Application

for a

Certificate of Environmental Compatibility

SANTA CRUZ RELIABILITY PROJECT NORTH

Prepared for:

Arizona Power Plant and

Transmission Line Siting Committee

Submitted by:

UNS Electric, Inc.

Date: September 19, 2025

Case No. _____

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List of Acronyms and Abbreviations

A.A.C.	Arizona Administrative Code
ADOT	Arizona Department of Transportation
Alternative	Alternative Route
AM	amplitude modulation
amsl	above mean sea level
AN	audible noise
ANPL	Arizona Native Plant Law
APLIC	Avian Powerline Interaction Committee
ARHP	Arizona Register of Historic Places
A.R.S.	Arizona Revised Statutes
ASLD	Arizona State Land Department
ASM	Arizona State Museum
AWCS	Arizona Wildlife Conservation Strategy
AWLW	Arizona Wildlife Linkages Workgroup
AZGFD	Arizona Game and Fish Department
BCC	Birds of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practice
Canoa Ranch Conservation Park	Raul M. Grijalva Canoa Ranch Conservation Park
CCA	Candidate Conservation Agreement
CEC	Certificate of Environmental Compatibility
CFR	Code of Federal Regulations
CLS	Conservation Lands System
dBA	A-weighted decibel
DEM	Digital Elevation Model
EMF	Electric and magnetic fields
EMI	Electromagnetic interference
EPM	Environmental protection measures
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FCC	Federal Communications Commission

FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FICO	Farmers Investment Company
FM	frequency modulation
FMI	Freeport-McMoRan Sierrita Mine
GVC	Green Valley Council
HF	high-frequency
HOA	Homeowners' Association
I-19	Interstate 19
IBA	Important Birding Areas
IPaC	Information for Planning and Consultation
KOP	key observation point
kV	Kilovolt
M	million
MBTA	Migratory Bird Treaty Act
mG	milligauss
MIC	Maximum import capability
MSCP	Multi-Species Conservation Plan
MUSYM	Map unit symbol
MW	megawatt
NEPA	National Environmental Policy Act
NERC	North American Electric Reliability Corporation
NESC	National Electrical Safety Code
NGO	Non-government organizations
NRHP	National Register of Historic Places
OERT	Online Arizona Environmental Review Tool
ROW	right-of-way
SAP	Special area policy
SDCP	Sonoran Desert Conservation Plan
SHPO	State Historic Preservation Office
SRER	Santa Rita Experimental Range
TEP	Tucson Electric Power Company
UNSE	UNS Electric, Inc.

UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WAPA	Western Area Power Administration

Introduction

Pursuant to Arizona Revised Statutes (A.R.S.) 40-360, *et seq.*, UNS Electric, Inc. (UNSE) submits this application for a Certificate of Environmental Compatibility (CEC) granting authority to construct the 138-kilovolt (kV) transmission line project called the Santa Cruz Reliability Project North (SCR North or Project) in unincorporated Pima County and unincorporated Santa Cruz County, Arizona.

The Project will strengthen the local energy grid through the construction of a 138-kV transmission line to connect the Kantor Substation to the regional electric grid in Pima County. SCR North is the first of three phases in a project that will add service reliability for customers in Santa Cruz County, beginning the process of converting the current radial transmission line configuration to a looped transmission system.

Project Overview

The Project will include construction of a new, approximately 9-to-12-mile 138-kV transmission line to connect Tucson Electric Power Company's (TEP) existing Canoa Ranch Substation in Pima County to UNSE's existing Kantor Substation in Santa Cruz County.

The Project will be located within unincorporated Pima County and unincorporated Santa Cruz County and will cross private, county, and state land.

While not jurisdictional, and thus not a part of this CEC application, UNSE plans to expand the Kantor Substation as part of this Project, extending the property boundary to about 20 acres to accommodate setback, security, and operations and maintenance requirements. The substation improvements will support reliability for customers, allowing UNSE to perform maintenance without interrupting circuit operations.

Subsequent Phases - Santa Cruz Reliability Project

SCR North is the first of three phases UNSE is planning to upgrade the high-voltage transmission system serving Santa Cruz County. This three-phase upgrade is collectively referred to as the Santa Cruz Reliability Project. In the second phase, UNSE will upgrade the existing transmission line conductor from TEP's Vail Substation to UNSE's Kantor Substation to enhance the reliability and resiliency of the looped transmission line by reducing current capacity limitations on the system. Phase two has already been approved by the Arizona Corporation Commission (Commission) in Decision No.76468 (Nov. 17, 2017). The third phase—the subject of a future application—will include the construction of the planned Gateway Substation, approximately two miles west of UNSE's existing Valencia Substation. If approved, a new transmission line will be constructed from the expanded Kantor Substation to the planned Gateway Substation, and from the Gateway Substation to the Valencia Substation (the latter of which was also approved by the Commission as part of Decision No. 76468), completing the looped system to Santa Cruz County. The looped system will further increase reliability and resiliency by adding a second path of transmission in this area.

Completion of phase 1 of the Santa Cruz Reliability Project will result in a nearly 50% increase in the maximum load serving capability; once all three phases are complete the Project will double the maximum load serving capability of the Santa Cruz County system. While the increased capacity will help support Santa Cruz County for generations to come, the primary purpose of the Santa Cruz Reliability Project is to build a redundant and reliable system that can support Santa Cruz County in the event of a failure on one of the circuits. UNSE is proposing a project that will be able to serve Santa Cruz County and also support outage events (*e.g.*, planned maintenance or line/equipment failures) without impacting service. In short,

the Santa Cruz Reliability Project is configured (*i.e.*, voltage and size) in such a way that provides Santa Cruz County with a system designed to eliminate large, sustained outages that may otherwise occur without the project.

Figure 1 provides a high-level overview of the three phases of the Santa Cruz Reliability Project.

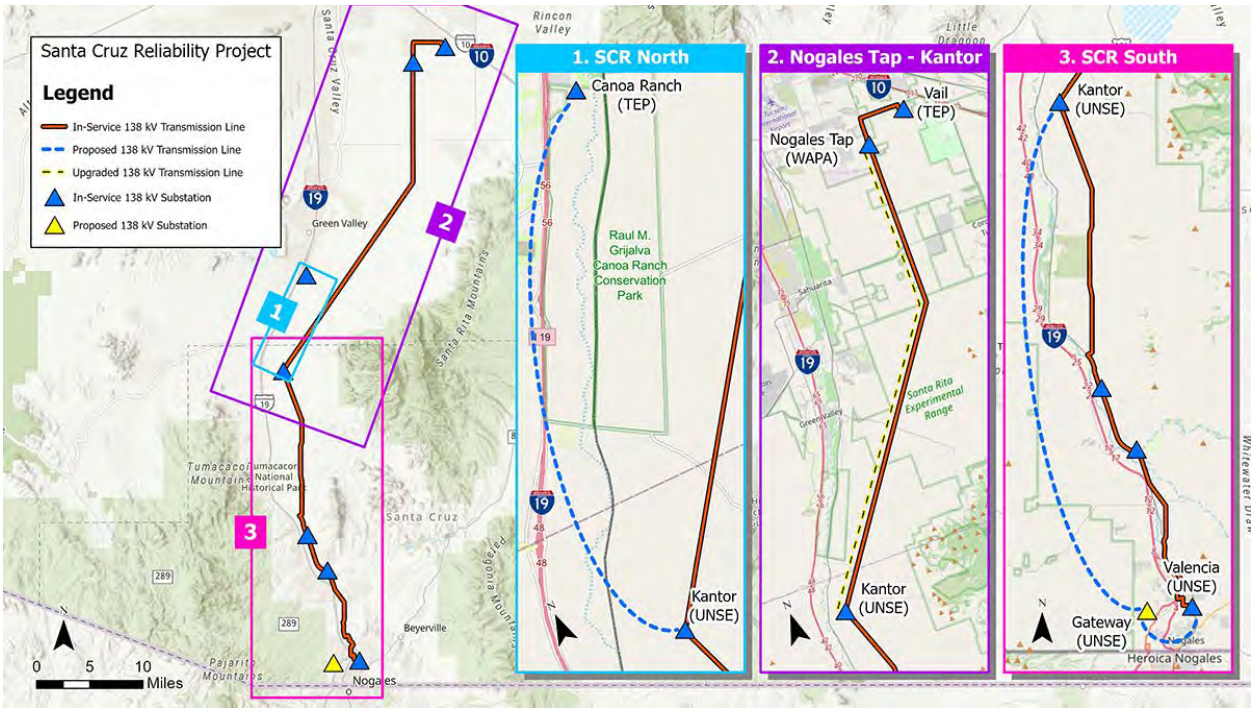


Figure 1. Three Phases of the Santa Cruz Reliability Project.

Project Purpose, Need, and Benefits

Currently, Santa Cruz County relies on a single (or "radial") transmission line connecting the Kantor Substation to Pima County. To maintain reliability, UNSE proposes a second 138-kV transmission line—the Project—transforming the system into a looped configuration to enable seamless power delivery even if one line goes down or is taken out of service for maintenance.

The Project aims to:

- Enhance grid reliability and resilience;
- Decrease the frequency and duration of outages—critical for residents, businesses, hospitals, schools, and ports of entry;
- Expand capacity to meet both current and future energy demand; and
- Enable maintenance or upgrades without shutting down service, by leveraging the looped design.

UNSE serves approximately 17,400 residential customers, 2,800 commercial and 170 industrial customers in Santa Cruz County. UNSE's Santa Cruz County electric system is currently served by a single 138-kV transmission line from TEP's Vail Substation in unincorporated Pima County to UNSE's Valencia Substation in Nogales, Arizona, in Santa Cruz County. Although UNSE has performed significant upgrades

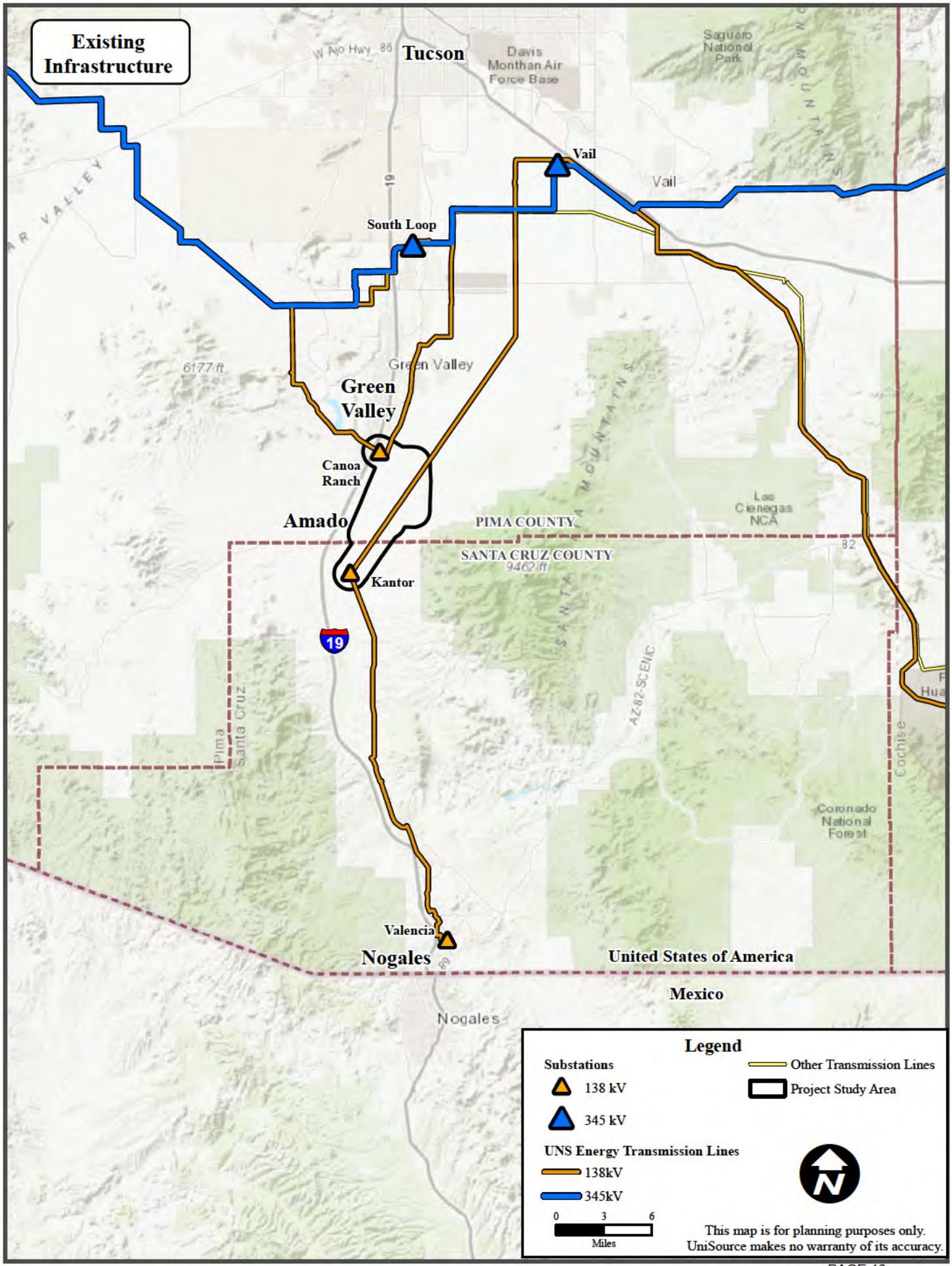
to the transmission system and explored options for additional improvements, the county's distribution system relies on this single transmission line. A looped system will reduce the risk of prolonged outages.

Residential customers will benefit from the looped system because UNSE will be able to instantly reroute power in the event of an outage in one area of the system. The Project will prevent customer outages due to a single element contingency on the transmission system and provide higher quality power (*e.g.*, reduced voltage flicker and sag). SCR North will provide additional capacity to support customers during high temperatures and other extreme weather events that cause spikes in demand. As summer heat events become more frequent, UNSE recognizes the need to keep electric service stable for the comfort and safety of customers.

The development of this Project is necessary to maintain reliability and stimulate future investments in Santa Cruz County—providing significant economic benefits to the region. Nogales, the largest city in Santa Cruz County, is a border town with Mexico and serves as the largest port of entry for fresh produce into the U.S., supplying nearly 39% of the nation's produce, valued at $5 billion annually, imported from Mexico and consumed nationwide. The fresh produce industry is the largest employer in Nogales, making it the primary source of jobs and economic prosperity. Reliable power is critical for the cold storage of temperature-sensitive goods. As the fresh produce industry continues to grow and bring more jobs to the region, this will lead to an increased peak electricity demand in the future. Other large commercial and industrial enterprises also hold significant potential to add to the local economy and generate local jobs. Long-duration outages therefore impact the local economy.

UNSE must be prepared to support projected increases in electric use for all of its customers—residential and commercial—across the region. Simply, the Project is designed to reduce the potential for a major, sustained outage in Santa Cruz County. Looped systems result in less frequent and shorter power outages because energy is supplied from more than one direction to the substations that support service to residents, businesses, service providers and other customers in the area.

Customer growth and demand have fluctuated over the past few decades, but load growth is projected to increase over the next few years. Since its acquisition of the service territory and assets from Citizens Utilities Company in 2003, UNSE has taken steps to strengthen the grid serving Santa Cruz County, including upgrades at the Valencia Generating Station, the addition of a 46-kV line to Kantor to provide alternate service to Tubac area load, and upgrading the existing radial transmission line. Unfortunately, those solutions, which have worked well over the past few decades, no longer meet the needs of the growing system in Santa Cruz County. Constructing the Project will satisfy the existing and future reliability and operational needs. As shown in **Figures 2 and 3**, the only transmission line serving Santa Cruz County runs from Pima County, delivering electricity from the regional electric grid near Tucson. While two additional transmission lines cross through the extreme east side of Santa Cruz County, over 35 miles away, these lines deliver electricity to Ft. Huachuca and Sierra Vista in Cochise County. No other electric transmission lines exist in Santa Cruz County.


