for the length of the proposed transmission line. The proposed substation would be located either on BLM administered public lands or on private land; if on BLM land, a minimum of ten acres of land would be required. Currently, there is not a proposed "preferred alternative." Two alternative are being considered for both the route of the transmission line (East Cerbat alternative and West Cerbat alternative) and the location of the Mineral Park Substation (North Substation alternative and South Substation alternative). The no action alternative is also being considered.

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BLM KFO invites you to comment on these proposed actions in accordance with the National Environmental Policy Act, the National Historic Preservation Act, as amended, and the American Indian Religious Freedom Act to ensure that any concerns you may have about the project are fully considered and incorporated into the environmental analysis. In addition, we acknowledge the special expertise possessed by the Tribe in identifying and assessing properties that hold traditional religious and cultural importance, and request your assistance in identifying any such properties that may be affected by this proposed undertaking.

Thank you for your consideration of this proposed project. If you would like to arrange a meeting, a project area visit, or would like additional information, please contact me at 928-718-3701 or our cultural resource specialist, Shane Rumsey at 928-718-3752; you can also email us at adodson@blm.gov or srumsey@blm.gov. Thank you for your time, we look forward to hearing from you.

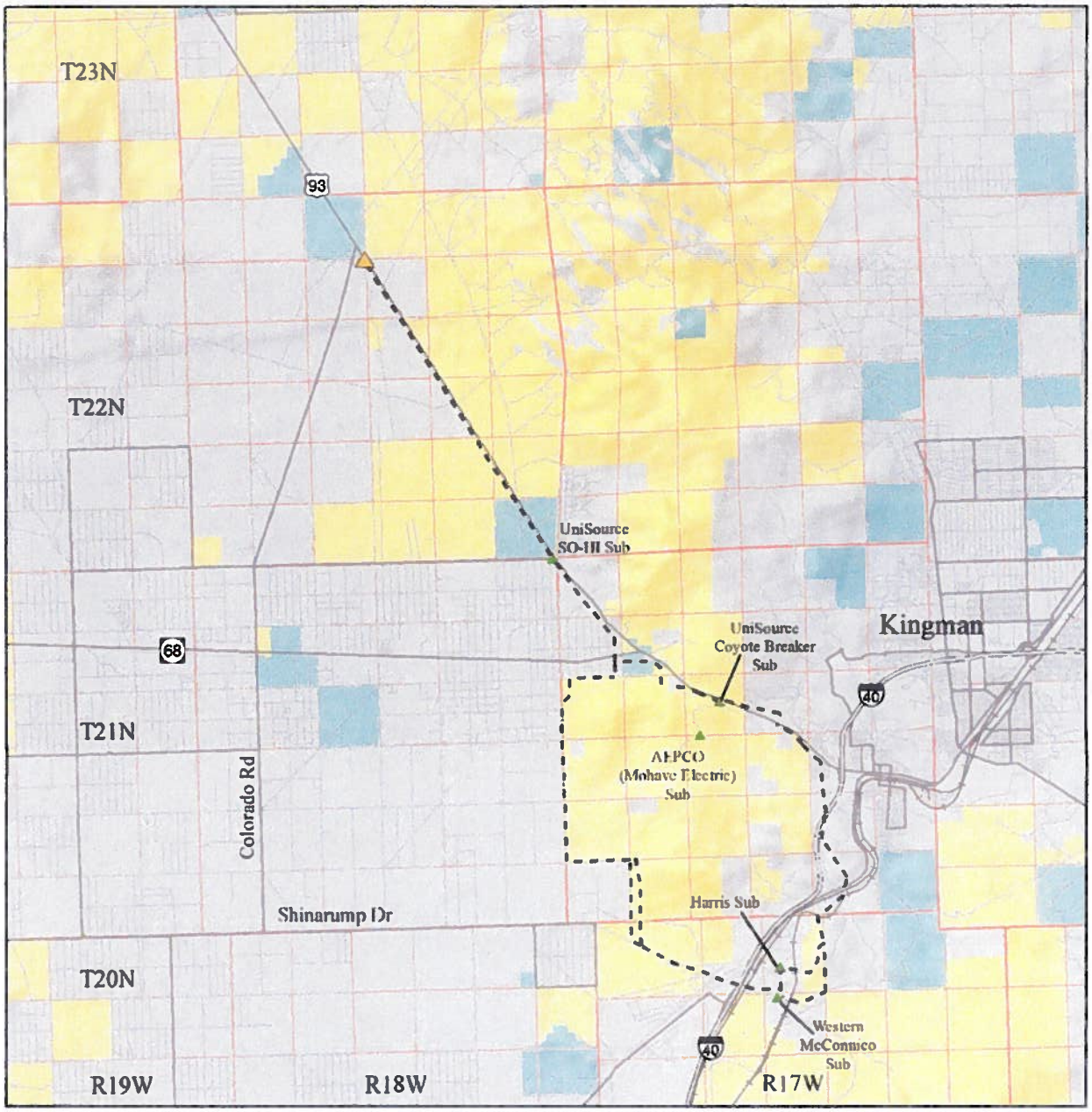
Sincerely,

Victoria Anne
Acting FH for

Amanda M. Dodson
Field Manager

cc: Ms. Ramona Salazar
Cultural Resource Coordinator
Las Vegas Paiute Tribe
One Paiute Drive
Las Vegas, NV 89106

Mr. Kenny Anderson
Environmental Manager
Las Vegas Paiute Tribe
One Paiute Drive
Las Vegas, NV 89106



0 1 2 Miles

Legend

- Project Alternatives
- Proposed Substation
- Existing Substation
- Bureau of Land Management
- Private
- State

Project Vicinity Map

Golden Valley 230kV
Transmission Line Project

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City, State, ZIP+4®: Las Vegas NV 89106

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Sent To: Ramona Salazar
Street and Apt. No., or PO Box No.: One Paiute Drive
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1. Article Addressed to:
Benny Tso, Chairman
Las Vegas Tribe of Paiute Indians
One Paiute Drive
Las Vegas, NV 89106

9590 9403 0905 5223 4945 61

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X D Anderson ☐ Agent ☐ Addressee

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1. Article Addressed to:
Ramona Salazar
Cultural Resource Coordinator
Las Vegas Paiute Tribe
One Paiute Drive
Las Vegas NV 89106

9590 9403 0905 5223 4945 54

2. Article Number (Transfer from service label)
7015 1730 0000 3692 8349

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X D Anderson ☐ Agent ☐ Addressee

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If YES, enter delivery address below: ☐ No

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1. Article Addressed to:

Kenny Anderson
Environmental Mgr.
Las Vegas Paiute Tribe
One Paiute Dr.
Las Vegas NV 89106

9590 9403 0905 5223 4945 47

2. Article Number (Transfer from service label)
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A. Signature
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☐ Agent
☐ Addressee

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C. Date of Delivery 06/27/16

D. Is delivery address different from item 1? ☐ Yes
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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Kingman Field Office
2755 Mission Boulevard
Kingman, Arizona 86401
www.az.blm.gov

June 23, 2016

In Reply Refer To:
8100 (C010)

CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7015 1730 0000 3692 8288

Mr. Robert Tom, Chairman
Moapa Band of Paiute Indians of the Moapa River Indian Reservation
1 Lincoln St.
P.O. Box 340
Moapa, NV 89025

Dear Chairman Tom:

The Bureau of Land Management, Kingman Field Office (BLM-KFO) would like to consult with you regarding an application for a right of way (ROW). The BLM has received an application from UNS Electric (UNSE) to construct a 230 kilovolt (kV) transmission line from the existing Harris Substation (section 4, Township 20 North, Range 17 West, Gila and Salt River Baseline and Meridian) to a proposed substation near the intersection of Mineral Park Road and US Route 93 (section 3 or 4, Township 22 North, Range 18 West, Gila and Salt River Baseline and Meridian). The proposed transmission line would be generally located near the communities of Golden Valley and Kingman, Arizona. In addition to BLM administered public lands, the proposed transmission line would cross private and state trust lands, and, depending on the alternative, may cross lands owned by the City of Kingman.

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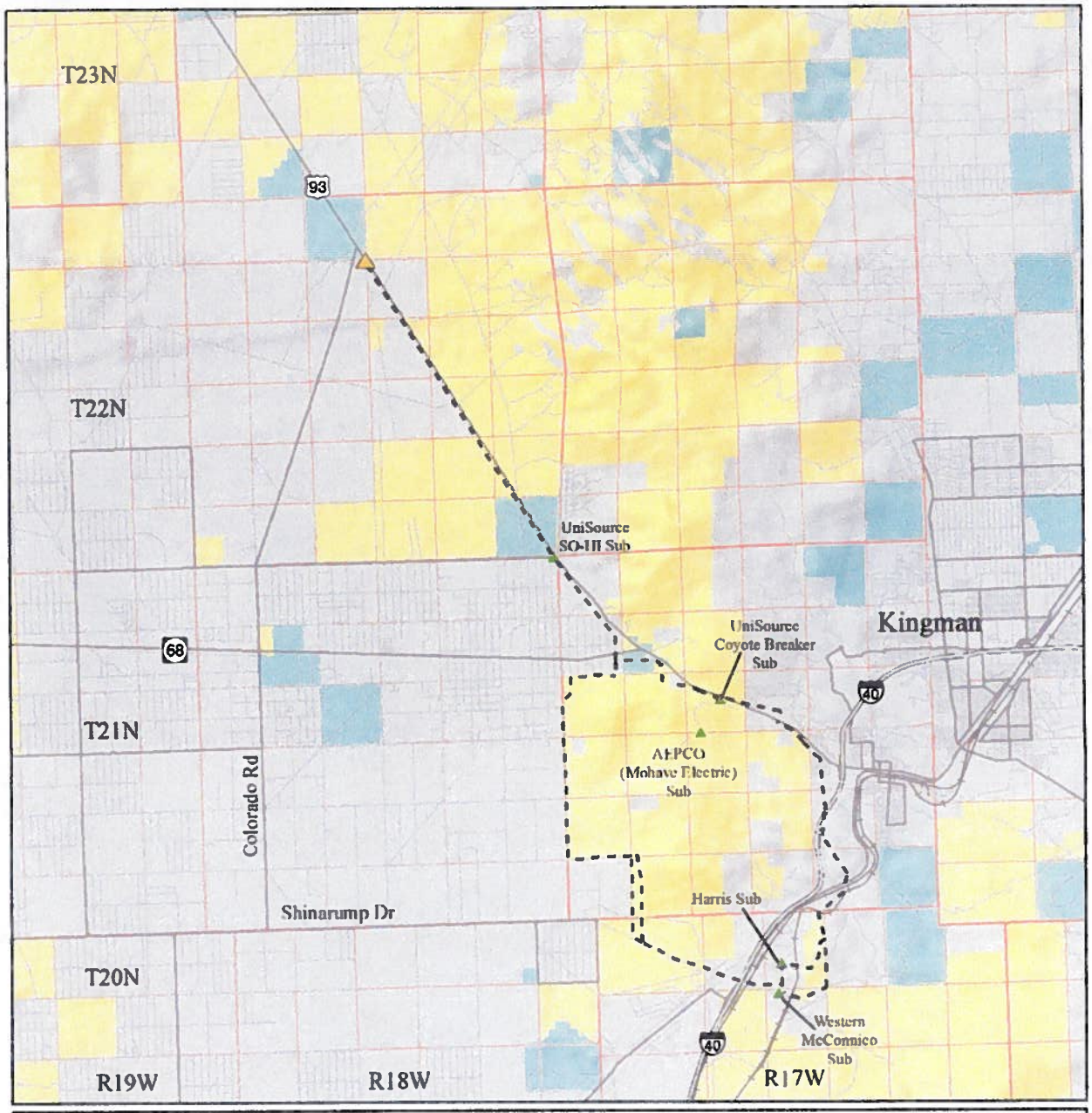
Sincerely,

Victoria Rose

Acting For

Amanda M. Dodson
Field Manager



0 1 2 Miles

Legend

- Project Alternatives
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Project Vicinity Map

Golden Valley 230kV Transmission Line Project

UNS Electric

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PS Form 3800, April 2015 PSN 7530-02-000-9047 — See Reverse for Instructions

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1. Article Addressed to:
Robert Tom, Chairman
Moapa Band of Paiute Indians
1 Lincoln St
PO Box 340
Moapa NV 89025

9590 9403 0905 5223 4945 78

2. Article Number *(Transfer from service label)*
7015 1730 0000 3692 8288

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MOAPA NV 89025 JUN 28 2016

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PS Form 3811, July 2015 PSN 7530-02-000-9053 — Domestic Return Receipt

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Kingman Field Office
2755 Mission Boulevard
Kingman, Arizona 86401
www.az.blm.gov

June 23, 2016

In Reply Refer To:
8100 (C010)

CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7015 1730 0000 3692 8295

Mr. Thomas Beauty, Chairman
Yavapai-Apache Nation of the Camp Verde Indian Reservation
2400 W. Datsi Street
Camp Verde, AZ 86322

Dear Chairman Beauty:

The Bureau of Land Management, Kingman Field Office (BLM-KFO) would like to consult with you regarding an application for a right of way (ROW). The BLM has received an application from UNS Electric (UNSE) to construct a 230 kilovolt (kV) transmission line from the existing Harris Substation (section 4, Township 20 North, Range 17 West, Gila and Salt River Baseline and Meridian) to a proposed substation near the intersection of Mineral Park Road and US Route 93 (section 3 or 4, Township 22 North, Range 18 West, Gila and Salt River Baseline and Meridian). The proposed transmission line would be generally located near the communities of Golden Valley and Kingman, Arizona. In addition to BLM administered public lands, the proposed transmission line would cross private and state trust lands, and, depending on the alternative, may cross lands owned by the City of Kingman.

The proposed transmission line is to develop a double-circuit 230kV transmission line to improve reliability, replace aged equipment, and accommodate a projected 5 to 35 megawatt (MW) increase in load over the next decade in the north Golden Valley area.

In its current application, UNSE has applied for a 125 to 200 foot-wide ROW for the length of the proposed transmission line. The proposed substation would be located either on BLM administered public lands or on private land; if on BLM land, a minimum of ten acres of land would be required. Currently, there is not a proposed "preferred alternative." Two alternative are being considered for both the route of the transmission line (East Cerbat alternative and West Cerbat alternative) and the location of the Mineral Park Substation (North Substation alternative and South Substation alternative). The no action alternative is also being considered.

The primary distinction between the two alternative transmission line routes is whether it follows the southern and southwestern edge of the Cerbat Foothills Recreation Area on the east side of Golden Valley, or whether it generally follows Interstate 40 and US Route 93. From where the alternative routes converge west of Coyote Pass to the proposed Mineral Park Substation both alternatives follow the same alignment. Refer to the enclosed map for the locations of these.

The primary distinguishing feature between the substation alternatives is the North Substation alternative is located just north of US Route 93 on BLM administered public land and the South Substation alternative is located just south of US Route 93 on private land.

In 2007 UNSE applied for a similar transmission line project that would have supplied the Mineral Park Mine with 230kV electrical capacity for its mining operation. Processing that application halted in 2010. Although similar in scope, the current proposal is not associated with providing electricity for mining operations. As part of the environmental review for its previous application, two Class III intensive cultural surveys were completed.

Cultural resources are among the environmental resources being considered. As noted above, a portion of the areas that would be affected by the proposed transmission line have been subject to Class III intensive cultural resources surveys. A third Class III intensive survey is being conducted in the areas of the proposed substation locations. Once that survey is completed the information will be consolidated into one report. When complete, a copy of this report will be available upon request, and its results will be summarized and provided to the Tribe in a future consultation letter.

BLM KFO invites you to comment on these proposed actions in accordance with the National Environmental Policy Act, the National Historic Preservation Act, as amended, and the American Indian Religious Freedom Act to ensure that any concerns you may have about the project are fully considered and incorporated into the environmental analysis. In addition, we acknowledge the special expertise possessed by the Tribe in identifying and assessing properties that hold traditional religious and cultural importance, and request your assistance in identifying any such properties that may be affected by this proposed undertaking.

Thank you for your consideration of this proposed project. If you would like to arrange a meeting, a project area visit, or would like additional information, please contact me at 928-718-3701 or our cultural resource specialist, Shane Rumsey at 928-718-3752; you can also email us at adodson@blm.gov or srumsey@blm.gov. Thank you for your time, we look forward to hearing from you.

Sincerely,

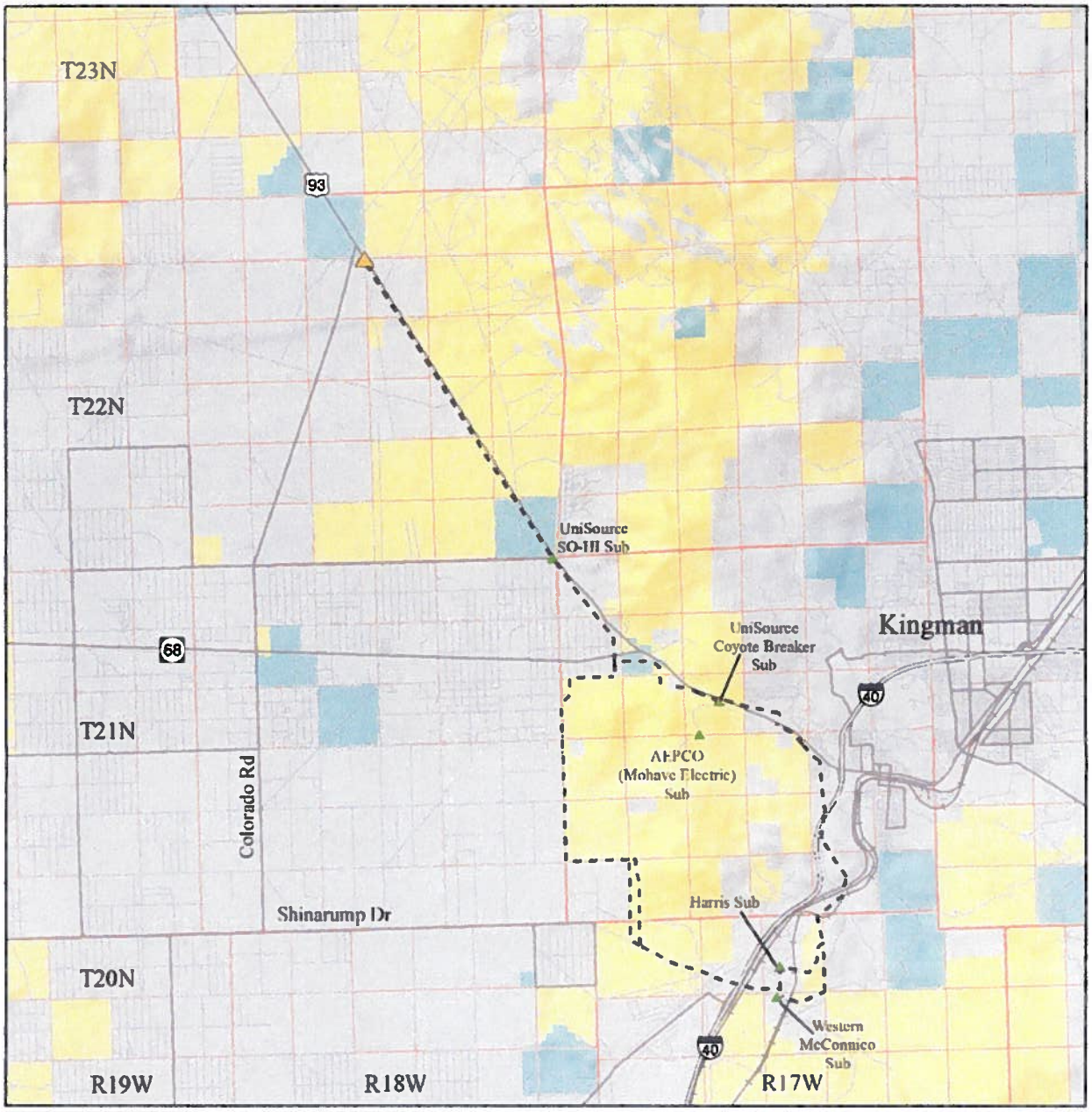
Victoria Anne

Acting FM for

Amanda M. Dodson
Field Manager

cc: Mr. Chris Coder, Archaeologist
Yavapai-Apache Nation
2400 W. Datsi Street
Camp Verde, AZ 86322

Ms. Gertrude Smith, Director
Yavapai Cultural Department
2400 W. Datsi Street
Camp Verde, AZ 86322



0 1 2 Miles

Legend

- Project Alternatives
- Proposed Substation
- Existing Substation
- Bureau of Land Management
- Private
- State

Project Vicinity Map

Golden Valley 230kV
Transmission Line Project

UNS Electric

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Street and Apt. No., or PO Box No. 2400 W. Datsi Street
City, State, ZIP+4® Camp Verde AZ 86322

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Sent To Chris Coder
Street and Apt. No., or PO Box No. 2400 W. Datsi St.
City, State, ZIP+4® Camp Verde AZ 86322

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1. Article Addressed to:

Thomas Beauty, Chairman
Yavapai-Apache Nation
2400 W. Datsi Street
Camp Verde, AZ 86322

9590 9403 0905 5223 4945 92

2. Article Number (Transfer from service label)
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1. Article Addressed to:

Chris Coder, Archaeologist
Yavapai-Apache Nation
2400 W. Datsi St
Camp Verde AZ 86322

9590 9403 0905 5223 4945 85

2. Article Number (Transfer from service label)
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Sent To: Gertrude Smith
Street and Apt. No., or PO Box No.: 2400 W. Datsi St
City, State, ZIP+4®: Camp Verde AZ 86322

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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1. Article Addressed to:

Gertrude Smith, Director
Yavapai Cultural Dept.
2400 W. Datsi street
Camp Verde AZ 86322

9590 9403 0905 5223 4946 08

2. Article Number (Transfer from service label)
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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Kingman Field Office
2755 Mission Boulevard
Kingman, Arizona 86401
www.az.blm.gov

June 23, 2016

In Reply Refer To:
8100 (C010)

CERTIFIED MAIL-RETURN RECEIPT REQUESTED: 7015 1730 0000 3692 8301

Mr. Ernest Jones Sr., President
Yavapai-Prescott Indian Tribe
530 E. Merritt Street
Prescott, AZ 86301

Dear President Jones:

The Bureau of Land Management, Kingman Field Office (BLM-KFO) would like to consult with you regarding an application for a right of way (ROW). The BLM has received an application from UNS Electric (UNSE) to construct a 230 kilovolt (kV) transmission line from the existing Harris Substation (section 4, Township 20 North, Range 17 West, Gila and Salt River Baseline and Meridian) to a proposed substation near the intersection of Mineral Park Road and US Route 93 (section 3 or 4, Township 22 North, Range 18 West, Gila and Salt River Baseline and Meridian). The proposed transmission line would be generally located near the communities of Golden Valley and Kingman, Arizona. In addition to BLM administered public lands, the proposed transmission line would cross private and state trust lands, and, depending on the alternative, may cross lands owned by the City of Kingman.

The proposed transmission line is to develop a double-circuit 230kV transmission line to improve reliability, replace aged equipment, and accommodate a projected 5 to 35 megawatt (MW) increase in load over the next decade in the north Golden Valley area.

In its current application, UNSE has applied for a 125 to 200 foot-wide ROW for the length of the proposed transmission line. The proposed substation would be located either on BLM administered public lands or on private land; if on BLM land, a minimum of ten acres of land would be required. Currently, there is not a proposed "preferred alternative." Two alternative are being considered for both the route of the transmission line (East Cerbat alternative and West Cerbat alternative) and the location of the Mineral Park Substation (North Substation alternative and South Substation alternative). The no action alternative is also being considered.

The primary distinction between the two alternative transmission line routes is whether it follows the southern and southwestern edge of the Cerbat Foothills Recreation Area on the east side of Golden Valley, or whether it generally follows Interstate 40 and US Route 93. From where the alternative routes converge west of Coyote Pass to the proposed Mineral Park Substation both alternatives follow the same alignment. Refer to the enclosed map for the locations of these.

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In 2007 UNSE applied for a similar transmission line project that would have supplied the Mineral Park Mine with 230kV electrical capacity for its mining operation. Processing that application halted in 2010. Although similar in scope, the current proposal is not associated with providing electricity for mining operations. As part of the environmental review for its previous application, two Class III intensive cultural surveys were completed.

Cultural resources are among the environmental resources being considered. As noted above, a portion of the areas that would be affected by the proposed transmission line have been subject to Class III intensive cultural resources surveys. A third Class III intensive survey is being conducted in the areas of the proposed substation locations. Once that survey is completed the information will be consolidated into one report. When complete, a copy of this report will be available upon request, and its results will be summarized and provided to the Tribe in a future consultation letter.

BLM KFO invites you to comment on these proposed actions in accordance with the National Environmental Policy Act, the National Historic Preservation Act, as amended, and the American Indian Religious Freedom Act to ensure that any concerns you may have about the project are fully considered and incorporated into the environmental analysis. In addition, we acknowledge the special expertise possessed by the Tribe in identifying and assessing properties that hold traditional religious and cultural importance, and request your assistance in identifying any such properties that may be affected by this proposed undertaking.

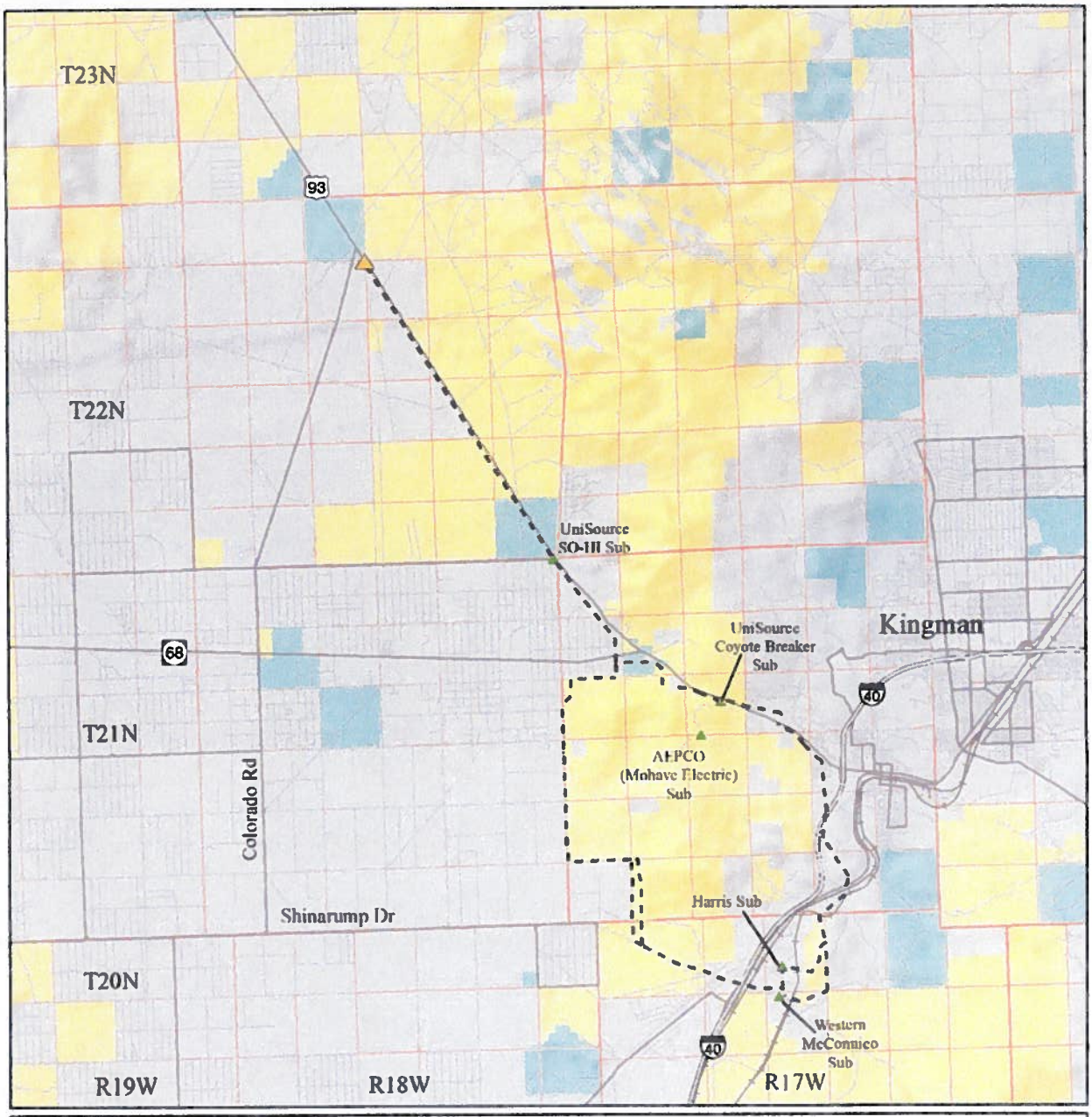
Thank you for your consideration of this proposed project. If you would like to arrange a meeting, a project area visit, or would like additional information, please contact me at 928-718-3701 or our cultural resource specialist, Shane Rumsey at 928-718-3752; you can also email us at adodson@blm.gov or srumsey@blm.gov. Thank you for your time, we look forward to hearing from you.

Sincerely,

Victoria Arnone
Acting for

Amanda M. Dodson
Field Manager

cc: Mr. Gregory T. Glassco
Cultural Research Department
Yavapai-Prescott Indian Tribe
530 E. Merritt Street
Prescott, AZ 86301



0 1 2 Miles

Legend

- Project Alternatives
- Proposed Substation
- Existing Substation
- Bureau of Land Management
- Private
- State

Project Vicinity Map

Golden Valley 230kV
Transmission Line Project

UNS Electric

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City, State, ZIP+4®: Prescott AZ 86301

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Sent To: Gregory Glassco

Street and Apt. No., or PO Box No.: 530 E. Merritt St

City, State, ZIP+4®: Prescott AZ 86301

7015 1730 0000 3692 8318

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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1. Article Addressed to:

Ernest Jones, Sr., President
Yavapai-Prescott Indian Tribe
530 E. Merritt Street
Prescott, AZ 86301

9590 9403 0905 5223 4946 22

2. Article Number *(Transfer from service label)*

7015 1730 0000 3692 8301

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A. Signature

X [signature] ☒ Agent ☐ Addressee

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1. Article Addressed to:

Gregory T. Glassco
Cultural Research Dept.
Yavapai-Prescott Indian Tribe
530 E. Merritt St
Prescott AZ 86301

9590 9403 0905 5223 4946 15

2. Article Number *(Transfer from service label)*

7015 1730 0000 3692 8318

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X [signature] ☒ Agent ☐ Addressee

B. Received by *(Printed Name)* ARUIZ C. Date of Delivery 6/27/16

D. Is delivery address different from item 1? ☐ Yes
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PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

EXHIBIT J-27

TRIBAL LETTERS AND EMAIL RECEIVED

Rumsey, Shane <srumsey@blm.gov>

8100(C1010)

1 message

Jay Craváth, Ph.D. <cultural@cit-nsn.gov> Tue, Sep 6, 2016 at 12:12 PM
To: srumsey@blm.gov

We are attempting to lower our carbon footprint and ask you to do the same by using electronic mail from now on.

We have no specific comments regarding this project. However, if, during work evidence of cultural resources are discovered, please cease all activity and notify us immediately.

Also, our Chairman is Charles Wood, not Edward Smith. This is Chairman Wood's second year in office.

Sincerely,

Jay Cravath, Ph.D.
Cultural Director
Chemehuevi Cultural Center
760-858-1115
--
Jay Craváth, Ph.D.
Cultural Director
Chemehuevi Indian Tribe
760.858.1115

COLORADO RIVER INDIAN TRIBES

Tribal Historic Preservation Office

26600 MOHAVE RD.
PARKER, ARIZONA 85344
PH (928) 669-5822 • FAX (928) 669-5843

July 11, 2016

U.S. Dept. of the Interior
Bureau of Land Management
Kingman Field Office
2755 Mission Boulevard
Kingman, AZ 86401

RE: Harris Substation Transmission Line Project

Dear Ms. Amanda M. Dodson:

The Colorado River Indian Tribes' Tribal Historic Preservation Office ("CRIT THPO") has received your letter dated June 23, 2016 regarding the *Harris Substation Transmission Line* Project.

As a preliminary matter, the Colorado River Indian Tribes are a federally recognized Indian tribe comprised of over 4,200 members belonging to the Mohave, Chemehuevi, Hopi and Navajo Tribes. The almost 300,000 acre Colorado River Indian Reservation sits astride the Colorado River between Blythe, California and Parker, Arizona. The ancestral homelands of the Tribe's members, however, extend far beyond the Reservation boundaries. Significant portions of public and private lands in California, Arizona and Nevada were occupied by the ancestors of the Colorado River Indian Tribes' Mohave and Chemehuevi members since time immemorial. These landscapes remain imbued with substantial cultural, spiritual and religious significance for the Tribes' current members and future generations. For this reason, we have a strong interest in ensuring that potential cultural resource impacts are adequately considered and mitigated.

In particular, the Colorado River Indian Tribes are concerned about the removal of artifacts from this area and corresponding destruction of the Tribes' footprint on this landscape. As such, the Tribes request that all prehistoric cultural resources, including both known and yet-to-be-discovered sites, be avoided if feasible. If avoidance of the site is infeasible, then the Tribes request that the resources be left in-situ or reburied in a nearby area, after consultation. This language should be incorporated into enforceable mitigation measures.

In addition, we respond as follows:

_____Given the potential impact of the project on important cultural resources, the Colorado River Indian Tribes request in-person government-to-government consultation. Please contact the CRIT THPO to discuss our concerns and schedule a meeting with Tribal Council.

___√___In the event any human remains or objects subject to provision of the Native American Graves Protection and Repatriation Act, or cultural resources such as sites, trails, artifacts are identified during ground disturbance, please contact the CRIT THPO within 48 hours.

_____The Colorado River Indian Tribes request tribal monitoring of any ground disturbing activity as a condition of project approval. The Tribes request notification of any opportunities to provide tribal monitoring for the project.

___√___The Colorado River Indian Tribes do not have any specific comment on the proposed project and instead defer to the comments of other affiliated tribes.

Thank you for your consideration. Please contact the undersigned if you have any questions or concerns.

Sincerely,

COLORADO RIVER INDIAN TRIBES
TRIBAL HISTORIC PRESERVATION OFFICE

David Harper, Director
26600 Mohave Road
Parker, AZ 85344
Phone: (928) 669-5822
E-mail: david.harper@crit-nsn.gov

critthpo@crit-nsn.gov

THE HOPI TRIBE

Herman G. Honanie
CHAIRMAN

Alfred Lomahquahu Jr.
VICE-CHAIRMAN

June 29, 2016

Amanda M. Dodson, Field Manager
Attention: Shane Rumsey, Cultural resource Specialist
Bureau of Land Management, Kingman Field Office
2755 Mission Boulevard
Kingman, Arizona 86401

Dear Ms. Dodson,

This letter is in response to your correspondence dated June 23, 2016, regarding an application for a right-of-way from UNS Electric to construct a 230 kV transmission line from the existing Harris Substation to a proposed substation near the intersection of Mineral Park Road and US Route 93.

The Hopi Tribe claims cultural affiliation to Ancestral Pueblo cultural groups in Arizona. The Hopi Cultural Preservation Office supports the identification and avoidance of our ancestral sites, and we consider the prehistoric archaeological sites of our ancestors to be Traditional Cultural Properties. Therefore, we appreciate the Bureau of Land Management's solicitation of our input and your efforts to address our concerns.

The Hopi Cultural Preservation Office requests consultation on any proposal with the potential to adversely affect prehistoric sites. Therefore, if the cultural resources surveys of the area of potential effect identify prehistoric cultural resources that will be adversely affected by project activities, we request continuing consultation on this proposal including provided with copies of the cultural resources survey reports and any proposed treatment plans for review and comment.

If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office at 928-734-3619 or tmorgart@hopi.nsn.us. Thank you for your consideration.

Respectfully,

Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: Arizona State Historic Preservation Office

EXHIBIT J-28

POSTCARD MAILING OF PUBLIC COMMENT PERIOD
FOR DRAFT ENVIRONMENTAL ASSESSMENT

UniSourceEnergy SERVICES
P.O. Box 711
ATTN: Golden Valley
Mail Stop RC131
Tucson, AZ 85701-0711

First Class Mail
Presorted
US Postage Paid
Tucson AZ
Permit #21

UNITED STATES OF AMERICA
2755 MISSION BLVD
KINGMAN AZ 86401

FAUYSP1 86401

Golden Valley 230-Kilovolt Transmission Line Project

Environmental Assessment Now Available for Review

A draft environmental assessment (EA) for a proposed approximately 17-mile-long 230-kilovolt (kV) electric transmission line and substation in the Kingman and Golden Valley region is now available for public review.

The Golden Valley 230-kV Transmission Line Project (project), proposed by UNS Electric Inc., a subsidiary of UniSource Energy Services, is designed to help improve reliability, replace aging equipment, and support the future energy needs of customers in Mohave County.