Existing Infrastructure
Tucson
Davis Monthan Air Force Base
Saguaro National Park
Vail
Vail
South Loop
Green Valley
Green Valley
6177 ft
Canoa Ranch
Amado
PIMA COUNTY
SANTA CRUZ COUNTY
9462 ft
Kantor
Las Cienegas NCA
Santa Rita Mountains
AZ-82-SCENIC
Pima
Santa Cruz
Cochise
Coronado National Forest
Valencia
Nogales
United States of America
Mexico
Nogales
Legend
Substations
138 kV
345 kV
UNS Energy Transmission Lines
138kV
345kV
Other Transmission Lines
Project Study Area
0 3 6
Miles
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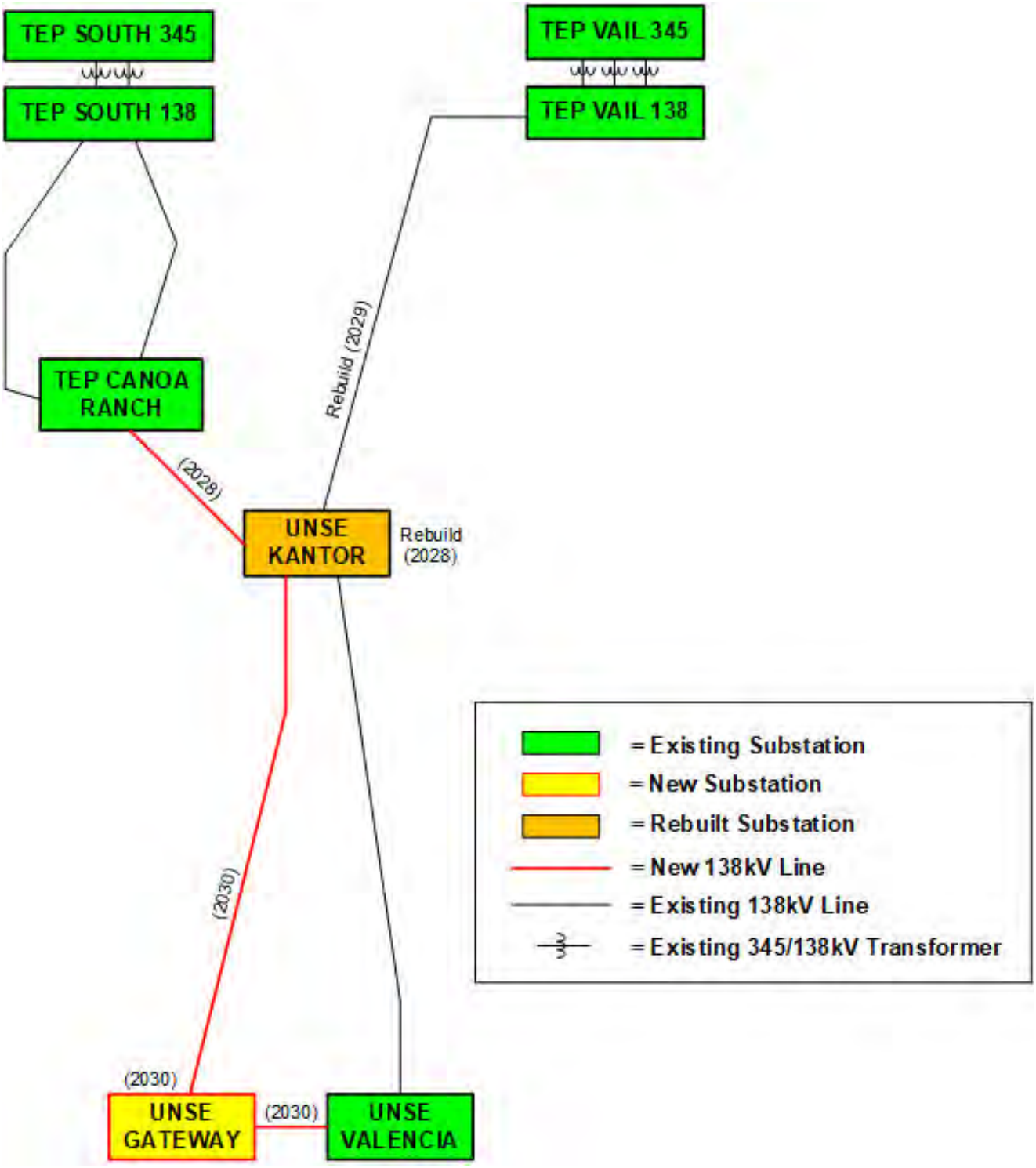


Figure 3. One-Line Diagram of Existing and Planned Infrastructure Serving Central Santa Cruz County

UNSE evaluated several options to update the system. Each solution either did not provide the same level of reliability as a new transmission line or proved to be significantly more expensive to be a feasible

solution. To that end, several of the potential "solutions" would still require additional transmission infrastructure to achieve the full benefits.

Options to Connect to Other Adjacent Transmission Systems

Very few options exist for interconnection with adjacent transmission systems. The Tohono O'odham Nation to the west does not have transmission. Connecting to Mexico to the south would require a costly direct current interconnection. The closest transmission to the east is near Sierra Vista over 35 miles away through difficult terrain. This is a TEP 138-kV transmission line that serves Fort Huachuca. Similar to the existing transmission line serving Nogales, this is also a very long radial. However, it has a lower capacity conductor and would likely require a rebuild all the way back to the Vail substation in order to increase the lines capacity to serve both Fort Huachuca and UNSE customers in Santa Cruz County. A connection to the TEP transmission system to the north was evaluated and found to provide a more reliable solution by providing a connection to a second strong source of power.

The evaluation of all potential solutions led UNSE to identify the Santa Cruz Reliability Project. The proposed looped transmission system will incorporate redundancy and more operational control into the existing transmission system, in addition to facilitating other secondary benefits such as increased transmission capacity, which will be necessary in the future to serve growing load, or in the event additional generation and/or battery storage must be added. Two lines connecting Santa Cruz County to the regional electric grid will provide essential reliability benefits through alternative transmission paths. Such redundancy will increase grid resilience by permitting flexibility in maintenance and service restoration in case of disruptions caused by weather, equipment failure, or other extreme events.

Project History

The need for the Project dates back to the late 1990s, prior to UNSE's tenure as the primary electric service provider in the area. In 1998, the City of Nogales, Arizona filed a complaint with the Commission against Citizens Utilities Company ("Citizens") concerning electrical outages in Santa Cruz County, Arizona. *See* Decision No. 61793 (June 29, 1999). Citizens was, at the time of the complaint, the electric service provider for portions of Santa Cruz County. As a result of Nogales' complaint, Citizens entered into a Settlement Agreement that, among other action items, required the development of a mutually acceptable service upgrade plan and a cost benefit analysis for a second transmission line to service the area. *See* Decision No. 61793 (June 29, 1999).

Since acquiring the Citizens' electric assets in Santa Cruz County in 2003, UNSE has made substantial improvements to operating procedures and significant investments in capital facilities that improve reliability and reduce outage restoration time in Santa Cruz County. UNSE has focused its efforts on building flexible system capabilities that improve reliability, protect against long duration outages, and meet anticipated load growth while limiting the rate impact to customers. Those investments have resulted in safe and reliable electricity for customers and have improved UNSE's reliability.

The primary improvements since the Citizens acquisition include:

1. Improvements at the Valencia Generating Station;
2. Addition of remote start capability at Valencia Generating Station;
3. Addition of a 46-kV alternate service to Kantor Substation;
4. Upgrades to the UNSE link to the Western Area Power Administration (WAPA) transmission system;

5. Rebuilding and converting the existing 115-kV line between WAPA's Nogales switchyard (previously Nogales Tap) and the UNSE Valencia substation to 138 kV, which also included an extension of the line to TEP's Vail Substation (Decision No. 71282);
6. Addition of station service diesel generation; and
7. Improvements to communications systems, outage management systems, switching capabilities, transformers and other operational improvements.

These cost-effective improvements have improved system reliability since UNSE acquired the Citizens' assets.

Around 2012, UNSE again reevaluated the need for a second transmission line and determined that it was not necessary to provide safe, reliable service to customers in Santa Cruz County. *See* UNSE's 2012-2021 Ten Year Plan and Reliability-Must-Run Report (Jan. 31, 2012). Given the slowdown in the local economy at the time, the lower than previously anticipated growth rate and the other reliability measures that UNSE had taken, the construction of a standalone second line no longer represented a necessary or cost-effective measure to ensure continuity of service to Santa Cruz County. Additionally, UNSE estimated that the stand-alone second line would cost more than $79 million. The cost of building a second line represented a major capital investment that would be spread across a relatively small customer base. The Commission "recognize[s] that a significant rate base investment, unaddressed until the next rate case, in combination with UNSE's relatively small rate base, could result in significant rate shock for customers." *See* Decision No. 79277 (Jan. 30, 2024). Thus, UNSE takes seriously the evaluation of major capital investments such as the proposed Project.

UNSE continually engages in transmission planning to ensure that it continues to provide the most cost-effective, highest-quality service. As part of UNSE's regular transmission planning process, the need for a second transmission line serving Santa Cruz County was reviewed and resulted in identifying the need for the Santa Cruz Reliability Project.

Study Area and Development of Proposed Routes

UNSE undertook a siting analysis to identify environmentally compatible routes for the Project. This process started with the determination of the Project Siting Area, which defined the area in which potential routes would be considered. The Siting Area was defined to be large enough to encompass high-level opportunities and constraints for development of various route segments. Public notifications were sent to an area extending 1 mile beyond the Siting Area perimeter.

UNSE continued the siting analysis with a study of opportunities and constraints, which evaluated potential locations of the transmission line and related facilities. If, from an engineering perspective, an area identified as an opportunity could reasonably accommodate transmission line construction, the area was designated as a preliminary segment that could become part of a route for the Project. UNSE then examined these segments in greater detail, through multiple rounds of evaluation, based on criteria informed by the public and interested parties, to eliminate segments and ultimately to identify the routes of highest compatibility. The complete siting analysis is included in this application in **Exhibit B**.

Based on the results of the analysis and public input, UNSE identified the Preferred Route and the Alternative Route to include in this CEC application.

Public Outreach

Public participation is a vital part of UNSE's planning process for transmission line siting. UNSE conducted comprehensive public involvement and communication activities throughout the Project planning and siting process to ensure open and meaningful public dialogue, to assist UNSE in understanding the community's preferences, and to obtain input regarding the locations of the preferred and alternative transmission line routes. **Figure 5** summarizes UNSE's public outreach efforts. Detailed information about the public involvement process is included as **Exhibit J**.

Outreach activities started in April 2024 with efforts to notify and inform residents, affected property owners, elected officials, tribal communities, agencies, business groups, and other interested parties about the need for and benefits of the Project. UNSE used letters, emails, mailers, street signage, community flyers, social media advertisements, newspaper notices, webpages, and open houses (eight in-person and one virtual) to encourage participation and feedback. Throughout the Project planning and siting process, members of the public and interested parties were given opportunities to provide comments through a variety of methods, including by mail, email, online or paper comment form, telephone, or by attending an open house. Methods of communication were regularly provided in both English and Spanish.

Newsletters, including open house and virtual open house information, were mailed to approximately 17,000 residents, property owners, businesses, agencies, jurisdictions, tribal communities and other interested parties. Social media ads informed the public of the open houses resulting in over 425,000 impressions between the nine meetings. Signs and flyers advertising the open house sessions were strategically placed at prominent locations throughout the Study Area. UNSE also maintained an email distribution list, which allowed direct electronic notifications and Project updates at all stages of outreach. Finally, UNSE engaged with local news outlets, including daily and weekly newspapers as well as a monthly bilingual newspaper, to share Project details with the Pima County and Santa Cruz County communities.

OUTREACH & ENGAGEMENT



PUBLIC MEETINGS

9 Open Houses

- **April 24, 2024** (in person) about 42 attendees (36 morning I 6 evening)
- **March 20, 2025** (in person) about 64 attendees (47 morning |17 evening)
- **May 20, 2025** (in person) about 70 attendees (64 morning I 6 evening)
- **August 5, 2025** (in person) about 145 attendees (130 morning |15 evening)
- **August 7, 2025** (virtual) about 15 attendees

Neighborhood Contact



- Canoa Canyon Estates
- The Springs at Santa Rita
- Coordination with the Green Valley Council

4 Virtual Agency Briefings

- 15 agency departments participating
- 5 Briefings with Public Officials

25 Miscellaneous Meetings with Community Partners

WAYS TO COMMENT

110 **Online Comment Form**
110 comments submitted

154 **Project Email Account**
154 emails submitted

41 **Written Comment Form**
41 submitted

29 **Project Phone Line**
29 voicemail messages

6 **Project Mailbox**
6 written letters

EXTERNAL COMMUNICATIONS

5 Newsletters
- **4,500-17,000+ recipients**

Informational Consultation Letters
- Sent to 11 tribal communities
- Included Class 1 Cultural Resources Report

4 Regular Email Updates
- Sent to residents, businesses, agencies, tribal communities, public officials and those who requested updates at outreach events

Radio Advertisements
- 4 Spanish radio advertisement campaigns for each round of outreach

Project Webpage
- **Views:** 9,827 English | 1,056 Spanish
- **Individual Users:** 2,484 English | 322 Spanish

Public Notices
- **6 Green Valley News Advertisements** More than 5,500 Sunday readers
- **1 Sahuarita Sun Advertisement** More than 12,000 Wednesday readers
- **4 Nogales International Advertisements** More than 4,700 Thursday readers
- **2 Arizona Bilingual Advertisements** More than 150,000 monthly readers

Flyers
Posted at 7 locations including:
- Green Valley Chamber of Commerce
- Joyner - Green Valley Library
- Posada Java Coffee Shop
- Mogah Coffee Shop
- Sopori Elementary School (venue for the open house)
- Dollar General (Arivaca Road)
- The Longhorn Grill (Amado)

Street Signage
- Posted bilingual signs at 8 high traffic locations in Pima and Santa Cruz Counties

SOCIAL MEDIA: FACEBOOK & INSTAGRAM ADS

	April 9 - 25, 2024		July 7-19, 2024		March 5 - 20, 2025		May 14 - 20, 2025		July 22 - August 7, 2025	
	English	Spanish	English	Spanish	English	Spanish	English	Spanish	English	Spanish
Impressions	85,501	21,741	49,066	22,682	93,266	22,172	15,220	14,858	75,271	26,157
Reach	51,303	13,755	39,562	14,047	59,346	14,371	13,284	13,727	48,777	18,852
Clicks	119	42	90	28	145	39	76	19	241	57
CTR	0.14%	0.19%	0.18%	0.12%	0.16%	0.18%	0.50%	0.13%	0.32%	0.22%

Along with the direct public outreach, UNSE created English and Spanish Project webpages (https://www.uesaz.com/santa-cruz-reliability-north/ and https://www.uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte/) to provide Project updates and allow for additional public engagement. The Project webpages include interactive maps, copies of public outreach materials, a video overview of the Project, visual simulations, and Project timelines. The webpages are regularly updated to provide interested parties with the most up-to-date information regarding the Project. From its launch to end of August 2025, the English webpage was viewed 9,827 times by 1,056 unique users, while the Spanish webpage was viewed 2,484 times by 322 unique users.

Conclusion

The Project will greatly improve the reliability of the UNSE electrical system by creating a looped transmission system. The Project will provide benefits to residents and businesses in the region, including improved electric reliability and greater energy capacity. To enable these improvements to energy supply, service quality, and reliability for our customers, UNSE respectfully asks that the Arizona Power Plant and Line Siting Committee issue a CEC for the Santa Cruz Reliability Project North.

APPLICATION FOR CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

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APPLICATION FOR CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

(Pursuant to A.R.S. § 40-360.03 and 40-360.06 and A.A.C. R14-3-219)

1. **Name and address of the applicant:**

   UNS Electric, Inc.
   88 East Broadway Boulevard, Tucson, AZ 85701
   PO Box 711, Tucson, AZ 85702

2. **Name, address, and telephone number of a representative of the 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:**

   Clark Bryner
   UNS Electric, Inc.
   88 East Broadway Boulevard, Tucson, AZ 85701
   PO Box 711, Tucson, AZ 85702
   Phone: (520) 401-1175

3. **Dates on which the 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 Project was first identified in UNSE's Ten-Year Plan Transmission Projects for Years 2024–2033 filed in January 2024 under Docket No. E-99999A-23-0016 and has been included in each subsequent filing (**Table 1**).

Table 1. Dates on Which the Applicant Filed a Ten-Year Plan

FILING YEAR	DOCKET NUMBER	PROJECT NAME	POINT OF ORIGIN	POINT OF TERMINATION
2024	E-99999A-23-0016	Santa Cruz Reliability Project Phase 1 – TEP Canoa Ranch to UNSE Kantor 138-kV line	TEP's Canoa Ranch 138-kV Substation	UNSE's Kantor 138-kV Substation
2025	E-99999A-25-0006	Santa Cruz Reliability Project Phase 1 – TEP Canoa Ranch to UNSE Kantor 138-kV line	TEP's Canoa Ranch 138-kV Substation	UNSE's Kantor 138-kV Substation

4. **Description of the 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:**

      (1) **Nominal voltage:**

The nominal voltage for the Project is 138 kV.

(2) Description of the proposed structures:

UNSE proposes to construct a single circuit on double circuit capable structures.

The structures will be tubular, weathering steel monopoles with non-reflective surfaces. Structures will typically be 75 to 85 feet in height; taller structures up to 115 feet may be required for certain areas. The conductor will have a non-specular finish to reduce visibility. Conceptual drawings showing typical structures are provided in **Exhibit G.**

(3) Description of proposed switchyards and substations:

The Project will originate at TEP's Canoa Ranch Substation, in Pima County, and terminate at UNSE's Kantor Substation, in Santa Cruz County.

(4) Purpose for constructing said transmission line:

Santa Cruz County is currently served by a radial 138-kV system. The Project will provide greater system reliability through a secondary transmission line—creating a looped system—that will help reduce the frequency and duration of outages in Santa Cruz County.

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

(1) Description of geographical points between which the transmission line will run:

The north point of the Project is TEP's Canoa Ranch Substation, located on land owned by TEP on the alignment of Duval Mine Waterline Road east of Interstate 19 (I-19). The south point of the Project is UNSE's Kantor Substation, located on state land, east of I-19 and just south of Amado Montosa Road.

(2) Straight-line distance between such points:

The straight-line distance from the Canoa Ranch Substation to the Kantor Substation is approximately 7.9 miles.

(3) Length of the transmission line for each alternative route:

The distances of the transmission line alternative routes are shown in **Table 2**.

Table 2. Length of the Transmission Line for Each Alternative Route

ALTERNATIVE ROUTE	Distance (Miles)
Santa Cruz Reliability Project North	
Preferred Route	9.2
Alternative 1	11.6

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

(1) Nominal width of right-of-way required:

In areas outside of existing right-of-way (ROW), the Applicant plans to acquire easements or other necessary land rights up to 100 feet wide. UNSE is requesting a siting corridor up to 500 feet wide for the approved route to allow for routing flexibility.

(2) Nominal length of spans:

The typical span length between structures will be approximately 600–1,000 feet, with variations made to achieve site-specific mitigation objectives or meet site-specific engineering requirements.

(3) Typical height of supporting structures:

Supporting structures typically will range from 75 feet to 85 feet above grade for the transmission lines. Taller structures, up to 115 feet above grade, may be required in limited locations to maintain National Electrical Safety Code clearance.

(4) Minimum height of conductor above ground:

The minimum height of the conductor above existing grade will be 25 feet at maximum sag.

iv. To the extent available, the estimated costs of 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 such estimates.)

Estimates for the Preferred Route and Alternative Route are shown in **Table 3**. The cost difference depends upon the length of the line, duration of construction, and quantity of materials required, as well as mitigation of existing conflicts and acquisition of land rights. The total transmission line cost is anticipated to range between $13.4 to $16.8 million, depending on which alternative route is selected.

Table 3. Estimated Costs of the Preferred Route and Alternative Routes

	Length (Miles)	Construction Costs	ROW Costs	Total Cost	$ per Mile
Santa Cruz Reliability Project North					
Preferred	9.2	$ 12.6 M	$ 0.8 M	$ 13.4 M	$ 1.46 M
Alternative	11.6	$ 15.8 M	$ 1.0 M	$ 16.8 M	$ 1.45 M

M = million

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.)

The Preferred and Alternative Routes were selected based on the results of a siting study, which was conducted in coordination with stakeholders and the public. Please see **Exhibit B-1** for the siting study for additional details.

Description of Preferred Route

The Preferred Route originates on the north end of the Project at TEP's existing Canoa Ranch Substation located along the alignment of Duval Mine Waterline Rd, just east of I-19, in Pima County, Arizona. The Canoa Ranch substation is situated at the northern boundary of the Raul M. Grijalva Canoa Ranch Conservation Park (Canoa Ranch Conservation Park). From the substation, the Preferred Route traverses Pima County conservation lands eastward, following the alignment of Duval Mine Waterline Road and West Camino de Rondo for approximately 1.1 miles until it reaches the northeastern edge of the Conservation Park boundary. It then turns south and runs parallel to the Conservation Park's eastern boundary for approximately 4.85 miles, following along portions of South Canoa Drive. Where West Elephant Head Road intersects South Canoa Drive, the Preferred Route continues south cross country for approximately 0.2 miles, then turns southeast parallel to South Mount Hopkins Road, in the same corridor as an existing TEP 46-kV line, for approximately 0.8 miles until it intersects with the existing UNSE Vail to Kantor 138-kV transmission line. From this junction, the Preferred Route turns southwest and parallels the existing transmission line corridor, in the same alignment as an existing TEP 46-kV line, for approximately 2.25 miles, ultimately terminating at UNSE's existing Kantor Substation, situated just south of Amado Montosa Road and approximately 1.75 miles east of I-19, in Santa Cruz County, Arizona.

Description of Alternative Route

The Alternative Route closely mirrors the general path of the Preferred Route, beginning on the north end of the Project at TEP's existing Canoa Ranch Substation in Pima County, Arizona. From this origin point, as with the Preferred Route, the Alternative Route extends eastward, following the alignment of Duval Mine Waterline Road and West Camino de Rondo for approximately 1.1 miles. However, the Alternative Route deviates from the Preferred Route at the northeastern corner of the Conservation Park where it continues in a southeasterly direction for an additional 0.3 miles, crossing over a small corner of Arizona State Land Department (ASLD) land, then turns east for approximately 0.9 mile along the section line between sections 2 and 11, and 1 and 12 of Township 19 South, Range 13 East and continues in a generally easterly direction for approximately 1.2 miles until reaching the ½ section line of Section 12. At this point, the Alternative Route turns south for approximately 3 miles through ASLD land and crosses the existing UNSE Vail to Kantor 138-kV transmission line along the eastern boundary of the rural Elephant Head residential community. The line then turns directly west, along the section line between Sections 24 and 25, and 23 and 26 of Township 19 South, Range 13 East in the alignment of West Eagle Way before it again intersects with the existing 138-kV transmission line. From here, the Alternative Route turns southwest and parallels the existing transmission line corridor for approximately 0.65 miles at which point it deviates to the south to circumnavigate a small outcrop of residences at the end of West Dove Way for approximately 0.25 miles. The route then turns to the west for approximately 0.2 miles, again joining a common corridor with the existing 138-kV transmission line, and follows it for approximately 4 miles until reaching its terminus at the Kantor Substation in Santa Cruz County, Arizona.

Reason Preferred Route Was Selected

UNSE identified its Preferred Route after presenting five alternative routes to the public and interested parties and completing a route-level compatibility assessment.

Of the five alternative routes considered, the Preferred Route scored the highest in overall compatibility and provides a balance of the following factors:

- The route avoids placement of a new transmission line near existing large residential neighborhoods. Most of the route is located along existing roads through low-density rural residential, and vacant state trust lands.
- The visual impact of the route, and other perceived impacts to residents, were lower.
- The route had no agency opposition and minimal public opposition.
- The route is shortest and has the lowest estimated cost.

When compared directly to the Preferred Route, the Alternative Route is located in proximity to more residences, with higher perceived visual impact.

For these reasons, UNSE selected the Preferred Route. However, the Alternative Route was also found to be environmentally compatible and is included for consideration in the CEC application. The other three routes that were considered were eliminated.

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

Land ownership percentages for the preferred and alternative routes are described in **Table 4**.

Table 4. Land Ownership Percentages

ROUTE	ASLD	County	Private	Total
Preferred	44.0%	27.49%	28.51%	100%
Alternative	81.36%	8.59%	10.05%	100%

5. 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.

The areas of jurisdiction include Pima County, Santa Cruz County, and Arizona State Land Department.

All route alternatives are compatible with local land use plans and zoning.

6. 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 has evaluated available secondary and field data related to land use, biological resources, visual resources, cultural resources, recreational resources, noise levels, and communications signals to assess the potential impacts that may result from the construction, operation, and maintenance of the Project. These evaluations are included in **Exhibits A, B, C, D, E, F, H,** and **I** of this application.

UNSE has also conducted an extensive public and agency outreach process to gather information and comments related to the Project. Information collected and analyzed in conjunction with the outreach process is included in **Exhibit J** of this application.

EXHIBIT A

MAPS AND LAND USE

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EXHIBIT A. MAPS AND LAND USE

As stated in Arizona Administrative Code (A.A.C), Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, Exhibits to Application, **Exhibit A**:

> *[Exhibits A-1 and A-2 are not applicable to transmission lines]*
>
> *"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 routes of 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.*
>
> *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."*

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Introduction

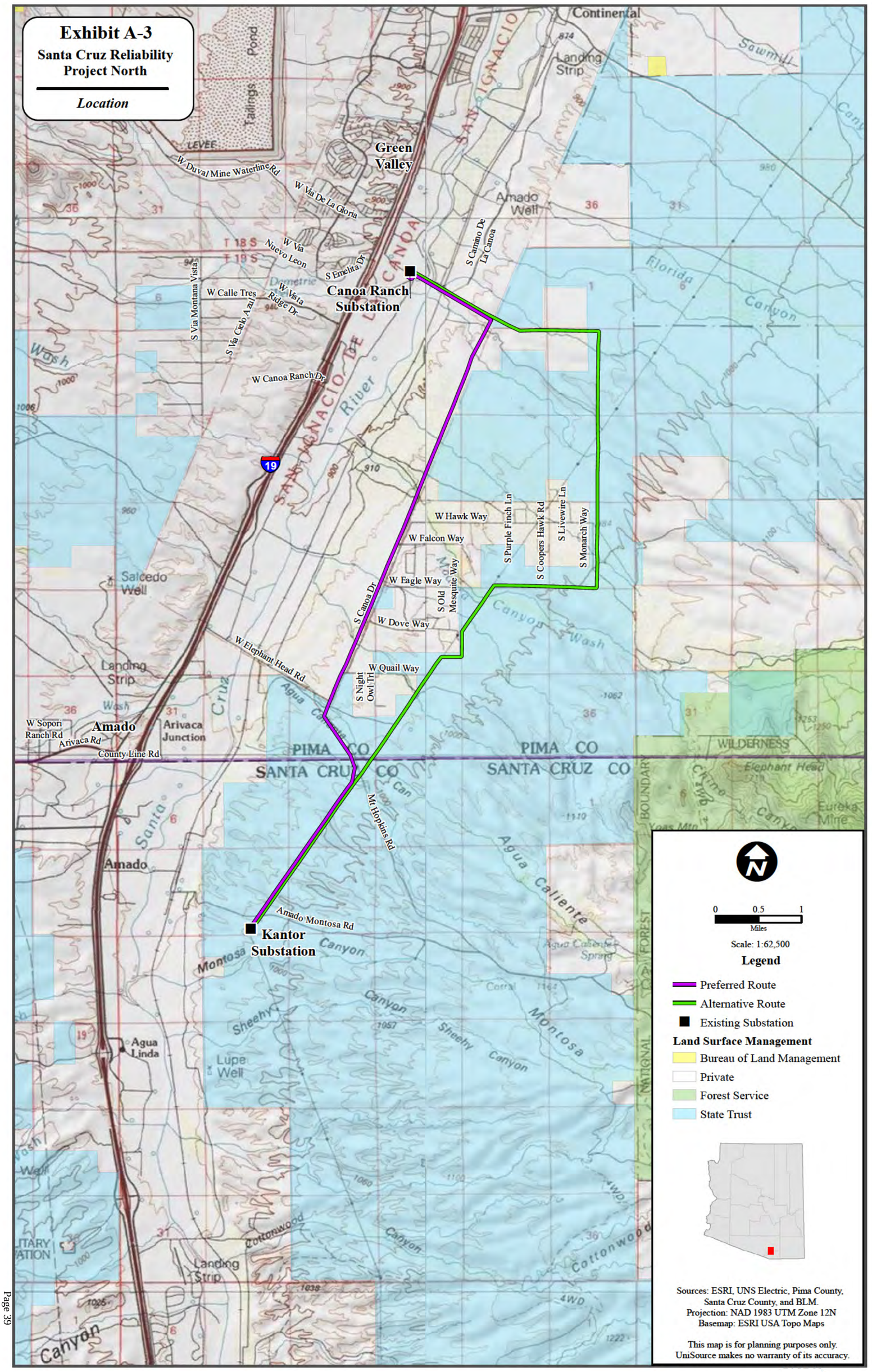
UNS Electric, Inc. has identified two alternative routes for the Santa Cruz Reliability Project North (Project) transmission line, both of which are less than 50 miles in length. As required by A.A.C., Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, each map provided here is 1:62,500 in scale and shows all alternative routes under consideration for the Project. These maps encompass both the Preferred and Alternative routes. **Exhibit A-3** shows the Project location and landownership. **Exhibit A-4** shows areas of jurisdiction and land use from the general plans of Pima and Santa Cruz Counties in the vicinity.

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EXHIBIT A-3

PROJECT LOCATION MAP

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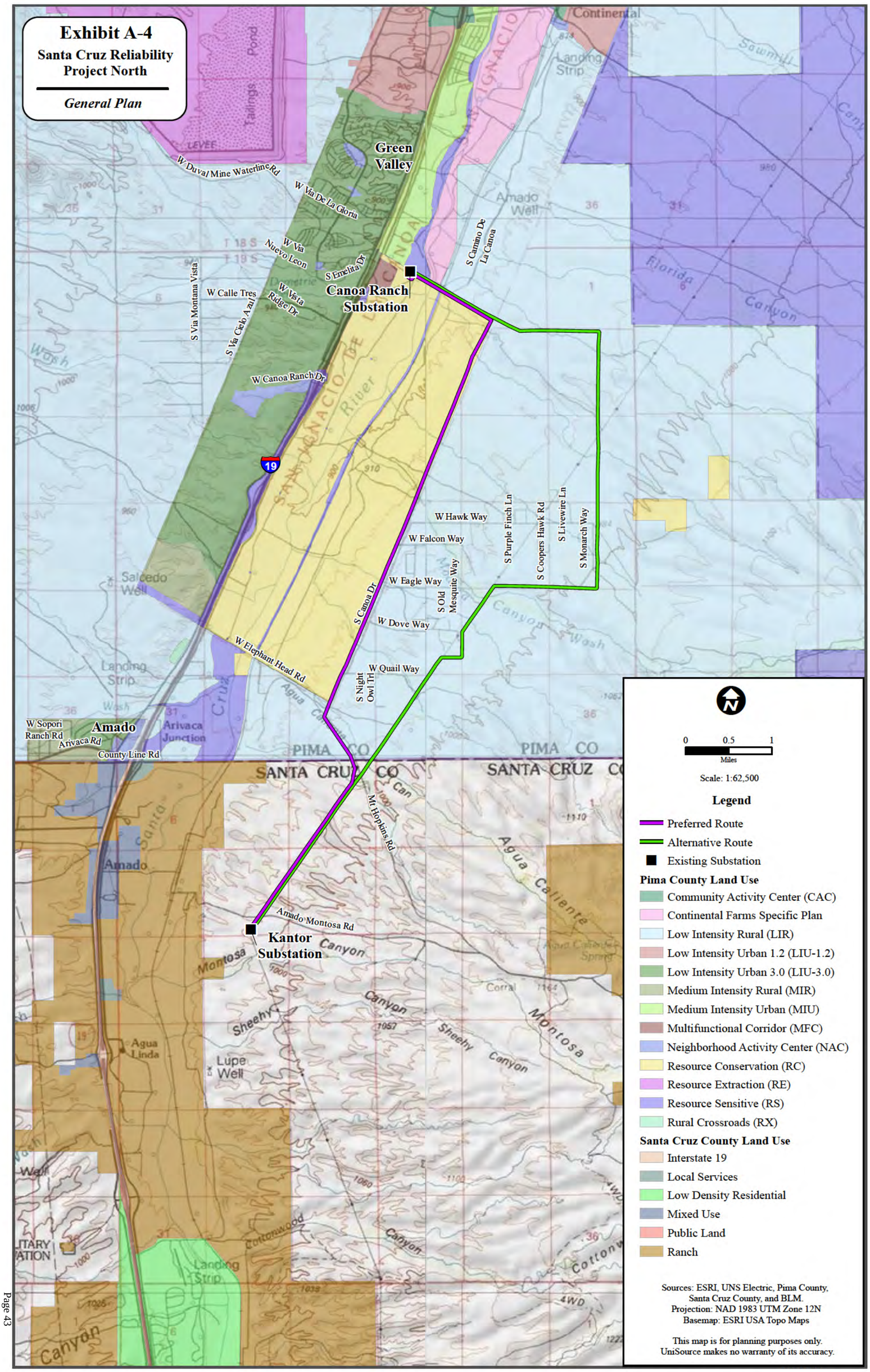