The draft EA was prepared by the Bureau of Land Management (BLM) Kingman Field Office, acting as the lead National Environmental Policy Act, or NEPA, agency. Pursuant to federal Council on Environmental Quality regulations and in accordance with the National Environmental Policy Act, this draft EA provides information for determining if a "Finding of No Significant Impact" is appropriate for the project, or if further analysis and preparation of an Environmental Impact Statement is required.

You are invited to review and provide written comments about the draft EA. To download, please visit the BLM website at https://go.usa.gov/xwf6J (case sensitive). Comments must be received no later than Wednesday, September 2, 2020. Please submit comments to:

C/O Andy Whitefield, BLM Project Manager
Transcon Environmental
1745 S. Alma School Road, Suite 220
Mesa, Arizona 85210

For more information about the project, please visit UNSE's project website at uesaz.com/golden-valley. You also may contact BLM Project Manager Andy Whitefield at 928-718-3746 or awhitefi@blm.gov for additional information.

UniSourceEnergy SERVICES

EXHIBIT J-29

AGENCY AND PUBLIC OFFICIAL COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT

ePLANNING

Comment Submission

Project: DOI-BLM-AZ-C010-2018-0012-EA - Golden Valley 230kV Transmission Line

Document: Main Body GV230kV Draft EA 2020 0719 clean.pdf

Submission ID: GV230-1-500108039

Comment

Arizona Game and Fish Department
%Response Letter: Golden Valley Transmission Line Project
Kingman Regional Office
5325 N. Stockton Hill Road
Kingman, AZ 86409

Upload File(s)

Files

M20-08071501 AGFD comments Golden Valley Transmission dk.pdf
Reducing Avian Collisions with Powerlines.pdf
Suggested Practices for Avian Protections on Power Lines 2006.pdf

Submitter(s)

Submitter 1

Name: Kephart, Dee
Address: Not Provided
Email Address: dkephart@azgfd.gov

Phone Number: 928-263-8855
Group or Organization Name: Arizona Game and Fish Department
Position: Habitat Evaluation and Lands Program Manager
(Add me to the project mailing list) - ***YES***

Disclaimer

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment - including your personal identifying information - may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

(Withhold my personally identifying information from future publications on this project) - ***NO***

August 18, 2020

Mr. Andy Whitefield
Bureau of Land Management
Kingman Field Office
2755 Mission Blvd.
Kingman, AZ 86401

RE: Golden Valley Transmission Line Project

Dear Mr. Whitefield:

The Arizona Game and Fish Department (Department) has reviewed the *Golden Valley 230 kV Transmission Line Project Environmental Assessment (EA)*, published by the Bureau of Land Management (BLM) in July 2020. The Department understands that UNS Electric Inc., a subsidiary of UniSource Energy Services, is developing plans for a 17-mile-long, 230-kilovolt (kV), electric transmission line and substation in the Kingman and Golden Valley region. The new transmission line would supply a projected 5-35 megawatt (MW) increase in customer energy needs over the next decade in the north Golden Valley area. Power within UniSource's Mohave County service territory is currently transmitted primarily over a 69kV transmission network.

Under Title 17 of the Arizona Revised Statutes, the Department, by and through the Arizona Game and Fish Commission (Commission), has jurisdictional authority and public trust responsibilities for management of the state's fish and wildlife resources. It is the mission of the Department to conserve Arizona's diverse fish and wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

The Department recognizes and supports planning efforts that contribute to the state's and regional economic growth needs, similarly the Department acknowledges that the entities responsible for this undertaking have already incorporated best management practices (BMP) and mitigation measures to reduce impacts to wildlife and their habitats; which includes ground trenching, limiting work during breeding season for birds, and species specific protections for the Sonoran Desert tortoise, desert kit fox, and western burrowing owl.

The Department also recognizes and appreciates the mitigation action of no construction activities occurring within a radius of a half-mile of an active golden eagle nest between December 15 and August 1, or until it has been determined by a qualified biologist that nesting is complete. The project area is utilized by golden eagles, with the surrounding area utilized by bald eagles traveling to feeding and nesting areas along the Colorado River and surrounding

lakes. Both species are protected by the Bald and Golden Eagle Protection Act. As such, the Department would like to see the inclusion of avian protections for powerlines so that primary and any connector-lines are designed to prevent or minimize risk of electrocution of raptors and other avian species. Guidelines have been established by the U.S. Fish and Wildlife Service (USFWS) along with the Avian Power line Interaction Committee (APLIC); *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC 2006).,* and within the *Reduced Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC)., Edison Electrical Institute (EEI 2012)*, both have been attached for your review and consideration.

The Department appreciates the proactive involvement and coordination with Department personnel for this project as well as the opportunity to provide scoping comments on the *Golden Valley Transmission Line Project EA*. If you have any questions regarding this letter, or questions concerning the attached information please feel free to contact me at (928) 377-2541 or by email at dkephart@azgfd.gov.

Sincerely,

Dee Kephart

Dee Kephart
Habitat Evaluation and Lands Program Manager, Kingman

cc: Larry Phoenix, Regional Supervisor, Region III
Clayton Crowder, Habitat Branch Chief
Ginger Ritter, Project Evaluation Program Supervisor

AGFD # M20-08071501

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Chairman Jean Bishop
Mohave County Supervisor District 4

Delivered by Email to: awhitefi@blm.gov
Delivered electronically to: https://eplanning.blm.gov/eplanning-ui/project/97103/570

August 31, 2020

Mr. Andy Whitefield,
Golden Valley 230-kV Project Lead
Bureau of Land Management, Kingman Field Office
2755 Mission Boulevard, Kingman, AZ 86401

Re: Comments to the Draft Environmental Assessment for UNS Electric (UNSE)—Golden Valley 230-kV Transmission Line Project

Dear Mr. Whitefield:

Thank you for your notice of the completion of a Draft Environmental Assessment (EA) on the impacts of UNSE's 17 mile-long 230-kV electric line. I am pleased to provide comments on the East and West proposed routes.

I write to support BLM's selection of one the West Routes for your final decision on the proposed UNSE 230-kV transmission line that runs along public federal lands, and to oppose the East Routes that run through more private lands.

I oppose the East Routes for two reasons:

1. The proposed East Routes will likely obstruct the operation of both the KYET 1170 AM radio tower that is only 500 feet from the line near Highway 93, and the Cameron Broadcasting Tower for KAAA 1230 AM that is located about 1300 feet away from the line at the mouth of Cook Canyon – both on private property. This is because the UNSE 230-kV line and monopoles will likely cause unacceptable pattern distortion if they are closer than 1150 feet to the tower. (See enclosed Cameron Broadcasting Letter of September 30, 2008.) I understand that the owners of both towers likewise oppose the East routes and support the West routes.

2. West Routes 1 and 2 for example should be the BLM's "preferred alternative" and final recommendation because they have only 66 residences along the routes. The East Routes have 133 residences along the routes See Tables 16 and 19. In addition, the West Route will serve the public purposes that UNSE seeks ("to improve reliability, replace aged equipment, and accommodate a projected 5- to 35-megawatt increase in load over the next decade in the north Golden Valley "), using public federal lands managed by the Bureau of Land Management for this "public purpose."

I do note some private citizens have already sacrificed some of their lands for the public good to build Interstate 40 in Cook Canyon, and it seems to me that they should not be forced to sacrifice some of their land's remaining value to the public for a 230-kV line.

Please include my office on any notices for site visits, National Environmental Policy Act (NEPA) mailings and meetings, and in all remaining public meetings conducted under the ACC process.

Thank you again for conducting this public outreach process and for your hard work in constructing the EA.

Sincerely,

Chairman Jean Bishop
Mohave County Board of Supervisors, District-4

EXHIBIT J-30

PUBLIC COMMENTS RECEIVED BETWEEN 2007 AND 2021

GOLDEN VALLEY 230 KV TRANSMISSION LINE PROJECT
COMMENTS SUMMARY

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
6/29/2016	☐	I like (purple) Cyoty Pass line. Less residential and wild life affected. Would like maintenance roads to be used for ATVers with cattle guards instead of finces / gates !!			Location, Other	East	
6/29/2016 Lives in Study Area	☐	Alternitive W-2 will be clearly visable from my front porch. Alternitive W1 will be a little further away but still visible. I do not wish to live near these lines nor would I like them to be included in my view of the mountain.			Appearance, Location, Other		
6/28/2016 Lives in Study Area	☐	It's less costly to go through Golden Valley. The future development of GV means it make sense to run it on the west side of BLM.			Cost, Other	West	
6/28/2016 Lives in Study Area	☐	We live at the base of the Cerbats along the Western Alternative. The reason we bought this property was because of it's magnificent views of the pristine mountain range "protected" by BLM. The animal life is a variety of tortoises, tarantulas, rabbits, birds of every variety, gila monsters, snakes, squirrels, not to mention the plant life. This beautiful range of mountains has not been affected by industrial action and should not be. I have a deep concern that once these powerlines are allowed more will follow. The Eastern Alternative already has existing lines and Unisource right of way. The "view point" shown at the mtg did not include our viewpoint or the viewpoint of any of the existing homes. This is an unfair perspective. I had many comments many of which have been lost in my overwhelmed feelings of the negative impact this project will have on our lives. So, this is not the last time I will be contacting you with comments. Don't forget to consider the purity of the Western Alternative. Thank you for takng the time to listen to all concerns. The experts and representatives involved in (remainder of sentence completing comment illegible).			Appearance, Location, Other	East	
6/28/2016 Considering Purchasing Land in Study Area	☐	We are thinking of buying the property in Golden Valley next to the BLM land where the power pole will be. W2 will be 125' feet from our house with all that high power electricity. Please place the lines on E1 - E2.			Location, Other	E1, E2	
6/28/2016 Owns Property in Study Area	☐	E1 - E2 affects the least number of homeowners and their views. Routing E1-E2 follows existing power corridors and right of ways and so impacts the native plants and animals the least compared to W1-W2. We own property barely 125 ft. from your proposed 125 ft. tall towers on W2. We will be severly impacted by this project.			Appearance, Location, Other	E1, E2	

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008 Kind people	☐	Public Open House #3 (Workshops) Comments Concerns are: 1) Defacing the land: both the lines and the service, 2) Using up water, 3) Health hazards for residents, 4) Health hazards for animals Stop this project altogether - it ONLY SERVES corporate interests, nothing else. You have done a very lousy job informing locals about meetings, etc.!!!			Health, Appearance, Location, Other		
5/6/2008-5/8/2008 Owns Property in Study Area Letter from Transcon	☐	Public Open House #3 (Workshops) Comments Concerns are: 1) Possible magnetic radiation, 2) Reduce property value, unsightly appearance and high voltage tower, 3) Noisy during inclement weather Why not use the BLM land rather than private residential land? Relocate somewhere else.			Health, Appearance, Location, Other		
5/6/2008- 5/8/2008 Owns Property in Study Area	☐	Public Open House #3 (Workshops) Comments Concerns are: Bacobi road has 4 new homes / owners. We moved from Wyoming as husband has a pacemaker and CANNOT live under the 230kV lines - we'd be forced to move again!! BLM land and / or existing land and not impact new homes. Route D, D1 or E and E1 are perfect. Honest information provided to homeowners. Who actually will benefit from new lines?			Health, Location	D, D1, E, E1	
5/6/2008- 5/8/2008 Owns Property in Study Area	☐	Public Open House #3 (Workshops) Comments Concerns are: Decreased property value, asthetics, health issues relating to electromagnetic fields, inconvenience. Option "D" or D1, E, E1 seem to be the most appropriate. Better communication beginning with initial planning from the utility to the property owners as well as from BLM.			Health, Appearance, Location, Other	D, D1, E, E1	

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008 Calls, email, newspaper	☐	Public Open House #3 (Workshops) Comments Concerns are: decline of value of property, health concern, water concern, EMF effect Use plan D, use plan E, use BLM land, use state land			Health, Appearance, Location, Other	D, E	
5/6/2008- 5/8/2008 Email, phone calls, paper	☐	Public Open House #3 (Workshops) Comments Concerns are: decline of property value, health concern, EMF effect Use BLM land, use state land, go with plan D, go with plan E			Health, Location, Other	D, E	
5/6/2008- 5/8/2008	☐	Public Open House #3 (Workshops) Comments Concerns are: property values. Where (illegible wording) would impact the lowest people.			Other		
5/6/2008- 5/8/2008 A friend	☐	Public Open House #3 (Workshops) Comments Concerns are: I don't like big electric towers going in around any homes. It's bad for your health and also brings down property value. On the mountains (Cerbat) on Kingman side. Go in the back way to the Duval Mines. Start petitions get notarized so they are legal to stop the power lines going through people's property.			Health, Location, Other		
5/6/2008- 5/8/2008 Letter in mail	☐	Public Open House #3 (Workshops) Comments Concerns are: Yes, after you receive approval for the project - I hope you do not plan another rate increase. I am now paying as much as my mortgage. No idea (regarding alternative routes). I am a (illegible wording) operator. We provide emergency communications. However there is a good change our frequences could be blocked by this transmission line. Then you know the whole community would be lost in an emergency if all other forms of communication is down.			Other		

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008 Owns Property in Study Area Phone	☐	Public Open House #3 (Workshops) Comments Concerns are: Yes, I have concerns regarding impact to my personal property, both social, environmental, and financial in regards to property value. Use BLM or State land where possible and stay off of private land.			Location, Other		
5/6/2008- 5/8/2008 Owns Property in Study Area Email, phone contact	☐	Public Open House #3 (Workshops) Comments Concerns are: Health concerns, property values, easement footage. Keep transmission line in areas that are not populated. It has been good! (Regarding public involvement)			Health, Location, Other		
5/6/2008- 5/8/2008 Phone	☐	Public Open Hosue #3 (Workshop) Comments Property loss on the business and residential aspect.			Other		
5/6/2008- 5/8/2008	☐	NOT IN MY BACK YARD! I am absolutely opposed to the building of a high voltage power line in the Golden Valley. It would deface the land, devalue the properties, irreversibly damage the quality of life, and, most importantly, jeopardize the health of the local residents, in particularly the children, the seniors, and those people who already have or have had medical problems in the past (probably most of us!). I urge you to make recommendations against the project.			Health, Appearance, Location, Other		
5/6/2008- 5/8/2008 Owns Property in Study Area	☐	Public Open House #3 (Workshop) Comments Concerns are: Property prices will be affected by the presence of this line in a residential area. Use State or BLM land or use Highway right of way. I favor plan D or D1.			Location, Other	D, D1	

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008 Owns Property in Study Area	☐	Public Open House #3 (Workshop) Comments Concerns are: I'm very concerned about this project. It will have a huge impact on all of Golden Valley, but especially those of us that live on the East end of the Valley. Use BLM or State owned land and keep away from private residences. This would have an effect on property values here in the valley. I'm in favor of plan D or D1.			Location, Other	D, D1	
5/6/2008- 5/8/2008 Owns Property in Study Area Email	☐	Public Open House #3 (Workshop) Comments Concerns are: We are concerned about health issues regarding this kind of power lines coming so close to our homes. We have over 3 acres w/ 2 homes on them. We have a 25 yr old daughter that is severly handicapped -- she CANNOT afford to have any outside influences that may affect her fragile health. Also we have my elderly father living with us, and Deb Castiglione has already been affected with cancer -- it is unknown if these powerlines will adversely affect ones health. We are very concerned about the health issues concerning these powerlines. Also we do not think these lines are attractive at all -- therefore causing a drop in our property values. Most definitely the best route for these lines would be Cerbat Mtn. in my opinion, it would have the least impact. Also the usage of the power once but in will be for the mine project, and they are also going to be using lots of water which may deplete our water supply too. This WHOLE project needs to be looked into! I hope that others will benefit from these power lines also -- NOT just Mineral Park. All the concerned citizens getting together and agreeing on the best route. (Redacted) is doing a great job!			Health, Appearance, Location, Other		
5/6/2008- 5/8/2008 Newspaper and email	☐	Public Open House #3 (Workshops) Comments Concerns are: The (illegible wording) impact on So-Hi Estates, also the health concerns. All of 93 and 40 interchange need maps of same. (Illegible wording) to the 320kV power line.			Health, Location, Other		

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008 Owns Property in Study Area (redacted)	☐	Public Open House #3 (Workshops) Comments Concerns are: I do not want power lines by my property. I have concerns regarding property value and health. My criteria would be human beings first (regarding alternative routes).			Health, Location, Other		
5/6/2008- 5/8/2008 Owns Property in Study Area (redacted)	☐	Public Open House #3 (Workshops) Comments Concerns are: Yes, I have more of a concern for human environment. These powerlines should be placed as far away as possible from areas populated by humans. These powerlines need to be run in areas that are away from humans if possible. In this case it is possible. It is best to use remote land away from people. There should be more notice when projects of this impact are proposed.			Location		

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008 Owns Property in Study Area (redacted)	☐	Public Open House #3 (Workshops) Comments Concerns are: It is best to keep power lines away from human population when possible. (Wording?) Need to run lines through BLM land and away from human populations. (Wording?) BLM is public land. We should use as much remote BLM land as possible. Additional comments on the reverse of comment form: I wish to be blunt and to the point. I do not want these gigantic power poles and lines to run close to my property. I do not want these power poles to be run next to any areas populated by humans. In the best interest of the public, these lines should be run on remote public land. Use as much BLM, State, County, etc. as possible. I have no interest in EMF workshops or other classes regarding these power lines. Do everything in your power to keep them away from our towns, cities, and populated areas. Sometimes it may not be possible. In this case it is. I like D and D1 proposals. (redacted)			Location, Other	D, D1	
5/6/2008- 5/8/2008 (redacted)	☐	Public Open House #3 (Workshops) Comments Concerns are: Yes, I am concerned with the harm that these transmission lines bring against human health. Put it through BLM land.			Health, Location		
5/6/2008- 5/8/2008 Father	☐	Public Open House #3 (Workshops) Comments Concerns are: Yes, I have concerns. I do not want any transmission lines near my home. There should be a sooner notice when projects such as this are proposed.			Location		

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008 Owns Property in Study Area Mailing	☐	Public Open House #3 (Workshops) Comments Email provided to (redacted), dated May 4, 2008 Hello, I would be interested in receiving more information regarding these power lines. I own a property located on Highway 68 close to Tooman which apparently is part of this project. I received a notice in the mail and wanted to some clarification on how these power lines would effect my property. So, I called the number listed on the notice which was basically a voicemail system where I could leave a message. Well, I left a message last week and have not heard back from them at this time. My APN is 305-06-095. Any information you can provide would be much appreciated as I live in San Diego. Thanks, (redacted)			Location, Other		
5/6/2008- 5/8/2008 Owns Property in Study Area Golden Valley Public Awareness Team	☐	Public Open House #3 (Workshops) Comments Concerns are: Environmental - planned route is poor choice Social - health factors Economic - reduces value of property due to asthetic and health factors, visual impacts are high Avoid crossing View Avenue in Golden Valley and So-Hi affecting visual views, detrimental effects to property values. Use Cerbat Mountains to reduce negative effects.			Health, Appearance, Location, Other		
5/6/2008- 5/8/2008 Owns Property in Study Area Mail, Newspaper	☐	Public Open House #3 (Workshops) Comments Concerns are: Yes - health concerns and property value cost. Map D1 (#1) and Map E (#2) choices. Place lines over BLM land for less folks involved.			Health, Location, Other	D1, E	

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008 Owns Property in Study Area Letter, Newspaper	☐	Public Open House #3 (Workshops) Comments Concerns are: Less private property and more BLM (land), property cost, eye sore, also, health, insurance, concerns. Map D-1, Map E #2 Choice. Place line on BLM land for less folks involved. Put it underground in areas where people will not live !!!!			Health, Appearance, Location, Other	D1, E	
5/6/2008- 5/8/2008 Owns Property in Study Area	☐	Public Open House #3 (Workshops) Comments Concerns are: Yes, mainly health problems that people have and health problems that can come about because of the major power lines - It will also keep people from moving to Golden Valley. And it's a sore sight. I suggest taking it through the state land where power is already there it makes the most sense. D - first choice D-E-E1 as second choices. Make sure you think of the people that reside there first. Think about to make Golden Valley a good place for people to live without having sore sights.			Health, Appearance, Location, Other	D, E, E1	
5/6/2008- 5/8/2008 Owns Property in Study Area Newspaper	☐	Public Open House #3 (Workshops) Comments Concerns are: Property values and health. D-1 or E-1 (regarding suggestions for alternatives). This should not be put in any residential areas.			Health, Location, Other	D1, E1	
5/6/2008- 5/8/2008 (redacted)	☐	Public Open House #3 (Workshops) Comments Concerns are: 1st of all - the original plan shows the with in un safe distance to the land owner - Unisource chart show the power line 50 (wording illegible). Any thing above 3 is unexceptable. Thus this original plan is absolutly unacceptable. Land values for people have never been at such a serious level and to go with proposed rt. effects them seriously. The proposed D-1 is the best = the only argument for not going through the preserve does not out way the negative effect to property owner. It will still be a great preserve with this line going through it along side the other line.			Health, Location, Other	D1	

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008	☐	Public Open House #3 (Workshops) Comments Concerns are: actual route - property rights, property values I believe the old route through Coyote Pass would be the best route. Honesty would nice and not deception.			Location, Other		
5/6/2008- 5/8/2008 Emails / neighbors	☐	Public Open House #3 (Workshops) Comments Concerns are: I own two homes in Golden Valley. My family lives here. I'm concerned for our health as well as property values. I feel D1 would be the best choice and D would be #2. If you draw a straight line from McConnico to the proposed Mill sub only public lands would be affected. No private property would be violated reducing health hazards.			Health, Location, Other	D1, D	

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008 Owns Property in Study Area	☐	Public Open House #3 (Workshops) Comments Concerns are: SEE ATTACHED EMAIL I've dealt with the BLM for many years building radio towers / stations. They want people / companies to try the private route first. Why? Because they're basically lazy (they say overworked). Ever see a BLM employee after 5pm or working weekends or holidays? Neither have I. (They only attend these kinds of meetings and give us lip service!) ___ Email attachment dated March 4, 2008 Dear (redacted): Per our conversation today, I'm sending you some of my thoguhts as a land owner of Parcel #339-4000-04/274C in Golden Valley. I have a 5 acre parcel just West of Hwy. 93 and just South of Hermit Dr., so I am very close to the mine and perhaps on or near the proposed transmission lines. Having owned and built new FM radio stations across the country since 1982, I am very family with "high powered" radio transmitters and tower construction. I'm also very acustomed to "neighbors" and land owners "concerns" on this type of construction. Also, living in Wisconsin, I'm familiar with the farmers complaints of high transmission lines, and their effects on their cows not being able to produce enough milk. These are ALL very real and legitimate concerns. First of all, much depends on the actual power, current and voltage of the lines, and how close they may be to animals, children and residential developments. They can also affect radio-tv reception, telephone reception and garage door openers. Filters can be used to "help" reduce these problems, but they don't always work. The best solution, I have found, is to locate these high powered lines, at least 2-4 miles away from residences. Since the Alternative routes A & B will undoutably run thru any future residential housing, it would seem by far, the best solution, would be to locate the lines on the East side of Hwy 93, which are more mountainous and on the same side as the mine. I realize that this will cost the company more money, since construction of towers is much more difficult and costly on hilly terrain than the rather flat terrain East of 93. It would also appear that the best solution, but certainly not the quickest, would be to go thru the BLM land on the East side. So the minim company is fighting (1) more expense and (2) a much slower response time from the BLM, by proposing the East side of Hwy 93. I can understand why they have "Chosen" our land.			Location, Other		

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
		The only way I could even consider such a proposal, would be if the company were to provide electric power hook-ups to our parcels, or some other kind of financial renumeration. But even at that, we should "study" what those effects would have on us. Qualified engineers could provide a more practice study. I have kept the 5 acres in hopes of retiring in Golden Valley within a few years. At 57, the winters in Wisconsin can be quite grueling. This year, we have over 90 inches of snow, breaking the old record of 78, and we still have 6 weeks left of winter here! There should certainly be some other alternative sites for the transmision lines of the East side of Hwy 93, where less of the tax paying land owners exist. Respectfully submitted, (redacted)					
5/6/2008- 5/8/2008 Owns Property in Study Area	☐	Public Open House #3 (Workshops) Comments Concerns are: It will totally destroy the view of the mountains and the induction from being close to the lines is very dangerous as well as noisy.			Health, Appearance, Location, Other		
5/6/2008- 5/8/2008 Owns Property in Study Area Letter and newspaper	☐	Public Open House #3 (Workshops) Comments Concerns are: Loss of property value, Health, Landscaping and wildlife My vote is for D-1 or E plan			Health, Appearance, Location, Other	D1, E	
5/6/2008- 5/8/2008 Owns Property in Study Area Letter and newspaper	☐	Public Open House #3 (Workshops) Comments Concerns are: Loss of property value, Health, Landscaping and wildlife My vote is for D-1 or E plan.			Health, Appearance, Location, Other	D1, E	

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
5/6/2008- 5/8/2008 Owns Property in Study Area Word of mouth	☐	Public Open House #3 (Workshops) Comments Concerns are: Yes, health concerns from this high power line as well as the devaluation of my property because of the close proximity. Any alternative that doesn't impact residents that have lived here long before the new expanded mining operation. More public information put out well in advance of potential deadlines.			Health, Location, Other		
5/6/2008- 5/8/2008 Owns Property in Study Area GVPAT	☐	Public Open House #3 (Workshops) Comments The welfare of the citizens and residents of the area should be of paramount concerns for your customers.			Health		
5/6/2008- 5/8/2008 GVPAT	☐	Public Open House #3 (Workshops) Comments Concerns are: I am concerned that it will effect the health of my family and also that it will effect the property values of them and the people there out the valley. I suggest that it not happen at all. There's so much unused land. I prefer Route D or D1. It would be nice to have enough notice of a meeting that concerns the area in which we live.			Health, Location, Other	D, D1	
5/6/2008- 5/8/2008 Phone	☐	Public Open House #3 (Workshops) Comments Concerns are: Property values lowered - health concerns, water usage. Just run it on BLM or state property instead of private. No comments about a better solution - but from all I can gather - these lines are very dangerous and I can't see anyone wanting to put the public at risk.			Health, Location, Other		

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Comment Method: Comment Form							
5/6/2008- 5/8/2008 Phone	☐	Public Open House #3 (Workshops) Comments Concerns are: Property value will be lowered, health concerns - to much water usage. Run lines on BLM land so it doesn't affect the people. The danger to the public from these lines should be considered and the lines put as far away from public as possible.			Health, Location, Other		
5/6/2008- 5/8/2008 Owns Property in Study Area Phone, Mailing, Email	☐	Public Open House #3 (Workshops) Comments Concerns are: I am concerned about health problems and loss of property value cause from living close to a main transmission line. Please consider the route across Coyote Pass and try the Cerbat Mtn, that route is all public land (BLM) and would have the least impact. Better maps, more details.			Health, Location, Other		
5/6/2008- 5/8/2008 Owns Property in Study Area GVPAT	☐	Public Open House #3 (Workshops) Comments Concerns are: My in laws will be living under one of the proposed routes. Use a route where there are no homes. Use Route D or D1. All residents who live in the vicinity of these projects should ne notified before the politicians set the project in stone.			Location, Other	D, D1	

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Comment Method: Comment Form							
5/6/2008- 5/8/2008 Owns Property in Study Area GVPAT	☐	Public Open House #3 (Workshops) Comments Concerns are: Yes, I have leukemia. I have read in the paper that these lines can cause leukemia. My granddaughter and grandson are going to be living in one of the proposed areas. Not only could they become sick witch is most important to me but the property value would go down. I for one would not buy the land. Put the lines where they will do the least damage along the highway or on BLM land. I have been riding my horse out there for 5 years and so far have only seen 2 snakes a few rabits lizards and horn toads since they took the cows off. Use Route D or D1. Some notice of what happening might help. I had no idea about the water the mine got or even the Golden Valley property water issue.			Health, Location, Other	D, D1	
5/6/2008- 5/8/2008 Owns Property in Study Area Phone, Mailing, Email	☐	Public Open House #3 (Workshops) Comments Concerns are: I am concerned about the health problem from living in close proximity to a main transmission line, and the loss of property value also cause from a main transmission line running across it. There is a route across Coyote Pass and thru the Cerbat Mountains that is all public land (BLM) that would not have an impact on anyone. I would like it to be at least considred. Better maps, more details.			Health, Location, Other		
5/6/2008- 5/8/2008 Word of mouth, newspaper	☐	Public Open House #3 (Workshops) Comments Concerns are: health! Animal and person! Environmental! Water contamination from (illegible wording) (additional) at mine. Alternative E. (Suggestion for alternative route.) Should bypass as many homeowners as possible - Keep east of Cerbat Mountain area to bypass So-Hi -			Health, Location, Other	E	

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Comment Method: Comment Form							
5/6/2008- 5/8/2008 Owns Property in Study Area Paper	☐	Public Open House #3 (Workshops) Comments Concerns are: Everything D1 (Suggestion for alternative route.) Have a question and answer forum.				D1	
5/6/2008- 5/8/2008 Owns Property in Study Area (redacted)	☐	Public Open House #3 (Workshops) Comments Concerns are: Property values. Where ever it will impact the fewest people (ie) BLM land.			Location, Other		
5/6/2008- 5/8/2008 Friend	☐	Public Open House #3 (Workshops) Comments Concerns are: Power (Easements) BLM, State land (Suggestion for alternative route.)			Location, Other		
5/6/2008- 5/8/2008 (redacted)	☐	Public Open House #3 (Workshops) Comments Concerns are: The lines will have a significant impact on the property values in the area along with health impact, of the people within it mile of the lines. Following existing lines on BLM land and mimize the impact on private land and future growth of that part of the valley. More factual info from Transcon on the effects and an impact study on the property values.			Health, Location, Other		
5/6/2008- 5/8/2008 Kingman Daily Miner	☐	Public Open House #3 (Workshops) Comments Concerns are: Do you plan to buy the lots that are ruined for homes by the power line? Would it not be more reasonable to follow highway 93 where there is already a right-of-way?			Location, Other		

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Comment Method: Comment Form							
5/6/2008- 5/8/2008 Kingman Daily Miner	☐	Public Open House #3 (Workshops) Comments Concerns are: It will help future development along Hwy 93 and it will make Unisource a lot of profit, and to limit the impact on private property and landowner and homeowner. The new line should be run along the existing easement of the transmission line as much as possible when and wherever it can use existing easement, not making a new one.			Location, Other		
5/6/2008- 5/8/2008 News media	☐	Public Open House #3 (Workshops) Comments Concerns are: Health hazards, well being of our community, how will impacts our future. Stay out of our valley and not on west side of Golden Valley.			Health, Location, Other		

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Comment Method: Comment Form							
2/12/2008	☐	Public Meeting #2 Comment To Whom It May Concern: I am writing to express my unequivocal opposition to plan and build the 230kV transmission line over Alignment A or Alignment B. However, I would fully support an underground line if the utility easement road is paved by Unisource. As a property owner (APNs:305-06-002D, 305-06-189A, 305-06-200), and a stakeholder to the well-being of the environment in Golden Valley and to the quality of life in the area, I must strongly object to the building of this transmission line along the offered alignments. Pleas note that -Transmission lines are eye soars for any area, but it could be devastating to the beauty of the valley scenery if either Alignment A or B is exercised. -There are unproven claims that high electromagnetic field around high voltage lines is safe to human, animals, and vegetation after a long and sustained exposure. -Golden Valley is destined to be an Urban residential area and transmission lines have to be kept away for variety of Public Health reasons. Other alternative alignments (well) inside the BLM land, and (well) away from private properties, in their entirety can be acceptable choice for the residents and property owners like me. If private land has to be included in the future alignment, deeply buried lines must be used if the easement roads are fully paved. The public understands that this may be more expensive to implement, but the long run well being of the people and environment should be the number on objective. Thank you. (Redacted)			Health, Appearance, Location		
2/12/2008	☐	Public Meeting #2 Comment Use Plan A with some revisions for existing structures. Stay away from a total residential area due to EMF, property value, etc.			Health, Location, Other	A	Add to mailing list.
2/12/2008	☐	Public Meeting #2 Comment I look forward to hearing more details. My huband's happy our land is not affected on Bibo.			Location		Add to mailing list.

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
2/12/2008	☐	Public Meeting #2 Comment I wish to go on record as oposing plan (B). (B) is not an option acceptable to my family or myself. Plan (A) already exists. I feel that the BLM should have done a better job representing the people of Golden Valley and allowed the transmission line to pass thru the Cerbat Mountain Range consealing the lines especially if a line already exists. The mere fact that the BLM would not consider amending a area plan from 1995 pisses me off.			Appearance, Location, Other		Add to mailing list.
2/12/2008	☐	Public Meeting #2 Comment Alternative A is simply more feasible and compatible for this 230kV transmission line. The present 69kV line are self-evident and will remain an asthetic distraction to the Valley - The right aways already exist. We urge you to choose Alt. A to lessen the impact on the Valley and its citizens. Thank you.			Appearance, Location	A	Add to mailing list.
2/12/2008	☐	Public Meeting #2 Comment My great grandfather purchased this property on bacobi in the 1930's. My family has reasied 6 generation in Golden Valley. I greatly oppose Alternative "B". I truly believe Alternative "A" is a better option for my family, the Golden Valley community, and the environment. My family currently does not have any future plans for the 200 plus acres that will be effected by Alternative "B". Currently this property is being used for agriculture purposes, but the future holds many options. Those options and values will depreciate greatly if Alternative "B" is allowed to go through our property. I feel it makes better sense for business, the environment, and economically that Alternative "A" is choosen as the direct route for the new transmission line in question. To reiterate - -There is always a basic infrastructure in place -It has least impact on property owners -The right of ways are already in existance -Alternative "A" will have a smaller impact on the environment Thank you for your concern.			Location, Other	A	Add to mailing list.

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Comment Form							
2/12/2008	☐	Public Meeting #2 Comment I strongly object to alternative "B". My family are the largest landowner that this transmission line will effect. Approx 200 acres will be effected of private property. This will cause my family from effectly developed this land to its fully financial gain.			Location, Other		Add to mailing list.
2/12/2008	☐	Public Meeting #2 Comment Using Alt. A would consolidate the power lines in the area, using an existing right of way would have less impact on the environment AND property owners. Using BLM land would impact fewer people to a lesser degree.			Location, Other		
2/12/2008	☐	Public Meeting #2 Comment Eye sore, health, property values.			Health, Appearance, Other		Add to mailing list.
2/12/2008	☐	Public Meeting #2 Comment No comment; checked that he would like to be included on the mailing list.		Would like to be included on the mailing list.			Add to mailing list.
2/12/2008	☐	Public Meeting #2 Propose route Starting at the NE1/4 of the SE1/4 of Section 6, Township 20N Range 17W and heading due north for approximately 7.8 miles to the NE section corner of Section 32, Township 22N Range 17W. Then the alternative will head northwest to the proposed Mineral Park Substation that will be located in the SE1/4of the NE1/4 of Section 4, Township 22N Range 18W.			Location, Other		
8/16/2007	☐	Public Open House #1 Comment Follow existing lines whenever possible. Plan a way to reward Golden Valley as a community with alternate energy projects to sweeten the deal.			Location, Other		

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Wufoo Online							
2/16/2021 Resident in Study Area; Business Owner in Study Area; Live/Work Near Study Area Newsletter Mailing	☐	I don't think it's right to place unsafe towers for our health close to residence or in residences in the study area of golden valley for 230vproject. Please find another alternative.			Health, Location, Other		2/22/2021 Good afternoon (redacted), Thank you for your feedback regarding the Golden Valley 230-kilovolt (kV) Transmission Line project. UNSE has evaluated the potential routes internally based on a number of factors including constructability, opportunities to utilize existing facilities, proximity to schools, hospitals, and homes; environmental concerns, and public feedback, among others. When planning new transmission line routes, UNSE prefers to use existing utility corridors and road rights-of-way when possible. UNSE is preparing to submit an application for a Certificate of Environmental Compatibility (CEC) for submittal in March of 2021. Your comment has been captured and will be included in the Project record provided to the Arizona Corporation Commission Power Plant & Line Siting Committee. Again, thank you for sharing your concerns and we hope that you will stay engaged with the project as we move forward with the submittal of the application and eventual hearing, to take place in April of 2021. We will mail a notice to residents within the study area and publish notices in the local newspaper to publicize the hearing. For additional information regarding the project, please visit https://www.uesaz.com/golden-valley/ Thank you, Eric

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Wufoo Online							
2/14/2021 Resident in Study Area Newsletter mailing	☐	I need to know how close these 230kv towers will be by my residence on Agua Fria. Please email me when you get a chance. Also virtual zoom meeting was'nt working nor all the call in numbers to attend Feb. 9th meeting. Where can I see & hear meeting replay? I disagree with building these too close to residential homes.		Would like to know the location relative to residence. Would like replay information for virutal Zoom meeting.	Location		2/15/2021 Good morning, I am sorry you were unable to access the meeting and the phone number for the Golden Valley 230kV project. I apologize for any difficulties and frustration you may have experienced as a result of trying to access the meeting. UNSE is in the process of uploading the video to the project website. The materials presented during the Virtual Open House can be found at the following location: https://www.uesaz.com/wp-content/uploads/GV230kV-Virtual-Open-House_20210209.pdf I tried calling this morning but did not get through to anyone nor was there the option to leave a message. I can email you again to let you know when the video has been uploaded. There is also an interactive map available on the Project website which can be found at: https://teprojects.maps.arcgis.com/apps/View/index.html?appid=bfccbac44fc04fe39ed42d0e13c9c4f7 Do you have a specific address you could provide me with so that I can review it on a map and compare it to the routes that are being presented in the Certificate of Environmental Compatibility? Please don't hesitate to reach out to me with any additional questions. Thank you, Eric ** Additional follow-up below **

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Wufoo Online							
							2/16/2021 Good afternoon, I just wanted to follow up with you and let you know that the video is no up on the Project website and is available for viewing. I will be reaching out later today as well to hopefully speak directly with you. The link to the video has been provided below for your convenience. Thank you, Eric https://www.youtube.com/watch?v=9sgUFe6At7M&feature=emb_title ** Additional follow-up below ** 2/16/2021 Good evening, Thank you for taking the time to voice your concerns about the Golden Valley Project. As discussed, no route has been approved at this time, UNSE is seeking approval for the right to construct from the Arizona Corporation Commission Power Plant and Line Siting Committee (LSC) and ultimately from the Arizona Corporation Commission (ACC) itself. The case has tentatively been scheduled to be heard by the LSC in April of 2021. As UNSE obtains more information and a firm date, postcards will be sent to notify those that live within the study area of the date and location of the hearing. Additionally, please find a link to EMF information that is available on the uesaz.com/projects webpage. https://www.uesaz.com/electric-and-magnetic-fields/ I encourage you to submit a comment form found on the Project webpage so it will be captured for the record. Thank you, Eric

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Wufoo Online							
1/30/2021 Resident in Study Area Newsletter mailing	☐	I have written MANY comments during the last time this 230kv project was planned. They were all directed to Andy Whiteside with BLM, and hopefully still in your possession. If need be, I have copies and will provide them to you. Alternative Routes W1 and W2 are in my backyard (S Kirkland Road at Shinarump) and in the backyards of many other homes. Many of these homes came to be in the last few years and did not exist during the first plan. Placing the power lines along either of these two routes would severely diminish the property values, and enjoyment, and views from all our homes. They would have a significant impact on the wildlife living in the area. Alternative Routes W4 and West Cerbat Common Alternative would also have the same significant impact. Placing the lines along the East Cerbat Common Alternative would have the least impact to most residents affected by this plan. In many spots it would follow along power lines that already exist, such as US 93 between I40 and US68. The only conscionable route would be the East Cerbat Common Alternative because it would be 70 percent on existing right of ways and have least impact on private and BLM properties.		This keeps coming up. Why? Is it because Unisource is not getting the answer THEY want? The original reports were sent to the Corporation Commission Board for review and approval. That, Corporation Commission Board was removed due to alleged illegal activities. The report that was sent to them by BLM (those gathering information) should still be valid and accurate to this day. The East alternative route is the only acceptable route with the least impact to private property owners.	Appearance, Location, Other	East	2/1/2021 Dear (redacted), Thank you for your feedback regarding the Golden Valley 230kV Transmission Line project. We appreciate your concerns and will include them in the project record that will be provided to the Arizona Corporation Commission. UNSE has copies of all correspondence and comments related to the Bureau of Land Management (BLM) Environmental Assessment (EA) process, and they will help inform us as we prepare to file an application for a Certificate of Environmental Compatibility (CEC) with the Arizona Corporation Commission (ACC) in the spring. UNSE has evaluated the potential routes internally based on several factors including constructability; opportunities to utilize existing facilities; proximity to schools, hospitals, and homes; environmental concerns; and public feedback, among others. When planning new transmission line routes, UNSE prefers to use existing utility corridors and road rights-of-way when possible. All proposed routes require BLM approval because they cross bureau-managed lands. The BLM has selected their preferred route as East Cerbat Alternative 1, which we plan to identify as the preferred route in our CEC application. The ACC will then make the final determination of approval or denial. We appreciate your comments. For project updates, please visit our website at uesaz.com/golden-valley. Thank you, Eric

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Comment Method: Wufoo Online							
1/26/2021 Received via Wufoo 2/2/2021 Received via Mail Resident in Study Area; Live / Work Near Study Area Newsletter mailing; Word of Mouth	☐	My wife and I live at (redacted). All of the west alternatives are of concern but especially (W-3). Alternative (W-3) would place the powerline feet from our door. Not only would this be beyond unsightly, it would render our home uninhabitable due to health risks.		Any new information about this project.	Health, Appearance		2/1/2021 Dear (redacted), Thank you for your feedback regarding the Golden Valley 230kV Transmission Line project. We appreciate your concerns and have included them in the project record that will be provided to the Arizona Corporation Commission (ACC). UNSE has evaluated potential routes based on a number of factors including constructability; opportunities to utilize existing facilities; proximity to schools, hospitals, and homes; environmental concerns; and public feedback. When planning new transmission line routes, UNSE prefers to use existing utility corridors and road rights-of-way when possible. UniSource plans to file an application for a Certificate of Environmental Compatibility (CEC) with the Power Plant and Line Siting Committe in the spring. In our application, we plan to identify the East Cerbat 1 alternative as the preferred route. We appreciate your comments. For project updates, please visit our website at uesaz.com/golden-valley. Thank you, Eric

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Comment Method: Voicemail Toll Free							
1/7/2010	☐	Is with Shephard Wesnitzer in Sedona, Kingman, Flagstaff, and Cottonwood. Curious as to what the status of the Golden Valley 230kV Project is, what stage it's at, and also if there is a way that there is somebody he could talk to relative to maybe getting their foot in the door to hopefully do some construction staking or some layout. They just finished mapping 200 square miles over there in Mohave County in the Golden Valley area. They have a lot of great control over there, so would like to try and take advantage of that. Maybe make it a win-win situation for them.		Would like information about doing construction staking or some layout.			
8/19/2009	☐	Would like to have somebody on the project return his call.		Would like to have somebody on the project return his call.			
8/13/2009	☐	Is with Henkels and McCoy, a contractor. Was calling to see if they could get some information regarding construction of this project. They would like to participate and qualify to build the transmission line.		Would like information about them building the project.			
7/15/2009 Owns Property in Study Area	☐	Would like to talk to someone about this project and wanted a call back. He would like to get some more information about it. He is very interested in it and they own some property over there.		Would like more information about the project.			
6/16/2009	☐	Is with Stantec Consulting. Calling in regards to the potential procurement for the construction of the Golden Valley Project, more particularly how to get involved from a surveying point of view. They are land surveyors and are just looking for some opportunities. Wondering who he could contact or if there is a procurement site or something of that nature to possibly get involved with this project.		Would like information about performing land survey work for the project.			
2/27/2009	☐	Would like to know some more details and the latest on this project.		Would like more details about this project.			
2/11/2009	☐	Is with Henkels and McCoy, a utility engineering construction contractor. They are interested in the project for construction for the Golden Valley 230kV Transmission Line. Would like someone to contact him and would like to get some information to see if they can get approved. They are a major utility construction company, a union contractor. Have provided services to Tucson Electric, Arizona Public Service, SRP, Southern California Edison.		Would like information about them constructing the project.			
2/11/2009	☐	Is with Henkels and McCoy. Called with three comments: 1) How does Henkels and McCoy get on the bid list for this project, 2) When is the RFP going out to bid on, and 3) What is the projected start and completion dates of this project.		Would like a call back about his questions regarding RFP.			
1/7/2009	☐	Is interested in the Golden Valley 230 kV Transmission Line Project. Left his email address.					Mike Warner sent him an email on 1/7/2009 and asked (redacted) to call him directly.

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Voicemail Toll Free							
1/7/2009	☐	Called regarding the power line running up Highway 93 in Golden Valley and left his phone number.					Mike Warner called on 1/7/2009 and left him a message.
12/22/2008	☐	Is the Estimator Project Manager for Polkin Stanley, Hydroelectrical Contractor, based in southern California. Was curious on the Golden Valley 230kV Transmission Line Project as far as how far out construction might be bid process, pre-bid process, or construction might be. The website says late 2008, early 2009, start of construction. Would appreciate a call back with any information.		Would like information as it relates to construction of the project.			
12/8/2008 Lives in Study Area	☐	Concerned about the pathway that this transmission line is taking. One of the areas looks like it could be close to our street but is really not sure how far away it is and that what she is concerned about. Would like a call as to one of the proposed areas how far that would be from her street that she lives on. They are a couple blocks away from Bacobi.		Would like information about the location specific to her property.	Location		
11/20/2008	☐	Called and would like some information.		Would like some information.			Caller was interested in the purpose if the 69kV recently built along Colorado Road. Explained it was for partial operation of the Mill but they still needed the 230kV. He wants the project to proceed. He was hoping to work at the mine and looks for full operations to provide the chance.
11/19/2008	☐	Received the letter on the proposed project and main concern is if it goes down Abrigo.		Would like location information specific to Abrigo.	Location		She wanted to know the alignments. Was pleased with the alternatives following a discussion. Stated she intended to inform her neighbors.
11/18/2008 Owns Property in Study Area	☐	Would like to get some information on what cross streets the lines are going on. The map is not very clear. This is the fifth time he is calling and nobody has called back.		Would like information about the cross streets of the line.	Location		Phone Conversation Record by Clark Bryner on 11/18/2008 I apologized to (redacted) for the delayed response. He had some basic questions with regards to the exact location of the transmission line alternatives near his property. His property is located just south of Highway 68 on Bowie Road. I told him the transmission line alternative would be located on the south side of Shipp Road and veer south about ¼ to ½ mile before Bowie Road. He asked if these alternatives were set in stone. I told him they could potentially change but at this point any changes were likely to be very minor. He was satisfied with the answers he received and had no other questions. I reminded him that if questions did come up to give us a call.
11/17/2008 Owns Property in Study Area	☐	Has some questions just where the lines are going.		Has questions about where the line is going.	Location		

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Comment Method: Voicemail Toll Free							
11/17/2008 Owns Property in Study Area	☐	Would like some information about what roads this power line is going up to. This is the third time he has called and nobody has called back.		Would like some information about the roads the power line is going up to.	Location		
11/17/2008 Owns Property in Study Area	☐	Owns property there on Highway 68 just past the split for 93 and 68, going west. Was curious as to where the line is going to cross 68. What street is that coming down, from the north going south, across 68.		Would like more information where the line is going to cross 68.	Location		Phone Converation Record by Clark Bryner on 11/18/2008 (Redacted) wanted a little more description on the location of the west alternative. The map that was sent with the newsletter did not depict the location in enough detail for him to determine where it was located in relation to his property. His property is on Bosque just north of 68. He had previously seen the newsletter with the more western alternative through Golden Valley and was concerned the alternative described in this newsletter was that one. I informed him that the western route through Golden Valley had been eliminated and that the alternative that is proposed would be at least ½ mile from his property at the nearest point. I also informed him of the timelines for approval and construction. He was grateful for the call and satisfied with the answers.
11/14/2008 Owns Property in Study Area	☐	Would like some more information on this transmission line.		Would like more information.			

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Voicemail Toll Free							
11/14/2008 Lives in Study Area	☐	We're real close to where this is and I sure don't want one of these things built in my back yard so I needed to talk to somebody who knows that is going on.		Would like information about the location as it relates to where she lives.	Location		Phone Conversation Record by Clark Bryner on 11/18/2008 (Redacted) wanted a description of where the proposed transmission line alternative was located in the Kingman area. She was concerned that it was located in the historic portion of Kingman. I described to her the location of the transmission line. She was relieved to know that it would not be located near historic Kingman. She requested a hard copy map describing the area. Her address is: (Redacted) ------- November 18, 2008 (Redacted): Thank you for your interest in the Golden Valley 230kV Transmission Line Project. This letter is in response to the telephone conversation we had on November 18, 2008, in which you requested a more detailed map depicting the location of the proposed project in relationship to historic downtown Kingman. Enclosed you will find an 11x17 inch sheet of paper. A map similar to the one included in the project newsletter is printed on one side, and on the other side is an aerial map depicting a more detailed area. The proposed transmission line alternatives are depicted on the more detailed map in red. I hope this map will be useful in aiding your understanding of the project. If you have further questions or comments, please call the project information phone line toll-free at (866) 453-2401. Sincerely, Clark Bryner
11/13/2008 Owns Property in Study Area	☐	Has property in Golden Valley and would like somebody to be able to give him some more information about just what streets that property line is going to go through or proposed that it is going to go through. The map isn't very clear with the streets.		Would like more information about the streets near the project.	Location		Clark Bryner returned his call on 11/18/2008 and answered his quesitons.

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Voicemail Toll Free							
11/13/2008 Lives in Study Area	☐	Would like to know where the power lines are going to go through off of I-40 and off of Oatman Road. Could not tell the location from the map, but said it looks close to his home.		Would like more information about the location near his property.	Location		Phone Conversation Record by Clark Bryner on 11/18/2008 The (redacted) were concerned the transmission line was located in proximity to their home. I informed them that it would be more than four mile s from their home at its nearest location. (Redacted) was relieved. She asked when all this would happen. I briefly explained the approval process. She asked if these were the final routes. I said yes. She was satisfied and appreciative and had no further questions.
11/13/2008	☐	Called about a more detailed map. Can go to the computer and look them up but a lot of people can't and some are in the vicinity of the roads that are shown.		Would like a more detailed map.			November 18, 2008 (Redacted): We received your voice message dated November 13, 2008 regarding the Golden Valley 230kV Transmission Line Project. Your message indicated that you would like a more detailed map depicting the project location. Enclosed you will find an 11x17 inch sheet of paper. A map similar to the one included in the project newsletter is printed on one side, and on the other side is an aerial map depicting a more detailed area. The proposed transmission line alternatives are depicted on the more detailed map in red. I hope this map will be useful in aiding your understanding of the project. If you have further questions or comments, please call the project information phone line toll-free at (866) 452-2401. Sincerely, Clark Bryner Project Coordinator Transcon Environmental

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10/21/2008	☐	Trying to find out where the placement is going to be as they have a property in Golden Valley going through escrow right now and needs to find out if the power lines are anywhere near where she doesn't want them to be.		Would like information about the location.	Location		Phone Conversation Record by Clark Bryner on 11/18/2008 (Redacted) asked for the exact location of the transmission line with regards to a property that he is in the process of acquiring. The property is located along Bosque Road. I informed him that the line would be located at least ½ mile form the property if the west alternative were selected. He felt the transmission line should be located along Highway 93 where there are already existing power lines. He understands the concerns of the hikers and enjoys hiking himself, but feels that when it comes down to a decision of placing the power line in a residential area vs. away from the people, it should go away from the people. He is looking at buying this property to feel more in the country and does not want to see this transmission line. I told him that I would email him a visual simulation that was prepared in that approximate area. He was grateful and provided his email address, (redacted). He asked if any decisions had been made on the alternative. I said no and that the decision would likely be made this next spring. He asked if he could call me back if he had additional questions and I said certainly. I asked if (redacted) was his wife. He said yes. I said that she had also called in and asked if my responses addressed her questions as well. He said yes.
10/16/2008 Owns Property in Study Area	☐	Him and his wife have two properties in Golden Valley. One of them they're going to move on to and the other they want to have their son move on to. He's at the air force. They don't want this kind of a power line anywhere near these residential areas. This should all be on BLM land or follow I-93. Shouldn't be running through people's properties. Would like to speak to someone .		Would like to speak to someone about the project.	Location		Clark Bryner returned his call on 11/18/2008 and discussed where the transmission route alternatives were.
10/15/2008	☐	Is a real estate agent in the Golden Valley area and has a buyer very interested in a parcel which could come under one of the proposed siting areas for the transmission line. Is trying to find out how far we got on whether any plans have actually been made on which route is going to be taken, if it is going through the residential area of Golden Valley or if it's going to go out and follow a route around near I-40 and Highway 93.		Would like more information about the location of the transmission line as it relates to a parcel under sale.	Location		Phone Conversation Record by Clark Bryner on 11/18/2008 (Redacted) said that she went into the local UniSource office in Kingman last week about the same question. She said that they provided her with a map depicting the two proposed alternative routes. She said that previously there had been an alternative located parallel to a street where one of her clients was looking at buying property. She said that the remaining two alternatives do not have any impact on that particular parcel of land. She had no other questions.

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9/24/2008 Owns Property in Study Area	☐	Owns parcel 306-02-148 in the area of Kingman, AZ for the Golden Valley 230kV Transmission Line Project. Would like to be included in any future mailings since she hasn't received anything to date. She is not against electric, just wants to be informed.		Would like to be included in future mailings and stay informed.			Mike Warner called on 9/25/2008 and spoke with her and explained the timeline and process.
7/10/2008	☐	Concerned about the power lines that were installed on Colorado Road and was wondering if those were indeed the transmission lines that you were working on. She voted on a plan and never saw one that was going up Colorado Road so she could be wrong. Could you just answer a few questions. She'd appreciate it.		Would like to ask some questions about the project.	Other		
6/18/2008 Owns Property in Study Area	☐	Owns some land up there in Golden Valley. Was hoping that he might be able to obtain that extra information including a map so he can see where the proposed power line is running. Wants to see whether or not it's going through his property or if his property is not even near it. Would like a call back so that he can verify that.		Would like some more information about the location, including a map, to determine proximity to his property.	Location		
6/17/2008 Owns Property in Study Area	☐	Left a message three weeks ago and never heard back from anyone. Doesn't know that the purpose the number serves if your not responding as you are claiming. Wanted to obtain the first two sendings, since this is apparantely the third mailing. He never received the first two Fact Sheets, Number 1 and Number 2 and wanted to make some comments and ask some quesitons.		Would like the first two Fact Sheets and more information about the project.			On 6/18/2008 Nadine Benally emailed him Fact Sheet 1 and 2. She let him know that his messages had been received and logged, and that Mike would call him back on 6/18/2008.
6/2/2008	☐	Lives part time in Texas and part time in Arizona. We are very much interested in the project. Needs to get more details because they are in Texas right now.		Would like more details about this project.			
5/27/2008 Owns Property in Study Area	☐	Did not received previous two notices that were sent out and would like the previous Fact Sheets. Owns acreage property in the Golden Valley area. It would have been helpful if the map that was sent would have a couple more street names attached to the lines out there in the section lines so one can get better oriented. Shown is a sheet number or drive on Colorado road but between Colorado and the City of Kingman no other streets are identified so it would help us to located this better. It definitely appears to be indicated you'll be running right over adjacent to my acreage and I would strongly object to. The transmission line should stay within the existing easement and highway corridor along Highway 93 and of course, Interstate 40. Stick to those well established lines rather than tearing up a new piece of country side out there. Strongly objects to anything being cut through the middle of the Golden Valley area there north of Shinarump and east of Colorado boulevard. It's a pretty wide swath so you never know where you are actually going to end up but that's not a desirable area. That is to be a residential area. Stick with the highways where they're at in place.		Would like previous fact sheets.	Location, Other		On 6/18/2008 Nadine Benally emailed him Fact Sheet 1 and 2. She let him know that his messages had been received and logged, and that Mike would call him back on 6/18/2008.

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5/12/2008 Owns Property in Study Area	☐	Bought property in the southeast corner of Louie and Crystal in Golden Valley. Based on the map they are in the last section just before public lands on the west side of the Mohave electrical substation on the west side of that high ground. Would like to state his wish that the line would go on the higher ground on public land to the east of them if possible. They love the view of the valley from where they are and it would really kind of ruin it to having a big electrical line running to the west of them. If possible they hope the project can be kept on the pass going through the mountain along Highway 93 or if the project comes around to the other side of the mountain to the west side that it is kept to higher ground or the public lands that are a little bit to the east of them.		Would like someone to call them back.	Location		Mike Warner returned his phone call on 5/15/2008. Mike informed him that the alternatives crossing private ground in the valley had been dropped. He was pleased with this.
5/12/2008	☐	Has the information about the proposed new transmission line in Golden Valley area. Has a lot down there near Shinarump Drive in the south end of that area. There is a big power line going through there now. Was wondering if you're going to put another line through that area around Shinarump Drive or is all the construction going to be up in the northern part in the Mineral Park area. Would like a call back and for someone to inform him on that.		Would like a call back to inform him of the project location.	Location		Mike Warner called on 5/15/2008 and provided information on routes, which satisfied Lowell.
5/9/2008	☐	Would like information regarding the streets that are being referenced on the map. Cannot tell if you are going from Bacobi to Tangerine or where. Would like to know the streets that are involved and would like to know why you are not taking this plan to an open area and not a residential area.		Would like information about the streets being referenced in the map.	Location		On 5/15/2008, Mike Warner sent her a map depicting some of the streets. He let her know she can call to discuss it more if she still has questions.
5/8/2008	☐	Would like someone to email him maps. Read the articles in the Kingman Miner but there is no maps. Left his email address and requested if someone could email him an attachment or mail it to him. Wants to see where the proposed A and B routes are among Colorado and Golden Valley and is interested.		Would like maps emailed to him.	Location		Mike Warner called and left him a message.
5/5/2008 Owns Property in Study Area	☐	Owns property in Golden Valley and was concerned about the project. She is on Klondyke Avenue and the parcel number is 305-06-009. Is concerned about this being her area. Is located in California but had planned to build on this. This is a property private according to your map. Your project as planned looks quite near there.		Would like a call regarding the project being close to her property.	Location		Mike Warner called on 5/15/2008 and explained the project was replacing the existing wood pole line with steel and she was relieved.
5/5/2008	☐	Would like to be mailed a map of alternate routes C, D, and E of the 230kV transmission line.		Would like to be mailed maps.			Mike Warner called on 5/15/2008 and spoke with him. He was interested in the routes being proposed and is pleased with those currently being considered for more study. He was not sympathetic with some complaints expressed by others but was in support of the use of BLM land.
5/5/2008 Owns Property in Study Area	☐	Inquiring about the project as it relates to the intersection of Shimarump and Bacobi. Would like to know how this is going to impact the intersection of Bacobi and Shinarump where his property is located.		Would like to know how the project is going to impact his property.	Location		Mike Warner called on 5/15/2008 and left a message with (redacted) regarding the potential impact to his property.

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5/2/2008 Lives in Study Area	☐	Lives in Golden Valley and would really like to know how close this is going to be to south Hano Road. The map that she got in the mail really doesn't tell her very much. Would like somebody to please give her a call.		Would like more information about the location near south Hano Road.	Location		
5/2/2008 Owns Property in Study Area	☐	Has some property right on Highway 68. It's at the corner of Kayenta and 68. He would like a map and to have a comment as to where this line is going and what it will affect his property.		Would like a map and more information about where the line is going and the affect to his property.	Location		Mike Warner called on 5/15/2008 and spoke with him. He was satisfied the project would not impact his property.
5/2/2008 Owns Property in Study Area	☐	Owns section 6 in T 21 N, R 17 W. According to the map it looks like that she received in the mail this is Fact Sheet number 3. It would affect her property and was wondering how it would affect my property. Can be reached in the afternoon after 2 or in the evenings, and was just wondering what the effect would be on her property.		Would like information about how the project will affect her property.	Location		Mike Warner called on 5/15/2008 and left a message.
5/1/2008 Owns Property in Study Area	☐	Owns 80 acres on the northeast corner of Shinarump and Bacobi. Is calling on the latest map that he's got and just wants to make sure that this things doesn't cut across his property.		Would like more information about the location as it relates to his property.	Location		Mike Warner called on 5/15/2008 and spoke with him. He just wanted to be sure the routing near his property was the same. Mike explained where we are in the process and confirmed that nothing had changed in regards to his property.
5/1/2008	☐	Called yesterday and has had no call. Was just wondering if she could get somebody to return the call in regards to the project location for that transmission line.		Would like more information about the location of the transmission line.	Location		Mike Warner responded with a phone call on 5/15/2008. She thought it might be coming through parts of Kingman. She was pleased it was going elsewhere.
4/30/2008	☐	Lives in downtown Kingman, a block north of the football field and the middle school. It used to be the High School. Trying to read the map that was sent to (redacted), her father who is no longer living. Is trying to make sense of if the line that you're thinking about is going to come over to our area where we are in this downtown area. Or are you speaking, maybe you got the name from So-Hi out in Golden Valley where her father used to own property. Doesn't know whether they were sent the map on the So-Hi deal or looking at the map it looks like it's awfully close to us in this downtown area. We're close to the museum just a couple of blocks. Would like to know where this transmission line so its not going through our back yard or something like that.		Would like more information about the location of the transmission line.	Location		
4/30/2008 Owns Property in Study Area	☐	Propery is on Teddy Roosevelt approximately 1 mile south of 68 street. Is not sure he completely understands the map that was delivered to him. This is the first contact that he's received. Would appreciate a call back.		Would like a call back regarding the map he received.	Location		
4/30/2008 Owns Property in Study Area	☐	Owns property in the siting area for the Golden Valley Transmission Line Project and would like to talk with somebody about that.		Would like to talk to someone about the project.			

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4/30/2008 Public mailing	☐	Would like a call back so he can be more informed as to what's really going on with the project.		Would like to be more informed about the project.			Phone Conversation Record by Mike Warner on 5/1/2008 (Redacted) is a landowner near the intersection of Milkyway and Highway 68. He was interested in the project details. (Redacted) was unfamilar with electricity needs and so I explained the proposed need and project description. I explained the connection to the substation at the steel mill up to the mine. I also described some of the alternatives. His major concern was related to water consumption and was releved to know the project was not related to water consumption. I explained that Mineral Park planned to use water and Pioneer was improving their system to supply the water, but the powerline would not require water.
4/30/2008	☐	Would like a little information on and also where the meetings are going to be held. Knows it was in the paper but is not exactly sure where those locations are. They don't have children so they don't know the schools. Would like a call in the mornings before the mettings. Their address is an area of concern and they would like to speak with somebody.		Would like more information about the locations for the meetings.	Location		
4/30/2008 Owns Property in Study Area	☐	Owns the property with a parcel number of 305-06-095 in the project area. Would like some more information on what exactly the project details are, and especially in regards to his property.		Would like information about the project details with regards to his property.	Location		Mike Warner spoke with him on 5/15/2008. He was pleased the route would not cross his property.
4/29/2008	☐	Called in regards to the power lines going through the Model of Gardens area of the Golden Valley Project. Would like to put his opinion into that he doesn't think it should be done.			Location		
4/28/2008	☐	Called saying that he does not want to see the power lines run across the Cerbat Foothills Area, the recreation area. He said that's the only recreation area that they really have in Kingman for biking, hiking, and horses. If it's at all possible we need to keep that out of there. If another entity hadn't set aside some areas like that for recreation we wouldn't have anything down there with the development that is going on here that's going to be a real problem.			Location, Other		
3/27/2008 Affiliated with Radio Station and Print News Media	☐	Called seeking some introductory information. Shared he knows other presses have already done some coverage of the project. Would like to get in on the phone as well.		Would like some introductory information about the project.			

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3/14/2008 Lives in Study Area	☐	More than opposed roads for the transmission line and he is totally against it. It's too close to his home and it's going to devalue it. Would like to be sent more information and to be kept informed as to whatever meeting may be coming up. He never heard of the previous three supposed ones that were already held.		Would like to be sent more information about be kept informed about meetings that may be coming up.	Location, Other		
3/10/2008 Lives in Study Area	☐	Was told if he sent a letter with his contact information he would be advised of community meetings regarding the transmission line meeting. Noticed in the paper that there was one Thursday night and nobody let him know. Would sure like to know about them. Lives a quarter mile from where the tower is going to ruin his view on Alternative B. Please give him a call.		Would like to be advised of future meetings.	Appearance		Phone Converation Record by Myriah Moore on 5/1/2008 I introduced myself and asked if she had the most recent fact sheet with information on the public open house meetings. She said she had a notice that said the meetings were on Friday, Saturday, and Sunday. I gave her the correct dates: Tuesday, May 6th, Wednesday, May 7th, and Thursday, May 8th. She said thanks for letting her know. She is concerned about selling her property with a Transmission line on it.
3/10/2008 Lives in Study Area	☐	Would like to get some more information on this powerline. Is afraid it's going by his house. He is up by Thunderbird Canyon Road on the edge of the BLM property.		Would like some more information about the location.	Location		Phone Conversation Record by Myriah Moore on 5/1/2008 I introduced myself and asked if he'd received the most recent fact sheet with information on the public open house meetings. He said that he didn't get one, but didn't think that the route concerned him. Had something changed. I explained that there were several alternative routes and the open house meetings were there to provide opportunites to comment on the alternatives. I asked him if he would like to have the fact sheet resent even though it might not get there before the public meetings. The fact sheet does have a current map. He said that he would like a copy. I verified his address as (redacted).
3/6/2008	☐	Would like someone to email him a map.		Would like a map.			Phone Conversaton Record by Myriah Moore on 5/1/2008 I introduced myself and asked if he had the most recent fact sheet with the public open house meeting information. He said that he thinks he has one, but isn't sure. If I could fax over one, he'd distribute it around his office as well. The fax number is (redacted). I said I would fax it immediately.

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3/5/2008	☐	Had a question on the location of the power lines coming from Shinarump to Hwy 68. He would like to know the name of the street or area where its coming up.		Would like more information about the location.	Location		Phone Conversation Record by Myriah Moore on 5/1/2008 I introduced myself and asked if he'd received the latest fact sheet and was aware of the public open house meetings. He said that he had one and was aware of the meetings.
3/4/2008 Owns Property in Study Area	☐	Called and said apparently he is involved in the location of Alternate A or Alternate B of the transmission line proposal. Is looking at the map and can't tell what streets the alternatives are and would like a call back regarding the streets that are proposed north of Highway 68.		Would like a more detailed street location information.	Location		Phone Conversation Record by Myriah Moore on 5/1/2008 I asked to speak with (redacted), but he was unable to come to the phone. I said that I was calling to see if he had received the most recent fact sheet with the public open house meeting information. She said yes they had received it yesterday.
3/3/2008	☐	Is the National Chairman of the Western States Constitution of the Lions. They are interested in the project and need to please speak to someone. They are having a meeting with the BLM later this week and their organization is becoming involved directly.		Would like to speak to someone about the project.			
3/1/2008 Owns Property in Study Area	☐	Would like to be sent some information on this project. Has a feeling that it's going right near his property and he'd be very much against having it go by his property.		Would like to be sent more information about the project.	Location		March 5, 2008 Dear (Redacted): Thank you for your interest in the Golden Valley 230kV Transmission Line Project. It was a pleasure to speak with you today. As requested, I am sending you a vicinity map of your property at the intersection of Redwall and Bosque Roads. It shows the common project route to the east (along BLM land) as well as the two alternative routes as they diverge northeast of your property. I am sending you the project fact sheet and a copy of the PowerPoint slides that were presented at the most recent public meeting. We have also updated our mailing list to include your contact information; this will ensure that you receive project information and meeting notices as they are available. Please feel free to contact either Mike Warner or myself at (480) 807-0095 if you have any further concerns or questions. Sincerely, J. Grace Ellis Project Coordinator Transcon Environmental

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2/26/2008 Lives in Study Area	☐	Curious of what affect this proposed transmission line will have on the quality of his and his family's life. Would like some better maps showing where the project is, would like to know what size the power poles are, if they are the metal girders. Had some questions, along with his neighbors. Does not oppose it, but not for it until he knows more about it.		Would like more information about the location, the size of the poles, and needs more information about the project.	Health, Appearance, Location		
2/21/2008	☐	Is in Commissioner Mavis office. Calling in reference to a letter from a consumer involving the project. Unable to find a docket number, and would like a call to let him know if the project has been docketed with the Corporation Commission.		Would like to know if the project has been docketed with the ACC.			
2/15/2008 Owns Property in Study Area	☐	The proposed line goes right on the back of his property. Wanted to ask some safety issues in regards to it because he's planning on building a home for his family. Doesn't know how big the line is. If it's gonna cause 3-headed babies. Wants to know what size of line it is, and if in the past people were able to build around this.		Would like to know the size of the line, safety issues, and about building around it.	Health, Location, Other		Phone Converation Record by Mike Warner on 2/25/2008 I visited with Roy regarding the proposed line around his property. He owns two 20 acre parcells at the intersection of Unkar and Tooman Roads. His property borders the BLM land to the south (301-11-054 and 055). He was concerned about development potential or restrictions. I explained the route was crossing on the BLM land. We discussed that the access road may be on his property if it had a county easement, but initial review of the assessors maps indicate there is no dedicated easement crossing his land. Therefore, the access road will be built on BLM land along with the pole line. He appeared to be satified with the discussion. I provided my direct number for follow-up as necessary. --- Phone Converation by Myriah Moore on 5/1/2008 I introduced myself and said that I was calling to see if he'd received the most recent fact sheet with the public open house meeting information on it. He said that he did get it but would not be able to go. He is concerned though because his property backs up against BLM property. He asked if the route does wind up going through his property will he be notified at least. I assured him that he would be.

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2/15/2008 Owns Property in Study Area	☐	Has received no return call and is anxious to make comments on the project. Doesn't want it to go down Bacobi Road. Would like maps, information. Anxious for a call back.		Would like maps and more information with a return call.	Location		Phone Conversation Record by Mike Warner on 2/25/2008 I visited with (redacted) on a few calls beginning on 2/15/08. Al owns property along Bacobi along the alignment just before the line moves to the west of the road. He and I discussed the possibility of moving the line to the west before crossing his land and agreed it was workable. I email him a map but he was unable to view it. He called back and I overnighted a map depicting his property on an aerial base. He will draw his parcel and send it back for our view. He lives in Show Low and intends on moving to his property in a few months for his health. He recently bought the property and is not on the assessor's tax roles so missed the previous mailings. He has poured a foundation for his manufactured hom and carport. I gave him my phone number for direct contact as necessary. It appears he will be satisfied if we move the line to the other side of the road. Phone Converation Record by Myriah Moore on 5/1/2008 I introduced myself and and asked if she'd received the most recent Fact Sheet that had the public open house meetings information. She said she had and asked about what was meant by the "informal forum." I explained that there would be information booths with people at each station to discuss particular aspects of the project. She said that she really protests the forum of this meeting. It puts the individual at a disadvantage and gives the company the advantage. I tried to explain the format more saying that it should provide an opportunity for one on one conversation to directly answer questions that you might have, and allows for comments to be taken at every booth. She again stated that she protests this forum and feels that it should be a group setting with everyone discussing their concerns together. She said thanks for calling anyway.
2/14/2008 Owns Property in Study Area	☐	They are in the eastern side of Arizona. Would like to know about the project. Would like someone to talk to, a human being to discuss this with. Would like to register a protest if it's going down in front of Bacobi Road in Golden Valley and would like some maps and some explanations. They just learned about this.		Would like maps and more information with a return call.	Location		

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2/14/2008 Owns Property in Study Area	☐	Does not want this going right through their neighborhood and would like that on record. Would like details, maps, and for someone to call them back there in Show Low where they live. Only learned about this yesterday.		Would like maps and more information with a return call.	Location		
2/14/2008 Owns Property in Study Area	☐	Owns property at (redacted) in Golden Valley. Does not want this thing going down their road. This is going to greatly disturb them. Just learned about it yesterday and are very upset. They are elderly and disabled and would appreciate a call back.		Would like a call back.	Location		
2/11/2008 Owns Property in Study Area	☐	Would like to comment about the 230 kilovolt transmission line that you are going to be putting in the Golden Valley Area. Knows that it is in the planning stages. He totally opposes those alignments, especially alignment A. He is a property owner over there, and thinks the overhead high voltage transmission lines would be a devastation for the area, both economically and also environmentally. He fully supports that project if it were going to be underground and if you can possibly pave the corresponding easement roads for maintenance. Again, he strongly opposes overhead, especially alignment A. Alignment B is a better choice although he thinks you have to be taking the transmission line if you want to put overhead you need to go on BLM land and not overburdern the area with those transmision lines. Environmentally, health wise, etc. those are very, very questionable things and especially for the growth that Golden Valley is going to be expecting and many, many people that will be living there that would be both a eye sore, possibly health issues, and also from environmental standpoint he think that woudl be a devastation for the area. You can contact him through email or the telephone number. He would like a copy of the very first flyer with all the easements that were on it. He wanted to get that because it is very, very important for property owners and those people that have a vested interest in that area to know exactly which alternatives or alignments you have actually eliminated and which ones you have added. Again, he hopes that his comments and many other people who are vested in that area seriously. Take our opinions to heart and try to be as environmentally conscientious as you could be.		Would like the very first flyer.	Health, Appearance, Location, Other		Phone Conversation Record by Mike Warner on 2/25/2008 (Redacted) left a lengthy message on the call in number expressing his objections to the project. He does not live locally but owns property along Kofa Road on the east side (alternative a or the east alternative). The current plan is to move the line to the east side of the road onto his property. He has rental properties in this area. I left a message with my direct call numbers.