Exhibit A-3
Santa Cruz Reliability Project North
Location
Canoa Ranch Substation
Kantor Substation
Green Valley
Amado
Arivaca Junction
Salcedo Well
Agua Linda
Lupe Well
Amado Well
Continental
Landing Strip
Tailings Pond
LEVEE
W Duval Mine Waterline Rd
W Via De La Gloria
W Via Nuevo Leon
S Emelita Dr
S Camino De La Canoa
W Calle Tres
W Vista Ridge Dr
S Via Montana Vista
S Via Cielo Azul
W Canoa Ranch Dr
SAN IGNACIO DE LA CANOA
Santa Cruz River
Florida Canyon
Agua Caliente Wash
Canyon Wash
Mt Hopkins Rd
W Hawk Way
W Falcon Way
W Eagle Way
W Dove Way
W Quail Way
W Elephant Head Rd
S Canoa Dr
S Old Mesquite Way
S Night Owl Trl
S Purple Finch Ln
S Coopers Hawk Rd
S Livewire Ln
S Monarch Way
W Sopori Ranch Rd
Arivaca Rd
County Line Rd
Amado Montosa Rd
PIMA CO
SANTA CRUZ CO
WILDERNESS
Elephant Head
Eureka Mine
Agua Caliente Spring
Montosa Canyon
Sheehy Canyon
Cottonwood Canyon
Corral Canyon
Agua Caliente
NATIONAL FOREST BOUNDARY
0 0.5 1
Miles
Scale: 1:62,500
Legend
Preferred Route
Alternative Route
Existing Substation
Land Surface Management
Bureau of Land Management
Private
Forest Service
State Trust
Sources: ESRI, UNS Electric, Pima County, Santa Cruz County, and BLM.
Projection: NAD 1983 UTM Zone 12N
Basemap: ESRI USA Topo Maps
This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

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EXHIBIT A-4

GENERAL LAND USE PLAN

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Exhibit A-4
Santa Cruz Reliability Project North
General Plan
Green Valley
Canoa Ranch Substation
Kantor Substation
Amado
Arivaca Junction
W Duval Mine Waterline Rd
W Via De La Gloria
W Via Nuevo Leon
S Emelita Dr
S Camino De La Canoa
W Calle Tres
W Vista Ridge Dr
S Via Montana Vista
S Via Cielo Azul
W Canoa Ranch Dr
S Canoa Dr
W Hawk Way
W Falcon Way
W Eagle Way
W Dove Way
W Quail Way
W Elephant Head Rd
S Night Owl Trl
S Old Mesquite Way
S Purple Finch Ln
S Coopers Hawk Rd
S Livewire Ln
S Monarch Way
W Sopori Ranch Rd
Arivaca Rd
County Line Rd
Amado Montosa Rd
Mt Hopkins Rd
Agua Caliente
Sheehy Canyon
Montosa Canyon
Agua Linda
Lupe Well
Salcedo Well
Amado Well
Florida Canyon
Continental
Landing Strip
PIMA CO
SANTA CRUZ CO
0 0.5 1
Miles
Scale: 1:62,500
Legend
Preferred Route
Alternative Route
Existing Substation
Pima County Land Use
Community Activity Center (CAC)
Continental Farms Specific Plan
Low Intensity Rural (LIR)
Low Intensity Urban 1.2 (LIU-1.2)
Low Intensity Urban 3.0 (LIU-3.0)
Medium Intensity Rural (MIR)
Medium Intensity Urban (MIU)
Multifunctional Corridor (MFC)
Neighborhood Activity Center (NAC)
Resource Conservation (RC)
Resource Extraction (RE)
Resource Sensitive (RS)
Rural Crossroads (RX)
Santa Cruz County Land Use
Interstate 19
Local Services
Low Density Residential
Mixed Use
Public Land
Ranch
Sources: ESRI, UNS Electric, Pima County, Santa Cruz County, and BLM.
Projection: NAD 1983 UTM Zone 12N
Basemap: ESRI USA Topo Maps
This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

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EXHIBIT B

ENVIRONMENTAL STUDIES

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EXHIBIT B. ENVIRONMENTAL STUDIES

As stated in Arizona Administrative Code, Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, Exhibits to Application, **Exhibit B**:

> *"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 a part of this exhibit."*

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Introduction

Beginning in early 2024, UNS Electric, Inc. (UNSE) initiated a siting study for the Santa Cruz Reliability North Transmission Project (SCR North or Project) to identify preliminary transmission line segments and, later, alternative transmission line routes to establish a new looped 138-kilovolt transmission line to serve Santa Cruz County. Specifically, UNSE explored options to connect the regional electric grid in Pima County to the Kantor Substation in northern Santa Cruz County. The siting study, presented in **Exhibit B-1**, integrates findings from a series of specialized technical assessments, each detailed in the accompanying exhibits of this application.

The siting process reflects a comprehensive review of environmental factors, incorporating analyses of biological resources, cultural and visual impacts, and the built environment. All relevant data and methodologies used to inform route selection are documented within the siting study, as well as the various studies included with this application for a certificate of environmental compatibility (CEC).

The results of the environmental studies and analyses conducted by UNSE are discussed in subsequent exhibits of this application:

- Relevant maps and descriptions of existing and proposed land use and consistency with land use plans are included in **Exhibit A**.
- Areas of biological wealth are addressed in **Exhibit C**.
- Biological resources are addressed in **Exhibit D**.
- Scenic areas, historic sites and structures, and archaeological sites are addressed in **Exhibit E**.
- Recreation is addressed in **Exhibit F**.
- Conceptual drawings of proposed facilities and visual simulations are presented in **Exhibit G**.
- Existing plans for other developments are addressed in **Exhibit H**.
- Anticipated noise and interference with communication signals are addressed in **Exhibit I**.
- Special factors, including public involvement, are addressed in **Exhibit J**.

Environmental Planning Process

The result of the processes outlined in the siting study is the Preferred and Alternative Routes carried forward in this application (**Exhibit B-1**).

Environmental Statements

U.S. Fish and Wildlife Service (USFWS)

A review of the Biological Evaluation in **Exhibit C-1** indicates that both the Preferred and Alternative Routes pose minimal impacts to federally listed species. While the potential for some environmental interaction exists, the analysis concludes that no adverse effects are anticipated. The routes were carefully evaluated for proximity to critical habitats and known species occurrences, and mitigation measures are incorporated to further reduce any potential impacts. Three species that have the potential to occur near the Project may be affected by the proposed development: the cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), yellow-billed cuckoo (*Coccyzus americanus*), and Pima pineapple cactus (*Coryphantha scheeri var. robustispina*). Should pre-construction surveys identify any of these species within the Project footprint, UNSE will coordinate with the USFWS for consultation that may be necessary to address potential ecological impacts. UNSE will consider and follow mitigation recommendations as needed.

No federally protected species under the Endangered Species Act (ESA) are expected to be impacted by construction activities, and the project is not anticipated to disrupt long-term wildlife movement patterns. While vegetation clearing will be minimized, some native flora may be affected due to site access and infrastructure installation, as illustrated in **Exhibit C-1**.

U.S. Army Corps of Engineers (USACE)

UNSE performed a combination of desktop research and on-site assessments to evaluate the potential for the Project to affect waters that may fall under the jurisdiction of the USACE, including wetlands and navigable waters within the study area. One intermittent water body was identified, the Santa Cruz River within the Project boundaries.

Both the Preferred and Alternative alignments are designed to span the Santa Cruz River just east of the Canoa Ranch Substation. In addition, each alternative route intersects or closely parallels several ephemeral

drainage features. These features will be either bridged or avoided during construction, ensuring negligible physical disturbance. In order to inform design of where avoidance is required, it is recommended that prior to construction an aquatic resources delineation be conducted to identify the Ordinary High-Water Mark of the Santa Cruz River and other potential streams that traverse each respective route corridor. The Preferred or Alternative Route will cross the Santa Cruz River without impacting its banks or channel, and no wetlands or Waters of the United States will be affected. The Project does not trigger permitting requirements under the jurisdiction of the USACE. Furthermore, during construction, UNSE will utilize all appropriate Best Management Practices, such as silt fencing and straw wattles, to limit potential unanticipated impacts to potentially jurisdictional aquatic resources, such as the Santa Cruz River.

Federal Aviation Administration (FAA)

Preliminary assessments indicate that neither the Preferred nor the Alternative Route will interfere with FAA-regulated airspace.

National Environmental Policy Act (NEPA)

The National Environmental Policy Act (NEPA) typically applies to projects involving federal lands, funding, or permits. No NEPA compliance document was produced for the SCR North Project because neither the Preferred nor Alternative routes traverse federal lands, and the Project does not currently involve federal funding or federal agency actions. However, if the Project receives federal grant funding or requires federal permits in the future, NEPA compliance may be triggered.

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EXHIBIT B-1

LINE SITING STUDY

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LINE SITING STUDY

SCR North

Pima and Santa Cruz Counties, AZ

Prepared for:
UNS Electric, Inc.
88 East Broadway Blvd, Tucson, Arizona 85701
PO Box 711, Tucson, Arizona 85702

Prepared by:
Eocene Environmental Group, Inc.
1745 South Alma School Road, Suite 220
Mesa, Arizona 85210

August 2025

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Appendix C Segments Removed Map and Summary Table
Appendix D Compatibility Matrix
Appendix E Preferred Route Decision Matrix

INTRODUCTION

UNSE, a subsidiary of UniSource Energy Services, has proposed SCR North, which would result in the following:

- Construction of a new 138-kilovolt (kV) transmission line;
- Expansion of the existing Kantor Substation; and
- Installation of supporting infrastructure and maintenance roads.

The Project will be the first of three phases of the wider Santa Cruz Reliability Project and will strengthen the local energy grid by constructing a second 138-kV transmission line to connect the Kantor Substation, located in Santa Cruz County, to the regional electric grid in Pima County. This Project would improve service reliability for customers by beginning the process of converting the current radial line configuration to a looped transmission system. A looped system would increase reliability and resiliency by adding a second path of transmission. Specifically, the looped system would allow UNSE to serve residents, businesses, service providers, and other customers in the area from more than one direction and quickly restore power when outages occur by rerouting service from another direction.

OBJECTIVE AND METHODOLOGY

The primary goal of this study is to identify alternative route corridors, along with a preferred route, which will allow for the development of a transmission line to achieve the desired goal—increasing reliability to customers in Santa Cruz County.

The route selection methodology consists of five core phases, which function as an iterative cycle that encourages feedback and refinement between each stage (see **Figure 1**). Public and stakeholder outreach activities were carried out during Phases 1, 3, and 5 of the Project.

UNSE's design philosophy emphasizes the following guidelines:

- Route alignment along existing linear features, such as road rights-of-way and utility corridors, to reduce impacts on surrounding areas.
- Collaborative engagement with local stakeholders and community members to identify community values and concerns, and explore alternative solutions that reflect the community's interests.

The methodology applied in this study incorporates the considerations made in the applicable CEC decision-making process. Through this approach, a range of potential transmission line corridor alternatives was identified for consideration. The findings from this assessment resulted in the selection of Preferred and Alternative route corridors that were advanced for inclusion in the CEC application.



Figure 1. Siting Process

PHASE 1: PRE-ANALYSIS

Study Area Selection

One of the first steps in the siting process was to define the siting study area. The siting study area defines the area of focus for research and analysis and places boundaries on where potential transmission routes would be considered. UNSE considered the following factors in developing the siting study area:

- Existing utility corridors
- Linear features such as roadways and washes
- Existing residential, commercial, and other developments
- Presence of existing infrastructure and rights-of-ways (ROWs)
- Potential for adverse or significant environmental impacts
- Land jurisdiction
- Presence of sensitive and/or protected lands
- Topography

An initial siting study area developed in early 2024 (**Figure 2**) provided a broad area to explore connection between the existing Canoa Ranch Substation with the proposed expansion to the existing Kantor Substation.

Following the first round of public and stakeholder outreach in April 2024, UNSE learned about a siting constraint on the Raul M. Grijalva Canoa Ranch Conservation Park (Canoa Ranch Conservation Park) that would limit the ability to interconnect to the regional electric grid at Canoa Ranch. As a result, the siting study area was expanded to the north in early 2025 (see **Figure 2**) to include additional interconnection locations at substations in the Green Valley area in the northern portion of the revised Study Area. Given the constraints around the Canoa Ranch Substation, it was important to evaluate other potential options.

UNSE began the siting study anew after expanding the siting study area bringing forward information learned in the first round of outreach. This expanded siting study area was shared with the public and stakeholders for review and comment in March 2025.

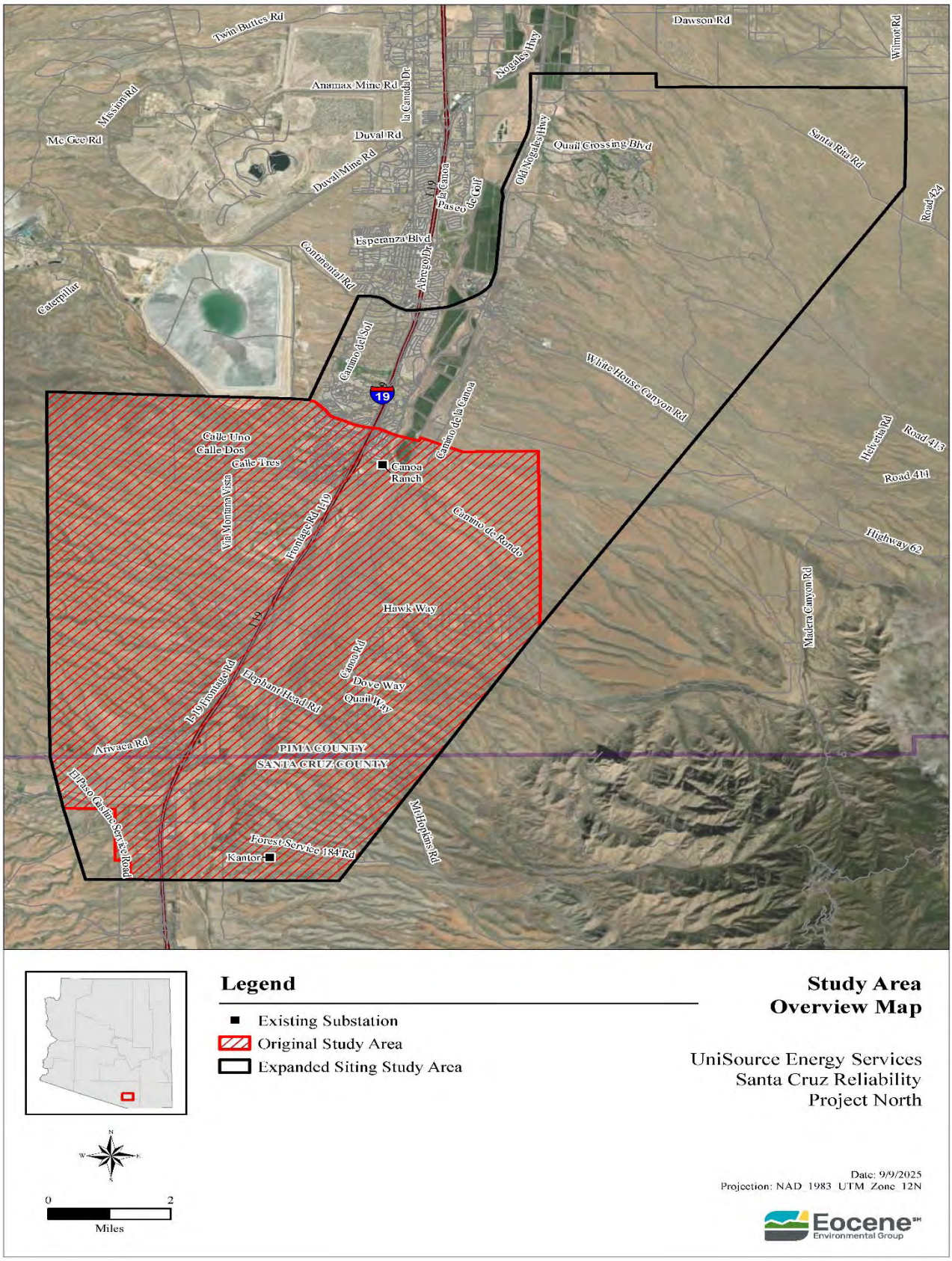


Figure 2. Siting Study Area

Siting Evaluation Criteria

UNSE proposed an initial list of criteria to evaluate potential route segments throughout the siting study. This list of evaluation criteria was aligned with CEC statutory considerations (Arizona Revised Statute § 40-360.06) and UNSE design principles. As part of the siting process, the criteria list was augmented to include supplemental factors identified by the community, as noted with an asterisk:

1. Impact on existing and planned land uses by state, local and private entities
2. Impact on fish, wildlife, and plants
3. Impact on special status species and their habitat
4. Proximity to sensitive noise receptors
5. Proximity to licensed communication sites
6. Impact on designated scenic areas
7. Impact on historic and archaeological sites
8. Overall environmental impact
9. ROW acquisition
10. Feasibility to construct and maintain facilities
11. Project cost of construction and potential impact on customer rates
12. Compliance with state, county, or city ordinances
13. Proximity to residential areas*
14. Impact on mountain views from residential areas*
15. Impacts to public health, welfare, and safety*

Opportunities/Constraints

Opportunities Rationale

Identifying opportunities within any siting study area establishes a starting point for siting. Opportunities for this Project included, but were not limited to, the use of existing infrastructure alignments, such as existing transmission and distribution ROWs, road alignments (paved and unpaved), and other linear infrastructure (*e.g.*, pipelines) and features (*e.g.*, washes) where environmental impacts could be minimal, while also limiting impacts to residential communities, reducing costs, and enhancing project development efficiency. Existing 138-kV lines represent a significant opportunity for integration or parallel development. Existing 46-kV lines in the siting study area, though smaller, offer potential for collocation to meet the Project's requirements. Existing road networks, both paved and unpaved, could facilitate access to the potential Project alignment for construction and maintenance activities. Other existing linear ROWs and alignments, such as the El Paso Natural Gas Pipeline and the Union Pacific Railroad (UPRR), not only serve as potential shared corridors for development of transmission lines but also offer established linear routes that may reduce new environmental impacts. UNSE also considered property boundaries to minimize impacts to private property and future development opportunities.