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2/4/2008 Owns Property in Study Area Public Mailing	☐	Owns property right on Highway 68 in Golden Valley. Is the first notice that she received. Would also like to receive Fact Sheet number 1, as well as a better map, and ask some questions.		Would like fact sheet number 1, a better map, and to ask some questions.			Phone Conversation Record by Mike Warner on 2/4/2008 (Redacted) called the project number and requested more information. She and her mother, (Redacted), own property near the intersection of Bacobi and Highway 68. I spoke to both of them in two calls. They had spent the weekend looking at information on websites about transmission lines the the potential effects on land values and health. They asked several questions regarding noise, radio and television interferance, land values, EMF, hazards when built near pipelines, etc. The transmission line along the western alternative misses their property but crosses on the other side of Bacobi traveling north. They own property west of Bacobi on the north side of Highway 68, Parcel numbers 306-07-215,306-07-217a,306-07-217b. They indicated they did not receive the first newsletter. I explained we used the same mailing list and agreed to send them the newsletter previously circulated. Their email address is: (redacted) Phone Conversation Record by Myriah Moore on 5/1/2008 I introduced myself and said I was calling to see if she'd received the fact sheet with the public open house meeting information. She asked why were we calling this time when no one called her for the other meetings. She said that she was not happy about the last meeting. She did not feel as though her comments, along with other people's comments, on the alternatives were not really welcomed. She said that it felt as though the route had already been determined and people's comments and concerns would not be taken into account. I assured her that her comments, and other people's comments were welcomed and would be put on record.

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2/4/2008 Owns Property in Study Area	☐	Has a parcel of land off of Collins Drive that might be impacted and had a few routine questions.		Would like to ask a few questions about the project.			Phone Conversation Record by Mike Warner on 2/4/2008 (Redacted) called the project number requesting more information. I called him back and discussed the status of the project and the likely impacts to his property. He owns a lot on the north side of Collins along the route, between Bosque and Tooman Roads. He has not developed the property and bought it as an investment a few years ago. He asked which route we preferred. I explained that the decision was ultimately up to the Arizona Corporation Commission and that both routes had advantages. I added that the east alternative was likely to be our preferred route but we do not make the decision. He asked how much property we would affect. I explained it would be about 50 feet. I also explained that structures were not permitted below the lines but parking and landscaping could occur if they would not affect the line operations. He asked for some structure drawings and provided his email. We sent them. --- Phone Conversation Record by Myriah Moore on 5/1/2008 I introduced myself and said I was calling to see if he'd received the most recent fact sheet for the Golden Valley Transmission line project with the public open house meeting information. He said that he did. He then asked if I knew what route was being most considered now. I said that I did not. He said that was ok and that he would speak with the project manager to find out.
12/3/2007	☐	Is with Liberty Properties in Golden Valley. Would like to get whatever information, possible maps, concerning the Golden Valley 230kV transmission lines. Parcel of particular interest is 306-49-020. Has the property in escrow and it is of great concern to the potential buyer and this could make a major difference.		Would like more information about the location of the transmission line as it relates to a parcel in escrow.	Location		Phone Converation Record by Mike Warner on 12/5/2007 I spoke to (redacted) of Liberty Properties. She left a message on our project number requesting more information. She represents a party that has the property in escrow on the east side of Bicobi Road north and south of Highway 68. I explained the property is one of two alternatives under consideration for the new transmission line. I also explained the approval process for the line involved an approval from the Bureau of Land Management and the Arizona Corporation Commission. I outlined the expected timing for these two processes, adding that an ultimate decision on the alignment would occur at the Arizona Corporation Commission and would likely occur as early as first or second quarter of next year. She requested a map (PDF) which we intend on emailing to her today. I will also provide an office number for me and urged her to call if she had additional needs.

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9/24/2007	☐	Owners of the Golden Valley RV Park. It's in the So-Hi right along side of So-Hi subdivision and they are managing this area. Would like a call back.		Would like a call back.			
9/12/2007	☐	Would like to see some maps on the proposed route for the 230kV project.		Would like some maps.			Phone Conversation Record by Nadine Benally on 9/25/2007 I introduced myself. You had spoken with Mike Warner earlier today. You had requested for some maps. It is going to take us a couple of days to generate a map. I also wanted to verify your email address. I have (redacted). Is this correct? He said yes, that is right. Our GIS guy may be able to develop a map by the end of day tomorrow, if not then the next day. He said its going to take him a couple of days to get home anyway and there is no rush. Today is Tuesday. If he does not receive the maps tomorrow then for sure on Thursday. He said ok. Thanks. ----- Phone Conversation Record by Mike Warner on 1/23/2008 I visited with (redacted) regarding the current status of the siting process. I explained that the EA had been presented to the BLM for their review and they were generally okay with the two alternative routes, but they were primarily interested in the crossing of BLM land. I explained that a newsletter was being sent out in a week or so and would announce a public meeting planned for the week of 11th. I told him we were still prefering the other route but his route had some advantages. He urged me to press for the other route.I told him we would keep him informed. ---- Phone Converation Record by Myriah Moore on 5/1/2008 I introduced myself and said that I was calling to make sure you had received the most recent fact sheet on the Golden Valley 230kV Transmission Line Project that discusses the open house meetings that will be held next week. He said yes he did but it was sent to the wrong address. So I asked him for the correct address. He told me it is: (redacted).

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8/15/2007 Owns Property in Study Area	☐	Lives up in Kingman and had a few questions he'd like to ask somebody on running this transmission line. It looks to him like it's going to be running right over his 40 acre parcel. Was wondering due to the width of the piece of property. It would probably totally ruin the property having that big of a powerline running through it. Was just wondering and had some questions. If someone could call him or leave him a phone number where he could touch base with somebody.		Would like more information as it relates to the location of the transmission line and his property.	Location		Phone Converation Record by Mike Warner on 1/23/2008 I called (redacted) to provide an update on the siting and permitting activities. Wayne attended the meeting and also called on the phone line. He was interested in some of the earliest alternatives along I40. I explained the two remaining alternatives. Hew was pleased to have the follow-up and had no issues. I explained he would receive a newsletter in a week or so and it would tell of a meeting occuring in mid feburary. I agreed to send him a map by e-mail which I did (redacted).
8/13/2007 Lives in Study Area	☐	Needs some information of where they're going to put this. Lives at Burro and Bagdad and wants to know exactly what is going on.		Would like more information about the project.	Location		Phone Converation Record by Myriah Moore on 5/1/2008 I asked to speak with "(redacted)" because that was the name listed in the Public Contact List. The man that answered said there was a "(redacted)" but no "(redacted)." He then said that (redacted) was out sick but asked to take a message. I left him a message with the Public Open House Meeting information.
8/10/2007 Public Mailing	☐	Needs some clarification on the map that they received in the mail.		Would like some clarification on the received map.			Phone Conversation Record by Mike Warner on 1/23/2008 I called (redacted) and discussed the status of the final alternatives. He was pleased the alternatives did not cross his property and to receive the update. One of the areas of interest for him was the timing of the project. I explained the approval process and the upcoming meeting in mid Febrary. He provided his e-mail address and I sent him a map of the current routes.

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8/10/2007 Owns Property in Study Area	☐	Owns 80 acres of property. It would be on the northeast corner of the Bacobi and Shinarump. Basically wants to know how this is going to impact his property. His life savings is in this thing and he certainly doesn't want anything that would be negative in any way to impact something that he has dumped an awful lot of money into. Would like a call back and would appreciate it. Needs to know the pros and cons of this line, what kind of easements are required for it, and how it's going to negatively or positively impact his 80 acre parcel there.		Would like information about the location as it relates to his property.	Location, Other		Phone Conversation Record by Mike Warner on 1/23/2008 I spoke to (redacted) regarding the status of the permitting and siting activities. I explained the results now revealed two routes which I described. I offered a map by e-mail which he accepted and I sent. (redacted) (Redacted) owns land around Shinarup and Baccobi. I explained we would not cross his property. He was supportive of the project and contemplates using his land for commercial purposes. I explained the timing of upcomming newsletters and meetings. He was please for the contact and update. --- Phone Converation Record by Myriah Moore on 5/1/2008 I introduced myself and said I was calling to check if he'd received the most recent Fact Sheet on the Golden Valley Transmission Line Project that included the dates for the open house meetings. He said that he did not, but could not make it anyway since he was up in Idaho. I verified that we had the correct address for him, and said we could send him out another copy of the fact sheet if he'd like. He said that would be fine.

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8/8/2007 Owns Property in Study Area	☐	Recently got this map on the Golden Valley transmission thing. Has land up there and wants to know if it's going to be affected because she is planning to sell it so needs to know right away exactly where this is going. She is in Phoenix. The land is on Tooman right off the 68 and it looks like this is going to go right by where she is going to build a house.		Would like information about the location as it relates to her property.	Location		Phone Converation Record by Clark Bryner on 8/8/2007 (Redacted) was concerned about the potential affect the transmission line would have on a piece of property she owns just off of Toonman (5 lots in from the 68) within the residential subdivision to the northwest of the junction between Highways 93 and 68. She was concerned with what it would do to her property value. She also has water rights which are a rare commodity and wanted to be sure that we looked into the issue. I addressed (redacted) concerns by stating that we were in the preliminary stages of the project currently. We are gathering public input and researching other relevant environmental issues. I also stated that we are having a public meeting on August 16, 2007 where we can address further concerns. I stated that following this process we would determine 2 or 3 specific alternative alignments from which our prefferred alternative would be decided by December 2007. (Redacted) stated that she would be unable to attend the public meeting because she resides in Apache Junction. I informed her that we would keep her posted through the process as we will send out another newsletter later with specific alignments included. She requested that when we have determined a specific alignment we provide her with a more detailed map with street names. ----- Phone Converation Record by Mike Warner on 1/23/2008 I called (redacted) and explained the status for siting and environmental permitting activities. I explained that two routes were selected and provided a verbal description of the routes. She indicated her property was north of the highway 68 on Toonman. I explained we were not going to impact her property with the proposed routes. She explained that her husband had passed since we last spoke and she was interested in getting out of her property but with the market down would likely hang on to for a few years. She also believes the area surrounding her property has water and other areas do not which makes the area more valuable.

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8/8/2007	☐	Interested in what areas of private land you are going to be running this project through.		Would like information about private land crossed by the project.	Location		Phone Converation Record by Clark Bryner on 8/9/2007 (Redacted) left a message on the project information nukber requesting information on what private land the project would be running thru. He owns a 20 acre parcel adjacent to BLM land just off Unkar and Tooman. He is planning on selling the land in the next two years for retirement. His concern was that the project would pass thru his land without compensation and he would be left with a piece of land that was not worth anything because it had a transmission line running down the center of it. He also wanted to know why the transmission line could not be placed on BLM land. I explained that we did not have a route chosen yet, but that we were in the preliminary stages of the project studying potential areas for the route. I explained that part of this process inlcuded gathering input from residents and landowners. I also invited him to the public meeting next week, explaining that we would be able to look and a map and gather the publics suggestions on placement of the line. I explained that after the meeting and other data gathering had been completed two or three specific alternatives would be determined. (Redacted) stated that he would be unable to attend the public meeting. He did say that he would call again in a few weeks to inquire about the results of the public meeting. I also explained to him that if the line were to pass thru his land he would be compensated at fair market value. This seemed to satisfy his anxiety. I asked if we could help him with any other questions or information, he said no, thanked me, and said he would call in a few weeks. Phone Conversation Record by Mike Warner on 1/23/2008 I called (redacted) and he subsequently passed me to (redacted) who, he explained, had the detailed understanding and paperwork related to their property in Golden Valley. (Redacted) inidicated their property is located on the southern end of the project near the intersection of Unkar and Tooman. This places their property directly adjacent to the line on BLM land. They appeared pleased it would not be directly on their property but were disappointed it was close to their property. I explained the position of the BLM for keeping the line close to the edge of the property and they understood. I explained the planned newsletter and meetings including the approximate dates for these items. They welcomed the notices. They did not mention any concerns. I agreed to send them a map depicting the alternative routes: (email redacted)

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8/8/2007 Owns Property in Study Area	☐	Has a parcel along Highway 93 called the Los Cerritos area. Is near Agua Fria and Bryce Road. The parcel number is 305-26-008d, also known as parcel 348. Would like a call to get additional maps and information on the exact location and siting of the power line.		Would like some additional maps and information on the exact location and siting of the power line.	Location		Phone Conversation Record by Mike Warner on 1/23/2008 I left a message regarding the status and provided my phone number. --- Phone Conversation Record by Mike Warner on 1/31/2008 (Redacted) owns property between Tooman Road and 95. Apparently e owns the land going over the hills jus before Castle Rock Bar. The existing lines cross his property. He was disappointed the alternatives will cross his land. I explained that the proposal is to rebuild the existing line with a new steel pole. I was concerned the line would be lattic and thought the steel pole was better. He will hoping we would chose a route going up Aztec.

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3/1/2021 Lives in Study Area	☐	To Whom it May Concern: I was unable to attend the open hosue on 2/9/21. Could you please tell me what the height of the power poles will be and how they compare to what is already in place in the existing utility corridor? I know there are 2 standard 230kv towers; 230/69kV (average 120'-160') and the regular 230kV (105'-135'). My neighbors and myself (east end of Golden Valley near Hwy 93) are concerned of the visual impact and property values. Could you also tell me what is the latest BLM preferred altnerative route? Thank you in advance for your time and response. (redacted) ---- please see below for additional response ---- Reply to response from Eric: Hi Eric, Thank you for your response and helpful information. No, my failure to attend wasn't due to the information provided about the meeting. I understand the reason for the height difference from the existing pole height. I will stay involved and look forward to being part of any more public input meetings and eventually ACC's decision on the route. Thank you also for the links, they were helpful. (redacted)		Would like information about the height of power poles and BLM preferred alternative.	Appearance, Location, Other		3/1/2021 Good evening (redacted), Thank you for your comment on the Golden Valley 230kV Transmission line Project. I am sorry you were unable to attend, hopefully that was not a result of the information provided in order to attend. The height of the monopole structures that will be used for the Golden Valley transmission line has not fully been determined at this time as a design is not complete yet however, the average height of the structures will range height from 85-ft to 115-ft above existing grade. There are some instances where the pole height may be greater to ensure proper clearance is maintained. The transmission poles will be taller than those currently in place as the voltage that the lines will be carrying is greater than what is currently there and the increase in voltage requires an increase in clearance between the conductor and the ground. This requires the increased height in structures. The BLM preferred route is the E1 East Cerbat Alternative route. UNSE will be presenting 6 routes for consideration in its Certificate of Environmental Compatibility Application and will be seeking approval from the Power Plant and Line Siting Committee and ultimately the Arizona Corporation Commission of the E1 East Cerbat alternative as the preferred route in the application. Below are some links to the presentation that was provided to the public during the virtual open house as well as the actual virtual open house itself. In addition, a link to an interactive map has been provided for your viewing. Please don't hesitate to reach out should you have any additional questions. Thank you again for your comment and have a good night.

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							Links PowerPoint: https://www.uesaz.com/wp-content/uploads/GV230kV-Virtual-Open-House_20210209.pdf Virtual Open House: https://www.youtube.com/watch?v=9sgUFe6At7M&feature=emb_title Interactive Map: https://teprojects.maps.arcgis.com/apps/View/index.html?appid=bfccbac44fc04fe39ed42d0e13c9c4f7 Eric
1/27/2021	☐	Mr. Miller, I am writing in agreement for the Golden Valley 230KV Transmission Line Project to utilize Alternative E1 as the route. It would appear to me that route E1 would be the preferred route based on the data I have received. E1 is 1 mile shorter, is 100% within a BLM designated utility corridor, has the largest amount paralleling an existing line, and has the largest amount within a UNSE transmission line right of way. It appears to me that utilizing the existing easement along the Alternative E1 route would impact private property the least and minimize the duplication of easements. Thank you, (redacted)			Location, Other	E1	2/1/2021 Dear (redacted), Thank you for your feedback regarding the Golden Valley 230kV Transmission Line project. We appreciate your comments and will include them in the project record that will be provided to the Arizona Corporation Commission (ACC). UNSE has evaluated the potential routes internally based on a number of factors including constructability; opportunities to utilize existing facilities; proximity to schools, hospitals, and homes; environmental concerns; and public feedback, among others. When planning new transmission line routes, UNSE prefers to use existing utility corridors and road rights-of-way when possible. UNSE is preparing to submit an application for a Certificate of Environmental Compatibility (CEC). UNSE will ask the Arizona Power Plant and Line Siting Committee to approve the East Cerbat Alternative 1 as the preferred route for the Project. The ACC must give final approval for UNSE to construct and operate the project. We appreciate your comments. For project updates, please visit our website at uesaz.com/golden-valley. Thank you, Eric

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11/1/2017 Owns Property in Study Area	☐	Hello Mark, I wanted to check in to see if anything more has developed over the last couple of months? (redacted)		Would like an update about the project.			Hello (redacted), Sorry for the delayed response - I was gone last week. Yes, there have been developments, but slowly. To address your concern (and others) concerning effects to private lands UniSource is reviewing their rights-of-way to see if additional areas would be needed for this project so it can be analyzed and disclosed in the environmental assessment. To notify the public on where the project is at Transcon, UniSource's environmental contractor, will be sending out postcards with a brief message on the project and the web address to UniSource's website for a project update. UniSource had run into an issue with access through some rough terrain that had to be checked out and has proposed a minor re-route of a portion of the East Alternative that had delayed this moving forward. Hope this information helps. Andy
9/27/2017 Lives in Study Area	☐	Hi Andy, It's been awhile since I've written to you. I've been asked by a neighbor, and I am also wondering, which route recommendation was made to the Arizona Corporation Commission. I hope you are well and your summer was pleasant. Take care, (redacted)		Would like an update about route recommended to ACC.			Hello (redacted), There was a hang-up with access on one of the private parcels which had to be re-evaluated and, along with some other glitches, slowed progress on this. So we have not been able to move forward on the environmental assessment. I believe we need to get another newsletter out to the affected parties and interested public as I'm sure others are wondering as well. And yes, the summer has been good - a bit hot and humid and lots of weeding, but it's nice to get the rains. Hope yours has been well also. Regards, Andy

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8/16/2017 Owns Property in Study Area	☐	Hello Mark I hope all is well. I just wanted to check in with you and see if any new information has surfaced? (redacted)		Would like an update about the project.			Hello (redacted), Things are still proceeding with developing an environmental assessment. It has slowed a bit without a local UniSource right-of-way person for the past several months, but they have hired one soe hopefully things will get back underway. Last I heard that person was going through some training or orientation so once he gets engaged in this project I will be going over questions such as yours. Thanks for your patience. Andy
7/26/2017 Owns Property in Study Area	☐	Renee and Andy: Thank you for reaching out and facilitating our walk with both BLM and Unisource on July 25, 2017 on our property in Cook's Canyon. (We wish it were named (redacted) Canyon, but I digress!) We especially thank Renee for making the drive from Tucson. As you recall we discussed the Eastern Hill Top route may need an improved access road from the north that would be an additional expense to Unisource. Also we discussed a New ADOT Right of Way Sub-Route that I proposed when the discussion turned to options: a Western Route along the DOT freeway right of way not on our land at all. This route would follow the freeway and be part of the transportation and utility corridor where power lines, freeways and pipelines ought to go. This route would be far away from our Box Canyon acreage that we could develop that is along the Eastern boundary of our properties along Highway 66, and north of the Trailer Park. We understand both Unisource and BLM would like to hear from us what order these sub-routes fall in our order of preference (or the ones we hate the least). Of course you are aware that we favor the Western Routes through Golden Valley to our West for a variety of reasons we stated in our prior written comments. In particular the existing 69 kV route through the Canyon will harm our two homes there and our ability to develop this flat land in our canyon. We appreciate you asking for our comments and so here is our formal comment on these sub-routes or sub-options to the Environmental Assessment that BLM is conducting on the Eastern Route:			Location, Other		

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		(Redacted) #1 Preference: Along the AZ Dot Freeway Right of Way or Western Sub-route from pole 27 north along the ADOT Right of Way to Pole 35 to cross the I-40 Freeway. (Redacted) #2 Preference: The Hill Top Route laid out below along poles 29 to 35 - we realize this may require an access road from the North along the blue line dotted line on the map below. (Redacted) #3 Preference: Along the current route of the 60 kV Line through the Canyon (Cook's Canyon on your maps), North past the KAAA antenna on the Western property line, between the two houses and up to pole 35 to cross I 40 Freeway. Thanks again for the opportunity to comment and please contact me on my cell if you have any questions. (Redacted)					
7/18/2017 Owns Property in Study Area; Lives in Study Area	☐	Renee and Andy: Here is the Final Time - 12 Noon - and date - July 25, Tuesday, to meet at the Box Canyon property to review the possible routes. My brother and I will attend and my cousin (redacted) may join.					
7/17/2017 Owns Property in Study Area	☐	Hello Mark, I hope all is well. I was wondering if you have any new information? Thank you. Best Regards, (redacted)		Would like any new information.			Hello (redacted), Things slowed a bit on this with other work and a couple of things needed to be clarified on UniSource's proposed access for one of the alternatives, but we are still working towards getting an environmental assessment drafted for public review. I'd like to say we'll have it in 2-3 months, but I said that 2-3 months ago. Feel free to contact me in the future for updates or further information. Andy Whitefield

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6/28/2017 Affiliated with Company that Owns Property in Study Area	☐	Hello Mark, Please see attached map. If you cannot print in color I can send you a hard copy. Can you believe how close to residential property lines in the blue option layout? That is insanity. Address: (redacted)			Location		Hello (redacted), I just wanted to get back to you regarding notification on this project and as a matter of protocol we are not maintaining an email list for notification. If you would like, please send a physical address and we'll add it to the mailing list. UniSource also maintains a website on the project that gives information on this at uesaz.com/projects/transmission/golden Also, feel free to contact me with any questions you may have on this. Regards, Mark (Andy) Whitefield --- Thank you for your comment (redacted). I'll add your address to the mailing list. The environmental assessment for public review and comment for this project is still being developed and you'll be notified of its availability. Let me know if you have further questions. Regards, Mark (Andy) Whitefield

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6/15/2017 Owns Property in Study Area	☐	Please see response record also. Thanks Mark. Yes, it is a concern and I would love to see the recorded easement BLM gave them so we know what it is. Do you think the recorder's office may have a copy?		Would like info about BLM easement.			Hello (redacted), UniSource had revised their Plan of Development awhile ago and I've been meaning to review it to see if the proposed right-of-way needs along Hwy 93 on private property are addresssed but have been working on other projects and haven't gotten around to this yet. I just wanted to let you know I have not forgot about this. ------ Email sent later the same day below. Hello (redacted), The rights-of-way that were granted by the General Land Office (GLO) (BLM's predecessor agency) during this time that I've seen were decisions approving the right-of-way (generally one or two pages) and refer to survey maps showing the right-of-way that the applicant submittetd for approval. I did not find a deicsion on this but we do have scanned maps with the approval statement by GLO approving the right-of-way. I attached the one showing the center line of the right-of-way through your land. As I had noted in my earlier email there was never a width specified for this right-of-way except for some areas where the highway was realigned, but no realignments happened in the area where your land sits while it was in federal ownership. I was curious to see if there had been something recorded on this and ran over to the recorders office and did not find any record of this, which didn't surprise me. I'll get to reviewing the Plan of Development in the next couple of weeks, hopefully. Mark (Andy) Whitefield
4/25/2017 Owns Property in Study Area	☐	Hello Mr. Whitefield, I appreciate your time and email. I think I have some understanding but still have questions in my mind if the power lines will need additional right-a-way into our property. It makes a difference to us because of the value of our investment. I wanted to ask, if by chance, you are in the Kingman area the few days and we could meet at the property? I don't want to take too much of your time but the power issue has been lingering for years. (redacted)		Would like more information if the power line will need additional right-of-way into their property.	Location, Other		Hello (redacted), I meant to get back to you yesterday but the day got away from me. Yes, I am based in Kingman and so I could meet you on the property. I may not have the specifics as to UniSource's right-of-way needs, but I've passed this question along to them to flesh out to disclose in the environmental assessment. I'm gone next week, but after that let me know when its convenient for you to meet. Regards, Andy Whitefield,

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4/20/2017 Owns Property in Study Area	☐	Hi Mr. Whitefield, My name is (redacted) and I spoke to you on the phone several weeks ago about my concerns of this project. My parcel is 305-26-003D and you have done some research for me and noted that there are powerlines on the property of which I have confirmed there are 2. You also stated that they had an easement across our land and I don't know if this is a patent easement that was given many years ago when BLM owned the land or later but I would like to find out what the exact easement is. You had mentioned that they are proposing putting in new larger powerlines which could be detrimental to the value of our property but also you had mentioned that because of their size they would need even more easement because they were leaving the smaller power lines in place and that the new powerlines could not exist in the same easment. Was this correct? I would like to find out exactly what rights they have and what rights we have and I don't know where to begin searching other than in the records office. Do you know or could you check if a patent easment was indeed given to them from BLM and if so what that was. Thanks again, (redacted)		Would like more information about the powerline easements on his property.	Location		Hello (redacted), I hope the following information will be helpful. It gets a little complicated in describing some of this and I'll try to make it understandable. By all means if it's not let me know and we can discuss over the phone if that's easier. Your properties were conveyed out of federal ownership in 1991 and conveyance was subject to a right-of-way for the Hoover Dam-Kingman 69 kV transmission line that was granted in 1939. This is the line that parallels Hwy 93. The second power line you mentioned is probably what's called a distribution line and, as the name implies, distributes electricity from the transmission grid to homes and businesses. This must have been put in after the lands were transferred to private ownership since I didn't find records of any other power line rights-of-way that existed on this land at the time of conveyance. From time to time I've had to look into the files for the Hoover-Dam Kingman line and except for some segments where the transmission line needed to be realigned for highway improvements the width of the right-of-way was not specified. In regards to what I had described over the phone the other day, in some locations along the Hoover Dam-Kingman line there is a distribution line hung on the same poles below the transmission line. I'm not sure if this is the case on your property, but what I'm getting at (bear with me) is should the 230 kV transmission line be approved the wires on the Hoover Dam-Kingman 69 kV line would be hung below the 230 kV wires. In locations where there is a distribution line under the Hoover Dam-Kingman line, this would be put on shorter poles that would parallel the 230 and 69 kV transmission lines. Because of the longer distance between the transmission line poles and their engineering needs the distribution size lines generally can't be hung on the same poles as the transmission lines. The pole height for a 69 kV line is around 70 feet tall and the pole height for the proposed 230 kV line would be between 85 and 195 feet tall depending on the structure's need, location and terrain. A typical pole height for a distribution line is about 40 feet tall. I've attached a diagram of the proposed 230/69 kV double circuit pole configuration.

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							After our conversation I communicated with UniSource that the right-of-way widths proposed for this where the parallel distribution line would be needed should be described in the environmental assessment (EA) that is being prepared to inform the public. Once the EA has been prepared the public will be notified of its availability for review and comment and we will revise accordingly for a final EA which will be used to make the BLM's decision on this. We'll see what UniSource comes up with regarding the widths they would need and where. Let me know if this didn't hit the mark and we'll discuss this further. Regards, Andy Whitefield
4/20/2017 Owns Property in Study Area	☐	Mr. Whitefield, I wanted to introduce myself. I have the same concern as Peter. I own the parcel next to him. Parcel # 305-26-008C. I really appreciate your help. (redacted)			Location		Hello (redacted), I hope the following information will be helpful. It gets a little complicated in describing some of this and I'll try to make it understandable. By all means if it's not let me know and we can discuss over the phone if that's easier. Your properties were conveyed out of federal ownership in 1991 and conveyance was subject to a right-of-way for the Hoover Dam-Kingman 69 kV transmission line that was granted in 1939. This is the line that parallels Hwy 93. The second power line you mentioned is probably what's called a distribution line and, as the name implies, distributes electricity from the transmission grid to homes and businesses. This must have been put in after the lands were transferred to private ownership since I didn't find records of any other power line rights-of-way that existed on this land at the time of conveyance. From time to time I've had to look into the files for the Hoover-Dam Kingman line and except for some segments where the transmission line needed to be realigned for highway improvements the width of the right-of-way was not specified.

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8/4/2016 Owns Property in Study Area	☐	Good evening Mr. Whitefield, Please find my letter attached opposing the Eastern Route to the Golden Valley 230kV HVTL Project. If you need to contact me for any reason, please call me between 7 AM - 3 PM Central Time at (redacted). (redacted) Letter Attachment: 30 July 2016 Dear Mr. Whitefield, I'm writing on behalf of the (redacted) Family to support the Western Route of the proposed Unisource 230 kV HVTL along public BLM lands, and to oppose the Eastern Route through largely private lands, including our family's property. Our family, along with (redacted) and their families, owns the property through which Unisource proposes to site the Eastern route. We oppose the Eastern Route for four reasons: 1. The proposed eastern route for the 230 kV HVTL can cause disturbances in the migratory patterns of the many types of reptiles, insects, mammals and migratory birds that live in or migrate thru our canyon each year. These animals rely on the natural (geomagnetic) static magnetic field as one of a number of parameters believed to be used for orientation and navigational cues. A major disruption in the electromagnetic field, such as HVTL, could cause a change in migratory patterns, and potentially disrupt the ecological balance of the canyon. 2. Additionally, the proposed route of a 230k V HVTL between the Cook and Box Canyons will obstruct the natural beauty of the Canyons and destroy property values for both Canyons. The eastern route would gravely limit an opportunities our families have for residential and / or commercial development of the property, and any stream (s) of income as a result of any such development. 3. The proposed eastern route for the 230 kV HVTL will cause electromagnetic interference and/or pattern distortion of the Cameron Broadcasting Tower for KAAA located on our Cook Canyon property, because the Unisource 230 kV monopoles will be closer than 1150 feet to the tower. This, in turn, would cause Cameron Broadcasting numerous problems, from disruptions in their radio transmission to having to deal with the enormous amount of bureaucratic red tape, money and paperwork required by the Federal Communications Commission, the Environmental Protection Agency and any other Federal and State agencies they would have to involve if they were to choose to attempt a relocation of their tower.		Would like to be included on any future public communications about the project.	Appearance, Location, Other	West	(Redacted), Thank you for your comment. The comment period for the initial scoping of the closed last week, however siince we are only now assembling the comments I will included this. The environmental analysis that we are preparing will analyze impacts to wildlife, visual quality, land use and land values, along with impacts to other resources. We are hoping to get a review copy of that document out to the public for comment around the end of October. I noticed you name is not on the mail list. Would you like to have it added? Regards, Andy Whitefield

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		4. Our families have already sacraficed our lands for the public good in the construction of Interstate 40, and we should not be forced to sacrafice our land's remaining value to the public for a 230 kV HVTL. As you know, Interstate 40 runs through our family land on the Western wall of Cook Canyon. The public used the power of eminent domain to seize our land in the 1970's to create a route for I-40 through Kingman that maximized the number of exits for the local businesses, and in turn, destroyed our three-sided Canyon with water in the back wall. Numerous Native American artifacts (arrowheads, pottery shards, etc.) were potentially destroyed in the construction of I-40, as many of these artifacts were found on the western wall of our canyon prior to I-40construction. In choosing this route for I-40, other, better routes with cheaper construction costs and multiple business exits, were rejected to place the route entering Kingman from the West on Highwya 93 and exiting Kingman in the East along Highway 66. In order to maximize business revenue to our fellow citizens, the public ruined a peaceful and pictureesque Canyon with a freeway. Our families should not be made to suffer a second uncompensated/undercompensated taking of our property for the public good...we believe we've already done more than our fair share. Our families strongly urge you to choose the Western Route instead. We enthusiastically support the Western Route along existing public lands and recommend that Unisource take only the Western Route to the Arizona Power Plant and Transmission Line Siting Committee of the Arizona Corporation Commission (ACC). We strongly oppose the Eastern Route. If you have any questions or concerns, please contact me to discuss this matter at (redacted) and please include me in any future public communications regarding the Golden Valley 230 kV HVTL. Thank you for your attention to this matter. Sincerely, (Redacted)					
8/3/2016	☐	Thank you, Andy for addressing my questions. Is there a way to get on an update list of any sort? I truly appreciate your time and diligence. (Redacted)		Would like to be on the mailing list.			August 3, 2016 Yes we can add you to the mailing list. I looked to see if you or Mohave county Landowners Association are on it and neither were listed. So please send your address and we'll include you. The environmental contractor will be sending out newsletters periodically as the project moves forward as well as notices when the environmental documents are available for review and comment. Take care, Andy

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8/3/2016	☐	Andy, Our address is Mohave County Landowners, PO Box 3877, Kingman AZ 86401 Yours, (Redacted)					August 4, 2016 Thanks (redacted) - I'll have this added to the mailing list.
7/31/2016	☐	Thank you for listening and considering what I had to say. And, for clarifying some of the issues. As you might have guessed, we are very concerned about the western route impact. I wish I could offer suggestions of other alternative routes. But, I don't really know enough about the topography of the county to do so. Just please consider not using the western route. Sincerely, (Redacted)			Location		You're welcome (redacted). We will put your comments in the mix. We will be soliciting further comments on the environmental assessment (ea) after that is out for review. In the meantime you should get one or more updates in the mail, depending on how long it will take to get the ea out. Regards, Andy
7/29/2016 Lives in Study Area	☐	To: Andy Whitefield, BLM Project Manager Re: 2016 Golden Valley 230kV Transmission Line Project Sir: I live at the base of the Cerbat Mountains, where the Alternative Western Route has been selected for analysis. I am opposed to the use of the Western Route and recommend use of the Alternative Eastern Route based on the following facts and opinions. Much of the proposed Eastern Route already has existing power line right of ways. The transmission lines can travel these routes creating less negative affect on the environment. The existing lines can be incorporated into a one-pole structure. Transmission lines can transverse canyons where there is less visual impact. A much smaller section of BLM public land is used on the Eastern Route. According to my measurements, using the map provided in the fact sheet, approximately 2 3/4 miles of BLM land is used on the Eastern Route, whereas, on the Western Route, approximately 6 miles is used.			Appearance, Location, Other	East	

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		Along with the transmission line, a wide maintenance road will be cut into the side of the Cerbat base. There are far more residents and private property owners on the Western Route, and there will be a significant impact on property values. Two land sales have been cancelled just in our area since this plan was announced. Due to the nature of the Eastern Route environment, there is far less potential for growth. Concern should be shown to the local animal species. We have tortoises, Gila Monsters, large bats and many as small as hummingbirds, snakes include Rosy Boa, King Snake, Racers and a variety of rattlesnakes, Burrowing Owls, Tarantulas, Walking Sticks and a vast variety of other small animals, reptiles and insects. BLM is the protector of this area. The Western Route follows the edge of BLM land, it is very close to private property. Yet, because of the size of the transmission line project, and that no visual obstructions exist, it will be visible from miles away. There is also a "buzzing" noise emitted by high voltage lines. So, we will have a nearby view of the transmission lines, the maintenance road and electrical noise for as long as we live in Golden Valley. On the Eastern Route, this project will affect far less residents and private land and can follow existing lines and canyons. There was some concern about interference to an existing radio station(s) and cell site. After speaking to two individuals who are experts in complicated radio and electrical systems, they assured me that 230kV power lines will not interfere with either of these sites. Especially at the distance the transmission lines will follow. Golden Valley has its share of high transmission lines. Multiple lines exist, criss crossing the valley. How many more will be added? If the Eastern Route is used, it will afford Unisource the opportunity to incorporate existing lines, this will minimize an addition of another power line. Notification was poorly managed and many people in the area did not know of the projects existence. Photos displayed at the meeting were inaccurate and did not show the existing residences.					

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		We bought this property because of the beautiful views. We plan to live out our lives here. We knew that since BLM bordered our area, that the land would be protected. This belief, sadly, is untrue. BLM is the guardian of the "peoples land" and should make sure their decisions are made wisely. BLM should not interfere or disturb their neighbors, and land owners. The Western Route will in fact affect the most landowners of the two routes. The BLM land along the Western Route is the least disturbed of the two routes. Unisource is presenting this as future growth in Golden Valley. Having been in and managing business myself, I can tell you that a company does not spend this kind of money on speculated growth. So, in my opinion, there is something more that Unisource is leaving out of this picture. According to population projections at, population.az.gov, the expected growth of NW Golden Valley should already have more than enough power for the next several decades. I find, with all the research we have done on the Internet, that Unisource is leading us to believe inaccurate information. In conclusion, using the Eastern Route will affect far less residences and land owners. Parts of the Eastern Route already have existing lines and right of ways that can be used. It will be far more environmentally appropriate. I have attached a possible route change to the line running North of 40, West of 93 and East Cook Canyon. As a reminder, these lines can be buried at the trailheads. Sincerely, (Redacted)					
7/27/2016 Lives in Study Area	☐	I am writing you as a concerned resident in the effected area on Shipp Drive. As anyone who has studied environmental medicine can tell you, the immediate and long term health effects caused by the proposed high voltage line area serious for those of us living in the area. Many diseases and chronic illnesses have been documented and tied to living in proximity to electromagnetic radiation from high voltage lines. Wildlife in the area are also a major consideration. Ill effects and habitat destruction for the many species of the delicate desert ecosystem will no doubt disrupt the natural balance in our area. The protected species of eagles which nest here should especially be considered also. For these reasons I (and my neighbors bordering my property) am opposed to any new high voltage lines at this time or in the near future until the deleterious effects are understood better and are able to be circumvented. Thank you for your consideration. Sincerely (Redacted)			Health, Location, Other		(Redacted), Thank you for your comment. As part of analysing the alternative routes we will take into account potential health issues and impacts to wildlife, among other issues. Once a review copy of the environmental assessment is prepared it will be available for review and comment. I did not see your name on the mailing list. If you would like to be added please email it to me. If you have questions feel free to call or email me and if you have further comments please send them to me. Regards, Andy Whitefield

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7/26/2016 and 7/27/2016 Lives in Study Area	☐	Dear Mr Whitefield and associates, Yesterday I emailed a comment entitled Part I: HUMAN HEALTH, but I forgot to introduce myself. Actually, we chatted briefly at the Kingman meeting. My name is (redacted). I am a naturopathic medical doctor with a special interest and some expertise in environmental medicine. My comments are based on attending environmental medicine conferences, clinical experience with environmentally affected patients, research, observation, and common sense. I live in Golden Valley, by choice. I love this land and I do not want it to be destroyed. Please contact me if you have further questions. WATER The Golden Valley aquifer (as well as other aquifers in Northwest Arizona) are being depleted at an alarming rate, and may have reached the point of no return. We found that out at a meeting conducted by the Arizona Water Project at the very same time that you were conducting the power line meeting in Golden Valley, the schedule itself showing at best carelessness, at worst an evil intent. Anyway, the reason for the extremely high rate of depletion is the mining industry, industrial agriculture on lands sold to absentee owners who grow water-intensive crops - alfalfa, cotton, soy beans, - and other industries, such as Cascade, a toilet paper manufacturer. In Golden Valley this absentee owner is the notorious "farmer" Rhodes [sp?] who has creating a dust bowl by denuding the land; sometimes he plants alfalfa, and sometimes nothing at all. Some landowners have already lost water in their wells. You have to have a heart made of stone not to cry for people whose homes are now unlivable because they have no water - and nowhere to go, because nobody else will buy their land. They are not fooling anyone by talking about the "projected need". Everyone knows they want to bring more industry into the area. Who are "they"? The "captains of industry" looking for a cheap, desperate labor force; the local corrupt (and/or stupid) board of supervisors. In any case, the model is clear: bring in power lines - enable more industry - deplete water - destroy the area - move on to new conquests. And what about us? Those that can leave, leave. And the rest ... well, it's not the first time regions and even continents get sacraficed to "progress". Just look at Africa. SOIL Golden Valley has fertile soil of volcanic origin; it used to be a bottom of a sea or river. People grow roses, almonds, dates, peaches, figs, olives, pomegranates, vegetable and herb gardens (even that same Rhodes one year had fine vegetables but decided they didn't bring enough profit). The continued water depletion and soil erosion will put and end to that. AIR So far, we have enjoyed relatively clean air. Already it is getting worse because of the increasing number of people, but the industries will finish it off.			Health, Location, Other		(Redacted), Thank you for your comments. As part of the environmental assessment we will be analyzing the surface disturbance to the landscape, impacts to wildlife, affects to land values, and EMF, among other resources and issues. Once a review copy of the environmental assessment is prepared it will be available for review and comment. I certainly wish we would not have scheduled the meeting in Golden Valley on the same date there was a meeting on water issues. It was entirely unintentional. If you have any questions feel free to call or email me and if you have further comments please send them to me. Regards, Andy Whitefield

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		FLORA There is always something blooming in Golden Valley - at least, where the land had not been destroyed. Golden poppies on the mountain slopes, yellow mesquites, yellow and orange palo verde trees, yellow and orange cacti, yellow creosote bushes, yellow... That's why they call it the Golden Valley. Desert plants take a very, very long time to grow. Mesquites take several decades, palo verdes more than a decade, and even a little cactus plant takes a decade. Any construction is sure to destroy the plants, and we may never see them again, not in our lifetime. Do I need to remind anyone of the importance of plants for all the other living creatures? Not to mention they are beautiful in and of themselves. Why should we, the local residents, be stuck looking at the pylon jungle instead of trees and flowers, so that somebody else can have a nice life somewhere else? FAUNA -Everyday I see or at least hear jackrabbits, cottontails, coyotes, burros, hummingbirds, wrens, mockingbirds, canaries, quail doves, hawks, butterflies, bees, lizards ; one time, we saw a mountain lion, a few times, young eagles; snakes, too, although I wouldn't miss them much. Although it warms my heart to see all of these God's creatures in my vicinity, I realize that, unfortunately, the reason they are around is that they are losing their natural habitat. Any construction, any development, destroys wildlife habitat. At some point, they will have nowhere else to go. -Animals, especially mammals, suffer from the same EMF-related problems as humans Power lines pose a danger of electrocution for animals, especially birds -"The loss and fragmentation of habitat by infrastructure is the principle global threat to biodiversity - it is absolutely major. Roads have always got particular attention but this will push power lines right up the list of offenders. ... power lines can interfere with migration routes, breeding grounds, and grazing for both animals and birds". Damian Carrington. The Guardian, 2014 March 12 ECONOMY -Foreign companies coming in to take advantage of cheap labor is the hallmark of the Third World. Wait a minute ... I thought this is the United States of America, the only superpower in the world. With the tourist industry booming all over the world, this area has a tremendous tourism industry potential. Development would kill that potential. "in June 1998 an expert panel convened by the National Institute of Environmental Health Sciences at the behest of Congress issued an alarming press release. The panel concluded that low frequency EMFs, like those surrounding transmission lines, should be classified as a group 2B human carcinogen under the International Agency			Health, Location, Other		

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		for Research on Cancer Classification Scheme ... ... the continuing scientific uncertainty over the adverse health consequences of EMFs only serves to perpetuate the debilitating effect of power lines on abutting property values." Power Lines and Property Values: The Good, The HUMAN HEALTH -Life threatening diseases: childhood leukemia; adult leukemia; brain cancer; breast cancer; other caners -Degenerative diseases: Lou Gehrig's disease; Alzheimer's disease -Neurological disorders: neuropathy, headaches spasms -Psychological disorders: depression; suicidal ideation -Heart problems: arrhythmias, tachycardia, palpitations -Reproductive disorders: low sperm count *Recently, EMFs were reported to cause DNA damage and neurological diseases at much lower levels than proscribed by international safety guidelines" References 1. Lindstrom E, Mild KH, Lungren E. Analysis of the T-cell activation signaling pathway during ELM magnetic field exposure, p561 ck and Ca2+ measurements. Bioelectrochem Bioenerget. 1998; 46:129 2. London SJ et al. Exposure to residential electric and magnetic fields and risk of childhood leukemia. Am J Epidemiol. 1991 139:923-937 3. Harrington JM fet al. Occupational magnetic fields in relation to mortality from brain cancer among electricity generation and transmission workers. Occup Environ Med. 1997; 54:7-13 4. Bioinitiative report: a rationale for a biologically based public exposure standard for electromagnetic fields. 5. Bastuki-Garila S, Richardson S, Zittoun R. Acute leukemia in workers exposed to electromagnetic fields. Eur J Cancer. 1990; 26: 1110-1120 6. Johansen C, Olsen JH. Mortality from amyotropic lateral sclerosis, other chronic disorders, and electric shocks among utility workers. Am J Epidemiol. !998; 148: 362-368 7. Versakalo PK et al. Magnetic fields of transmission lines and depression. Am J Epidemiol. 1997; 11:395-403 8. Reichmanis M et al. Relation between suicide and the electromagnetic fields of overhead power lines. Physiol Chem Phys. 1979; 11:395-403 9. Stevens RG et al. Electric power, pineal function, and the risk of breast cancer. FASEB J. 1992; 6:853-860 10. Stevens KG, Davis S. The melatonin hypothesis: electric power and breast cancer. Environ Health Perspect. 1996; 104 (suppl): 135-140 11. Liburby RP. Calcium signaling in lymphocytes and ELF fields. Evidence for an electric field metric and a site for interaction involving the calcium ion channel.					

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7/27/2016 Lives in Study Area	☐	Email to Jean Bishop, with copy to Andy Whitefield Thank you for taking the time to reply. I must also comment that I felt like you were most interested in the western route since it is mostly public lands. Well, how is that better? Those are my public lands too. An eastern well established route, already in place, and convenient too. How can that be route be worse than establishing another route? Mostly private? They have been around for a while. A western route is better? As is the eastern one isn't ugly enough? Another one that will scar even more of the earth, displace wildlife, draw in vandals and dumpers. Another well established road to cause more rubbish than we already have in our desert. It's senseless. But I am not a politician. I just love where I chose to live. I can't believe it's just this. There must be something more to this western route thing. It makes absolutely no sense other than corporate gree. Our public lands deserve more than this. Let Golden Valley have its sunsets Arizona is famous for.			Appearance, Location, Other	East	
7/26/2016 Lives in Study Area	☐	Dear Andy Whitefield: I live at, (redacted), Golden Valley, AZ 86413. If the Western Route is selected, our home will be surrounded on two sides by these high transmission lines. We have 7 children, and we often home other children who need care. My children spend the majority of their time outside. I am very concerned about my children being near these power lines. My husband and I plan to of build new home on this property someday. We have spent the last 11 years living here and plan to live here for many more years. This transmission line project will greatly reduce the value of our home. I am worred for the animals that live in this area, we own dogs cats and tortoises. I always felt that owning this property, surrounded on two sides by BLM couldn't be more perfect. It felt safe for us and our children and our futures. I understand that the Eastern Route already has numerous power lines running through it. That these lines will be near the windmills, solar farm, truck stops and through canyons and areas where few live.			Health, Appearance, Location, Other	East	(Redacted), Thank you for your comment. As part of analyzing the alternative routes we will take into account visual quality, land values, potential health issues, and land use of the areas. Once a review copy of the environmental assessment is prepared it will be available for review and comment. If you have questions feel free to call or email me and if you have further comments please send them to me. Congratulations on your boys receiving their Eagle Scout certificates! Regards, Andy Whitefield.

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		Please place these lines on the Eastern Route. Thank you for hearing me out, (Redacted) Our oldest boys just received their Eagle Scout certificates.					
7/26/2016 Lives in Study Area Open house meeting	☐	Dear Mr. Whitefield, After attending the June 29th meeting, I truly believe the eastern alternative would be the better option. Unisource should upgrade the Existing poles and the use the already existing right-of-way. My property is in section 31 on the map. My wife and and I searched for months and months for a place to buy, to relocate back to Kingman from Las Vegas and raise our young child. The chance to live on untouched land that bordered beautiful blm land was what we had always dreamt of. One of the main reasons we purchased was due to the views. The power poles will destroy the views of the mountains for us and our neighbors. The value of our land will decrease, no one wants to live near giant poles. The destruction of the blm land i believe will have significant effects on the environment. As Kingman and Golden Valley grow the available blm land to hike and explore is running out, so why ruin a little piece of paradise when there is already a route with poles in place that is mostly commerical/industrial property. I hope you take my letter into consideration as to why the eastern alternative is best. Thank you for your time. (Redacted)			Appearance, Location, Other	East	(Redacted), Thank you for your comment. As part of analyzing the alternative routes we will take into account the affects to property values and visual quality of the areas. Once a review copy of the environmental assessment is prepared it will be available for review and comment. If you have questions feel free to call or email me and if you have further comments please send them to me. Regards, Andy Whitefield
7/26/2016 Lives in Study Area	☐	Greetings I am a 25 year resident of this end of Golden Valley and wanted to comment about the line that Unisource wants to run in our front and back yards. I understand their motivation but I do not understand why we have to suffer seeing these lines in our yards when there is, as I understand it, an alternative, the eastern route. I left California because the big guys don't give a damn about peoples concerns ... they just act. We out here have a huge stake (quality of life, property values, rural life style, etc.) granted not as big as a foreign corporation has when it comes to profits but this is our neighborhood. Like I said we have been here for 25 years. When do we get to win? These days it seems we don't. Please take these concerns which are shared by all of us out here to the table, let us have a equal say. Thank you. (Redacted)			Health, Location, Other	East	(Redacted), Thank you for your comment. As part of analyzing the alternative routes we will take into account visual quality, land values, and land use of the areas. Once a review copy of the environmental assessment is prepared it will be available for review and comment. If you have questions feel free to call or email me and if you have further comments please send them to me. Regards, Andy Whitefield

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Email							
7/26/2016 Owns Property in Study Area	☐	Dear Mr. White, After some review of the proposed path of the Golden Valley Transmission Line, I have some very serious concerns about it bisecting m property. With Interstate 11 being currently developed, my 50 plus acres are set to be prime for commercial development. However, if a high voltage transmission line were to bisect my property, the potential development value of my property would plummet. That being said, there would have to be considerable financial incentive for me to allow this project to bisect my property. Should you like to discuss this matter further, I can be reached on my cell phone at (redacted). Sincerely, (Redacted)			Location, Other		Hello (redacted), Thank you for your comment. I remember speaking to you a couple of weeks or so ago over the phone. I'm checking with UniSource to see if, all things considered, the route could be moved closer to the property's eastern boundary. Of course that could affect other properties more than the route as proposed in this area. Regards, Andy Whitefield
7/26/2016 Owns Property in Study Area	☐	Sir, Please add my voice to those urging you to keep the proposed transmission lines out of Golden Valley. Selecting the eastern route of the two alternatives appears to use existing rights-of-way and would maintain the scenic beauty that attracts so many to Golden Valley. Thank you, (redacted)			Appearance, Location, Other	East	(Redacted), Thank you for your comment. As part of analyzing the alternative routes we will take into account the affects to visual quality and land values of the areas. Once a review copy of the environmental assessment is prepared it will be available for review and comment. If you have questions feel free to call or email me and if you have further comments please send them to me. Regards, Andy Whitefield

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Email							
7/26/2016 Lives in Study Area	☐	Hi Mark, As I was looking for additional information on the Unisource 230kV transmission line, I came across this. I've attached the cover sheet and page 3 where the Golden Valley project is mentioned. Trying to work your way through the ACC website is like trying to slog through lava. Heavy sigh. As far as I can tell, this is the most current plan that can be found. (Redacted)					Hello again (redacted), By the way I go by Andy, but our email addresses include our first names for some reason. I read through the info from the link you provided in your earlier email that includes the material you attached. Thank you for this. There is a good explanation for the discrepancy of information and it has to do with what the mine was doing in 2010 and what it is doing now. BLM was working with Mercator Minerals when it owned the mine in 2010 and has been in contact with the new owner because of some BLM public lands being involved with their operations. Sometime around 2007 (or maybe earlier - I'm not sure) Mercator had ramped up its mining and needed more processing (milling) ability which required more electricity than was available, so it indeed would have been the main beneficiary of the transmission line back in 2010. Then in 2011 Mercator decided intead of having the transmission line supply the increase in electricity it constructed a gas pipeline to run a large generator that satisfied its electrical needs. UniSource will continue to supply 69 kilo volt electricity as it was prior to the transmission line proposal. I hope that explains this. Let me know if you have more questions or comments. Andy
7/26/2016 Lives in Study Area	☐	First off, I want to thank you for all the time you have taken to respond to my emails. It is truly appreciated. I'm resending the the utility route information that Unisource sent to azdot for the Hwy 11 project. Unisource shows the western route being used. As you approach Hwy 68, Unisource has included another power line route just past Redwall, traveling west. I hope that clarifies what I was trying to say. I hope you understand that as I research this 230kV project, I become more and more discouraged. Unisource is a powerful Entity, far more powerful than a group of residents trying to save themselves from this project. Since I cam across this rendering given to azdot, I feel like they have already seeled the deal on the western route. No offense intended towards you. Unisource, in my opinion, has not been forthcoming. Once again, thank you for your response and time. The 28th is just around the corner, hopefully that will bring a moment of peace and quiet. Take care, (Redacted)			Location, Other		Thank you (redacted), I did not notice the dashed line until I printed this off with your email for the file. It is peculiar and I can understand your suspicion. If by not including the East Cerbat Alternative in this it causes problems between UniSource and ADOT I suppose that will be their problem. Regardless of this the BLM will have to weight the cost/benefits to the alternatives and make a decision. It isn't a vote tally, but certainly if one alternative impacts substantially more people / properties that would need to be taken into account and weighed against the potential impacts from other alternatives. Let me know if you find more information that I need to be aware of. Andy

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Email							
7/26/2016 Lives in Study Area	☐	Email to Andy Whitefield, with copy to Jean Bishop Dear Sir or Madam, My wife and I purchased 11 acres of property located at (redacted), Golden Valley, AZ 86413. The issue that I have is simple. My family health, and the stunning property and view that I worked extremely hard over the years to own and find. I know that the eastern route is the best choice since power lines already exist in at that location. It seems to me to be a no brainer. However, the western route looks less populated and seems to be the path to less resistance. Would the western route receive fewer complaints from the community? The eastern route is already there, and it's used/tore up by hikers and ATVers already. I know I follow the power lines for recreation. I also see the trash and abandoned junk all along the way. Why create another route on the western side for idiots to tear up the earth and leave their trash too. Why dig another path of destruction when one already exists? After I retired in 2012, I brought power onto my property. I placed my house all the way to the northwest portion of the property. I have beautiful views of the Black Mountains, The Cerbats and the Haulapai. I took great care to preserve the view by burying my electrical lines over 800 feet from the house. I removed scar from the earth by planting indigenous plants because I care deeply for this property and the earth. I spent 33 years in public service. I gave my country and my state devotion at the cost of possible consequence to my life. I chose Mohave County because it needs me. It is the poorest County in Arizona. For the first time in my life I feel happy and free. The western route will take away everything I worked so hard to find and own. You see, I grew up next to power lines. The snap crackle and pop! Many studies have been done by the government. The government and the New Englad Journal of Medicine, have concluded that there are risks involved with living near power lines. Why not use existing routes? They are there anyway. I don't think I could bear them around me. Matter of fact I may have to give up my forever home, and the Land I worked so hard to find. Minimize scaring the earth once again. Minimize crime and vandalism. USE THE EASTERN ROUTE. And most of all please let me have my American dream. (Redacted)			Health, Appearance, Location, Other	East	(Redacted), Thank you for your comment. As part of analyzing the alternative routes we will take into account the affects to visual quality and land values of the areas. Information on Electric Magnetic Fields will also be included. Once a review copy of the environmental assessment is prepared it will be available for review and comment. If you have questions feel free to call or email me and if you have further comments please send them to me. Regards, Andy Whitefield ---------- Good afternoon (redacted), I agree with many of your concerns, especially the affects to the visual quality and land value of your property and others. Initially after the "public open house" I believed the Western Route of this proposed Unisource 230 KV transmission line was the better of the two proposals. The line would run along almost entirely public federal lands whereas the Eastern Route runs through largely private lands. During the first week in July, I drove both proposed areas with BLM staff and concluded that until the assessment study is completed and all the public review is considered, It is anyone's guess as to which location will be selected. There are so many pros and cons that are currently being taking into consideration for both alternative routes, I now believe it is premature to make any decision of support until all work and assessments have been completed. I think letters such as yours, will be a large determining factor for the BLM and I encourage you to get your neighbors involved in the process. I have asked that my office by included on any notices for site visits, National Environmental Policy Act (NEPA) mailings and meetings, and in all remaining public meetings conducted in the ACC process.

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Comment Method: Email							
							Thank you for sharing your letter with me and I pray the decision made will take into consideration your quality of life in Golden Valley. Chairman Jean Bishop Mohave County Supervisor District 4
7/25/2016	☐	Hello, My understanding regarding the planning of this huge power line project is that the intention is to use the western route. I am writing to ask that it be changed to the eastern route. I feel like the people in our area, outside of Golden Valley, have been given false information from the beginning. The following are examples: 1) we were led to believe that this was to improve service in our area. But, now finding out that it is really about the mine reopening and what is most beneficial to them. 2) we were shown maps that showed the different routes (western and eastern) that make it look like there are no homes out here and that a western route would basically affect no one. These maps were very outdated if they do not represent that there are many houses out here and it will affect so many people in a negative way. Not talking about views, although that would be a shame. I am talking about the fact that many people have spent years planning and preparing to have or build homes out here. Now, these unsightly and noisy lines will be in their yards. And, all of our property values will be trashed. 3) we were led to believe that our voices could make a difference and that we were let in on the front end of these discussions because we had a stake in this as well. Now, we are finding out that this has been a long term discussion. Which many of us have had no notice about. And, the decision to use the western route is pretty much a done deal. Very disappointing indeed!!! Please do everything you can to move this power line project to the eastern route. Please consider all of us out here and that our lives could be negatively impacted if the western route is utilized. Sincerely, (Redacted)			Appearance, Location, Other	East	Hello (redacted), Thank you for your comments and I can understand you suspicion about this given its history back to 2007 when it was indeed primarily for the mine. Sometime around then the mine needed more electricity than the existing 69 kilo volt power line delivered. This was to run its mill that they were planning on installing to handle the ramped up production. Instead, in 2011 the mine built a gas pipeline and generating plant to handle the increase in electricity and the transmission line project was put on hold. While the transmission line would be tied into the existing 69 kilo volt power line serving the mine, there is no increased demand that we are aware of. The purpose is to get more electricty north of Kingman to meet the projected increase in demand. I'm not aware of any maps that were distributed that actually show where houses exist or don't and if you have a copy I would like to have one. The environmental assessment (EA) will analyze and disclose anticipated impacts to property values in a general fashion and the impacts to visual quality, as well as other impacts. Visual simulations are being prepared to include in the EA which will show views from key observations points (KOPs) before the proposed transmission line and what it would look like after. I have attached a map showing where the KOPs are located. In identifying these we have to objectively select locations to accurately "tell the story." If you have other locations you would like us to consider let me know and we will evaluate them. A review copy EA will be available for comments and will acknowledge valid concerns and how they are handled in the analysis.

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							The BLM has not selected a preferred alternative and both the eastern and western routes are both still viable. Let me know if you have questions or more comments. Regards, Andy Whitefield
7/25/2016 Lives in Study Area	☐	There are some discrepancies between the Unisource plan for the 230kV line and the stated purposes in the Project Fact Sheet given to the public. Are you aware of this? Https://www.azcc.gov/Divisions/Utilities/Electric/Biennial/10%20year%20plans/TenYearPlan UNSE2010-final%20(2).pdf			Other		Hello again (redacted), This is probably the link I requested in my email of a few moments ago - so disregard that question. I'll look into this. Thanks again. Andy
7/25/2016 Lives in Study Area	☐	Email to Andy Whitefield, with copy to Jean Bishop I've attached two snapshots I found in the azdot.gov plan for the Hwy 11. This transmission line location was submitted to them by Unisource. There is a variation, by adding a second route along Hwy 68 that was not presented at the public meeting. What is going on? As I research the internet, I keep finding more and more information that causes me to question how this plan is being presented to the people. Along with this, Unisource has submitted to the ACC their 2010-2019 Plans. It shows that they will provide power to the mine. The 10 year plan has no comments of upgrades and benefits to the GV community. Why are the people being asked for input, when it is clearly shown that Unisource has determined the transmission line will follow the Western Route? Is this why photos, taken by Unisource, left out our homes at the public meeting? Is this why the photograph depiction of the poles along the Western Route was skewed. It would appear that Unisource is not provided the true information to you and the public. (Redacted)			Location, Other		Reply to (redacted), with copy to Jean Bishop Hello (redacted), Thank you for your comments and the research. We do need to keep this process transparent and quality control in this regard is something we (the BLM) must ensure. Whether or not UniSource wants the West Alternative over the East Alternative does not matter and the BLM does not have a preferred alternative at this stage. The BLM will select the alternative based on the analysis that will be assembled in the environmental assessment (EA) that will be put together for this project, of which public input on a project like this is a large part of the process. When the public review copy EA is ready it will be available for review and comment. The visual simulations that were prepared were from locations (Key Observation Points, KOPs) that were identified by Matt Driscoll, our Outdoor Recreation Planner, who oversees Visual Resource Management, and myself. It was not our intention to omit anything important in the setting - we just wanted a fair representation of what the transmission line would look like from certain areas. Some of the ones that were produced for this project when it was proposed in 2007 were too far away to really see the transmission line, although these did show more houses. I

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							Also, I tried to find info regarding UniSource's plans that were submitted to the ACC and did not find them. I did find mention of large investments in upgrading their system for projected demand, but nothing specific to Golden Valley. Could you email me the link or some other way I can review that information? We do understand UniSource will continue to supply electricity via it's 69 kilo volt power line to the Mineral Park Mine regardless of the status of the proposed 230 kilo volt transmission line. The apparent change would be the point where 69 kilo volts ties into the larger voltage which, with the proposed 230 kilo volt line this would be in the vicinity of the intersection of Hwy 93 and Mineral Park Rd instead of near McConnico, where UniSource's 69 kilo volt power lines tie into now. Oh, and thank you for the Gila Monster photos. These are interesting creatures, but not up close. Feel free to contact me if you have further comments or questions. Andy
7/25/2016	☐	Mr. Whitefield, I am writing in opposition to the Golden Valley 230KV Transmission Line Project utilizing new easements along the proposed western routes. This will directly impact approximately 6 miles of private property. The Eastern alternative has existing easements. Every effort to overcome any and all obstacles on the Eastern Alternative should be undertaken before considering the Western Alternative. Saving public lands for future undetermined uses would be the preferred conservative decision, especially when there is a viable alternative that should meet the needs along the Eastern alternative. It appears to me that any chance of utilizing existing easement along the Eastern alternative would be the best for BLM's future land development, impact private property the least, and minimize the duplication of easements. Thank you, (redacted)			Location, Other	East	(Redacted), Thank you for your comment. As part of analyzing the alternative routes we will take into account land use and the effects to land values of the areas. Once a review copy of the environmental assessment is prepared it will be available for review and comment. If you have questions feel free to call or email me and if you have further comments please send them to me. Regards, Andy Whitefield.

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Comment Method: Email							
7/20/2016 Owns Property in Study Area	☐	Dear Mr. Whitefield, Please find attached my comments on the proposed Eastern Route for the Unisource 230 KV Golden Valley line. Sincerely, (Redacted) Dear Mr. Whitefield: Re: Golden Valley 230KV Transmission Line Project Thank you for conducting the open house on the 230KV Transmission line Project in Kingman on June 28th. I would like to share some comments with you on the proposed routes. As my cousins have stated, our family owns lands which will be affected if the Eastern Route is chosen. We are opposed to the Eastern Route for these reasons: 1. We have a nice ecosystem in the Box Canyon with varied flora and fauna that I feel will be disturbed by putting in the towers for the 230KV Line. This includes 14 species of cactus, a large flock of turkey vultures roosting in the canyon as well as fox, raccoon, coyote, bobcats, hawks and bats roosting in the caves and many other species. 2. The proposed Eastern route will obstruct the operation of the Cameron Broadcasting for KAAA located on the Cook Canyon route by causing pattern distortion if the Unisource 230KV monopoles are closer than 1150 feet. 3. We have already sacraficed some of the land for the good of the public and have Interstate 40 going down the west side of our beautiful canyon. A cut was made in the back of the canyon where there is a natural spring. Instead of the beauty of the canyon on the west side of the canyon we see a steady stream of vehicles. I would urge you to choose the western route along public lands and not further damage this beautiful canyon. Thank you for allowing me to share my opinion and giving us a chance to reach out to you. Sincerely, (Redacted)			Appearance, Location, Other	West	Dear (redacted), Thanks you for your comments. Please contact me if you have any questions. Andy Whitefield

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7/19/2016	☐	Mohave Electric Co-operative. Added the second C by mistake and I was probably thinking of the company that makes Oregon Trail.					Thanks for the clarification (redacted). As far as I know that still wouldn't provide the electricity needed for the projected growth since the purpose is to get 230 kV into northern Golden Valley. The two 69 kV lines (the one through Coyte Pass and the one along Colorado Rd) aren't supposed to meet future demand. But we'll explore your comment regarding using the Colorado Rd. as an alternative route and see if it warrants analyzing.
7/18/2016	☐	Well it makes more sense to me because I thought that line was installed to deliver power into the mine, and it may be feasible to disconnect the one end from MECC and bring those lines over to what ever substation Unisource has instead of running a new set of lines altogether. Plus it intersects the highway so it would only interferes with radios for a short distance of Hwy 68 where it is driven under., I understand the mine isn't doing operations at the moment and owed MECC quite a bit of money on their power bill. Yes, that is Cameron Broadcasting's tower by Crazy Freds and that RV park...			Location, Other		I should have asked you earlier but I didn't think it had a bearing on this matter - what does MECC stand for?
7/18/2016	☐	Thank you so much. Will the property most likely need to undergo demolition of buildings and such or will it simply go next to what is already existing. Also, what will the setbacks to the easement be?		Would like information about setbacks to the easement.			I will need to ask UniSource since I haven't had this question yet. I'm meeting with them later on another proposal and will get back to you. Andy --- I could not ask UniSource during the meeting yesterday - we had to go on to other projects and they left - but I did email them the questions and they are checking into it. I'll let you know when I hear back from them. --- Unisource has reported back that setbacks for a cell tower would be the same as for other structures - they would need to be outside of the proposed 125 ft. wide ROW. Tucson Electric, their sister company, has some cellular installation on their 138kV transmission line towers and they are not aware of interference issues with those. Some structures may need to be demolished, but there's no specific evaluation at this time. Each location would be evaluated on a case-by-case basis. Since UniSource is looking at locating the proposed transmission line next to the existing line in that portion of the project they advise it may be prudent to acquire a site far enough away to avoid potential issues. I hope that helps. Let me know if you have further questions. Andy

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7/15/2016 Lives in Study Area	☐	This is (redacted) I live at (redacted) we have a total of 40 acres 4 five acre lots and one 20 acre lot of which two sides are against the blm of where the proposed western route plans to rap around. I am extremely against using this route! This will ruin the views we have of the mountain in our back yard. It will also create a health hazard for our family. It will create unwanted traffic around our property from the access roads that will have to be created to build and maintain the power lines. And with that traffic always comes thieves, so then I will have the added cost of having to try and fence off my land to protect my belongings but worse of all I will lose the peace and security that I have right now from the way my surroundings are currently. If you put the power lines around my property me and my family will lose more than just property value and the views of the mountains we will lose the peace and security that we found when we moved out here. This new line needs to follow the eastern route or other existing power line routes that are already in use and just add another line next to it. Or you could just build a solar plant out highway 93 to produce the extra energy you think you need out there. It's ridiculous that with all the barren land out in the valley were these other large power lines are already run that rapping this new line around the base of these mountains is in being considered as an option. It just seems crazy! Feel free to contact me (Redacted)			Health, Appearance, Location, Other	East	Dear (redacted), Thank you for your comment. We will be analyzing impats to properties such as yours in the environmental assessment that is being prepared (you'll be notified when the intial copy of that is ready for public review). Regards, Andy Whitefield
7/15/2016 Lives in Study Area	☐	Good Afternoon, We live at (redacted) in Golden Valley. One of the properties that could potentially be affected by the power lines. The information I received from Unisource was not as detailed as I would think it should have been. The map I received does show the routes but I would really like to see what parcels are affected, the distance, etc. something more detailed would be appreciated. If you could please email it to: (redacted) Sincerely, (Redacted)		Would like a more detailed Location map.			Hello (redacted), I looked up your address on the county's website and have attached a screenshot showing your property and one of an aerial shot showing the Western Cerbat Alternatives (refer to the yellow lines) in relation to your property. The proposed alignment for the Western Alternative 1 would be about 1/2 mile east of Kirkland Rd. and the Western Alternative 2 would be about 3,600 ft. (0.69 mi.) east of Kirkland Rd., although that is a rough measurement. To the north of your property where the proposed route turns east/west it would be about 4,400 ft from your property (again - that's a rough measurement). Based on concerns from property owners and residents in that area we are exploring another western alternative alignment that would be south of your property in the vicnity of Shunnarump Rd and/or the existing transmission line south of there and would turn north about 1/2 mile west of Kirkland Rd. If it is decided to develop that alternative Transcon, the environmental contractor, will be sending out a newsletter informing nearby property owners and others involved in this project.

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Comment Method: Email							
							Let me know if you have further questions on this and please send any comments you may have either to me at this email or to the address on the notice that was sent out. Regards, Andy Whitefield
7/14/2016	☐	Andy, Attached is a list of towers that we own and have rental space available on. Please pass it on to anyone that may need tower space. Possibly we can eliminate unnecessary towers by doing some sharing? Best regards, (Redacted)					Thanks for the information (redacted), I was hoping TransWorld Network would locate on your facility (or another's - I can't play favorites) at Oatman, but that's not the case so I'm processing their application. On another matter, we've been scoping for issues with a proposed 230 KV tranmssion line which UniSource has applied for a right-of-way. This is essentially the same proposal that was in the works in 2007-08 and I have a copy of a letter you sent regarding potential interference issues with the tower that's between I-40 and Rt 66 east of Crazy Fred's and just west of the trailer park. Attached is the flyer that was recently sent to property owners within 1/2 mile of the proposed routes. I'm also attaching a screenshot of an aerial photo showing the proposed eastern alternative (yellow line) route near Cameron's tower. In your letter you noted if the poles were to be closer than 1150 feet from the tower it would cause unacceptable distortion. My measurements from Google Earth put the closest poles at approx. 1,400 and 1,500 feet. We are in the process of scoping for issues/concerns to produce an environmental assessment. Please let me know if you have any questions on this and if you have concerns/comments please let me know so they can be addressed. Have a good weekend. Andy

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Email							
7/14/2016	☐	Hello Andy, I serve as Technical Committee Chairman for the KAUA and I am the engineer KYET-AM which is the tall skinny tower by the Weigh Station in Golden Valley. It recently come to my attention that Unisource energy is seeking to run 230kV lines through Golden Valley to feed the Mineral Park Mine substation. I do not understand why this is necessary because I though the new power lines that were placed within the last 5 or 6 years were already feeding that area from MECC. It would make more sense to me if Unisource co-located their lines on the other side of the existing poles that currently run through the center of Golden Valley on Colorado I believe or acquire the run from MECC as I understand the mine isn't currently utilizing it anyway. Anyway the complaints I hav are with the proposed routes and their proximity to our cities local AM radio towers. The Northern route through Coyote Pass actually passes dangerously close from an RF engineering stand point to the KYET-AM tower and actually runs through the southwest corner of the property. It is my understanding that the poles are to be metal and 115' tall and around 600-800 feet off of the center location of our tower. We do not have any issues with the lines running through the property currently as the existing poles are wooden and in the 50' - 60' range The proximity and height of these new poles will affect our station's signal coverage, requiring them to do an FCC engineering study and install de-tuning equipment on the poles which may not be practical at these power levels and verify correct operation with no nulls in our stations omni-directional pattern. Operation the station will also be a hazard to the workers as the towers are erected and cables strung becoming energized by being so close to the radiating field of the tower. The same issues are applicable as the alternate route lines run in proximity to the KAAA-AM tower which is near Crazy Fred's on Route 66. The other concern I have is the proposed lines run virtually parallel to Hwy 93 between Hwy 68 and Mineral Park and into Coyote Pass and Parallel to Hwy 68 in places. The voltage at which the lines operate will produce severe electrical interference for all electronics, not just AM radio.			Location, Other		Hello (redacted), Thanks for you comments. What we'll do is take the items you mention regarding conflicts or potential conflicts and have these addressed by an electrical engineer (or someone with the right expertise) that has experience with these matters. Responses are usally handled in the environmental assessment for these kinds of projects, so the answers will be part of the record and have public view. But I can answer some of your other questions. The new power lines that have been constructed in the past few years (through Coyote Pass and along Colorado Road) are 69 kV and according to UniSource there is a projected increase in need for electricity north of Kingman which would be facilitated by stepping down 230 kV to 69 kV in the Norther Golden Valley area. The existing 69 kV lines to the Mineral Park Mine and the one running parallel with Hwy 93 would be tied into the proposed substation and, again according to UniSource, these are not supposed to meet the growing demand. With the growth I've seen in that area in the past 20+ years this doesn't seem unreasonable. If the East Cerbat Alternative was selected the approx. 70 ft. tall poles that replaced the wooden poles through Coyote Pass would need to be replaced with ones between 95 and 195 ft. tall (as you noted in your email these would generally be about 115 ft. tall). I am somewhat familiar with the power line along Colorado Road, but we hav enot considered that route as a possible alternative. If you think we need to consider that please give me some more details as to why you think that is a viable alternative. I checked the mailing list to make sure Coyote Holes LLC, which listed as the entity that pays taxes on the property that has the tower near the Weigh Station, and it is on the list. The address is listed as 3819 S Stone Hill Way, Kingman. Let me know if there has been a change so we can notify the landowner. Property owners within 1/2 mile were notified of this.	