Constraints Rationale

Constraints include factors that make it more challenging to construct and maintain a transmission line.

The rationale for identifying potential constraints included a review of existing land uses. Primarily, the following land uses represented constraints: residential and commercially developed areas (particularly medium to high density developments), historically and culturally significant areas, known environmentally sensitive lands, and some existing infrastructure. Residential and commercially developed areas within Green Valley and Amado are characterized by higher densities of housing and businesses. These areas not only restrict the available land for development but also increase concerns regarding community impact and conflicting land use. Known historic and culturally significant sites within the study area, such as Historic Canoa Ranch, pose constraints due to conservation protections, necessitating careful planning to avoid impacts. While some existing infrastructure like the UPRR and Interstate 19 offer opportunities, the need to cross or parallel these facilities poses potential engineering challenges and a separate set of requirements to encroach on existing rights, potentially requiring complex negotiation processes for ROW usage. Appendix A provides a detailed view of opportunities and constraints that were established during Project analysis with a corresponding table describing each. **Figure 3** displays a general overview of the opportunities and constraints for reference.

Public and Stakeholder Engagement

The development of the siting study area, siting criteria, and identification of opportunities and constraints was an iterative process, shaped both by the internal UNSE project team and through input from the public and stakeholders. As previously discussed, the Pre-Analysis phase of the siting study went through two iterations that were generated by learning new information through public and stakeholder engagement that significantly changed the scope of the siting study.

As a result, the pre-analysis phase included two rounds of public and stakeholder engagement. This included two dedicated stakeholder meetings, and four public open house meetings to gather feedback and refine the approach. Additional information regarding public outreach is included as **Exhibit J** to the CEC Application.

UNSE actively sought feedback regarding the siting study area, opportunities, and constraints, as well as draft preliminary segments during each step of the siting process.

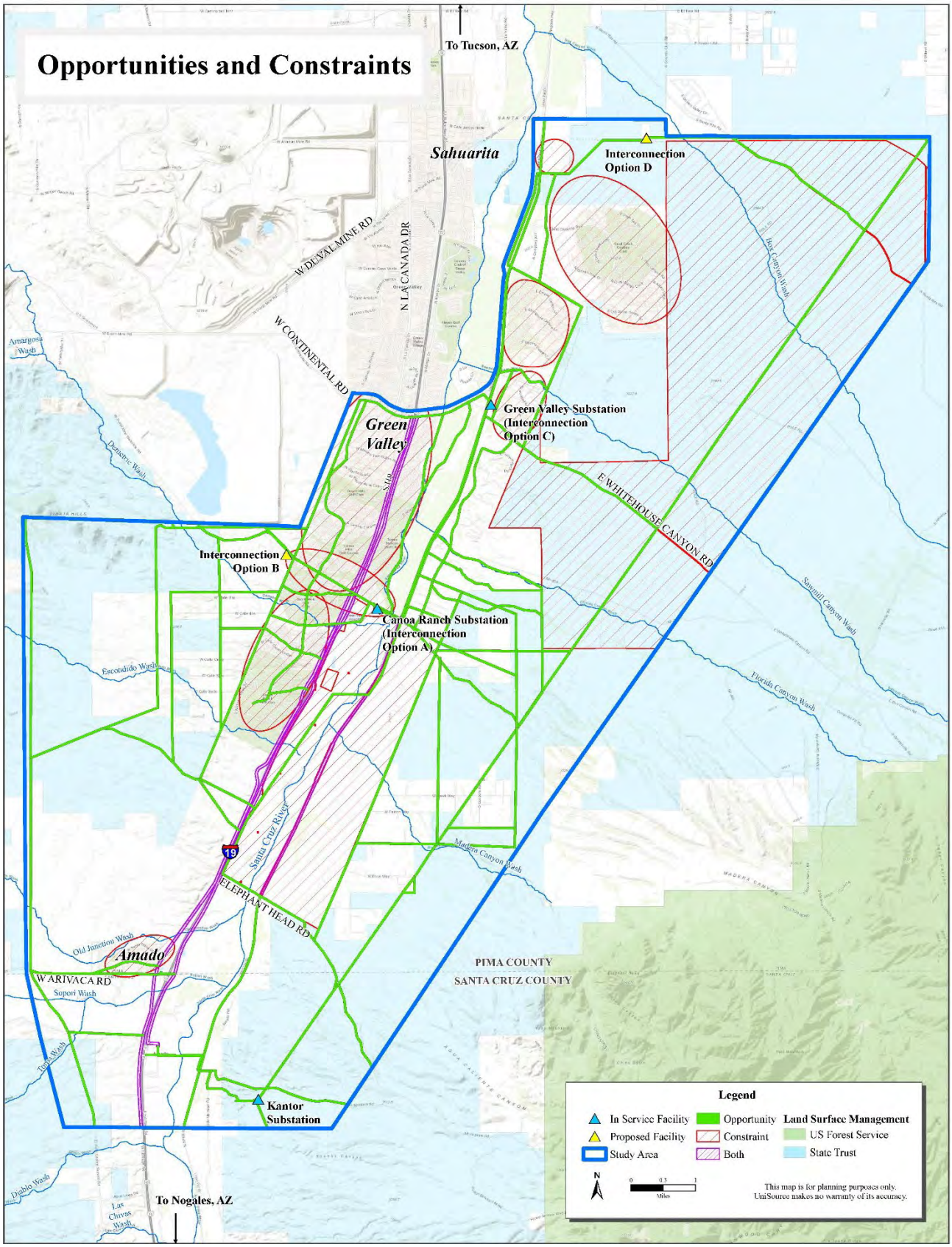


Figure 3. Opportunities and Constraints

A variety of comments were received, reflecting interest and concerns about the Project, and local knowledge of the area. These comments are included in full as part of **Exhibit J-17**, but can be generally summarized as follows:

- Potential impacts on wildlife and vegetation, particularly threatened and endangered species.
- Impacts to recreational activities, including hunting, hiking, and horseback riding.
- General environmental concerns.
- Impacts to scenic views and the overall character of the landscape.
- Potential influence on property values.
- Preservation of cultural history and values associated with the area.
- Health concerns related to the presence of the transmission line.
- Risk of wildfires potentially ignited by the transmission line.
- Project costs and funding sources.

These comments were integrated into the siting criteria previously outlined, as well as into the identification of opportunities and constraints, as appropriate. Additionally, all feedback received was carried forward to inform subsequent phases of Project analysis and decision-making.

Field Visits

In addition to gathering insights from the public and stakeholders about the region and siting study area, it was essential for the internal UNSE project team and contractors to become familiar with the area firsthand. This included understanding its character, geography, and existing land uses. Field visits were conducted during this phase of the siting process, involving both large and small groups, as well as individual Project team members.

In addition to characterizing the landscape and becoming familiar with the region, a crucial aspect of the field visits involved ground truthing potential segments. Public and stakeholder engagement, along with desktop mapping exercises, identified several opportunities, constraints, and potential connections. Each of these opportunities and constraints required on-the-ground confirmation by a UNSE project team member before incorporating them.

Preliminary Segments

Based on an assessment of opportunities and constraints, a series of potential segments were identified within the boundaries of the siting study area. Each opportunity underwent evaluation by UNSE's project engineers through both inspections in the field and desktop reviews. Opportunities where a transmission line could feasibly be constructed and operated from an engineering perspective were designated as Preliminary Segments to be carried forward in the siting study for further evaluation.

A total of 177 Preliminary Segments were identified. **Figure 4** below displays a general overview of the preliminary segments identified for the Project.

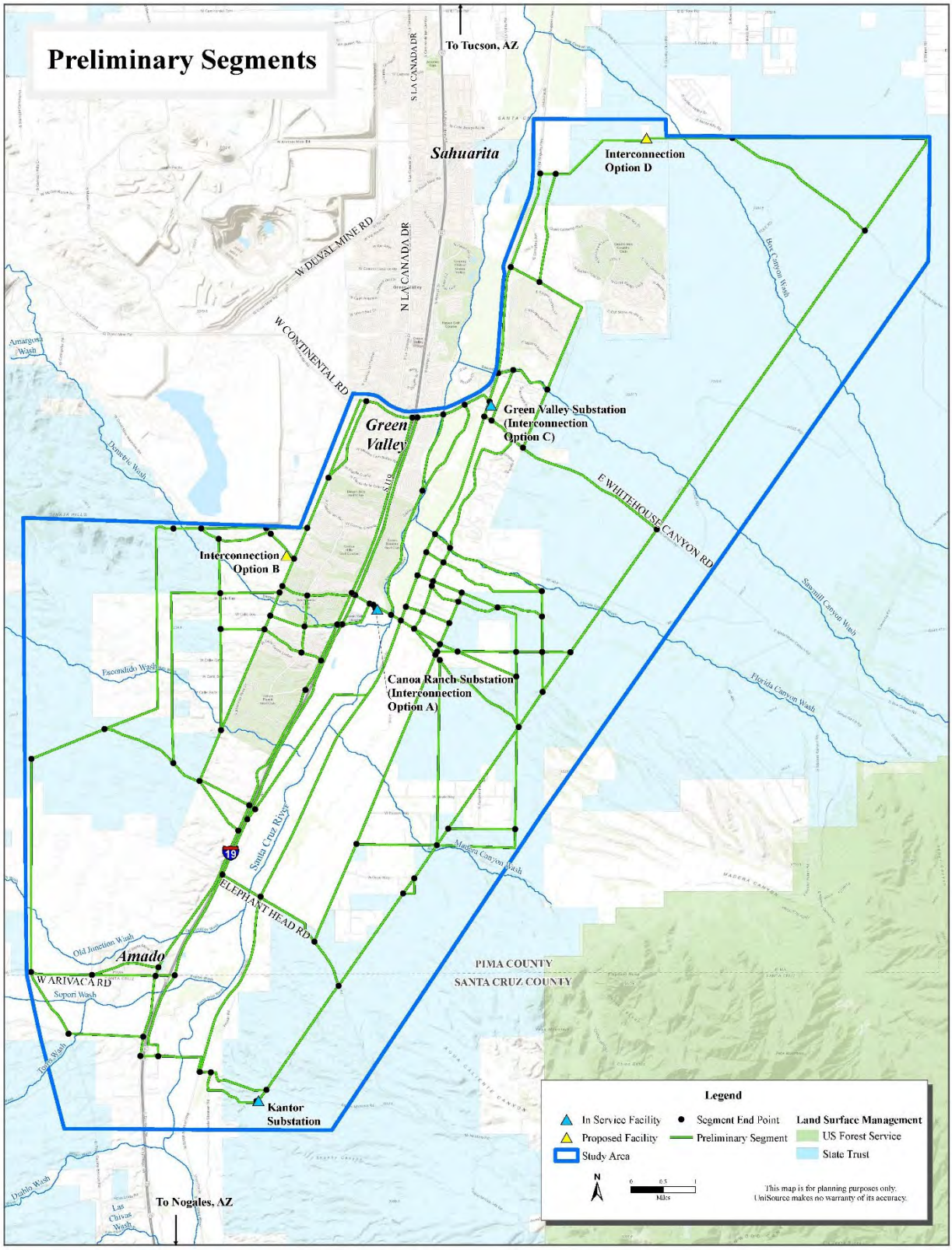


Figure 4. Preliminary Segments

PHASE 2: DATA INVENTORY

To apply the evaluation criteria, UNSE collected data in Phase 2 to create spatial data models for use in Phase 3, and to inform subject-matter experts' evaluation during Phase 4. Phase 2 did not directly involve the public or stakeholders, but part of the data-collection effort included compiling the various comments and concerns received through outreach efforts.

Data gathered included:

- Existing plans of state, local government, and private entities
- Land use designations from the Pima and Santa Cruz Counties Comprehensive Plans
- Critical habitat for threatened and endangered species
- Land cover and riparian areas
- Perennial and open water resources
- Existing land uses
- Wildlife refuges and conservation easements
- Federal Communications Commission (FCC)–licensed communication antennas
- Sensitive receptors such as schools, hospitals, childcare facilities, and churches
- Scenic roads, viewpoints, and areas managed for scenic integrity
- Designated historic sites and Class I cultural resource survey data
- Existing linear infrastructure (*e.g.*, pipelines, railroads, roads, canals)
- Geology and soil conditions
- Air quality data, including nonattainment areas for PM2.5, PM10, and ozone
- Socioeconomic indicators such as poverty levels and minority populations
- Digital Elevation Model (DEM) data

PHASE 3: SUITABILITY ASSESSMENT

Suitability Assessment

In Phase 3 of the siting process, data collected during Phase 2 was used to develop spatial models that assessed the relative suitability of each Preliminary Segment. Using ESRI ArcGIS Pro software, eight individual criteria models were created.

Criteria models represented:

- Existing Plans
- Biological Resources
- Noise and Communication
- Cultural and Historic Resources
- Visual Resources
- Total Environment
- Existing and Future Residential Properties Adjacent to Transmission Lines
- Engineering, Construction and Maintenance

The criteria models were then weighted and combined to produce four composite suitability models, each reflecting different values and priorities. These priorities included a model for each of the following:

- Balanced Suitability Model
- Environmentally Preferred Model
- Public, Stakeholder, and Agency Preferred Model
- Construction and Maintenance Model

Details on how each of the criteria and composite suitability models were created can be found in **Appendix B**.

Refined Segments

Once the composite suitability models were created, the 177 Preliminary Segments were overlaid on top of the models. A visual evaluation of each segment, on each model, was completed to determine which were most suitable and, alternatively, which segments would potentially result in the highest impact. This exercise led to the elimination of more than 100 of the Preliminary Segments, which resulted in a set of refined segments that were carried forward for further analysis. **Figure 5** shows the refined segments that were carried forward in the siting study, as well as those segments that were removed from further analysis. A reference map and summary of the eliminated segments and the rationale for their removal is provided in **Appendix C** of this study.

Public and Stakeholder Engagement

The results of the suitability assessment, including the Refined Segments, were shared through another round of public and stakeholder engagement. This included a dedicated stakeholder meeting, and two public open house meetings to gather feedback on the Refined Segments and evaluation criteria. Additional information regarding public outreach is included as **Exhibit J** to the CEC Application.

Feedback received through this round of public and stakeholder engagement included concerns and observations related to scenic and landscape character, property values, health risks, wildfire potential, and project costs. These comments were systematically reviewed and incorporated, as appropriate, helping to refine siting criteria for use in subsequent phases of the siting and planning process.