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		As an example the power lines over Hwy 68 around Sunridge in Bullhead City produce so much interference that it blankets out AM and most FM stations and I can hear the lines in the speakers with the radio powered off. I don't really want to support our competitors, but tons of people listen to KAAA during the morning drive and they wouldn't be happy if all they get electrical interference for a stretch that long. There is also a nice stretch of Route 66 between Valle Vista and Truxton where the lines running parallel with the road interference with all AM radio, and those are no where near this size. Apparently I missed the first public comment meeting, but I must say that this is the first I have heard of the Unisource project and I also just spooke with the station owner and he can't recall seeing any mailsings on it either; which is a bit concerning. I'm also concerned that the address Unisource gives for you is C/O an environmental office in Phoenix and felt more comfortable writing you an email to express my concerns. Thank you for your time. (redacted)					You mentioned the tower near Crazy Fred's. Is that Cameron Broadcasting's - the one near the trailer park between Rt 66 and I-40? If it is I emailed (redacted) last week regarding the proposed transmission line. Also, regarding the address to which to sent comments, for this project the environmental contractor's address is provided since they will be more efficient in handling the mailed comments. I am in receipt of several emails and phone calls from folks who have questions, so if you have more or need more information feel free to contact me. Thanks Andy
7/12/2016	☐	Hi Andy, This is (redacted), with St. Charles Tower, we worked together a couple years ago on a site that we were constructing in Mohave County, X-One Ranch. We are attempting to do a lease with a property owner on his property at Golden Valley Rv Park at (redacted). He was recently informed about the Golden Valley Transmission project, and we are now trying to flesh out exactly where on his property the pwoer lines will be placed, whether or not his property will be bought or not, what the setbacks will be, and whether this cell tower project on this property is even viable. Can you please give me some more information regarding this, specific to the (redacted) address? You can call or email me, I'm free anytime this week. Thanks!!		Would like more information about the project specific to (redacted).	Location, Other		Hello (redacted), My apologies for not responding to you earlier. I meant to look into the location of this property in relation to the proposed transmission line and get back to you but I haven't been able to get to it. I am preparing for a meeting for Monday and will look into this later today or Monday, but I printed your emails so I won't forget. Thank you for your patience. ------- Hello Again (redacted), I got onto Mohave County's GIS and I believe I located (redacted), however the county's GIS information isn't exactly clear on this address, so please verify if it is Assessor Parcel No. 306-02-011 that St. Charles Tower may be interested in. That property is near the proposed transmission line's route where it follows Highway 93 on its southwest side (there is a 69 kilo volt line currently in that location). Roughly measuring this, it is about 400 feet from the center of that property to the proposed transmission line. Attached is a screenshot of the property and the proposed transmission line (yellow line). Let me know if you have questions or need to discuss. Regards, Andy Whitefield

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							Hello Again, I was just printing this out for the record and after looking out the screenshot I noticed the measuring line is also yellow, so disregard the line that laterals off to the property. Sorry for any confusion. Andy
7/11/2016 Owns Property in Study Area	☐	Mr. Whitefield, Please see the attached. (Redacted) ----- Mr. Whitefield, Thank you for our most recent conversation. I appreciate your help and information in regards to the above mention project. Through my review of the map and the information that was provided I have a few concerns. My property is located on the corner of Tomes Road and East Collins Drive. It took me five years of driving through the desert, getting flat tires and driving on roads that I had no idea existed. I was very happy when I found this 10 acre parcel right up against the mountains. I knew that those mountains would never be built on and the beauty would be preserved because it is BLM land. When I received the project information in the mail my first thought was please do not let this be along my property. I do not want to look at 100 ft plus power poles and lines. My dream was to enjoy the mountains. I do not oppose the project although I do ask that the transmission line be put along an area that will have the least affect on the property owners closest to the proposed project lines. Thank you for giving me the chance to voice my opinion. Please keep me informed on this project. (Redacted)		Would like to keep being informed on this project.	Appearance, Location, Other		(Redacted), Thank you for your comments. Please contact me if you have any questions. Andy Whitefield

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Email							
7/11/2016 Owns Property in Study Area Open house meeting	☐	Mr. Whitefield, In reference to the Golden Valley Transmission project, I understand the need to improve the electrical grid for Unisource Energy services but I cannot support the 230kv project running on the west side of Cerbat recreational area/BLM property. Due to the fact multiple residential properties were bought and paid for at higher dollar amount to be close to state properties with the purpose of less development and greater views. As one of these property owner, please consider having the power line run to the east side of the Cerbat recreational area where the majority of the properties are in proximity to highways, railroad and business type of properties. Where it is in my belief after attending the open house information center, Unisource Energy already has right-a-ways currently in majority of the areas. After attending the open forum meeting and reviewing the photos, it is in my opinion that a majority of photos that were taken of the areas of where poles and their locations would be on east of the Cerbat recreational areas did not show the existing residence that would be affected directly by their view and the reduce value of all the properties because of 230kv transmission line/poles. I'm in the process of reevaluating the photos and resubmitting different locations where the photos should be taken after talking to the BLM representative at the meeting. Thank you for the opportunity and the hearing our concerns. (Redacted)			Appearance, Location, Other	East	(Redacted), I was sorting my emails on this project and found I had not responded to this email. I had responded to your other one of the same date but I did acknowledge the concerns you noted in this email. We will take these into consideration. My apologies for not getting back to you sooner. Also, to address your concern regarding the locations of the key observation points (KOPs) where the photos for the visual simulations were taken from, Matt Driscoll, our Outdoor Recreation Planner who oversees Visual Resources, and I tentatively selected these sites based on factors such as areas with residential development, but did not take into accounty whether or not there were houses in the foreground. In reviewing some of the locations that were selected when this project was initially proposed in 2007, Matt and I thought a few of those were too far away to see the transmission line simulation very well, although these did show many more houses and development in the foreground. We will be reviewing these KOP locations and will take your concern into account. Thank you for your comments and when the review environmental assessment is ready it will be available for further comments and input. Regards, Andy Whitefield ----- (Redacted), I meant to get this to you sooner. Attached is a map showing the key observation points for this project so far. We have tentatively identified 18 (there were eight from which visual simulations that were on display at the public meetings). The visual simulations from these locations will be refined as necessary and we may add or delete during our analysis. These will be available in the environmental assessment and we could make them available in electronic form. Let me know if you have further questions. Andy Whitefield

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7/10/2016 Owns Property in Study Area Open house meeting	☐	Mr. Whitefield: Please find enclosed our formal comment Opposing the Eastern Route for your public outreach regarding the UniSource 230kV Golden Valley line. Please contact me to discuss this matter at (redacted), and please include me in any site visit, all National Environmental Policy Act (NEPA) mailings and meetings, and in all remaining public meetings conducted under the ACC process. Thank you for conducting the outreach on this important matter. (Redacted) --- Dear Mr. Whitefield: Thank you for beginning your 2016 public process on the latest 230 Kilo Volt (kV) line routes unveiled last week in Kingman with an open house. We are please to provide comments on the two proposed routes. I write on behalf of the (redacted) Family to support the Western Route of the proposed Unisource 230kV transmission line along public BLM lands, and to oppose the Eastern Route through largely private lands including our family's property. Our family has owned the property through which Unisource proposed to site the Eastern route since my Grandfather bought it from the Santa Fe Railroad starting in 1943. We own the undisturbed Box Canyon that lies East of the Proposed Eastern Route, and we own land in Cook Canyon that lies precisely where the Proposed Eastern Route runs. We oppose the Eastern Route for three reasons; 1.The proposed route will obstruct the operation of the Cameron Broadcasting Tower for KAAA located on our Cook Canyon property because the Unisource 230kV monopoles will cause unacceptable pattern distortion if they are closer than 1150 feet to the Cameron tower. See enclosed Cameron Broadcasting Public Comment Letter of September 30, 2008 (explaining the unacceptable pattern distortion). 2. The proposed route of a 230kV transmission line between Cook and Box Canyons will obstruct the natural beauty of the Canyons and destroy its property value. This route would seriously limit our opportunities for both residential and commerical development of the property and any stream of income that may result. Our family takes the long view of development in Mohave County since our family has worked and lived in this county since 1917, and the 230kV will adversely affect our private property.		Would like to be included in any site visit, all National Environmental Policy Act (NEPA) mailings and meetings, and in all remaining public meetings conducted under the ACC process.	Appearance, Location, Other	West	See Phone Conversation Record Dated 7/11/2016

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		3. Our family has already sacraficed our lands for the public good for Interstate 40, and should not be forced to sacrifice our land's remaining value to the public for a 230kV line. As you well know, Interstate 40 runs through our family's land on the Western wall of Cook Canyon. The public used the power of eminent doman to acquire this land in the 1970's to enable a route for I-40 through Kingman that maximized the number of exits for the local businesses, and in turn, destroyed our three-sided Canyon with a spring near the northern wall. The northern wall now has a 400-foot cut through the rock to hold the freeway. Better routes for I-40, with cheaper construction costs, and multiple business exits, were rejected to place the route entering Kingman from the West on Highway 93 and exiting Kingman in the In order to maximize business revenue to our fellow citizens, the public ruined a quiet and idyllic Canyon with a freeway. Must we now suffer a 230kV line also and in an uncompensated taking of our property? We urge not. We strongly support the Western Route along existing public lands and recommend that Unisource take only the Western Route to the Arizona Power Plant an Transmission Line Siting Committee of the Arizona Corporation Commission (ACC). We strongly oppose the Eastern Route. Please contact me to discuss this matter at (redacted), and please include me in any site vist, all National Environmental Policy Act (NEPA) mailings and meetings, and in all remaining public meetings conducted under the ACC process. Thank you again for conducting this public outreach process. Sincerely, (Redacted)					

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7/5/2016 Lives in Study Area	☐	It is my understand that you are considering which route to take for the new power lines for Unisource power which consists of 125 poles. I don't understand why there is an issue here. The two routes that are being considered, are the Western and the Eastern routes. Since the Eastern route already has poles, it seems financially speaking that would be the route to take. Also, the Western route would affect the landscape of that ara. Those of us that live in Golden Valley, love the vast beauty that we have come to enjoy so much. Power lines are not part of that beauty. Please consider using the Eastern route for the new power lines. Let's keep Golden Valley beautiful. Thank you, (Redacted)			Cost, Appearance, Location, Other	East	(Redacted), Thank you for your comment. As part of the proposed eastern route the poles would have to be replaced with larger onoes and the existing 69 kilo-volt wires would be hung on the new poles along with the 230 kilo-volt wires. The existing poles are around 70 feet tall and the ones proposed for the 230 kilo-volt power line would be between 95 and 185 feet tall depending on terrain, and would generally be around 125 feet tall. So if the eastern alternative was selected there would be costs added to the project to remove/replace the poles, but since both alternatives are financially reasonable, that should not have a bearing on which alternative the BLM would select. Since the comparison of costs of the two alternatives for the proposed action has not been an issue that has needed to be addressed I do not know which alternative would be more expensive. Also, in analyzing projects in our National Environmental Policy Act process we always must include a "No Action" alternative, although these are rarely selected. If you have further comments or have questions feel free to call or email me. Regards, Andy Whitefield
7/4/2016	☐	I am writing because of the proposal to place new power lines. I would be in favor of the eastern route for the lines. The mountains affected by the western route provides a beautiful view for many people free of the distraction of power lines. The eastern route is also beautiful but the view is already distracted by the presence of power lines. please consider the opinions and the distraction free view of the residence as the final choice is made. Thank you.			Appearance, Location, Other	East	(Redacted), Thank you for your comment. Andy Whitefield

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Comment Method: Email							
6/28/2016	☐	Dear Mr. Whitefield, I know that when this project was originally proposed many local property owners, especially, in the Golden Valley area had suggested that existing poles be used for the new transmission lines. My questions are: When will preferred alternative route be identified? Additionally, if the western route is selected how many new transmission poles will need to erected versus the eastern corridor? Furthermore, can you give me a timeline for construction, cost overview and a break down of each proposed route. Sincerely, (Redacted) Mohave County Landowners Association		Would l like responses to his questions.	Cost, Location, Other		August 1, 2016 (Redacted), I was going through my records on this project and found I failed to respond to your email. My apologies. We will be developing a public review environmental assessment in the next few months and after receiving comments on that hopefully we should have a preferred alternative in the final environmental document. To answer your questions: There would be approx. 75 new poles that would need to be erected if the western alternative were selected, not including those that would be erected along Hwy 93, which is common to both alternatives; For the eastern alternative approx. 65 poles would need to be erected, approx. 30 of which would replace existing poles (again, not including those along Hwy 93). There would be approx. 65 poles erected for the portion of the proposed line that would alongside Hwy 93. These would be in the same or almost same location as UniSource's existing 69 kilo volt line. UniSource would combine the 69 kilo volt line with the 230 kilo volt line on the same poles, however, along some of that portion a separate, smaller distribution electric line would run alongside it. This couldn't be combined because of the shorter spans between poles that would be necessary because of the kind of wire that is used for that size of a line. This information is based on the engineering plans that have been done for this, and will be refined. The timeline for this is it is supposed to be phased in over the next several years. UniSource does not have a very specific plan and I can't remember how far in the future. Let me see if I can find out and get back to you on that. I do not have cost information on this. It could become important to check into this for our analysis in the environmental assessment, but that mainly takes into account environmental and social impacts (for instance in this analysis we'll have a summary of the likely effects to property values the different alternatives would have for analyzing the socio-economic aspects of this) and generally cost considerations are not a driver in our decision making process unless it is important in the public interests to delve into that.

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							Separate email response to comment: August 3, 1016 (Redacted), The schedule anticipated at this time, should the transmission line be approved and in the time frame UniSource proposes, would be phased in over a three year period beginning in about 2018. These are subject to change, however. I hope that answers your questions. Regards, Andy
6/24/2016 Owns Property in Study Area	☐	Dear Mr. Whitefield, I am writing to you to oppose the Eastern proposed route for the Golden Valley 230kV Transmission Line Project that runs on along our private property, and to support the Western Proposed Route that runs along the BLM lands. That Eastern route would cut through "Cook Canyon" which now holds Interstate 40 on its Western wall and may be run through the untouched "Box Canyon" East of Cook Canyon and North off of Route 66. This property is co-owned by myself and my cousins, (redacted), and I own land in Cook Canyon along with my cousin (redacted). Box Canyon is an example of beautiful desert scenery (see attached picture). It has the potential for future residential development. Running a 230kV transmission line through the Canyon would obstruct its natural beauty and destroy the residential property value. Attached is a picture the type of power poles that may be used for the transmission line. This would seriously limit our opportunities for development of the property, and future income. The Interstate 40 Highway runs through Cook Canyon which lies to the West of Box Canyon. Under imminent domain, myself, and family members living in Cook Canyon, sold land to the government to build the I-40 project. Besides the loss of the land, the blasting and construction activity disrupted the lives of my family members living in the Canyon. We no longer have that land for our own use, or to sell. The presence of I-40 in our Canyon and our families providing a convenient route for I-40 to reach the Kingman business district represent a continuing loss of value for the (redacted) and (redacted). Running a 230kV Powerline to now destroy the Eastern wall of our Canyon is further damage to our properties that our families should not have to suffer. I believe my family has contributed enough toward the public benefit. Respectfully, (Redacted)			Appearance, Location, Other	West	(Redacted), Thank you for your comment. It will be included in the record. Regards, Andy Whitefield

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Comment Method: Email							
6/23/2016 Owns Property in Study Area	☐	Dear Mr. Whitefield, I spoke with you earlier and am writing this email in regards to the power line project that is affecting the property we recently purchased. We bought this property (Parcels 301-11-088, 301-11-094, 301-11-089) several months ago. We loved the locations so much that we decided to leave our good-paying jobs in Las Vegas and search for jobs in Kingman and move our family back to Arizona. I was able to get a job at the Superior Court in Kingman, which I start this Monday. My husband and I both quit our jobs, sold our home, moved our family, and started the process of putting a home on this property. After reviewing the map with my husband, I now see just how much this power line will affect our property and all of the aspirations that came with it. Not only will it go directly behind our property on the east side, but it will be visible from the north side leaving us with a feeling of being boxed in. Although we bought this property because of the views it has to offer, that is not even our largest concern. We have a young child and would like to have several more kids. This is where we planned to raise our family. We cannot risk the health hazards this power line could bring to our young children. It is scientifically proven that overhead power lines can cause childhood leukemia among other health problems. Our children will not be the only ones affected by this decision. I know multiple neighbors have children and grandchildren that these power lines could hurt. It was our intentions to put horses on the back half of our property, almost directly below where these power lines would run. If this project is completed, that would no longer be possible. I would not feel comfortable having them that close to the power lines and possibly affecting their wellbeing as well. Having recently sold our house, we know how important location and views are. I have no doubt that if this power line does run directly behind our home, we will have lost our entire investment. No one would want to purchase a home with the health risks and obstructed views that our home will be tainted with. Thank you for all of your help and patience. I truly appreciate being given the opportunity to voice our opinions, and I hope to see you at the June 28th meeting. Sincerely, (Redacted)			Health, Appearance, Location, Other		(Redacted), Thank you for your comment. It will be included in the record. Regards, Andy Whitefield

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6/21/2016	☐	Hello again Mr. Whitefield, I have a question about the transmission line - isn't there an existing pole line on hwy 93 that is already in place that would be suitable for using when running in this line? Thank you. (Redacted)		Would like to know about existing line along Hwy 93.	Location		Hello (redacted), Yes there is an existing line that essentially follows the Eastern Alternative. That pole line is a 69 kilovolt (kV) line that is on approximate 70 foot tall poles. The poles that would be used for the proposed 230 kV line would replace the 70 foot poles with 95 - 195 foot poles and both the 230 kV and the 69 kV wires would be placed on those structures if the Eastern Alternative is selected. As part of the project an access road would also be constructed along the line (right now only the poles at the top and bottom of Coyote Pass have access roads). If the Western Alternative is selected the 230 kV line would run from the McConnico area along the western edge of teh Cerbat Foothills Recreation Area (with some of it along the northern edge as well). The 69 kV line would remain in its existing location. The contractor on this project is producing visual simulations of what the transmission line would look like from 16 Key Observation Points (KOPs) for analyzing visual impacts. These will have "before" photographs for comparison. 8 of these will be available or viewing at the public meetings next week and all of them will be presented in the environmental assessment. I hope this helps. Let me know if you have further questions. Andy Whitefield
6/18/2008 Owns Property in Study Area	☐	Summary of email sent to Nadine Benally at Transcon: Received Fact Sheet 1 and 2, but still needs a more detailed map with street names. Did get a call from Mike, but was unable to answer it.		Would like a more detailed map with street names.			

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Comment Method: Email							
6/18/2008	☐	Summary of email sent to Mike Warner at Transcon: Would prefer the line to be installed along the west side of the CFRA, as close to the boundary line as possible, or as close as possible to Highway 93. She also had 2 questions: 1) Is it at all possible for the lines to be installed underground? 2) What does Mineral Park plan to do to compensate for using public lands ad infinitum? Paying the small amount of rent they'll be paying isn't enough. How about contributing to a special fund that allows BLM to acquire private lands to add to the public lands it manages (ADOT does this now)? Or at least funding a large (5-sided) "Mohave County Outdoor Recreation" informational kiosk at the Powerhouse?		Would like information about two questions she had.	Appearance, Location, Other	West	Mike Warner emailed on 6/18/2008 and let her know that he comments would be included in the record and answered her questions.
5/27/2008	☐	Summary of email sent to info@transconusa.com Would like to be provided with any more information concerning the alternative route to develop the existing line that runs directly through BLM land a public recreational area to the AEPCO (Mohave Electric) Substation.		Would like to be provided more information concerning alternative route.			
5/8/2008	☐	Summary of email sent: Requested a copy of the Golden Valley 230kV Transmission Line Project visual simulation of the Kirkland and Shinarump photos.		Would like information about the visual simulations.			Nadine Benally responded via email on 5/8/2008 to let her know the electronic file size is to large to size down to an email file size, and asked to send her a 11x17 hard copy instead. Mailed a hard copy of the visual simulation of the Kirkland and Shinarump photos via regular mail on 5/9/2008.
4/30/2008	☐	Dear (redacted), ((Redacted) of Jacobs Engineering; forwarded to Mike Warner of Transcon) I have been a resident of Kingman for over 12 years. It was not until recently that I discovered the trail system known as Cook Canyon or Monolith Garden. For nine years I considered the desert area around Kingman to be a smattering of areas where people would either dump trash or shoot glass bottles, tv's and propane tanks. I would try to outride these areas but it was impossible to ride beyond dumped oil, washing machines and sofas. I witness Slaughter Houes Canyon become littered with shards of glass, and abandoned vehicles. The upper area where I staged x-country meets for the highschool is now populated with homes.			Location		

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		We have nothing as nice as Monolith and I strongly urge you to leave the recreation area alone. More and more people are becoming aware that it exists and are using it. Most do not sign in because they don't know why they should. Locals and visitors alike are reffered to this area. Aside from the Haulapais, we have nothing as impressive or as clean and well maintained as the Cerbat Foothills Recreation Area. Please consider leaving it as it is today so that future residents and visitors of Kingman can enjoy the last bit of natural beauty that our corner of the desert offers and that we have an obligation to preserve. Thank you (Redeacted)					

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Comment Method: US Mail							
2/22/2021	☐	To Whom It May Concern: We respectfully request to remove our names (redacted) from your mailing list. My brother, (redacted) and I no longer own property in Arizona for 2+ years. Thank you for your valuable assistance regarding this matter. Sincerely, (Redacted)		Would like to be removed from the mailing list.			
1/26/2021 Received via Wufoo 2/2/2021 Received via Mail Resident in Study Area; Live / Work Near Study Area Newsletter mailing; Word of Mouth	☐	My wife and I live at (redacted). All of the west alternatives are of concern but especially (W-3). Alternative (W-3) would place the powerline feet from our door. Not only would this be beyond unsightly, it would render our home uninhabitable due to health risks.		Any new information about this project.	Health, Appearance, Location		2/1/2021 Dear (redacted), Thank you for your feedback regarding the Golden Valley 230kV Transmission Line project. We appreciate your concerns and have included them in the project record that will be provided to the Arizona Corporation Commission (ACC). UNSE has evaluated potential routes based on a number of factors including constructability; opportunities to utilize existing facilities; proximity to schools, hospitals, and homes; environmental concerns; and public feedback. When planning new transmission line routes, UNSE prefers to use existing utility corridors and road rights-of-way when possible. UniSource plans to file an application for a Certificate of Environmental Compatibility (CEC) with the Power Plant and Line Siting Committe in the spring. In our application, we plan to identify the East Cerbat 1 alternative as the preferred route. We appreciate your comments. For project updates, please visit our website at uesaz.com/golden-valley. Thank you, Eric

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: US Mail							
10/21/2019	☐	WAIVER OF TWO-YEAR GRAZING NOTICE State: Arizona Field Office: Kingman Operator ID: GR 76167 Operator Name: (redacted) Allotment Name: Pine Springs (00060) I have discussed the proposed Mineral Park Substation with the representatives of the Bureau of Land Management, Kingman Field Office. The proposed substation would be authorized under a right-of-way and would preclude livestock grazing on approximately ten acres of public lands in the Pine Springs Grazing Allotment. I understand that under the Federal Land Policy and Management Act of October 21, 1976 and the Code of Federal Regulations (43 CFR 4110.4-2(b)), I am entitled two-year notice prior to cancellation of my grazing permit/lease for the affected lands. I hereby unconditionally waive my right to the two-year notice prior to cancellation of my grazing permit/lease in the following described lands within my grazing allotment. Legal Land Description: A parcel of land situated within the NW1/4SW1/4 of sec. 3, T.22N., R.18W., Gila and Salt River Meridian, Arizona. /s/ signed and date of 10/17/2019 Authorized Signature Date					
6/14/2017 Lives in Study Area Neighbors	☐	Dear Mr. Andy Whitefield, This letter is to notify you of my wife and I's concern over the Golden Valley 230 KV Transmission Line Project. Our delayed response is due to the fact that we have recently purchased a home in proposed area. We first became aware of the G.V.T.L. Project after speaking with neighbors. Our concern is that this power line, (specifically route W3), will have a drastic negative effect on our homes value, astheic value, and our health. This route will have power lines running very close to our home, (redacted) Golden Valley 86413. I've included a map showing our homes location. Thank you for time and concederation. Sincerely, (Redacted)			Health, Appearance, Location, Other		

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7/25/2016 Lives in Study Area	☐	Dear Andy Whitefield, I reside in a home at the base of the Cerbat Mountains in Golden Valley, at S. Kirkland Road and Shinarump. According to the map included in the project fact sheet, these transmission lines will be a very short distance from my home, along the BLM and private property boundary. They will be in full view to our home, as well as to residents many miles away. This route has been deemed the Alternative Western Route. I find myself unable to grasp how the Western Route would be preferable to the Eastern Route for this project. The Eastern Route already has transmission and electrical lines running through much of its area. The Eastern Route also has established right of ways. Far less BLM land is used. The addition of these 230kV lines on the Eastern Route, when compared to the Western Route, would be negligible. On the Western Route, it would have significant impact to more residents, wildlife and the unspoiled based on the Cerbat Mountains behind our home. We bought this property years ago, based on its all around views, privacy and nearby land protected by BLM. We found the beautiful and peaceful place where we ant to live out our lives. Since that time, we have built a home along with acquiring several great neighbors. Even during these most speculative times, this area continues to grow with new homes. One home was just recently finished and is being furnished at this time. Another is under construction, and yet another piece of property is awaiting a perc text, and grading. Immediately after the announcement of the possibility of the transmission lines running behind our homes, two property purchases were cancelled. Proof of loss in private property value and desirability. Soon after attending the public meeting in Kingman, I overheard a discussion where a person stated that "nobody lives along that Western Route" when in fact, far more people live along this route. I've seen the same on social media. It is my belief that these people arrived at this opinion after viewing photographs that were used to represent our area. No homes were shown in the photographs. It all appeared to be barren land. This is extremely unfair. The people viewing these photos may be submitting comments on this project, and they do not have accurate Western Route information.			Appearance, Location, Other	East	

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		Transcom did not notify many affected residents and property owners. It is understood that only a certain distance is required for notification, but these were people living across the road from us. We were told that the average pole height will be 125', some as tall as 185', all well within the view of their property. In cases where there are no obstructions to block such a massive project as this, wouldn't it be more forthright to extend the notification distance further. A change to policy should be made in projects of this nature and magnitude. Public notices to the community by newspaper, bulletin boards at commercial establishments and radio announcements should be implemented. When we met with County Supervisor Jean Bishop and your BLM team, there was a thought expressed about moving the power lines to Tooman. I feel that a large area of unoccupied high desert land is often viewed to hold no value to anyone. In this case, there is nothing further from the truth. Tooman, and most of the land extending to Aztec is private property. It has far more potential for growth than the Eastern Route, where land is extremely rugged and already has transmission lines through much of its area. Earlier, during another discussion, Mrs. Bishop had expressed to me the need for jobs and additional property taxes to go into the county coffers and that this is best accomplished with growth. Since the time we purchased our property in Golden Valley; Tombstone, Redwall, Colorado and Route 66, have all had transmission lines erected. Transmission lines on Shinarump already existed. The 230kV project will be the 6th. What the heck is going on that so many have been brought into and through Golden Valley? Can't the utility companies plan better for the future? What's next after the 230kV project? I am aware that some concern lies with the trailhead located on US 93. When hikers and bike riders enter the trail, they will see these power lines. There are some that already exist. This visual aggravation will be momentary for them. For us, since this is where we plan to stay, it will be a lifetime. Have lines along the trailhead buried. To summarize: The 230kV project belongs on the Eastern Route. Power lines already exist along much of its route. The prospect of additional growth along the Eastern Route is far less. Since there are fewer residences along the Eastern Route, far less people will be affected. Right of ways already exist over much of the Eastern Route.					

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		The Western base of the Cerbat Mountains will remain the pristine land that it is. Current and future residents will not be negatively affected. Wildlife will continue to be sheltered. Property values will not be negatively impacted. Less BLM public lands will be used, allowing you to effectively do your job to protect the wilderness belonging to all of us. Andy, again I want to thank you and your team for coming to our home with Mrs. Bishop. I appreciate you all taking time out of your busy schedule to talk to us about this project and to look at some alternatives. Good luck to you.Take care, (Redacted)					
7/22/2016 Interested in Purchasing Land in Study Area	☐	I have been looking at property in Golden Valley to build a home, and have a few friends that live in the area. I have been a lifelong lover of exploring wilderness, particularly in the lower and upper Mohave Desert. I have often been disappointed by the addition of utility structures within the deserts. It seems too often that areas that are often excluded from many types of public entry are suddently capable of being fully accessed and major service roads cut in by a utility. Wonderful views are currently enjoyed by residents looking east across Golden Valley that would seem to be in jeopardy from a huge set of high voltage transmission lines set near the west side of the Cerbat Recreational Area. I understand that the United States needs to improve its electrical infrastructure, but I implore the BLM to do its duty and minimize the wilderness impact of each new utility project. I also encourage the use of existing power corridors to locate new transmission lines. I encourage the use of the proposed eastern route. This route can accommodate some of the transmission lines within existing utility corridors. Additionally. this route has many modern visual features that have already degraded the wilderness view (windmills, mining, manufacturing, solar generators). Based upon my interest in Golden Valley, I am awaiting the outcome of the new transmission route as it will affect the views and values of Golden Valley lots that interest me. (Redacted)			Appearance, Location, Other	East	

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Comment Method: US Mail							
7/22/2016 Lives in Study Area	☐	I am writing because of the proposal to place new power lines. I would be in favor of the eastern route for the lines. The mountains affected by the western route provides a beautiful view for many people free of the distraction of power lines. The eastern route is also beautiful but the view is already distracted by the presence of power lines. please consider the opinions and the distraction free view of the residence as the final choice is made. Thank you. Former resident of the Shinarump area. (Redacted) Sent Email July 5, 2016 Part-resident of Golden Valley			Appearance, Location, Other	East	
7/21/2016 Lives in Study Area	☐	Dear Mr. Whitefield, I am writing to you concerning the Golden Valley 230kV Transmission Line Project. According to the project vicinity maps that I received by mail and obtained at the public meeting held in Golden Valley, the proposed routes marked W-1 and W-2 will run very close to my property as well as the property of some of my nieghbors. I as well as my neighbors are concerned how this will affect us directly and indirectly. My first concern, when I heard of the proposed line, as that I'm going to see these power poles every time I walk out of my front door or look out my windows that face them. I have, as of now, a beautiful view of the mountains and of pristine desert. That is one of the reasons I bought this property. No matter how much you try to beautify these peoples to me, they are still an eye sore. My next concern is property value. I truly believe that the presence of these power lines will depreciate my property values. If and when these power lines are installed, I will seriously consider selling and moving. I have searched many for a place to settle that suits me, and I am not pleased with the thought of leaving it. Another concern is wildlife. In order to erect these poles, there will have to be an access road. This road will cut through undeveloped desert, upsetting wildlife habitations and create danger to birds during flight due to these power line hung from the poles. Now, according to these vicinity maps there already is an established route in place marked as E-1 and E-2. It seems to me if they already have an existing route, would it not be more practical to improve and utilize these routes? Rather than create a whole new system? In closing, I do not support the proposed route W-1 and W-2 and favor the existing routes E-1 and E-2.			Appearance, Location, Other	E1, E2	

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		I emplore to you, Mr. Whitefield and the Bureau of Land Management to seriously consider routes E-1 and E-2. What ever your decision, Im confident it will be an informed and conscientious one. Thank you. Sincerely, (Redacted) P.S. I already have a great view of the wind turbines east of Interstate 40.					
7/21/2016 Lives in Study Area	☐	Dear Mr. Whitefield: I am writing in opposition to the West Cerbat Option for the above transmission line project. Our home and neighborhood of over 30 years is tucked up in the western foothils of a mountain that is part of the Cerbat Range. The new lines, installed in a location where none have previously existed, will run one-quarter of a mile from our home (and even closer to the homes of our neighbors up the hill). I object to the West Option because: -Placing 85 to 195 feet tall, active transmission lines will immediatly have a negative impact on an otherwise public and visually scenic environment. -"The public's knowledge, perception, and interpretation of [power line health risk] data has a profound effect on the value of properties in proximity to power lines." National Association of Realtors -In 2008, visible lines were installed south of our home, and the lines that run along Highway 68 are visible from our home. The only aesthetic view still visible is the mountain to the east. We'd like for that not to be ruined. -New lines where no lines have previously existed set a precedent for future incursions into the area. Utilizing the East Cerbat Option will serve Transcon's purpose, place new lines in an area where ample lines already exist within an existing utility corridor, and result in less disruption to an environment that up until now has remained relatively open and scenic. Thank you and the BLM for managing the impact evaluation for this project on behalf of regional citizens. Sincerely, (Redacted)			Health, Appearance, Location, Other	East	

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Comment Method: US Mail							
7/18/2016 Owns Telecomm. Tower	☐	Dear Mr. Whitfield, We have been informed that the Unisource 230 KV line route is again being considered. We believe that it is necessary for Unisource to plan for growth in the area, and applaud their efforts to add infrastructure, before it is needed. That being said, we oppose the Eastern route, as laid out in their proposal. Attached with this letter is our opposition letter from 2008, in which we opposed the Eastern route, for reasons of pattern distortion to our KAAA Radio signal transmission. In addition to the physical distortion from the 115 ft. tall steel monopoles, there could be severe Radio Frequency interference to the East of our transmitter, where the majority of the population that KAAA serves is located. Over the last few years, RF interference has increased dramatically for AM Radio stations, from power utilities. It would be a shame if the signal from the oldest Radio Station in Mohave County, was compromised by this project, when there is an alternate route that would not cause this type of interference. In addition, the FCC requires that any new interference to a licensed radio station be mitigated, which could caues those entities who are interfering, to cease operation, until the interference can be eliminated. This requirement has been applied to power utilities, in the past. Thank you for considering our position in this matter. (Redacted) Owner Cameron Broadcasting (Redacted) Chief Engineer Cameron Broadcasting ---- Attached letter from September 30, 2008 ---- September 30, 2008 Rebecca Our investigation has disclosed that if your monopoles are any closer than 1150 feet of our tower, they will cause unacceptable pattern distortion. The closer your poles are, the more distortion they will create. Our calculation show that according to your plans, your 115 foot monopoles could be as close as 320 feet and no farther than 570 feet from our tower, considering the span length of 850-950 feet. Also, your trucks would be driving over our shallow buried copper grounding system and could very possibly cause damage to that part of the broadcast antenna system. Now that we know this, Cameron is going on record to oppose this project and strongly encourages you to pursue some of the other options you have. As you know, moving our site would be very expensive, very time consuming and would require permission from the FCC, FAA, County and several other agencies. This process usually takes years. Thanks in advance for your understanding of our situation. (Redacted) Cameron Broadcasting			Location, Other		
7/8/2016 Owns Property in Study Area	☐	I own 40 acres, the SE 1/4 of the SE 1/4 of sec. 31, T. 21 N., R. 17 W., I am opposed to the western route as W2 is on my easterly property line. I do not want an overhead line adjacent to my property. If you must use the western route please use W1 which would give me at least 1/4 mile of distance.			Location		

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6/24/2016 Lives in Study Area	☑	Mr. Andy Whitefield, (BLM Proj. Mrg) Dear sir after reading these info. papers, looks to me like it is time for better updated service. When my power goes out, Unisource tells me "old lines, we are on it, will call you back" never do but all we have I guess. I'm for it HOWEVER, I'm paying every dime I can afford on (illegible wording) (am 80 yo vet). I have found there is legal language to "hit" homeowners and taxpayers here in Mohave County. I guess you are the public advocate, common sense and fiscal responsible one? Just remember many can't afford huge jumps in elect. Be very wise sir, watch Unisource very close. Yours, (Redacted)					
6/23/2016	☐	First and foremost, Thanks for your response and the enlightening conversation which followed. As I mentioned in the Sunday "phone message", I am (was) aware of two possibilities for the propose substation in the vicinity of "US #93 - Mineral Park Road, Legend Ranch Road". 1st The conversation game me new information on the proposed emplacement (west of US #93, near Legend Ranch Road) I now know that is not a substation, but the area might still be available, and eliminate costs associated with a separate land purchse. 2nd The area, E. of US #93, S. of Mineral Park Road (the Mineral Park (Mine) pumping station) may be available, again, (reduction/elimination of) costs associated with a separate land purchase must be investigated. Although I would like to attend one of the listed "public meetings," travel, schedules and other considerations won't allow this so here, as they say, we are. My Thanks for your time,					
6/27/2008	☐	I do not think it would be a good idea to put the new 230 KV Transmission Line through the Cerbat Recreation Area. There are very scenic and archaeological features in this area that would be disturbed. During the spring time there is a waterfall that runs through the area. Please pick a different route.			Appearance, Location, Other		

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6/19/2008	☐	I prefer the less disruptive route, preferable along the edge of the Cerbat Recreation Area. Running the power line through the Cerbat Cliffs Recreation Area is not in keeping w/ the recreational notion of the CCRA. However, a line closly follows Hwy 93 would help reduce the impact by placing the improvements in an already impacted area.			Location, Other		
6/19/2008	☐	I would really like to see this park be preserved. I use this area frequently for hiking, trail running, and mountain biking. By adding another line in there, this will end up changing the usage … ATVs … They are persistent … There really is no other trail system like this in this area and it would really be a shame to loos this! This may sound nieve but, I never really realized the importance of purpose of the sign in sheets, and I have never used them. (I obviously will from now on.) I have talked to several that have the same outlook. I think the Golden Valley option effects the least amount of people, (illegible wording) that 1 landowner can effect an entire community! Thats just not right!			Location, Other		
6/19/2008	☐	The proposed route through the Cerbat Recreation Area the least desirable option for me. I use the recreation area for hiking and biking regularly. The area is the only place in this area to ride single track, the area is pristine compared to the rest of the deserts around Kingman. Your power line will change the recreation area and will encourage other road incursions into this nearly roadless space. We need a space free of infrastructure incursion set aside for a meaningful recreational experience.			Location, Other		
6/19/2008	☐	I would like to preserve this area. My friends and I enjoy using these trails for hiking and mtn biking. I could never imagine electric lines out there. When I'm out on the trails I feel at peace / the nature. I think a lot of people use the trails - I know for myself I never signed in like many of my friends that use the trails.			Location, Other		
6/19/2008	☐	I am requesting that the above T.L. project be routed via the western perimeter of Cerbat Recreation Area. C.R.A. is a much enjoyed local area and it needs to be protected from any further encroachment. Thank you, (Redacted)			Location, Other	West	
6/19/2008	☐	I am against the powerline going through the Monolithe gardens park. Please consider a route along Shinarump rd skirting around the foothills. The park should remain undisturbed, be able to revegitate and rehabilitate with wildlife. Saved for future generations. Its a beautiful area. I walk it often and share it with our friends from out of town. It's something to be proud of.			Location, Other	West	
6/19/2008	☐	The area is one of the few untouched areas left in the Kingman area. You / I can go for a hike, ride my mountain bike for hours. The hike / ride is very peaceful and we need to keep the area preserved, so that we can use it for generations to come.			Location, Other		

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6/19/2008	☐	Hey guys, I understand that we will need to compromose and that being said, the western route should be selected. We have one area in Kingman that is unspoiled and is used by many Kingman residents who hike bike and ride in the Cerbat recreation area. For the fture, many more will continue to find pleasure in an area that is not accessible to motor vehicles. I would prefer to have nothing but trails but I know that is not possible. If it must be done, please do it with the least impact and on the western side.			Location, Other	West	
3/17/2008	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		
3/15/2008 Owns Property in Study Area	☐	To Whom It May Concern: I have been advised that the proposed Transmission Line Project for Golden Valley AZ will run directly across my property, thereby making it essentially worthless. I received your fact sheet, but was unable to place my property along your grid lines. I own forty acres which have been subdivided into 3 parcels of approximately 13 acres each. Please send me more detailed information as to how my parcels would be effected by such a project. Yours truly, (Redacted)		Would like more detailed information as it relates to her property.	Location, Other		
3/13/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		

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3/13/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		
3/6/2008 Owns Property in Study Area	☐	SUBJ: Letter of OPPOSITION to Plan B Gentlemen: I am totally against your alternative plan B, which would impact my property negatively and give me as a resident and taxpayer no benefit. Please remove Alternative B from your siting study. Please notify me of any public hearings your agency is holding on the topic of the transmission lines. Sincerely, (Redacted)		Would like more information about public hearings.	Location, Other		
3/6/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted) We own property on Bagdad Road in Golden Valley.			Location, Other		

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3/6/2008 Owns Property in Study Area	☐	cc of letter sent to Becky Heick, BLM District Manager, Kingman Field Office Dear Ms. Heick: Yesterday, I spoke at length with Mike Warner regarding the proposed location for the Golden Valley 230kv Transmission Line Project. Thank you for having Mr. Warner call me to explain the status of this project. During our conversation, Mr. Warner provided me with information that led to the decision to place the transmission lines along the lower part of the Cerbats about a 1/4 mile to 1/2 mile from our property. He told me that initially a proposal had been made to parallel the existing power lines along Shinarump. Due to the objection of property owners in the area, this idea was nixed. Even though much of this property is raw land, property owners were concnered about future development and did not want these lines. We certainly can relate to their concerns. It is my understanding, that one of the proposed areas to run the power lines was through an area of the Cerbats where BLM plans to create a future recreation area. As of yet, no trails or improvements have been made to this land for development of recreation use. I am stymied as to why BLM would find objection to power lines in a recreation area where no one lives, but finds no objection to placing them in a growing community where residents will be negatively impacted. Another concern I have is in regards to the future. When it is time, will larger power transmission lines be placed along this path because these 230kv lines already exist here? Will this become the path of least resistance, thus, further destroying the beauty and serenity of our area? Power lines through a recreation area can be a plus for those who enjoy the outdoors. My husband and I have lived in the California desert most of our lives. For the past 35 years + we have spent most of our weekends exploring, hiking, rock climbing, bamping and 4-wheeling throughout the area. One of the benefits to our outdoor experiences has been the use of the pwoer line roads to easily reach trailheads, parking locations and camping areas. The power line roads are maintained and provide excellent practice areas for new off road vehicle operators to prepare them for their trek on designated trails. Additionally, the quality of the power line roads allows 2-wheel dirve vehicles to easily access most of the recreation areas. The pluses having these roads in the recreation area should be considered by the BLM, not only the enhancement of providing better access to the public but also the savings in having the road cut using funds other than those provided by the federal government. It would also keep the transmission lines out of a populated area.		Requested public notifications.	Appearance, Location, Other		

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		I am still disappointed property owners along the Cerbats were not notified of this proposed project. In all fairness, I feel it is the duty of public officials to ensure that all persons affected be allowed the opportunity to a voice in the process of projects that have a negative impact such as this. Information regarding property owners is located at the county assessors office. Please make the notifications. Many plans have been made in our community. Several new wells have been sunk, and pads are being prepared for future homes. Please consider the location of the proposed transmission line location. Sincerely, (Redacted)					
3/5/2008 Owns Property in Study Area Neighbor	☐	Dear Sirs: I am writing this letter in protest of the proposed Golden Valley 230kV Transmission Line Project. I live on Kirkland off of Shinarump. I was notified of the public open house and only became aware of this meeting from a neighbor. It was too late for me to attend, thus the reason for my letter. According to the map printed in the Daily Miner, the proposed transmission line location will go directly through my community. My husband and I bought our property to build our retirement home. During the construction of our home, my husband passed away, yet, I continued to build our home. There are other new homes in the area, and I know of several property owners who plan to build their homes and remain in our community. Wells have been dug, pads have been cut. The construction of the transmission line through this area will ruin the dreams of many people. We have bought our property in this area because of its serenity and beauty. We have a lovely view of the valley and the mountains to the north. These power lines will destroy it all. Please reconsider the location of the proposal shown on paper. Currently, there are existing power lines west of Shinarump, which could be followed. The power lines could be erected in the flood zone down in the valley, where no one should build a home. Or, they could go directly down I-40 to 93. There are many non-populated, unimproved areas with dirt rouds to select from.			Appearance, Location, Other		

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		Also, most of the property down in the vally has been purchased and is owned by real estate market speculators. They bought into this area to "flip" the property as soon so they can profit from property value gains. They, unlike us, have no plans for improvement of their land. Their ownership is for profit only. I would also like to state, that I am disappointed that UniSource, or any other involved agency of the plans for this transmission line did not notify me. They have an obligation to include us in these plans. Please ensure that my protest is brought to the attention of all the agencies and persons involved in this plan. Sincerely, (Redacted)					
3/3/2008	☐	Via email to Ruben Sanchez at BLM Dear Mr. Sanchez, Since the Transcon Environmental meeting at Black Mountain Elementary School in Golden Valley, AZ at 6:30pm on February 12, 2008, we have gathered with over 2000 concerned citizens - politicians, developers, environmentalists, county planners, media correspondents, business owners, and, especially, the land owners of Golden Valley/Kingman, AZ - to further discuss the details of the Transcon Environmental 230kV Transmission Line Project Fact Sheet #2. Please be advised that, due to the lack of transparency of the information that was released, and that only a small group of land owners (approximately 25 landowners) attended the February 12,2008 metting, hundreds, if not thousands, of the concerned public were not, and are still not, aware of the project announcement, and/or the invitation for public discussion regarding the specifics of this project. After further research by our analysts, we are now aware than an E.A. is being conducted with the Kingman B.L.M. office for a right away without involving the public, and it appears they have picked a right way without following the N.E.P.A. process to involve three alternative routes for evaluation. We are respectfully exercising our rights, as citizens of our community, and demanding this project to stop immediately so that all the citizens affected by this project can be involved in the evaluation of this transmission line for further review.		Would like a meeting to discussion other alternative routes.	Location, Other		

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		Thus, we are requesting an introductory meeting with you to discuss the latest information that your office has collected on this project, and, as a collective, we are starting to collect feedback about the transmission lines that we will need to discuss with your office immediately. While the project routes have been proposed, the public would like to have a discussion regarding other alternative routes, other than the alternatives A & B, previously announced by Transcon Environmental February 12, 2008, as the only routes. We are available to meet anytime this week, we would prefer the meeting to be during afternoon business hours on Thursday, March 6, 2008. We look forward to this meeting, and look forward to your response soon. Sincerely, (Redacted)					
3/3/2008 Lives in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted) Do to my health problems I think this would be very harmful. I will be receiving a pacemaker, and understand you can't live near any power lines. We have lived here for 26 years and don't want power lines in my front yard.			Health, Location, Other		

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: US Mail							
3/3/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		
3/1/2008	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		
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2/29/2008	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		
2/28/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		

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2/27/2008 Lives in Study Area	☐	Letter of OPPOSITION to Alternative B The proposed project threatens the health and wellbeing of the area's residents. We would literally trapped: suffering from the effects of high voltage electricity, unable to sell or rent our properties, unable to enjoy our back yards, or even the view from our windows. Please remove Route B from your study, and any future considerations. Sincerely, (Redacted)			Health, Appearance, Location, Other		
2/27/2008 Lives in Study Area	☐	Re: Project Study Area Golden Valley "Alternative B" of 231 KV Transmission Line Proejct - Over My Dead Body Ladies and Gentlemen: The propsoed "Alternative B" would effectively destroy the lives of all of us who live on Shipp/Bacobi/Bosque. THE TOWERS WOULD LOOM RIGHT ABOVE OUR HEADS! As a physician with a special interest in environmental medicine, I am only too familiar with the devastating physical and psychological impact of transmission power lines. Today, however, even the least informed layman knows about the dangers of high voltage - and that makes the ease with which the UNS is willing to sacrifice us to its greed particularly appalling. Surely they must be aware that there are people living along "Alternative B" - we pay our electricity bills every month. Besides, this is an Agricultural-Residential Zone, designated strictly for living, and for raising plants and animals. I urge you to remove this ill-conceived project from current and any future considerations. Please feel free to call me with any questions. Very Truly Yours, (Redacted)			Health, Location, Other		

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: US Mail							
2/25/2008	☐	Grace, Thank you for calling me and updating me on the progress of the transmission line in Golden Valley. I was surprised by your thoughtfulness and concern for the people effected by this project. I hope you are successful on the Alternative A. Sincerely, (Redacted)			Location	A	
2/25/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I own two contingent parcels between S. Bosque and S. Bowie on W. Collins in Golden Valley, AZ. I am adamently OPPOSED to Alternative B. The building of this power line through a growing residential area is an irresposible endeavor without reguard for the residents or property owners of the area. Alternative B will have a detrimental / negative impact on the existing residents and property owners as well as the future development of this area. There are no benefits served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and permanently removed from your siting study. Sincerely, (Redacted)			Location, Other		
2/25/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		

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2/22/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		
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2/21/2008 Owns Property in Study Area Friend who saw announcment in Kingman Miner	☐	To Whom It May Concern: My husbad and I have just become aware of the Golden Valley 230kv Transmission Line Project. We own 11 acres on Kirkland, off of Shinarump. We were surprised that we were not notified of this project so that we could attend the meeting and voice our opinion since it is directly affecting us. We only became aware of this information from a friend who saw the Public Open House announcement in the Kingman Miner. Our other neighbors on Kirkland, and in the community, have been equally unaware of the proposal. We bought our property for our retirement and have planned to build a home. In the last two years, 4 new homes have been erected in the immediate area. Our communicate is growing and other homes have been planned. Most of us have already invested greatly in water wells for our future homes. Other improvements have been made, and pads for homes have been cut. The property owners have invested in this area because of its natural beauty, views and rural atmosphere. The property along this area is not to be considered raw, desolate land. This proposal will affect our lives in the future, along with destroying our property values. The wildlife in our area will be greatly impacted. Because of our terrain, and the mountains behind our property, we are hosts to many animals. As a small example, we have Horn Toad Lizards, Burrowing Owls, various nesting birds, Kit Foxes, etc. Their natural homes will be destroyed. Transmission lines have been proven to create health hazards. We strongly recommend that a re-evaluation of the location of these transmision lines be made. There are other options available such as following I-40 to 93 and then to the Mineral Park Substation. There are existing transmission lines West of Shinarump that can be paralledl to the flood zone near Aztec. They can then follow the flood zone toward to sub-station through land which should not be developed because of its flooding danger. You can also go over the foothills north, northwest of McConnico to 93, which is actually the shortest route and will have the least impact on communities. If dirt roadways are required, there are many that are available where no homes exist or are planned.		Would like more information about future meetings.	Health, Appearance, Location, Other		

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		Please consider this a letter of protest and include it in any other documentation that shows the currently proposed transmission line route and have it support any other public objections. Please notify us, and other property owners in the area of any other meetings that will be held where we may be able to attend and voice our opinions. Information on property owners can be obtained from the County Assessors Office in Kingman. It is the obligation and duty of UniSource and the Mohave County Supervisors to ensure that property owners are aware of this project as it will have a drastic impact as currently proposed. Thank you, (Redacted)					
2/21/2008	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		
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2/20/2008	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		

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2/19/2008 Lives in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted) Physical Address: (Redacted) Golden Valley, AZ 86413-8700 *Absolutely not - positively NO!!* We have enough health problems now. We want safe and healthy living until the Father uptstairs says he is ready for us... Thank you for letting us know about this.			Health, Location, Other		
2/19/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted) Property: Golden Sage Ranches Unit (redacted)			Location, Other		

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Comment Method: US Mail							
2/17/2008 Owns Property in Study Area	☐	To whom it may concern: February 14, 2008 Re: Alternative B 230 kV Electric Transmission Line Project I am opposed to an contruction near my home that does not involve residential buildings. I am opposed to anything that would cause devalution of my property or any health hazards. I do not want a building near my home unless it is a home or mobile home, especially some isore electric building. Find somewhere else to put your building that does not involve residents of Golden Valley. There is plenty of commercial property to building your isore on. P.S. I especially do not want anything built near me that will take any more water pressure away from me than has been taken already. (Redacted)			Health, Appearance, Location, Other		
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2/17/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		

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2/17/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		
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Comment Method: US Mail							
2/15/2008	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. I just learned about this on 2-13-08 - it would ruin our future - please do not do this to us. Sincerely, (Redacted)			Location, Other		
2/15/2008	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		
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Comment Method: US Mail							
2/12/2008 Owns Property in Study Area	☐	To Transcon Environmental, We are writing this letter in response to the Golden Valley 230kv Transmission Line Project. We received your project Fact Sheet #2 on February 1, 2008. This was our first notification of your intentions. Had we received the first notification, Project Fact Sheet #1, we would have submitted our written objections and appeared at your first public open house, August 16, 2007. After receiving your Project Fact Sheet #2, we have been trying to educate ourselves to gain a greater understanding of how your project might impact the future use of our property. Educating ourselves has not been easy. There are so many conflicting reports. So many things to consider when living or working near a 230kv transmission line. The corono effect, the coupling effect between transmission lines and nearby pipe lines, irrigation systems paralleling the lines, parking vehicles near the electromagnetic field, building structures over 14 feeet high, building metal structures, metal roofs, or metal fences, voltage drainage through the buildings and plumbing and electrical service, interference with some pace makers, interference with radio or television, arcing in an electrical storm etc... How all of this could impact the future use of our property is difficult for us to comprehend. We first learned of Golden Valley when my brother moved to Kingman Arizona in 1986. We fell in love with Golden Valley. In 1991, after serious consideration of the lay of the land, the direction of the highways, the proximity to Kingman, the distance from any high voltage transmission lines etc... we purchased three parcels, 306-07-217a, 306-07-217b, and 306-07-215, hoping to establish a family business on Highway 68 at some time in the future. Since the Ford Proving Grounds closed in October of 2007, our family has begun considering several different business ideas for the potential use of our property, including a child care and tutorial center and a fast food restaurant, both areas in which we have expertise. The target market for these businesses would be young families and their children. However, after researching the various risks and dangers associated with a 230kv transmission line, we discovered these business proposals would be inconceivable, given that the National Institute of Environmental Health Sciences report on Health Effects from Exposure to Power-Line Electric an Magnetic Fields, stated, "The NIEHS concludes that EKF-EMF exposure cannot be recognized at this time as entirely safe because of the weak scientific evidence that exposure may pose a leukemia hazard." Consequently, it would be reprehensible for use to contemplate a business where we could be putting our customers health at risk.			Health, Location, Other		

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: US Mail							
		We believe in bringing new jobs to Mohave County, but we do not believe that those jobs should come at the expense of the property owners of Golden Valley. This project would decrease property values, challenge the future uses of vacant properties, and create a public concern for health and safety. We urge you, as in the words of Robert Frost, 'to take the road less traveled by' and choose the most viable route with the least amount of human exposure. We believe that your 230kv transmission line should be run along state and / or BLM managed lands, or preexisting lines, or better yet, be buried. **We urge you NOT to choose Alternative B.** Thank you for taking the time to read this letter. Sincerely, (Redacted)					
2/11/2008	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		
2/11/2008 Owns Property in Study Area	☐	Letter of Opposition to Alternative B I am totally OPPOSED to Alternative B. The building of this power line through a growing residential area will have a severe detrimental impact on the existing residents and future development of this area. There is no public benefit served to the residents of the area affected by the transmission line. I request that Alternative B not be considered and therefore removed from your siting study. Sincerely, (Redacted)			Location, Other		

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Comment Method: US Mail							
11/26/2007 Owns Property in Study Area	☐	Addressed to Mike Warner, Transcon Environmental, and Mike Gibelyou, UNSE Gentlemen: This letter is in response to the proposed routing by Unisource Electric of the 230 KV power line. The undersigneds, members of the (redacted) Family, are aware that one possible route for the power line woudl be on the (redacted) property on the south side of Shipp Road and on the west side on Bacobi Road. It is our understanding that this routing would require a 100' easement, which easement would be on one-half of the perimeter of our property. Historically this property has been used for agricultural purposes, however, the growth in Mohave County and in particular, Golden Valley, has drastically changed the potential use of this property. The ownership of our property, through the (redacted) Family Trust and the (redacted) Family Partnership, is structured in a way that the (redacted) Family would be able to develop the property for its best possible use. A 100' easement with a major power line on the whoel south and west sides of the property woudl greatly diminish the value of the property and greatly affect any potential development of this property now and in the future. For this reason the entire (redacted) Family is adamantly opposed to the proposed routing of the 230 KV power line on any portion of our property. The (redacted) Family feels that the possible routing of the power line along Highway 93 would be a far better route, not just for the (redacted) Family, but the Golden Valley community as a whole. This alternative would basically follow an existing power line right of way along Highway 93, which has been in existence for many years. The owners of those properties have already granted the right of way for the power line or accepted the right of way for the power line when they purchase the property. The (redacted) Family does realize that with growth, the need for power lines and infrastructure in general are necessary. We are not opposed to growth, however, we believe that keeping power lines, most utilities and right of ways along major highways, where possible, will hav the least amount of impact on the environment and property owners. To create a new power line right of way through Golden Valley, on property which is mainly privately owned, when a right of way already exists along Highway 93, would have a detrimental impact on the environment, land owners and the community of Golden Valley.			Appearance, Location, Other		

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: US Mail							
		We understand that we would be compensated for the right of way. However, we feel that any compensation amount would not offset the loss or our property value nor the loss of potential development options. The loss of development opportunities would not only affect us as the owners of the property, but would affect the future development of the Golden Valley community. We respectfully request that the routing of the 230 KV power line by Unisource Electric not be on any portion of our property. Thank you for your attention to this matter. Respectfully yours, (Redacted)					

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Draft EA							
8/31/2020 Owns Telecomm. Tower	☐	Dear Mr. Whitefield, We appreciate the opportunity to provide input on the notice of the completion of a Draft Environmental Assessment (EA) on the impacts of Unisource's (UNSE) 17 mile-long 230kV electric line. We urge the Bureau of Land Management (BLM) to grant UNSE a ROW only from one of the four West Routes for the transmission line and substation on BLM administered land. As local radio broadcasting owners with a communication tower directly impacted by the proposed route, we understandably have serious concerns. We oppose the BLM's selection of the E1 East Cerbat Alternative as the preferred alternative. We are opposed to the BLM utilizing the two East Routes and support BLM using one of the four West Routes. As operators of local radio stations, we have the responsibility to provide news and information for our listeners. Many in our community rely on local radio and it is their only source for important emergency alerts, news, and entertainment. During COVID=19 we have seenn the necessity of ensuring the public is kept aware of everchanging dangers associated with the current state of emergency. Local radio prides itself on being the voice of the community and the proposed power line could interrupt our ability to provide this useful and needed service. In addition, during this time local radio stations are being hit hard and you are asking us to take on an even larger burden during these difficult times. Local radio does not have the resources that large utilities have and interruptions to our essential broadcast equipment greatly affects our ability to serve our communities. We oppose the Eastern Routes due to legitimate concerns related to the AM signal interruption and distortion. Our engineer, (redacted) advised that the 230kV electric line will directly impact the KYET tower due to its close proximity and likely interfere with the radio signal. Krick stated "KYET signal could be negatively impacted by the power lines being located less than a full wavelength to the center of the KYET-AM tower (which that full wave distance is 850 feet) and cause interruption to the AM signal." We raised our concerns about signal interruption with UNSE during a meeting with industry representatives in August of 2019. We were told by UNSE that they would deal with any disruptions to our AM signal only after the project is built. UNSE has committed to working with KYET to ensure that no interference results from construction or operation of the transmission line but unfortunately mitigation is		Would like to be notified of any updates or changes to the proposal as it moves through the process.	Location, Other	West	

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Draft EA							
		offered by UNSE only after the line is built and interference is documented. Please note that the effects or disruption to the signal will not be known until after the project is constructed. Since the effects and the severity of the disruption will not be known until after the line is constructed and operational, we have no way to determine how long or to the extent the disruption will negatively impact the KYET signal. We have no way to estimate the length, costs, or the severity of the disruption. We ask, what mitigation can UNSE offer to KYET 1170 AM after the line is built? The mitigation offered in 4.13 is no mitigation at all because it comes only after the line is built: "UNSE shall make every reasonable effort to promptly investigate, identify, and correct, on a case- specific basis, all complaints of interference with radio signals from operation of the proejct..." Page 34. Cameron Broadcasting also has a tower that could be negatively impacted by the eastern routes. We have been made aware of the Cameron Broadcasting Public Comment letter of September 30, 2008 that opposes the Eastern Routes in the letter it states, "Our investigation has disclosed that if your monopoles are an closer than 1150 feet of our tower, they will cause unacceptable pattern distortion". Again, it's worth noting that our KYET tower is 500 ft from the proposed power line and pattern distortion is almost certain. This signal interference with KYET and Cameron Broadcasting radio towers are compelling reasons to reject both East Routes as the EA makes clear on page 21 that the West Routes are preferable: "No effects to radio broadcast towers are expected to result from any of the West Cerbat alternatives because they do not pass near any radio towers." The E1 East Cerbat Alterantive negatively impacts two AM radio towers and should be disallowed. Furthermore, many private landowners along the East Routes will also be negatively impacted and will see the value of their land diminished. These landowners have scenic properties whose beauty would be diminished by a large industrial power line running through the land. Therefore, we agree with the other private landowners along the east route that the E1 East Cerbat Alternative is not the "preferred alternative". The BLM's reasoning for selection of this route because these are "utility corridors" is incorrect. The private property owners along the East Routes have never designated their lands as "utility corridors." BLM and UNSE may prefer this route bceause it is short, but we the private landowners are not the public's "utility corridor."					

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Comment Method: Draft EA							
		If the "utility corridor" is a determining factor for the BLM, the West Routes offer that feature also: "Nearly three-quarters of the West Cerbat alternatives are within a BLM-designated utility corridor." Page 21, 4.1.1.4. It appears to property owners in the East that BLM is "conserving" its lands by preferring the East Routes while subjecting private property owners along the East Route to the burden of this industrial-sized transmission line on their property. This line is a "public purpose;" therefore public lands should be utilized for it. It is important to note that when the highway was widened, we ended up losing valuable acreage and again we are expected to sacrafice the value of our private property for the public. In this case public lands are an available option and should be used for the benefit of the public. We oppose the East Routes. We strongly support the Western Routes along existing public lands to achieve the public good. It appears in Table 8 the Western routes utilize twice as much BLM land than the Eastern Route. It is prudent to use public land for this public purpose. We respectfully request that UNSE only submit the Western Routes for consideration to the Arizona Power Plant and Transmission Line Siting Committee of the Arizona Corporation Commission (ACC) for the proposed power line. If you have any questions, please contact (redacted) at (redacted). We appreciate the opportunity to provide comments and request that we be notified of any updates or changes to the proposal at it moves through the process. Thank you and we appreciate your consideration of our concerns. Sincerely, (Redacted) Owner KYET					

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Draft EA							
8/31/2020 Owns Property in Study Area	☐	Dear Mr. Whitefield: Thank you for your notice of the completion of a Draft Environmental Assessment (EA) on the impacts of UNSE's 17 mile-long 230 kV electric line. We are pleased to provide comments on the proposed West and East routes and the EA. We also want to recognize the hard work that you, your contractors at Transcon and all the Bureau of Land Management (BLM) staff put into the EA since beginning this review first in 2008, and then again starting in 2016. We appreciate that work. In your final decision, we urge BLM to grant UNSE a Right of Way (ROW) from **one of the four West Cerbat Routes** for the transmission line and substation on BLM-administered land. In short, this 230-kV transmission line should run through Golden Valley because it is designed to help Golden Valley. According to the EA at Paragraph 1.3, page 1, the Purpose and Need for this line is "to improve reliability, replace aged equipment, and accommodate a projected 5- to 35-megawatt increase in load over the next decade in the north Golden Valley." Golden Valley will get this electric power and thus Golden Valley residents should bear the transmission line. As you might imagine, the (redacted) Family **disagrees** with the BLM's selection of the E1 East Cerbat Alternative as the "preferred alternative" in Paragraph 2.2.6, page 11, of the EA for reasons we detail below. In addition, I have spoke to (redacted) of Cameron Broadcasting that operates the KAAA AM 1230 radio tower, and he authorized me to state that Cameron Broadcasting opposes BLM using the two East Routes and supports BLM using one of the four West Routes. I am also advised that the owners of the KYET AM 1170, Grand Canyon Gateway Broadcasting, also oppose the two East Routes and support BLM using one of the four West Routes for this 230-kV line.		Please contact. Please include in any site visit, all NEPA mailings and meetings, and in all remaining public meetings or process conducted under the ACC process.	Appearance, Location, Other	West	

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes

Comment Method: Draft EA

Instead of the East Alternatives, I write on behalf of the (redacted) Family to support the West Routes of the proposed UNSE 230-kV transmission line along public BLM lands, and to oppose the East Routes through largely private lands including our family's property. Tables 19, 23 and 27 of the EA in Appendix A verify that the two East Routes both traverse more private land, and adversely impact about twice as many actual residences, as the four West Routes do. For example, Table 23 shows 142 residences impacted by the East Routes and only 76 impacted by West Routes 1 and 2.

Our family has owned the private property through which UNSE proposes to site the East routes since my Grandfather bought it from the Santa Fe Railroad starting in 1943. We own the undisturbed Box Canyon that lies East of the Proposed East Routes, and we own land in Cook Canyon that lies West of the Proposed East Routes.
We oppose the East Routes for four reasons:
-The E1 East Cerbat Alternative is not the "preferred altnerative" of private property landowners.
-The East Route will produce Interference with two radio towers.
-The Destruction of the natural beauty of two canyons that our family owns.
-The Destruction of our Family's land by the Interstate 40 Route first occurred in the 1970s and now BLM proposes to destroy its remaining value with a 230-kV Electric Line.

1. The E1 East Cerbat Alternative is not the preferred alternative.

The BLM's reasoning for selection of this Route does not hold up. First, the private property owners along the East Routes have never "designated" their lands as "utility corridors." BLM and UNSE may like this route because it is short, but we are not the public's "utility corridor." We do not recall any election in which the East Route citizens chose to become Golden Valley's "utility corridor." We are not.

If the "utility corridor" is a determining factor for BLM, the West Routes offer that feature also as BLM admits: "Nearly three-quarters of the West Cerbat alternatives are within a BLM-designated utility corridor." Page 21, 4.1.1.4.

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Comment Method: Draft EA							
		Second, BLM's citation that the East route "would be proximate to the less residential properties" is simply wrong and contrary to their own EA. Table 23 in Appendix A shows 142 residences impacted by the East Routes and only 76 impacted by West Routes 1 and 2. Table 19 shows 133 inhabitable residences within 1000 feet of the East Routes and only 66 residences within 1000 feet of the West Routes 1 and 2. In Table 16 itself BLM admists that Table 19 shows 133 "actual residential buildings," while Table 16 shows vacant and undeveloped "residential proeprty" along the West Routes. In our view the 133 "actual residential buildings" along the East Route will suffer more adverse impact from this line that the non-existent residences (and apparently vacant residential property) along West Routes 1 and 2. We suggest those vacant properties do not deserve more protection than real residences and real citizens in those 133 "actual" residences along the East Routes that will be harmed by this line. West Routes 1 and 2 should be the BLM's "preferred alternative" because they have only 66 residences along the routes. The East Routes have 133 residences. See Tables 16 and 19. Third, while BLM favors the Golden Valley West Route citizens by listing "Residential Properties Potentially Impacted" in the West (266 "potential" residences in the West verses 228 "potential" residences in the East in Tables 16 and 30), the BLM flat out tramples on actual private property owners on the East Routes. Table 27 demonstrates the West Routes should be preferred because they only traverse 7.5 miles of private property, while the East Routes traverse 10.8 and 11.4 of actual private property in the hands of real residents with 133 "actual residential buildings." Let's use public BLM lands for the public purpose of building a 230kV line for all of Mohave County. In Table 15 BLM demonstrates it has 8.9 and 9 miles of land respectively that are available for West Routes 1 and 2. Those public lands should support this public purpose of a 230-kV transmission line. It feels to residents in the East that BLM is "conserving" its land by preferring the East Routes and subjecting private property owners along the East Route to the burden of this industrial-sized transmission line on their property. This line is for a "public purpose." Let us use public lands for it.					

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Draft EA							
		2. Radio Towers In the Covid-19 Pandemic local radio stations are struggling to stay alive. On top of this challenging environment, the proposed East Lines threaten not one, but two stations' AM radio towers. The East Routes should be rejected on these grounds alone. The proposed East routes could well obstruct the operation of the Cameron Broadcasting AM Radio Tower for KAAA located on our Cook Canyon property. The line surely will impact KYET 1170 AM tower that is only 500 feet from the line because the Unisource 230kV monopoles will cause unacceptable pattern distortion if they are closer than 1150 feet to the Cameron tower. See enclosed Cameron Broadcasting Public Comment Letter of September 30, 2008 opposing the East Route (expaining the "unacceptable pattern distortion" the 230-kV line will cause its Radio Tower transmission). The Scoping Summary at Table 4 fails to include the Cameron Broadcasting Public Comment letter of September 30, 2008 that opposes the East Route. The letter states, "Our investigation has disclosed that if your monopoles are any closer than 1150 feet of our tower, they will cause unacceptable pattern distortion." Cameron operates a radio tower for its AM station KAAA 1230 AM on (redacted) property. And yet there is a second radio tower at risk also. The EA discusses the two Radio Towers that the East line will disrupt at 4.1.1.2 page 20 and concludes, "The East Cerbat alternatves are about 500 feet from the KYET [1170 AM] radio tower and 1,300 feet from the KAAA 97.5 FM radio tower [This is actually a 1230 AM radio tower for KAAA, and not a FM tower]." AM radio towers are subject to pattern distortion. The East line has been moved away from the KAAA tower in Cook Canyon, but not the KYET Tower. The EA also documents these adverse effects by stating on pages 20-21: The KYET radio tower is closer; therefore, there could be adverse effects to the broadcast. The effects, if there are any, will not be known until the project is constructed. UNSE has committed to working with the KYET radio tower owners to ensure that no interference results from construction or operation of the transmission line.					

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		Paragraph 4.1.1.2, Page 20-21, EA (emphasis added). The owners of KYET, Grand Canyon Gateway Broadcasting and the (redacted) Family, have advised us that UNSE stated to them that UNSE will address distortion issues only after they arise. Such problems could result in downtime for KYET's signal and could affect their ability to operate at full capacity. This disruption of the KYET signal during a pandemic is not acceptable as a matter of public policy because AM radio has an obligation to be up and running in a pandemic to deliver public health communications to the public. Mitigation is offered by UNSE only after the line is built and interference is documented. What mitigation can UNSE offer to the (redacted) family if Cameron Broadcasting is forced to move its tower away from the (redacted) property? What mitigation can UNSE offer to KYET 1170 AM after the line is built? The mitigation offered in 4.13 is not mitigation at all because it comes only after the line is built: "UNSE shall make every reasonable effort to promptly investigate, identify, and correct, on a case- specific basis, all complaints of interference with radio signals from operation of the project..." Page 34. This interference with two Radio Towers alone is reason to reject both East Routes as the EA makes clear on page 21 that the West Routes are preferable: "No effects to radio broadcast towers are expected to result from any of the West Cerbat alternatives because they do not pass near any radio towers." And yet there are more reasons to reject the East Routes. 3. Destruction of Two (redacted) Canyons. The proposed route of a 230-kV transmission line between Cook and Box Canyons will obstruct the natural beauty of the Canyons and destroy their property value. This route would seriously limit our opportunities for both residential and commercial development of the property and any stram of income that may result. Our family takes the long view of development in Mohave County since our family has worked and lived in this county since 1917, and the 230kV line will adversely affect our private property. Table 5 reflects that the poles will be Monopole structures averaging 85 to 195 feet in height, and they will ruin the view shed for our properties in both Cook and Box Canyons. Their development value lies in their rural location and scenic beauty, and this private property will be ruined by this 230-kV line.					