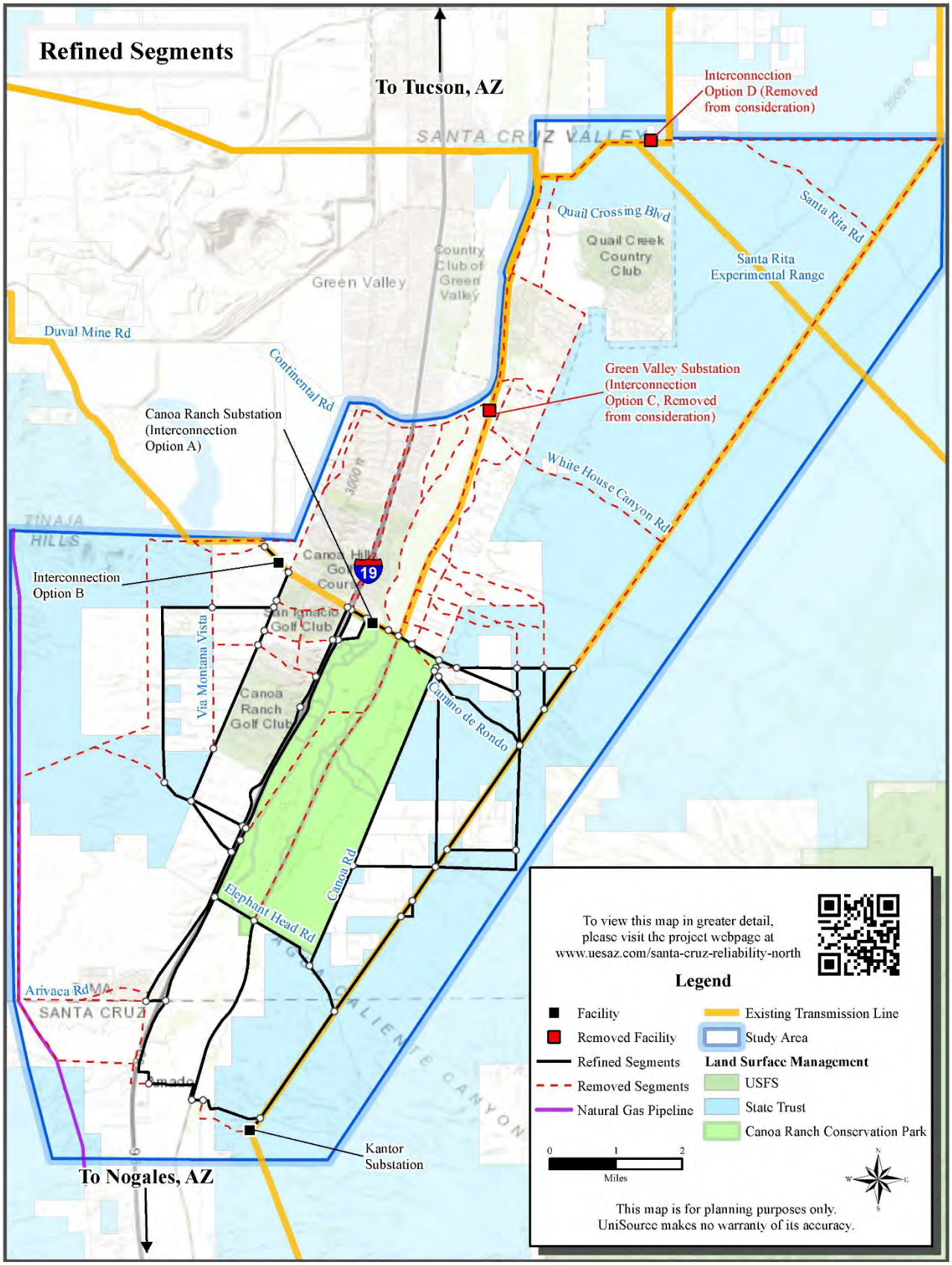


Figure 5. Refined Segments

PHASE 4: COMPATIBILITY ANALYSIS

Each of Refined Segments was evaluated for environmental compatibility using the siting evaluation criteria previously listed. This criteria includes factors outlined in ARS § 40-360.06, but also includes criteria deemed important to the community, gathered through public and stakeholder engagement.

Subject matter experts reviewed each segment individually, drawing on prior research, field visit observations, and professional experience. They assessed the feasibility and potential impacts of constructing and maintaining a transmission line along each segment. Each segment was then assigned a rating of 1, 2, 3, or 100, with the values interpreted as follows:

Segment Rating Scale:

- 1 = Compatible
- 2 = Potential negative impact
- 3 = Known negative impact
- 100 = Unacceptable impact unlikely to be mitigated

These scores were then averaged across all factors to produce an overall compatibility score, typically ranging from 1 to 3. A score above 3 indicated that the link was not compatible and should be removed from consideration. A compatibility matrix showing the results of this scoring is located in **Appendix D**. Recognizing the importance of public and stakeholder input in the siting process, a weighted average compatibility score was also calculated. This score followed the same 1-to-3 scale but incorporated weighting based on the level and nature of feedback received from the public for each segment. The final scores were reviewed, and segments were either eliminated from consideration, or were carried forward as part of an alternative route. This process resulted in the identification of five alternative route options (**Figure 6**).

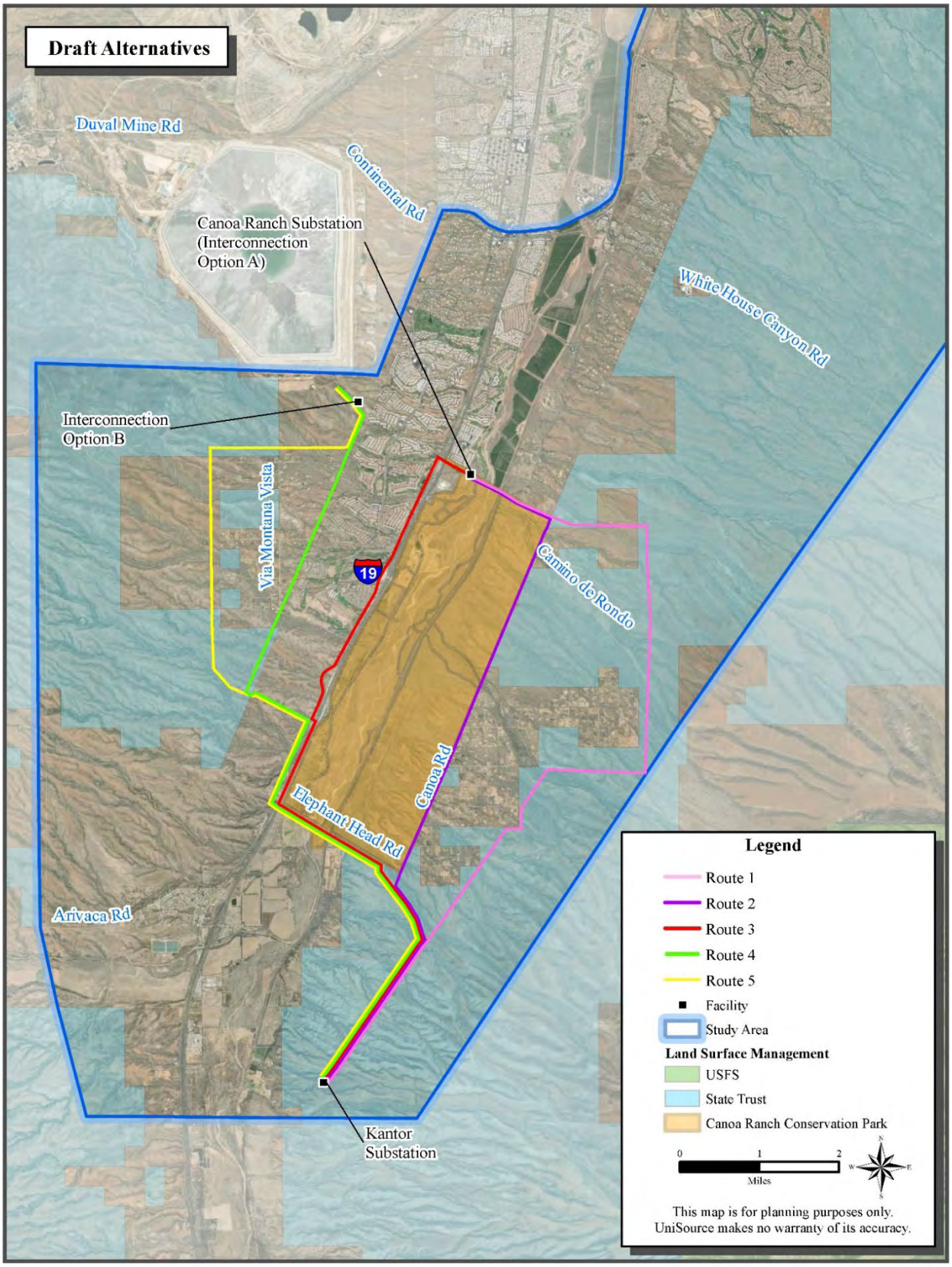


Figure 6. Map displaying the 5 routes developed following the compatibility analysis.

The five routes, shown in **Figure 7**, represented viable routes that would satisfy the need for the Project.

PHASE 5: CONCEPT EVALUATION

The final phase of the siting process was Concept Evaluation. The purpose of this phase was to share the results of the siting effort in the form of alternative routes and request feedback from stakeholders and the public, thereby confirming route acceptability. Since the siting process is designed to be iterative, this was an opportunity to step back and revisit an earlier phase of the process, as needed. The feedback received did not indicate this to be necessary.

In developing the proposed transmission line between the Canoa Ranch Substation and the Kantor Substation, UNSE conducted a rigorous evaluation process that ultimately identified five route alternatives, each of which was considered environmentally compatible. These routes were also technically feasible and represented viable options for achieving the Project's objectives while minimizing impacts to surrounding communities and resources.

The five routes that emerged from this process were considered the most compatible options for the Project. Their inclusion in the public outreach materials signaled that each had passed initial screening and technical review, and that they were all capable of supporting the transmission line connection in a responsible and effective manner. Public exhibits using maps similar to that shown in **Figure 6** provided visual context for these alternatives, and helped stakeholders understand the potential implications of each route.

Public and Stakeholder Outreach

The results of the compatibility analysis, including the five routes, were shared through a final round of public and stakeholder engagement. This included a dedicated stakeholder meeting, two public open house meetings, as well as a virtual meeting to gather feedback on the route alternatives and evaluation criteria. A virtual meeting was offered because a substantial portion of the population in the siting study area is seasonal. Additional information regarding public outreach is included as **Exhibit J** to the CEC Application.

Feedback received through this round of public and stakeholder engagement was primarily focused on impacts associated with Routes 3 and 4. These comments generally focused on impacts to scenic views, property values, and health risks associated with transmission lines.

Final Alternative Routes to Include in CEC Application

As a result of public and stakeholder outreach and the results of the compatibility assessment, UNSE identified Route 2 as the Preferred Route and Route 1 as an Alternative Route (**Figure 7**). Routes 3, 4, and 5 were eliminated from consideration in light of their relative compatibility compared to Routes 1 and 2.

The routes were selected following a comprehensive, multiphase planning process that included extensive public engagement, stakeholder consultation, and detailed technical analysis. The approach ensured that environmental, engineering, and community considerations were thoroughly evaluated to identify the most suitable alignment for the Project.

In summary, the Preferred Route (Route 2) was selected because it was the shortest route, lowest cost, and had the highest overall environmental compatibility compared with other routes considered. Route 2 runs primarily through a very rural area of Pima County and perceived visual

and other impacts to residences are considerably lower here than with Routes 3, 4 or 5 which are closer to higher density residential communities. Route 1 was chosen as an Alternative Route for many of the same reasons Route 2 was chosen as the Preferred Route. Route 1 is sited in a very rural area of Pima County; however, because this route is close to some rural communities, this route poses an increased potential for perceived visual impacts to residents in this area. Thus, it did not quite rise to the level of the Preferred Route.

Route 3 was eliminated from consideration due to strong public opposition, primarily due to perceived concerns on visual impacts and property value impacts. Routes 4 and 5 were similarly eliminated, in part, due to strong public opposition. Issues brought to UNSE from the public who expressed opposition to these routes included visual impacts, Electromagnetic Fields, noise and health concerns and adverse negative impact to property values. Routes 4 and 5 would have required the construction of a switchyard to tap into the existing transmission infrastructure, which would result in increased costs compared to routes that do not need a switchyard (i.e., Routes 1, 2, and 3).

See **Appendix E** for the decision matrix utilized by UNSE to aid in the selection of a preferred route and any route alternatives.

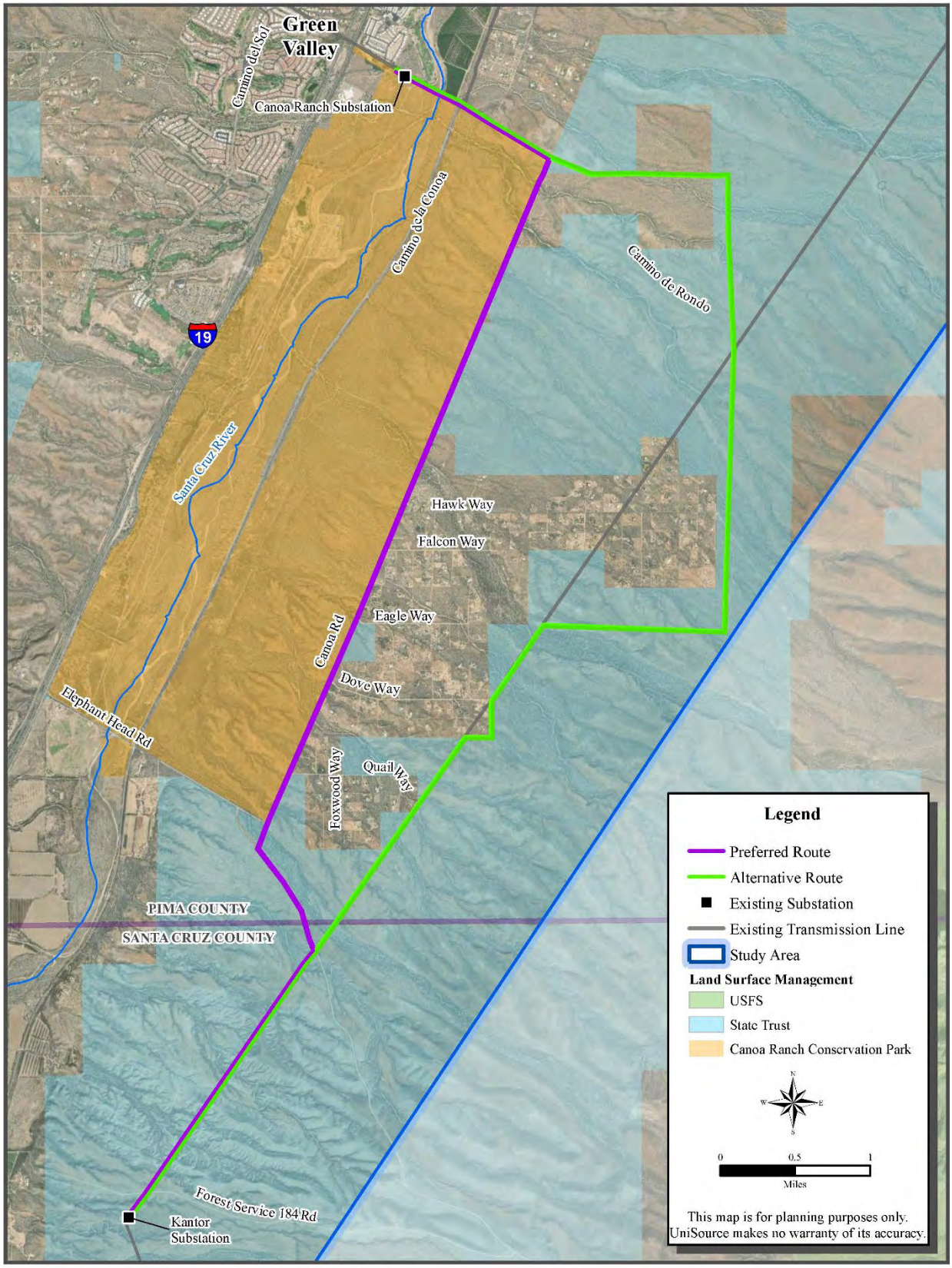


Figure 7. Preferred Route and Alternative Route

APPENDIX A
OPPORTUNITIES AND CONTRAINTS MAP AND SUMMARY TABLE

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Opportunities & Constraints

Please scan here to comment about the project.
Or visit uesaz.com/santa-cruz-reliability-north to learn more.

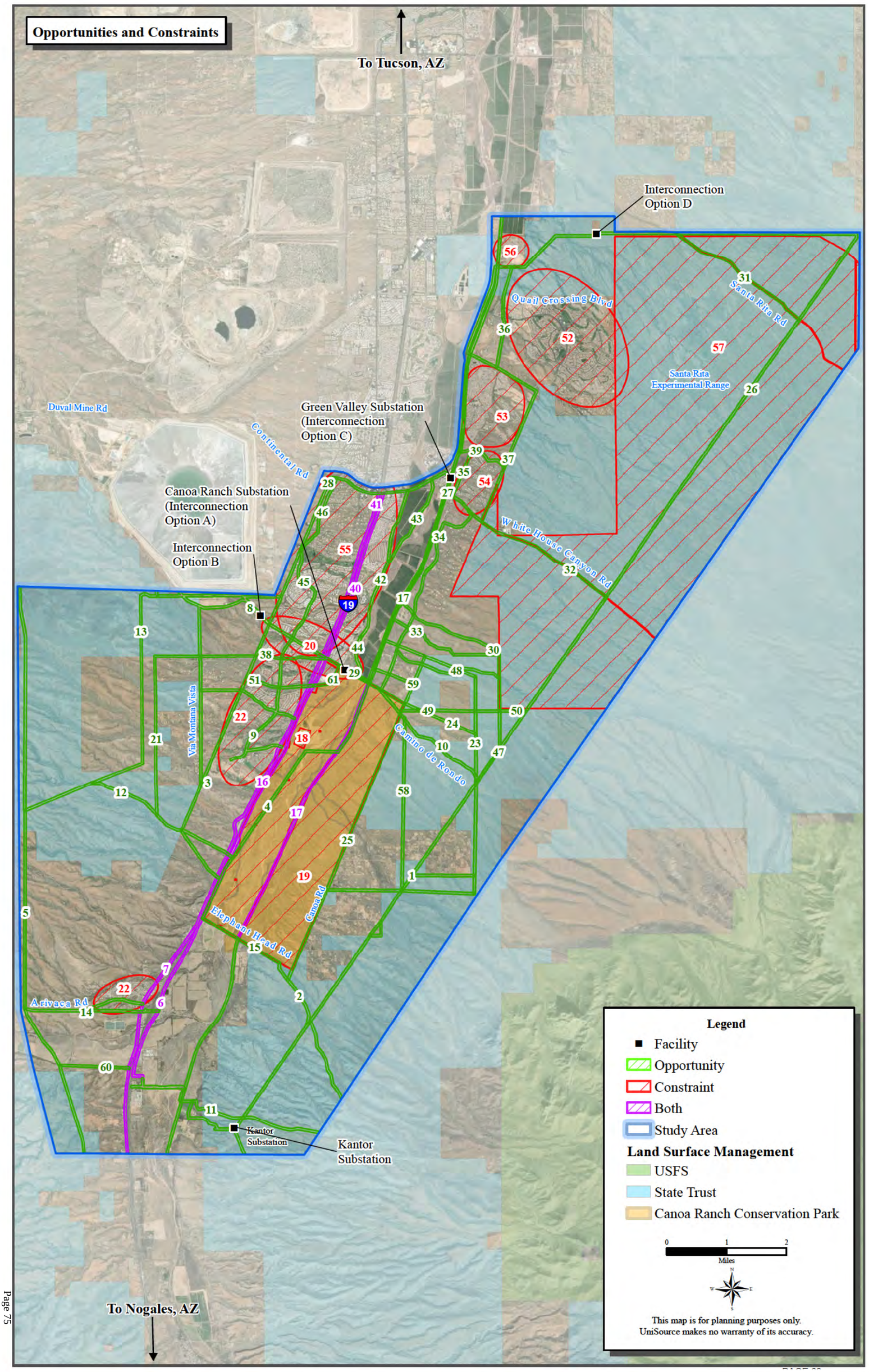
#	Name	Opportunity/ Constraint	Criteria Category
1	Vail to Kantor 138kV Transmission Line Alignment	Opportunity	Linear ROW/Alignment; Existing infrastructure
2	Kantor Sub to West 46kV Sub-transmission Line Alignment	Opportunity	Linear ROW/Alignment; Existing infrastructure
3	46kV Sub-transmission Lines west of I-19	Opportunity	Linear ROW/Alignment; Existing infrastructure
4	46kV Sub-transmission Lines east of I-19	Opportunity	Linear ROW/Alignment; Existing infrastructure
5	El Paso Pipeline (Gas)	Opportunity	Linear ROW/Alignment
6	E. I-19 Frontage Rd.	Opportunity	Paved/Unpaved; Linear ROW/Alignment
7	W. I-19 Frontage Rd.	Opportunity	Paved/Unpaved; Linear ROW/Alignment
8	W. Duval Mine Rd.	Opportunity	Paved/Unpaved; Linear ROW/Alignment
9	S. Camino del Sol to Canoa Ranch Rd. (Additional roads analyzed if needed to be used)	Opportunity	Paved/Unpaved; Linear ROW/Alignment
10	Camina de la Canoa to South Canoa Rd. and additional roads	Opportunity	Paved/Unpaved; Linear ROW/Alignment
11	Forest Service 184 Rd.	Opportunity	Paved/Unpaved; Linear ROW/Alignment
12	W. Calle Tres	Opportunity	Paved/Unpaved; Linear ROW/Alignment; Existing infrastructure
13	Via Monte Vista	Opportunity	Paved/Unpaved; Linear ROW/Alignment
14	West Arivaca Rd. and side road north of Arivaca Rd.	Opportunity	Paved/Unpaved; Linear ROW/Alignment
15	Elephant Head Rd. to Mount Hopkins Rd.	Opportunity	Paved/Unpaved; Linear ROW/Alignment
16	Interstate 19	Both	Op: Linear ROW/Alignment; Con: Conflicting Infrastructure
17	Union Pacific Railroad Alignment	Both	Op: Linear ROW/Alignment; Con: Conflicting Infrastructure
18	Historic Canoa Ranch	Constraint	Historically Significant
19	Canoa Ranch Conservation Park	Constraint	Environmentally Sensitive Land
20	Residential Development	Constraint	Medium Density Development
22	Residential Development	Constraint	Low Density Development
23	Undeveloped Northeastern Portion of Study Area	Opportunity	Undeveloped Land
24	Canoa Road to Overland East of Elephant Head	Opportunity	Developed Land
25	Canoa Road to Eagle Way	Opportunity	Linear ROW/Alignment
26	Hartt Substation – East Connecting to Vail to Kantor	Opportunity	Linear ROW/Alignment; Existing infrastructure; Property Boundary
27	Hartt Substation - West (Connecting to Old Nogales Highway South to Canoa Sub)	Opportunity	Linear ROW/Alignment; Existing infrastructure
28	Green Valley Substation West to Continental Road	Opportunity	Existing Linear ROW; Existing infrastructure; Property Boundary
29	Canoa Ranch Substation - East	Opportunity	Existing Linear ROW; Existing infrastructure
30	White House Canyon Ranch Wash	Opportunity	Natural Linear Feature

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

#	Name	Opportunity/ Constraint	Criteria Category
31	Santa Rita Road	Opportunity	Existing Linear ROW; Proposed infrastructure
32	Madera Canyon Road	Opportunity	Linear ROW; Paved roads
33	Canoa Preserve Park (baseball fields)	Opportunity	Open space
34	Camino de la Canoa	Opportunity	Linear ROW; Paved
35	Campbell Ave	Opportunity	Linear ROW
37	Quail Crossing Blvd to Madera Canyon Road	Opportunity	Linear ROW; Property Boundary
39	Unnamed Wash	Opportunity	Natural Linear Feature
40	I-19 North (North of Conservation Easement	Both	Op: Linear ROW/Alignment; Con: Conflicting Infrastructure
41	I-19 South (North of Conservation Easement)	Both	Op: Linear ROW/Alignment; Con: Conflicting Infrastructure
42	Santa Cruz River	Opportunity	Natural Linear Feature
43	Santa Cruz River	Opportunity	Natural Linear Feature
44	Santa Cruz River	Opportunity	Natural Linear Feature
45	Camino del Sol	Opportunity	Linear ROW; Paved
46	South Camino del Sol	Opportunity	Linear ROW; Paved
47	Transmission Line	Opportunity	Linear ROW/Alignment; Existing infrastructure
48	White House Canyon Ranch	Opportunity	Natural Linear Feature
49	White House Canyon Ranch South	Opportunity	Undeveloped; Property Boundary
50	Unnamed Road	Opportunity	Undeveloped; Property Boundary
52	Residential Development	Constraint	Medium Denssity Development
53	Residential Development	Constraint	Medium Density Development
54	Residential Development	Constraint	Low Density Development
55	Residential Development	Constraint	Low Density Development
56	Sand and Gravel Pit	Constraint	Active Mine
57	Santa Rita Experimental Range	Constraint	Environmentally Sensitive Land
58	Elephant Head	Opportunity	Developed/Undeveloped; Unpaved
59	FICO to undeveloped Northeastern Portion of Study Area	Opportunity	Agricultural use
60	Unpaved Road - Amado	Opportunity	Unpaved; Property Boundary
61	Property Boundary – Canoa Ranch	Opportunity	Property Boundary

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Opportunities and Constraints
To Tucson, AZ
Interconnection Option D
Green Valley Substation (Interconnection Option C)
Canoa Ranch Substation (Interconnection Option A)
Interconnection Option B
Kantor Substation
Kantor Substation
To Nogales, AZ
Duval Mine Rd
Continental Rd
Quail Crossing Blvd
Santa Rita Rd
Santa Rita Experimental Range
White House Canyon Rd
Via Montana Vista
Camino de Rondo
Canoa Rd
Elephant Head Rd
Arivaca Rd
Legend
Facility
Opportunity
Constraint
Both
Study Area
Land Surface Management
USFS
State Trust
Canoa Ranch Conservation Park
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This map is for planning purposes only.
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APPENDIX B
SUITABILITY ASSESSMENT MODELS AND PROCEDURE

SUITABILITY ASSESSMENT PROCEDURE

In order to analyze preliminary segments, specific data models need to be created. These data models will then be combined and weighted based on different factors in order to evaluate segments best suited to minimizing impacts to different goals.

Suitability Criteria utilized for this assessment include the following:

- Existing Plans
- Biological Resources
- Noise and Communication
- Cultural and Historic Resources
- Visual Resources
- Total Environment
- Existing and Future Residential Properties Adjacent to Transmission Lines
- Engineering, Construction & Maintenance

PROCEDURE

Note 1 – For each dataset create raster layers that cover the entire study area, clipped to the study area boundary

Note 2 – Use dissolve when creating buffers.

Note 3 – When using Feature to Raster tool, under Environments, set Extent to “Clip_Area”.

Note 4 – Use raster cell size 10m

1. Create the following datasets:
    A. **Criteria 1 – Existing Plans**: Existing plans of this state, local government and private entities for other developments within the study area for the proposed transmission line. **Figure 3** provides the suitability model results of Existing Plans.
        - Note A – define vicinity as within ¼ mile, implies some sort of adjacency.
        - Note B – plans should be treated the same as an existing land use of the same type

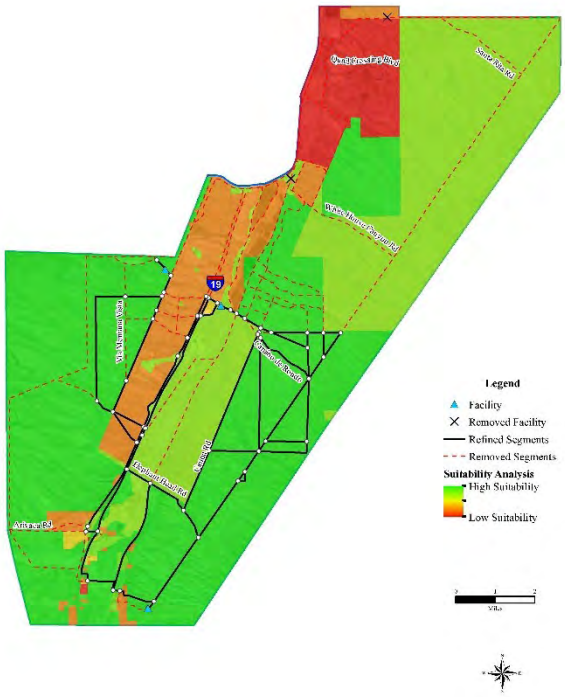
          Data Required
            - General/Comprehensive Plans
            - Platted, but not developed
            - Specific Plans – identified through meetings with jurisdictions and/or public including:
                - Sahuarita General Plan 2015
                - Pima County General Plan 2015
                - Pima County Priority Biological Resources and the Sonoran Desert Conservation Plan
                - Santa Cruz County General Plan 2016
                - Santa Cruz River Urban National Wildlife Refuge (proposed)

    Procedure to create criteria 1 dataset: create buffers as noted above; combine platted land and specific plans into a single Specific Plans dataset; add a new field

“Cell_Value” as type Double to each of the datasets listed above – assign appropriate cell values as noted below; union those results with “Clip_Area” for each dataset; use those results with Feature to Raster classifying by “Cell_Value”; then create a composite raster by weighting each of the datasets as indicated below and adding the results together.

- General/Comprehensive Plans (50% weight)
    - Cell Value = 10: High Density Residential, Institutional
    - Cell Value = 8: Low/Medium Density Residential
    - Cell Value = 6: Commercial/Mixed Use
    - Cell Value = 4: Industrial
    - Cell Value = 3: Parks and Recreation/Preservation
    - Cell Value = 2: Agriculture/Ranching
    - Cell Value = 1: Open Space/Public Lands
    - Cell Value = 0: all other cells
- Specific Plan (50% weight)
    - Cell Value = 10: High Density Residential, Institutional
    - Cell Value = 8: Low/Medium Density Residential
    - Cell Value = 6: Commercial/Mixed Use
    - Cell Value = 4: Industrial
    - Cell Value = 3: Parks and Recreation/Preservation
    - Cell Value = 2: Agriculture/Ranching
    - Cell Value = 1: Open Space/Public Lands
    - Cell Value = 0: all other cells

Figure 1. Criteria 1 – Existing Plans



B. **Criteria 2 – Biological Resources**: Known presence of federal and state sensitive species of plants and wildlife (i.e. ESA-listed Threatened and Endangered Species), suitable and/or critical habitats for sensitive species, and protected, environmentally sensitive lands.

Data Required

- Critical habitat for T&E species
- GAP Land cover classification
- Perennial water/open water (within 250')
- Riparian Areas
- Wildlife Refuges
- Pima County Priority Biological Resources and the Sonoran Desert Conservation Plan
- Santa Cruz River Urban National Wildlife Refuge (proposed)

Procedure to create criteria 2 dataset: create buffers as noted above; combine critical habitat for T&E species and habitat for forest sensitive species into a single Critical Habitat dataset, with T&E critical habitat taking precedent with any conflict; Combine riparian areas, open water, and land cover and into a single Land Cover dataset prioritized in that order if conflicts exist; add a new field "Cell_Value" as type Double to each of the datasets listed above – assign appropriate cell values as noted below; union those results with "Clip_Area" for each dataset; use those results with Feature to Raster classifying by "Cell_Value"; then create a composite raster by weighting each of the datasets as indicated below and adding the results together.