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		The EA itself concludes this 230-kV line will adversely affect our private property and its full development. The EA makes this careful understatement: "On undeveloped private land, impacts would restrict future development within the easement as discussed in Section 4.1.1.1." 4.1.1.2, page 20. Private property should be valued and preserved by the BLM, and public BLM lands should be used for this public 230-kV line. 4. First Interstate 40 and now a 230-kV Line in Addition. Our family has already sacraficed our lands for the public good to route Interstate 40 close to Kingman, and should not be forced to sacrifice our land's remaining value to the public for a 230-kV line. As you well know, Interstate 40 runs through our family's land on the Western wall of Cook Canyon. The public used the power of eminent domain to acquire this land in the 1970's to enable a route for I-40 through Kingman that maximized the number of exits for the local businesses, and in turn, destroyed our three-sided Canyon with a spring near the northern wall. The northern wall now has a 400-foot cut through the rock to hold the freeway. Better routes for I-40, with cheaper construction costs, and multiple business exits, were rejected to place the route entering Kingman from the West on Highway 93 and exiting Kingman in the East along Highway 66. In order to maximize business revenue to our fellow citizens, the public ruined a quiet and idyllic Canyon with a freeway. Must we now suffer a 230-kV line also? We urge not. We are not Golden Valley's utility corridor and this line should run through Golden Valley because it is designed to help Golden Valley. According to the EA at Paragraph 1.3, page 1, the Purpose and Need for this line is "to improve reliability, replace aged equipment, and accommodate a projected 5- to 35-megawatt increase in load over the next decade in the north Golden Valley." We strongly support the West Routes along existing public lands to achieve the public good - as Table 8 makes clear the West routes use twice as much BLM land than the East Route. It is right to use more public land for this public purpose. We recommend that Unisource take only the West Routes to the Arizona Power Plant and Transmission Line Siting Committee of the Arizona Corporation Commission (ACC). We strongly oppose the East Routes. Please contact me to discuss this matter at *redacted), and please include me in any site visit, all National Environmental Policy Act (NEPA) mailings and meetings, and in all remaining public meetings or process conducted under the ACC process					

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Comment Method: Draft EA							
		Thank you again for conducting this public outreach process and for your hard work in constructing the EA. Sincerely, (Redacted)					
8/31/2020 Owns Property in Study Area	☐	Hello Andy, I hope this e-mail is an acceptable method for comments regarding the Golden Valley 230kv Transmission Line Project. My husband, (redacted), and I prefer the E1 alternative. A large percentage would run along existing right of ways, and fewer private property owners will be affected. And, there will be less visual impact along undisturbed BLM properties.			Appearance, Location, Other	E1	
8/30/2020 Lives in Project Area	☐	As a resident of Golden Valley living on land that is in close proximity to both the proposed western routes, I am against to these routes because of what these lines will do to local area residents. Health concerns as well as land devaluation concerns are among the top reasons I oppose these locations. It makes no sense to construct lines in an area where there are people living and raising young children which be adversely affected by these high power lines. The eastern alternatives to these lines do not impact residences as there are none in those locations. To choose either western routes for this project is to put the bottom line of Unisource Energy Services ahead of actual Golden Valley residents well being. In considering these locations I would hope that the individuals responsible for this decision consider how they would feel if this line was in their back or front yard. Financial considerations for a large corporation cannot be the sole determinate, Thank-you. (redacted) living in close proximity to the proposed western location this line.			Health, Appearance, Location, Other		

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Comment Method: Draft EA							
8/30/2020 Lives in Project Area	☐	We support either of the two East Cerbat Alternatives, where, according to the BLM, natural appearing landscapes are already dissected by major roads and utility corridors, infrastructure, residences, and commerical facilities. It seems quite reasonable to place proposed transmission lines along established routes that already have infrastructure appropriate to Unisource's stated goals. We see no purpose in creating a second such corridor. We oppose all of the West Cerbat Alternatives. As counter-point to the recreational and hiking areas developed on the eastern slope of the Cerbat Mountains (the Kingman side), the western slope (the Golden Valley side) has maintained the semblance of a pristine environment that should be respected. To wit, and according to the BLM, the entire valley and anyone approaching Kingman from a westerly direction can still feast on the following: * Dark maroon-purple-brown rocks of the hills that transition to brown and lighter colors of rock and soil in the valley. * A lack of tall, vertical, geometric structures ... [and] ... limited visibility of existing power poles and other development when viewing the larger landscape. * A generally contiguous pattern of vegetation across much of the foothills and valley ... [plus] ... detailed descriptions of existing form, line, color, and textures as seen from key observation points (KOP) In fact, we suggest that anyone passing through or near Golden Valley from a westerly direction is positioned at a KOP. Almost every morning, we walk an old, undeveloped dirt road at the western base of the Cerbat Mountains. Just from a visual point of view, we can assure you that our mornings would be sadly diminished by the presence of 17 miles of posts and wires that could just as easily be placed in a more compatible location.			Appearance, Location	E1, E2	

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Comment Method: Draft EA							
8/30/2020 Lives in Project Area	☐	Dear Andy Whitefield, My name is (redacted) and I own the property at (redacted). Golden Valley AZ 86413. I live here with my wife and 2 children, ages 6 and 8 years old. I purchased this property for my family in November of 2017 for many reasons to include; a custom home on 9.26 acres, it was out of the city, one side of the property was against BLM land, and the beautiful views of Golden Valley, the Black Mountains and the Cerbat Mountains from this property. I currently work full-time as a professional Firefighter/Paramedic. I completed research on living next to large power transmission lines such as the Golden Valley 230kV Transmission Line and the electric and magnetic fields (EMF) they generate. The greatest concern remains that children are twice and likely to develop childhood leukemia. Moreover, adults have a 1.7 time greater changes for developing leukemia when exposed to higher EMF. Other effects related to EMF exposure include; Glioma and other brain cancers, male and femaly infertility, Lymphoma Nervous system tremors, depression, anxiety and heart problems. Non EMF concerns include; depreciation of property and home values, large unsightly power poles running adjacent to private residential properties, more difficult to seel property/house, noise pollution, wildlife habitat disruption and fire emergencies. I have reviewed the detailed proposed plans/routes for the Golden Valley 230kV Transmission Line. I am not opposed to connecting the Harris Substation to the new Mineral Park Substation to improve reliability, replace aging equipment and provide the projected increase in energy needs in the north Golden Valley area. After reviw I see that there are 2 east routes and 4 west routes. East Routes From the Harris Substation it crosses over the railroad tracks, Old Trails Rd., Route 66 and then north along I-40, then over I-40, along the south side of US 93 along the commerical business development, over US 93 NW and then over US 93 again following US 93 and meeting up with all alternatives common alignment, going across Hwy 68 and then running along US 93 to the proposed Mineral Park Substation. I am in favor of either of the east alternative routes due to the fact that they do not run adjacent to any residential structures and the reasons mentioned above. These routes run through unlikely residential properties, follow the interstate, highways and commercial business areas that have already been developed.			Health, Appearance, Location, Other	E1, E2	

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
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		West Routes From the Harris Substation I see the route crosses the railroad tracks, Route 66, I-40, Oatman Hwy, and over the Shinarump coming close to the residential development of Walnut Creek. From there all of the West Alternatives run through or beside residential properties and houses until it meets up at Unkar Dr. and Tooman Rd. Then continues north on BLM land directly besides private residential properties including mine and my neighbors property. Then continues east doen Shipp Dr and north on Kofa Rd. meeting up with all alternatives common alignment, going across Hwy 68 and then running along US 93 to the proposed Mineral Park Substation. I am opposed to any of the west route alternatives due to the close proximity to numerous residential properties and empty lots that are zoned for residential and the reasons mentioned above. Due to the nature of my profession I am predisposed to cancer risks and my family has a signification medical history of cancer on both sides of my family. I retire from the Fire Service in 3 years and I purchased this home as our final retirement home as a safe place to raise my family and pass on to them. I also purchased our home with the intentions of have beautiful views to the east towards the Cerbat Mountains. I would ask that you take a careful look at the impact of the west alternatives and choose one of the east alternative routes. Thank you for the ability to comment and for your time in this manner. Respectfully, (Redacted)					
8/30/2020 Lives in Project Area	☐	I don't want this near my home. My wife has a pacemaker and this would be bad for her health. I have young children and live stock that don't need to be around power lines all day and all night. I purchased my home for the view and this would destroy it.			Health, Appearance, Location, Other		

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Comment Method: Draft EA							
8/24/2020	☐	Phone Conversation Record by Andy Whitefield: (Redacted) wanted to discuss potential interference from the proposed transmission line. Their tower is located west of Coyote Pass along the East Cerbat Common alternative and the BLM is aware of it (I mentioned it is on property owned by Coyote Holes). She asked if this would be overhead or buried line (answer: overhead) and so what would be the pole height. I answered most poles would be 95 to 115 foot tall, except where terrain or highway crossings or other situations would require taller poles. (Redacted) asked if the transmission line would be detuned. I mentioned the BLM / UNSE is aware of this concern since it's my understanding UNSE has discussed this matter with someone representing KYET (BLM was not part of that discussion). I discussed the situation of potential interference as I understand it, and it would not be known if there would be interference issues until the line would be energized. If there would be interference problems UNSE would be required to detune the line and correct the situation since BLM would require this under terms and conditions of the proposed ROW. This may also be a requirement under the Arizona Corporate Commission's siting approval process as well as under FCC regulations, although I couldn't find a direct tie regarding requirements from interference from transmission lines in their regulations, so I wasn't sure if this could be addressed under FCC regulations. Ultimately it would be UNSE's responsibility to cure any interference problems from the proposed transmission line.			Other		
8/21/2020 Lives in Project Area	☐	My home at (redacted) would be, in my opinion, to close to the proposed West of Cerbat Mountains Power Lines if Installed. I'm really concerned about the Humming noise and possible EMF it will have. In addition to an eye sore at viewing the Mountains, as well as Property value dropping significantly. I deeply ask that an Alternate East side be used. This is A Beautiful Valley, I'm the Last Residence on my street and my neighbors will agree this will create numerous problems. PLEASE Consider the East Routes that already have Highways noise and Views. Thank you! Best Regards, (Redacted)			Health, Appearance, Location, Other	East	

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Comment Method: Draft EA							
8/21/2020	☐	Phone Conversation Record by Andy Whitefield: I reviewed the letter Ms. Kephart posted on the eplanning site and the document entitled "Reducing Avian Collisions with Powerlines" and left her a voice mail inquiring if there's a particular situation regarding the proposed line where any of these suggestions may be considered, since it likely would be difficult to implement any of the measures due to the nature of the proposed transmission line. At least that's the gist of my message before the voice mail system time me out.					As of 8/26/2020 COB (3:30 PM) I have not received a follow-up call.
8/14/2020	☐	Phone Conversation Record by Andy Whitefield: (Redacted) left me a voice message asking about the alignment and I returned his call (8/14/2020) and left him a voice message that the preferred alternative is the East Cerbat 1 alternative and would likely be the selected one unless comments on the EA changes this. He returned my call on 8/17/2020 and wanted a hard copy of the EA. His address: (redacted), Bullhead City, AZ 86429		Would like a copy of the EA.			Mailed EA on 8/19/2020
8/5/2020	☐	Please provide tower description - height, design, etc. I am worried about my property's value dropping being so close to towers.		Would like a tower description.	Appearance, Location, Other		(Redacted), I received you comment on the proposed Golden Valley 230kV Transmission Line regarding the proposed line's tower description. Attached is the diagram and photo of the kind of structures that are proposed. Section 2.1 of the environmental assessment (p. 3) describes these as follows: Insertion of Section 2.1, 2.1.1, 2.1.1.1 of the EA. I hope this answers your question. Andy Whitefield

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Comment Method: Draft EA							
8/4/2020	☐	Thk u but could you kindly explain what is a UNSE customer? who is that? Is this happening because who is pushing for this to happen ? I am happy but what is the reason this is happening now ? I would like to sell my property one day and wanted to know what was going on in the area...and if you could give me a phone date I would appreciate it very much - Thank you (redacted)		Would like some one to call her regarding her questions.	Other		Hello (redacted), Sorry for the late response, things are busy. UNSE (UniSource Energy Services) is the electric and natural gas utility company within parts of the Kingman region and their customers pay them for these utilities. I guess there could be other sources where they could get funding for their infrastructure, but I would guess most of it would come from their customers. What would be a good time to discuss this over the phone? Since Arizona does not go on (or are we off?) daylight savings time we ar teh same as California (Pacific TIme Zone) and I believe we are 3 hours behind New York. You can call and see if I'm available also. Let me know a good time - I am usually off at about 4 PM. Regards,
8/4/2020	☐	So does this mean power will be coming in or this is the beginning of conversation about bringing in power? Who is paying for it to be brought in? Thk u much (redacted)			Cost		Hello (redacted), The proposed transmission line would transfer 230 kilo volts (kV) of electricity that is available at the Harris Substation (the location of which is shown on maps in Appendix A-1 of the Environmental Assessment) to the substation which is proposed to be built off of Mineral Park Road. At that substation the electricity would be stepped down to 69 kV and transferred around the northern part of UNSE's grid in the Kingman region for distribution to customers. I understand the costs of the proposed transmission line would be paid by UNSE's customers. I hope this answers your questions, but let me know if you need further clarification or you have more questions on this. Regards, Andy Whitefield

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Comment Method: Draft EA							
8/3/2020 Lives in Study Area	☐	Hi Andy, I see the 230kV Transmission Line is back. I know many letters were written regarding the last Proposal a few years ago. Is it necessary, for those of us that wrote to repeat our letter writing or will the past letters be included in this new plan? Our small community has grown since the last project, several homes have been built and others are in the planning phase. Some properties have gone through zoning changes in order to build more homes. Thank you for your time. (Redacted)		Would like to know if past letters would be included.			Hello (redacted), I don't know how much of the Environmental Assessment (EA) you've reviewed, but after getting all of the particulars of the project and weighing the effects, comments received during scoping, and land use matters, the BLM selected the East 1 Cerbat alternative as the preferred one. Since ultimately a decision will be made you may want to go ahead and comment on the EA. Thanks and take care, Andy Whitefield

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Comment Method: Phone Conversations							
8/14/2020	☐	Phone Conversation Record by Andy Whitefield: (Redacted) left me a voice message asking about the alignment and I returned his call (8/14/2020) and left him a voice message that the preferred alternative is the East Cerbat 1 alternative and would likely be the selected one unless comments on the EA changes this. He returned my call on 8/17/2020 and wanted a hard copy of the EA. His address is: (Redacted) Bullhead City, AZ 86429		Would like a copy of the EA.			Mailed EA on 8/19/2020.
8/5/2020	☐	Phone Conversation Record by Andy Whitefield: A "(redacted)" called after I had responded to a couple of emails from (redacted), and I believe the person I spoke with over the phone and the email addressee are the same since the discussion we had over the phone were to clarify the information I provided in the emails. In the phone conversation she mentioned she had bought five lots in the area (afterwards I searched Mohave County's website and found five properties owned by (redacted). The APN's for these are 305-06-159, 306-25-008A, 317-13-088, 317-13-089, 317-13-090). It seems unlikely that this would be a coincidence, however I should have verified this when I spoke to her. Nevertheless, I had responded to her last email of 8/4/20 in which she requested a time she could call, and after I responded to that email on 8/5 "(redacted)" called and left me a voice message and I returned her call. To summarize the phone conversation, (redacted) is interested in utility service to her properties. I explained what a transmission line is and these don't directly provide electricity for distribution to residents and businesses because it has to be stepped down to a much lower voltage. She also asked the purpose of the notification and I explained it was in regards to our requirements to analyze the anticipated environmental consequences of our decisions and to gather comments from the public and the postcard provides a link to the EA.					
8/3/2020	☐	Phone Conversation Record by Andy Whitefield: (Redacted) left me a voice message inquiring about the project. I returned her call (8/3/2020) and she requested a copy of the EA. Her address is: (redacted) Golden Valley, AZ 86413		Would like a copy of the EA.			Mailed EA on 8/4 or 8/5/2020.

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Comment Method: Phone Conversations							
8/3/2020	☐	Phone Conversation Record by Andy Whitefield: (Redacted) called requesting information on the transmission line. He owns property on Bowie Rd. near State Route 68 (in Golden Valley). I informed him the East Cerbat 1 alternative is the alternative identified as the preferred one in the EA and that this alternative would not be close to his property. He requested maps from the EA. His address is: (redacted), Litchfield Park, AZ 85340		Would like maps from the EA.			Mailed maps contained in Appendix A of the EA on 8/4 or 8/5/2020.
5/17/2019	☐	Please see response record.					(Redacted), As we spoke yesterday attached is the article on detuning a 345kV transmission line in New York. This has some good information and mentions requirements for non-interference by the FCC and a requirement of the New York Public Utility Commission. Have a good weekend. Andy
7/5/2017	☐	Please see response record.					(Redacted), Per our phone conversation earlier attached is the last newsletter sent out for this project. Let me know if you have further questions on this. Regards, Andy Whitefield

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Comment Method: Phone Conversations							
6/21/2017 Affilicated with Company that Owns Property in Study Area	☐	Phone Conversation Record by Andy Whitefield, Emailed to Nicole Dunlap: Nicole, (Redacted) called me earlier and inquired about this project. Apparently he had been notified when this was proposed back in 2007-2008. A company he is affiliated with own property abutting BLM public lands, and he wanted to be added to the (email) notification list. His email is in this string (I wanted to make sure I wrote it down correct and test emailed him). He believes the East Alternative is better than the West alternative. I briefly discussed that we are developing an environmental assessment and will be circulating it for public comment and encouraged him to provide us his comments when we get that out to the public. Please add his email address to the list so he remains informed. Thanks		Would like to be added to the email notification list.			(Redacted), I notified Transcon Environmental, UniSource's environmental contractor, to add your email to the notification list. Regards, Andy Whitefield
5/12/2017	☐	Phone Conversation Record by Andy Whitefield (Redacted) left a voice message on 4/18/2017 inquiring about the proposed transmission line. He stated he owns property on Shinarump Dr. I tried to call four times at the dates/times noted below and his voice mail says he is not receiving messages at this time. 4/18/2017 11:49 AM 4/19/2017 1:26 PM 4/21/2017 11:38 AM 5/12/2017 9:20 AM I spoke w/ Angelica Rose, CRD P&EC Detailee, regarding documentation of this and she suggested document the attempts to reach (redacted) and make sure he receives further notifications on this project.					

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Phone Conversations							
8/2/2016 Owns Property in Study Area	☐	Phone Conversation Record by Andy Whitefield (Redacted) had called me on 8/2/2016 and wanted to know how much this would affect his properties. He is the owner of the Castle Rock Bar along Hwy 93. and owns 6 other parcels around the bar. I checked the Goodle Earth layers and this portion of the proposed transmission line would be double circuit rebuild and would not have a distribution line alongside it. I emailed Mike Gibelyou asking if additional right-of-way would be needed for this portion and he responded in the positive, but the additional width would have to be determined later in the process. I called (redacted) and explained the information Mr. Gibelyou had provided and that I am not sure how UNS would negotiate on the additional land, however UNS would have to offer him some kind of reasonable compensation, but I do not know if that is done through appraisal or how an offer price is determined. I mentioned this size of power line has to be approved by the Arizona Corporate Commission (ACC) and although UNS would have condemnation authority, it would have to be reasonable in its negotiations. (Redacted) asked about the schedule on this and I explained as best as can be known now we plan on getting a public review environmental assessment out for review and comment towards the end of October. After revising it to incorporate comments / info a final ea would be releasted approx. December / January and after a 30 or 45 day comment period the Field Manager would make a decision, which could be appealed. Should this be approved construction would begin in 2018 and before that UNS would be negotiating rights-of-way with landowners.					
8/30/2016	☐	This is a follow-up to my meeting w/ (redacted) on July 11 (refer to that meeting record, erroneously saved and uploaded as a phone conversation): I left (redacted) a phone message informing them the comment period had officially closed and requested for them to get any comments in in the next few days. When we had met (redacted) asked if they could be a few days late since (redacted) wouldn't be back until about the time comments were due. I said we can take comments after the period ends (not too long after, however) if it fits in our schedule in the NEPA process. Full disclosure: (Redacted) are friends of mine.					

Comment Date Category Heard About	Support	Issues / Phone Message / Comments	Additional Info	Requested Info	Concerns Topics	Alternative Preferred	Response Notes
Comment Method: Phone Conversations							
7/11/2016	☐	Phone Conversation Record by Andy Whitefield I phoned (redacted) per his request in his email of 7/10/2016. He believes since the proposed transmission line is for the public as a whole it should be on public lands as much as possible, which would be the Western Cerbat Alternative. He/family own lands that would be affected by the East Cerbat Alternative. With the private lands that would be affected by the two alternatives to grant a ROW I explained that part of the process will be to search literature and find out what affects large transmission lines do to property values. (Redacted) asked exactly what my role is in this (do I work for Transcon?) and I explained I work for the BLM and Transcon is the environmental contractor hired by UNSE to prepare the environmental assessment at the BLM's direction since it is our document. He asked about the schedule and ACC's process. I told him we are planning on getting a public review EA ready for review hopefully around the end of August and a final out maybe towards October, but this schedule may be delayed. UNSE will file their paperwork (or whatever it is to get into their process) towards the end or after the BLM's NEPA process, which should vet the alternatives so the ACC will have a record of the public's attitude towards the alternatives. (Redacted) also mentioned that he had included (redacted) comment from 2008 regarding interference to Cameron Broadcasting's comm facility that (redacted) believes would result from the Eastern Cerbat Alternative. I told him I would check the mail list to make sure he / Cameron broadcasting is on it to make sure they are notified.			Location, Other	West	Cameron Broadcasting is not on mail list. See email from me to (redacted) notifying him of this project. Also (redacted) sent comments rec'd by Transcon on 7/18/16.
7/11/2016	☐	Phone Message Record by Nicole Dunlap (Redacted) left a message on the project phone line on July 8, 2016 at 3:00pm. She requested to "opt out of the transmission line project" and to have no more information sent to her.		Would like to be removed from the mailing list.			Removed her name and address from the project mailing list.

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Comment Method: Phone Conversations							
7/8/2016 Lives in Study Area	☐	Phone Message Record by Nicole Dunlap (Redacted) left a message on the project phone line on June 30 at 11:00am. He has a residence at "(redacted)" and would like to know how close the project comes to that address. It's hard to tell from the map. There is no Clare Road in Golden Valley or Kingman; however, there is a Clare Avenue in Kingman. The East Alternative is approximately 250 feet from (redacted), Kingman, Arizona.		Would like to know how close the proejct comes to his address.	Location		(Redacted), As we discussed over the phone, attached is a screenshot aerial photo of your property in relation to the Eastern Cerbat Alternative. That alternative would be approx. 200 feet from the edge of the pavement on Clare Rd. If you have comments on this proposed transmission line please email them to me or send them to the address on the notice that was sent out. Let me know if you have further questions. Regards, Andy Whitefield
7/5/2016	☐	Phone Conversation Record by Andy Whitefield: (Redacted) left a voicemail wanting to know how close the transmission line would be to her patented mining claims (APN 308-02-001). I looked up the location of these and returned her call. These are located in sec. 36, T. 24 N., R. 17 W. and sec. 1, T. 23 N., R. 17 W., all in G&SRM., and are six or seven miles from the northern terminus of the proposed transmission line. She also asked if this would affect access to the properties and I told her there would not be any affects. She had no further concerns or questions.			Location		
6/30/2016	☐	Phone Conversation Record by Andy Whitefield: (Redacted) left a message and I returned his call. He wanted a more detailed map of the proposed transmission line so I emailed him one (see attached).		Would like a more detailed map of the transmission line.			Hello (redacted), Attached is a map we spoke of on the phone with better detail than the one that was mailed. Right now we're scoping for issues, comments, etc. for the EA that's being produced. Let me know if you have questions or want to discuss. Andy
6/30/2016 Owns Property in Study Area	☐	Phone Conversation Record by Andy Whitefield: She called and wanted to know how close the proposed transmission line would be to her undeveloped property (APN 304-09-101A). I looked up that property and it is in the NW 1/4 of sec. 23, T. 21 N., R. 17 W., G&SRM., north Hwy 93. The eastern alternative would be south of Hwy 93 in that area. I mailed her a map and Google Earth imagery showing the eastern alternative route in proximity to her property.		Would like to know how close the project comes to her undeveloped property.	Location		Mailed her a map and Google Earth imagery showing the eastern alternative route in proximity to her property.

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Comment Method: Phone Conversations							
6/29/2016 Owns Property in Study Area	☐	Phone Conversation Record by Andy Whitefield: (Redacted) left me a message and I returned his call on 6/30/2016. He owns the truck wash and undeveloped property on the southwest side of the I-40 and Hwy 93 TI. The Eastern Cerbat Alt. would be approx. 1/4 mile from the truck wash property and it would cross his undeveloped property. I emailed him Google Earth imagery of the location of this alternative (see attached).			Location		(Redacted), Attached are a couple of Google Earth screen shots of the proposed route for the East Cerbat Alternative near the truckwash. The BLM is in the process of gathering information and input from the public and agencies on this and from this we will produce an environmental assessment for review and comment. From that a final environmental assessment will be made so the Field Manager can make the best decision on this. You will be notified of these documents' availability. Let me know if you have furthr questions and I encourage you to mail or email me any comments you may have. Regards, Andy Whitefield
6/28/2016 Owns Property in Study Area	☐	Phone Conversation Record by Andy Whitefield: After a few attempts at trying to reach me I was able to call (redacted). He had received the notification letter and asked how far from his property the transmission line would be. He did not have a property ID and I told him I would look up parcels under his name and leave a message on his voicemail (he said he wasn't available during work to receive my call but I had caught him on his lunch break.)		Would like to know how far from his property the transmission line would be.	Location		There were seven parcels under (redacted), one of which is in downtown Kingman approx. one mile to the east of the Eastern Cerbat Alt. I left this information on his voice mail and told him it may be visible from this property since it would be on a hill running parallel with I-40 and to call if he had further questions.
6/27/2016	☐	Phone Conversation Record by Andy Whitefield: (Redacted) asked if I had received her email, which I did but had not been able to acknowledge I received it. She mentioned someone had posted a video of one of the meetings on this from 2007-08 (later Matt Driscoll and I watched it - there wasn't anything of interest). She asked when a decision would be made on this and I did not define one. I laid out the NEPA process and that now we are gathering information to produce a public review EA and once that is done we will take comments on that and then make a decision. This would take several months.					

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6/23/2016 Owns Property in Study Area	☐	Phone Conversation Record by Andy Whitefield: (Redacted) and her husband had just purchased APN 306-24-143 (in her email she listed other parcels which are adjacent to the W. Cerbat Alt.) which is adjacent to the West Cerbat Alt. and she is opposed to this alternative. I encouraged her to send her comments (I received an email from her later that day). I spoke to her about the alternatives and if there were any other reasonable ones we would consider those as well. She said she would plan on attending the public meeting.			Location, Other		
6/23/2016	☐	Phone Conversation Record by Andy Whitefield: (Redacted) had been involved with this project when it was proposed in 2007 as part of the Arizona Corporate Commission (ACC). He had called the ACC and they were not aware of this project. He wanted the line siting number so I called Greg Gryniewicz at Transcon Environmental to find this out and UNSE would wait until the NEPA process is done or close to being done and they would apply then. I relayed this info to (redacted). He wanted to know why the route of a 69kV line from the McConnico substation to Colorado Rd. to Mineral Park Rd. would not be a good route. He is opposed to the alternatives being proposed. I suggested he write his comments to me.			Location		
6/22/2016	☐	Phone Conversation Record by Andy Whitefield: (Redacted) called on behalf of (redacted) who is listed as the tax payer on APNs 302-08-064 and 304-13-033. He wanted a more detailed map than the one that was sent with the notification. I told him I could make one with more detail and, sine he did not have email, I would mail it to him at (redacted) Jasper Alabama 35504.		Would like a more detailed map.		Mailed map on 6/24/16.	
6/22/2016	☐	Phone Conversation Record by Andy Whitefield: (Redacted) had left a message and is against the proposed transmission line - mentioning he was going to contact his attorney. I returned his call and I asked if there was any difference between the alternatives. He did not say there was. I requested he send his comments on this to me via the address provided on the notice.			Other		

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6/22/2016 Owns Property in Study Area	☐	Phone Conversation Record by Andy Whitefield: I returned his call and he wanted to know how far his property (APN 306-08-093) is from the proposed transmission line. That property is located on S. Bowie Rd. and would be approx. 1/3 of a mile from the West Cerbat Alternative in the vicinity of where the line would turn east near the intersection of W. Shipp Drive and Kabba Rd. He also asked how it would affect electronics and health. I responded that this shouldn't interfere with electronic devices and I don't believe I responded to his question regarding health issues.		Wanted more information about how far his property is from the transmission line.	Health, Location, Other		
6/21/2016 Lives in Study Area	☐	Phone Conversation Record by Andy Whitefield: (Redacted) called to ask about the location in reference with her property in Golden Valley ((redacted). Golden Valley, AZ 86413). The scale of the map sent to notify the public public was not of a scale to show this very well. I got her property information and told her I woudl annotate a map from the county's website and mail it to her (she doesn't have email.		Would like a more detailed map.	Location		Made map and mailed.
6/21/2016 Owns Property in Study Area	☐	Phone Conversation Record by Andy Whitefield: (Redacted) called to inquire about how close the proposed transmission line would be to his undeveloped properties in the NWSW of sec. 23, T. 21 N., R. 17. W., G&SRM. He has four lots in that area of differing sizes. According to the geographic information I have the Eastern Alternative would run along North E Street in that area. One of (redacted) properties, APN 304-13-055, is on that street. His other parcels (APNs 304-13-042G, 304-13-037 and 304-13-029D) are within 1/4 to 1/3 of a mile from the proposed Eastern Alternative. He wanted to know what the transmission line would look like. I told him I would send a diagram showing the pole structures. He gave me his email: (redacted) He also wanted to know if UNS Electric would pay property owners to put the line on their property. I replied that I do not know and it would probably depend on the location. Some may have existing easements or rights-of-way and other areas may not. Since (redacted) cannot be at the public meeting I suggested he send his question in writing for a response from UNS Electric.		Would like a diagram of what the transmission line would look like.	Appearance, Location, Other		(Redacted), Attached is a conceptual diagram of the structures that would be used for this transmission line. Regards, Andy Whitefield

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6/20/2016	☐	Phone Conversation Record by Andy Whitefield: I had a voice message from (redacted) from 6/19/2016 and he was inquiring as to why the proposed substation in the vicinity of Hwy 93 and Mineral Park Rd. could not be located at the existing substation on the west side of the highway. Upon hearing his voicemail I spoke with Mike Gibelyou of UNSE. Refer to the phone conversation record of this same date with him. I returned (redacted) call and explained that the proposed substation location is due to land availability and there may be some engineering considerations as well. I also mentioned that the facility he thought is a substation is actually a breaker, but UniSource may be able to construct the substation in that vicinity and we may need to expand the alternatives to include this. I requested he submit his questions/comment in writing to me so we have a clear record and he said he would do so and thanked me for returning his call.			Location		
6/23/2009	☐	Phone Conversation Record by Clark Bryner: (Redacted) returned my call from 6/22/2009. She had not heard anything on the project since January 2009. I explained to her that the project was being funded by Mineral Park Mine and that copper prices had dropped dramatically which had caused the project to be placed on hold for a while. I explained to her that the BLM was in the process of reviewing the EA, but that the document had not been finalized and out for public review. I explained that as soon as the document was available for public review a notice would be sent. In addition, I explained that the notice along with the EA would be posted to UniSource's website. She said that she currently checks the website but nothing has been posted lately. She asked about the process. I explained the two processes at play: 1) NEPA and 2) CEC. She asked how she could make her voice louder. I explained that written comments was the best way and that if she could get family members and community groups etc to this as well it would help out in the decision making process. In addition, I explained the two ways to get involved in the CEC process, including public comment and intervening. She was very complimentary about the time that has been taken to help her and her family understand and be involved and complimented our outreach efforts. I also provided her with (redacted) updated email address.					

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6/22/2009	☐	Phone Conversation Record by Clark Bryner: (Redacted) called. She is a member of the (redacted) family, property owner's along the project near I-40. She had not heard anything recently. She emailed (redacted) but he had not got back with her. She called and asked that I give her a ring and provide her with the current status of the project.		Would like to know the current status of the project.			I called her 6/22/2009 at 8:30 a.m. and left a voicemail message for her to call me back.
8/29/2008 Owns Property in Study Area	☐	Please see reponse.					(Redacted), You will find enclosed a copy of my business card, which includes my work phone number and work email address. Additionally, I have included a color copy of the proposed alignments for the new 230kV electrical transmission line to extend from South of the Nucor Steel plant and progressing North to Mineral Park. If you have any further questions about the potential alignment options that affect your property (Mohave Assessor Parcel #206-10-002), please give me a call. You also asked about the status of the Arizona Corporation Commission Line Siting review date. As of today, there is no review meeting currently scheduled for this Project. I look forward to discussing this Projet further with you and you will be kept posted of any future meetings or open houses to be held in the Kingman area regarding this Project. Sincerely, Michael 'Doc' Sterling

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7/24/2008	☐	Please see response for summary.					(Redacted) Owner Castle Rock Bar Pizzeria Kingman, Arizona RE: Road Development Dear (redacted), Pursuant to our discussion, I have provided a letter summarizing my understanding of the current negotiations for the development of the road crossing your parcels adjacent to US Highway 93 in proximity of the Castle Rock Bar, between Aqua Fria Road and Kofa Road. It is my understanding that if the line upgrade is approved by the Arizona Corporation Comission across your property, the proponent has agreed to cut in a road for access to the transmission line. It is understood that your interest is to use this road for your own interests in accessing the property. The condition of the road, its specific design, alignment and the level of effort is still undetermined and subject to negotiation. We look forward to working with you to achieve a suitable solution. Thanks, Michael Warner
5/1/2008	☐	Summary of Phone Call to the Transcon Office: Had questions regarding the times for the open houses.		Would like information regarding the times for the open houses.			Nadine Benally spoke with (redacted) on 5/15/2008 and verified with him the correct times for the open houses.

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4/28/2008	☐	Phone Converation Record by Mike Warner: I returned (redacted) call today. He is opposed to transmission lines crossing the Cerbat Foothills. He indicated that uses the recreation frequently and he knows of hundreds of people that also use it. I explained that currently we had not selected routes across the foothills but that other members of the public might. He was aware that some property owners in Golden Valley may be interested in using the foothills for a line to keep it off their property. He asked how long they had to commment. I mentioned we would be having a meeting next week and newsletters were being sent out, even as we speak. He requested a notice. He stated he would call some of the users he knew. The mentioned ADOTs proposed route may also impact the foothills and this recreation resource was limited.			Location		
4/3/2008	☐	Phone Conversation Record by Mike Warner: I called (redacted) to discuss the maps and the information contained on them. He asked if he could get additional maps with and overlay on the various alternatives. I explained that the purple lines represented the various alternatives under consideration and asked if that was the information he was looking for. We discussed the information on the maps and I expressed some concern about presenting a map depicting information without fully understanding his request. I suggested we meet together with his group to discuss the matter together and once I understood his need I would prepare the maps. I offered to drop by tonight in Las Vegas or to meeting on Friday 3/4/08 in Kingman. He indicated he had conflicts. I also stated I would be in Kingman on Tuesday of next week and was available on Friday the 11th . He thought a conference call would work for his group. He expected about 5 people. I agreed to make arrangements and let him know. We discussed the bi-pass project proposed by ADOT. He or representatives from his group attended the meeting and indicated interest to have transmission line alternatives on the maps being prepared by ADOT consultant.		Would like to be kept informed.			

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		We discussed the next steps and I explained the process we contemplated to have a series of workshop meetings during the first week in May on the 6th, 7th and 8th. I explained the format of the planned open house. He asked if there were more hearings planned. I explained that if issues were still unresolved more discussions or meetings may be necessary but hearings would occur by statute for the Siting Committee hearings. He asked how we would notice the meetings. I told him we would circulate a newsletter to a broader mailing list including resident and landowners. I also stated we would publish it in the paper. He asked about radio and television. I explained television was very expensive and was not a cost effective way to reach our audience. I told him we would likely try radio. I also mentioned I would call anyone who called in on the phone record. He asked to be informed as the process materializes. I explained we would have the meetings at the same school as before (Black Mountain Elementary) but it would probably be in the auditorium, where the first meeting occurred.					
3/26/2008	☐	Please see response.					Sent via UPS on 3/26/2008 Ten (10) 11x17, four (4) 24x36, and one cd of the Cerbat Foothills Alignment aerial map
1/24/2008 Owns Property in Study Area	☐	Phone Conversation Record by Mike Warner: I spoke to (redacted) today. (Redacted) owns the property surrounded by BLM land. She was pleased on the selected alternative but not overly conserned regardless of the selected route. She expected the route to cross her land. She will likely attend the meeting in Feb. I explained the process was now producing two alternatives. I e-mailed a map of the routes. I explained the status of the BLM review. She was pleased to have the update. Her email is: (redacted)			Location		
1/23/2008	☐	Please see response.					Phone Conversation Record by Mike Warner on 1/23/2008 Left a message regarding the upcoming meeting and newsletter. I left my office number and cell phone. I offered to send a map upon request.

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1/23/2008 Owns Property in Study Area	☐	Phone Converation Record by Mike Warner: I spoke to (redacted) regarding the status of the siting activities. I indicated I was returining calls to all who had left phone numbers in meetings, phone line or comment forms. I explained the evaluations were concluding two alternative routes and agreed to send her a map e-mail. (Redacted) is representing (redacted) of the (redacted) family and is concerned about the west alternative crossing their property near highway 68 on the north and south side of the highway. The land is undeveloped and the do not want it encumbered by the new line. I acknowledged the receipt of the family letter. I told her she would receive a newsletter in a few days. I also explained there would be a public meeting in Mid feb. She provided the following address for mailing: (redacted) Golden Valley, Arizona 86413			Location		
11/8/2007 Owns Property in Study Area	☐	Phone Converation Record by Mike Warner: I spoke to (redacted) today to discuss the line crossing land held in trust by his family. (redacted) and his family own land crossed be our western alternative through Golden Valley, north and south of Highway 68. (Redacted) was aware we were visiting with land owners along Highway 93 about a week ago and wanted to know if that conversation was helpful in refining the route along the highway. I reported that we were still talking but I was hopeful. We were in the process of evaluating a proposal. (Redacted) had spoken to me a few times previously and briefly. I sent him information and maps depicting the routes crossing his property. (Redacted) met with Mike Gibelyou, Nadine and I on October 23, 2007 to discuss the project and we reviewed the project and the approval process. In that meeting (redacted) identified himself as the representative for the properties and indicated they were held in trust by family members. The properties are largely undeveloped and they do not have specific proposals for their development. (Redacted) stated that he had discussed the project with his family and they were united in opposition to the plan. He asked if it would help to have his attorney draft a letter. I explained the process and told him that a letter from him would likely carry as much weight as a letter from his attorney. I explained that if he sent the letter we would include it in the submittals for CEC consideration. I told him to send the letter before the end of the month. I asked him to send the letter to me with a copy sent to Mike Gibelyou.			Location		