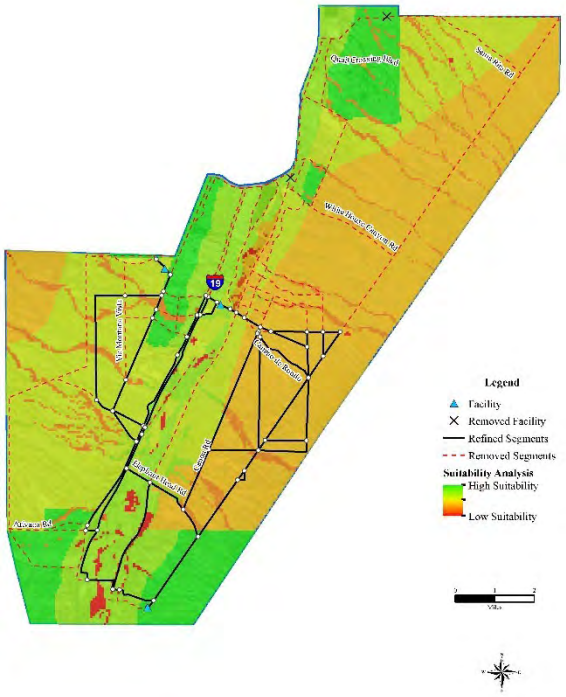
- Land Cover (50% weight)
  - Cell Value = 10: riparian area

- Cell Value = 8: buffered area for perennial/open water
- Cell Value = 4: forest and woodland
- Cell Value = 0: all other cells

• Wildlife Refuge and Plans (50% weight)

- Cell Value = 10: located within an existing conservation easement or protected land
- Cell Value = 3: proposed Santa Cruz River Urban National Wildlife Refuge
- Cell Value = 0: all other cells
- Biological Core - 8
- Agriculture Inholdings - 3
- Multiple Use Management - 5
- Important Riparian Areas = 10
- Areas outside Management = 0

Figure 2. Criteria 2 – Biological Resources



C. **Criteria 3 – Noise & Communication**: Noise emission levels and interference with communication signals.

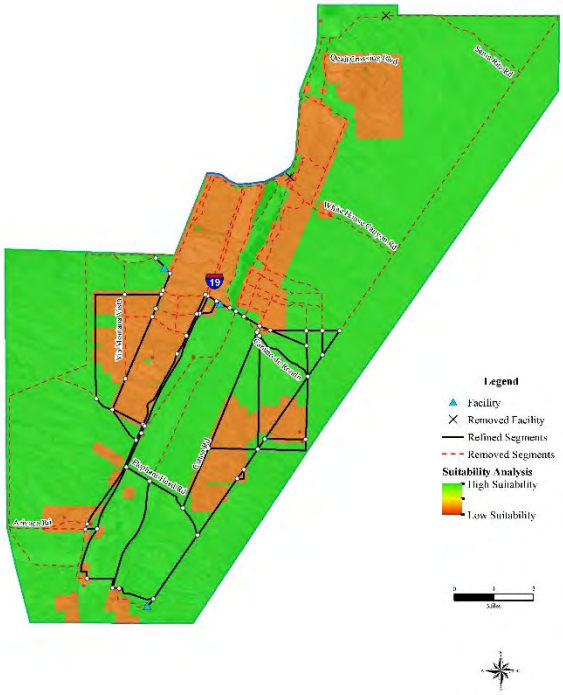
Data Required

- FCC data on licensed antennas (within 250' of antenna)
- Sensitive receptors: schools, existing residences, hospitals, adult/childcare facilities, churches (within 500' of property boundary)

Procedure to create criteria 3 dataset: create 250 foot buffer around FCC-licensed antenna sites; create 500 foot buffer around sensitive receptor locations; add a new field “Cell_Value” as type Double to each of the datasets listed above – assign appropriate cell values as noted below; union each of these layers, with layers with highest cell value ranked in priority order; union those results with “Clip_Area”; finally use those results with Feature to Raster classifying by “Cell_Value”.

- Cell Value = 10: cell is located within buffered area for FCC-licensed antennas
- Cell Value = 8: cell is located within buffered area for sensitive receptors
- Cell Value = 0: all other cells

Figure 3. Criteria 3 – Noise and Communication



D. **Criteria 4 – Cultural and Historic Resources**: Known and documented historic sites and structures or archaeological sites at or in the vicinity of the proposed site.

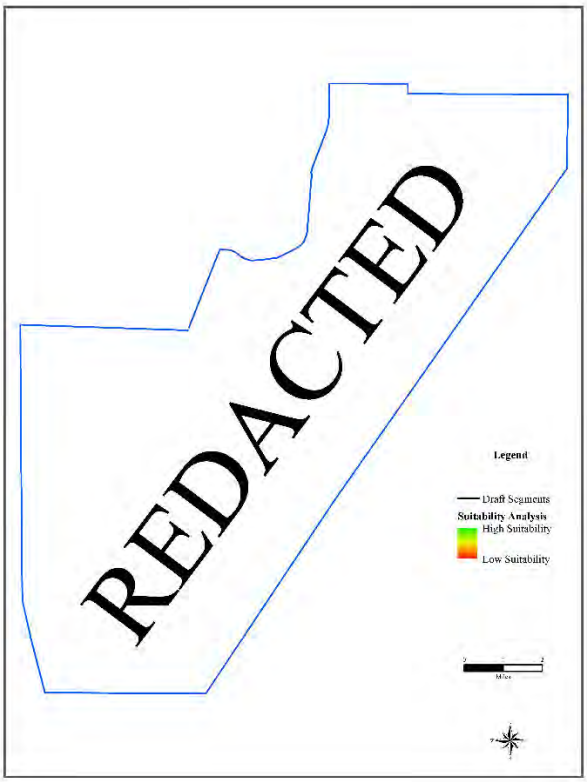
Data Required

- Class I Survey Data – eligible sites or recommended eligible (within 250’ – within or adjacent to)
- Class I Survey Data – sites whose eligibility has yet to be evaluated
- Existing designated historic sites (within 200’, 500’, and 1000’ – to capture visual impacts)

Procedure to create criteria 4 dataset: create buffers as noted above; add a new field “Cell_Value” as type Double to each of the datasets listed above – assign appropriate cell values as noted below; union those results with “Clip_Area” for each dataset; use those results with Feature to Raster classifying by “Cell_Value”; then create a composite raster by weighting each of the datasets as indicated below and adding the results together.

- Eligible/Recommended Eligible Sites (50% weight)
    - Cell Value = 10: cell is located within 250' buffered area of eligible site
    - Cell Value = 5: cell is located within 250' buffered area of unevaluated site
    - Cell Value = 0: all other cells
- Designated Historic Sites (50% weight)
    - Cell Value = 10: cell is located within 200' buffered historic area
    - Cell Value = 6: cell is located within 500' buffered historic area
    - Cell Value = 4: cell is located within 1000' buffered historic area
    - Cell Value = 0: all other cells

Figure 4. Criteria 4 – Cultural and Historical Resources



E. **Criteria 5 – Visual Resources**: Existing scenic areas, municipal and/or state parks, main scenic roads, residential developments at or in the vicinity of the proposed site.

Data Required

- Visually Sensitive Receptors such as residential developments, historically important sites (i.e. Historic Canoa Ranch), parks, trails, schools, hospitals, and churches.
- Natural features (i.e. Santa Cruz River, Santa Rita Mountains, Elephant Head, etc.), residential landscapes and entrances to communities, parks, areas around trails, areas designated for this

such as a conservation area, and historically important resources (i.e. Historic Canoa Ranch)

Procedure to create criteria 5 dataset: create buffers as noted above; add a new field “Cell_Value” as type Double to each of the datasets listed above – assign appropriate cell values as noted below; union those results with “Clip_Area” for each dataset; use those results with Feature to Raster classifying by “Cell_Value”; then create a composite raster by weighting each of the datasets as indicated below and adding the results together.

- Visually Sensitive Receptors (Residences, users of trails/recreation areas, schools, hospitals, and churches) (50% weight)
  - Cell Value = 10; 100 to <500 feet
  - Cell Value = 7; 500 feet to <1,000 feet
  - Cell Value =4; 1,000 feet to 2000 ft
  - Cell Value = 0; 2000 ft or more
- Scenic Areas w/ 100-foot buffer (50% weight)
  - Cell Value = 10; Residences/Residential Landscapes, schools, hospitals, churches, trails, Santa Cruz River
  - Cell Value = 6; Parks, Recreation Areas
  - Cell Value =3; Canoa Ranch, mountain view areas
  - Cell Value = 0; Everywhere else
- Visual Contrast (Weight TBD)
  - Cell Value = 10; No existing lines or compatible development
  - Cell Value = 5; Existing transmission line in a natural environment
  - Cell Value = 0; Existing line in developed environment

Figure 5. Criteria 5 – Visual Resources



F. **Criteria 6 – Total Environment**: Total environment of the area.

Data Required

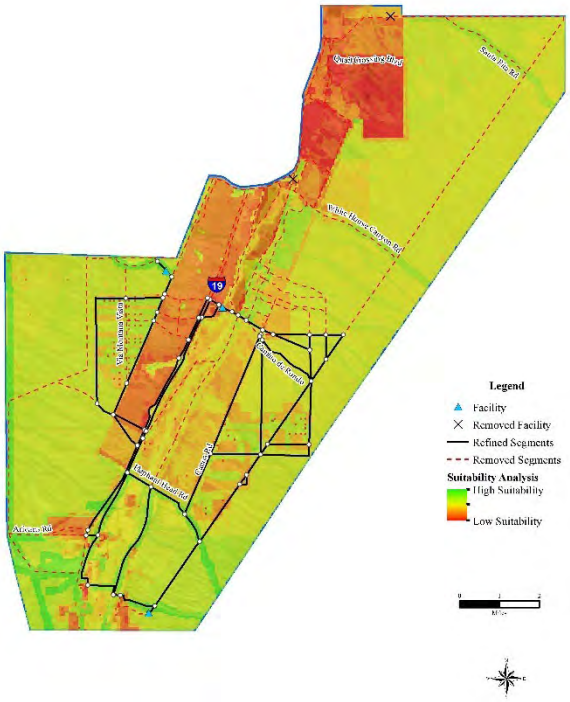
- Existing land uses
- Existing well sites (within 100')
- Existing linear features – pipelines, railroads, roads, canals, etc. (within 500')
- Existing licensed antennas (incorporated from Criteria 3)
- Sensitive Noise Receptors (incorporated from Criteria 3)
- Geology and soils
- Water resources (incorporated from Criteria 2)
- Biological resources (incorporated from Criteria 2)
- Cultural resources (incorporated from Criteria 4)
- Visual resources (incorporated from Criteria 4)
- Socioeconomic conditions

Procedure to create criteria 6 dataset: create buffers as noted above; add a new field "Cell_Value" as type Double to each of the datasets listed above – assign appropriate cell values as noted below; union those results with "Clip_Area" for each dataset; use those results with Feature to Raster classifying by "Cell_Value"; then create a composite raster by weighting each of the datasets as indicated below and adding the results together.

- Existing Land Uses/Well Sites/Linear Features (30% weight)
  - Cell Value = 10: High Density Residential, Public/Quasi Public
  - Cell Value = 8: Low/Medium Density Residential

    - Cell Value = 6: Commercial/Mixed Use
    - Cell Value = 4: Industrial
    - Cell Value = 3: Parks and Recreation/Golf Course
    - Cell Value = 2: Agriculture/Ranching
    - Cell Value = 1: Open Space
    - Cell Value = 10: cell is located within buffered well site
    - Cell Value = 5: cell is not located within buffered existing linear facilities
    - Cell Value = 0: all other cells
- Existing License Antennas/Sensitive Noise Receptors (10% weight)
    - Cell Value – Criteria 3 model
- Geology and Soils (10% weight)
    - Farmland (50% weight)
        - Cell Value = 5: Prime Farmland
        - Cell Value = 0 – all other cells
    - Erosive Soils (50% weight)
        - Cell Value = 10: Very Severe Erosion
        - Cell Value = 7: Severe Erosion
        - Cell Value = 5: Moderate Erosion
        - Cell Value = 2: Light Erosion
        - Cell Value = 0: all other cells
- Water/Biological Resources (10% weight)
    - Cell Value – Criteria 2 model
- Cultural/Visual Resources (10% weight)
    - Cell Value – Criteria 4 model
- Socioeconomic Conditions (20% weight)
    - Cell Value = 10 – % census tract at or below poverty level is > 1.5x % county at or below poverty level
    - Cell Value = 5 – ≥ % census tract at or below poverty level is > % county at or below poverty level
    - Cell Value = 10 – % census tract classified as a minority population is > 1.5x % county classified as a minority population
    - Cell Value = 5 – % census tract classified as a minority population is > % county classified as a minority population
    - Cell Value = 0 – all other cells

Figure 6. Criteria 6 – Total Environment



G. **Criteria 7 – Existing and Future Residential Properties Adjacent to Transmission Lines:** Residential areas are defined as single family residential areas by existing or future land use, or in the case of undeveloped land, planned land use as defined by current zoning. The purpose of this criterion is to identify routes that minimize construction and operation in single family residential areas. Existing land use will be inventoried and mapped, with future residential land use added, then supplemented with current zoning data for any undeveloped areas not already mapped for a future land use. Any preliminary links that pass through, or are located immediately adjacent to residential areas, as defined under the detailed description will be given a lower suitability for this criterion, where preliminary links that do not will be given a higher suitability for this criterion.

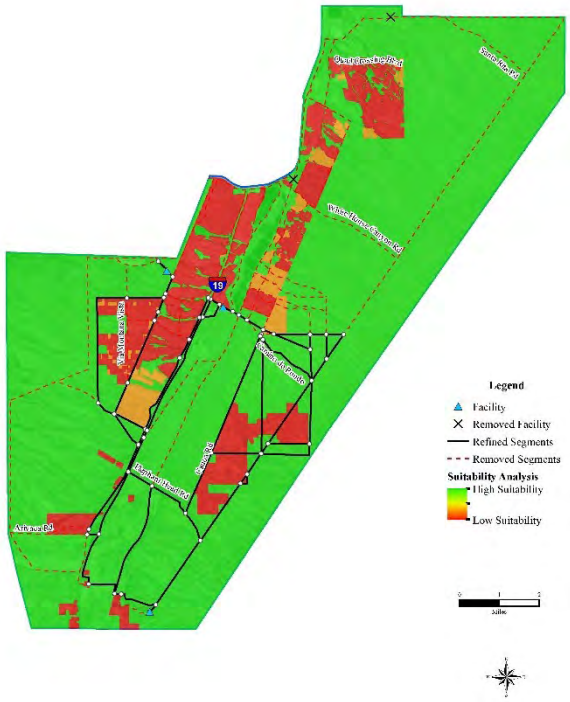
Data Required

- Existing land use
- Future land uses, from specific development plans (permits and unbuilt PADs)
- Zoning

Procedure to create criteria 7 dataset: create a single dataset of residential areas, as defined above. Buffer these by 100 feet to represent areas located immediately adjacent to a residential area; add a new field “Cell_Value” as type Double to the dataset listed above – assign appropriate cell values as noted below; union those results with “Clip_Area” for the dataset; use those results with Feature to Raster classifying by “Cell_Value”.

- Cell Value = 10: within buffered existing residential area
- Cell Value = 7: within buffered planned residential area
- Cell Value = 0: all other cells

Figure 7. Criteria 7 - Existing and Future Residential Properties



H. **Criteria 8 – Construction & Maintenance**: The technical practicability of achieving a proposed objective and the previous experience with equipment and methods available for achieving a proposed objective.

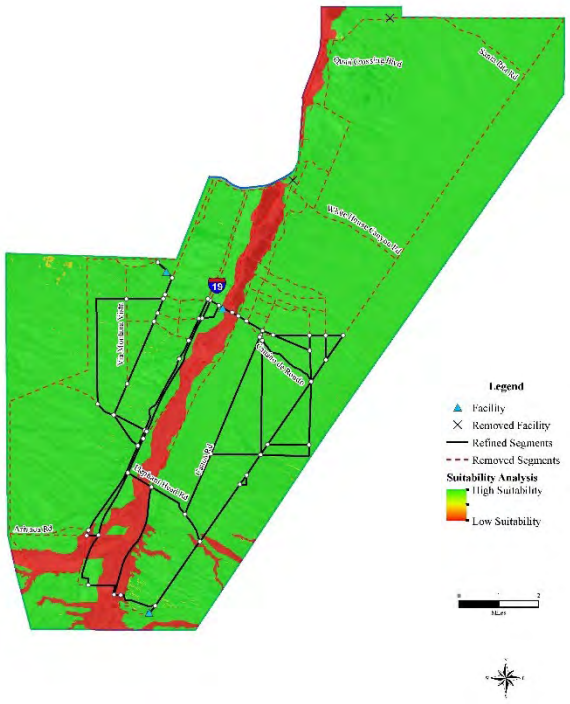
Data Required

- Digital Elevation Model (DEM)
- Federal Emergency Management Agency (FEMA) Floodplain Data

Procedure to create criteria 9 dataset: create slopes from DEM; add a new field "Cell_Value" as type Double to each of the datasets listed above – assign appropriate cell values as noted below; union those results with "Clip_Area" for each dataset; use those results with Feature to Raster classifying by "Cell_Value"; then create a composite raster by weighting each of the datasets as indicated below and adding the results together.

- Digital Elevation Model (50% weight)
  - Cell Value = 10: slopes ≥ 75 and ≤ 90
  - Cell Value = 8: slopes ≥ 50 and < 75
  - Cell Value = 6: slopes ≥ 35 and < 50
  - Cell Value = 4: slopes ≥ 20 and < 35
  - Cell Value = 0: all other cells
- FEMA Floodplain Data (50% weight)
  - Cell Value = 10: In regulated flood zone
  - Cell Value = 0: Not in regulated flood zone

Figure 8. Criteria 8 – Construction and Maintenance



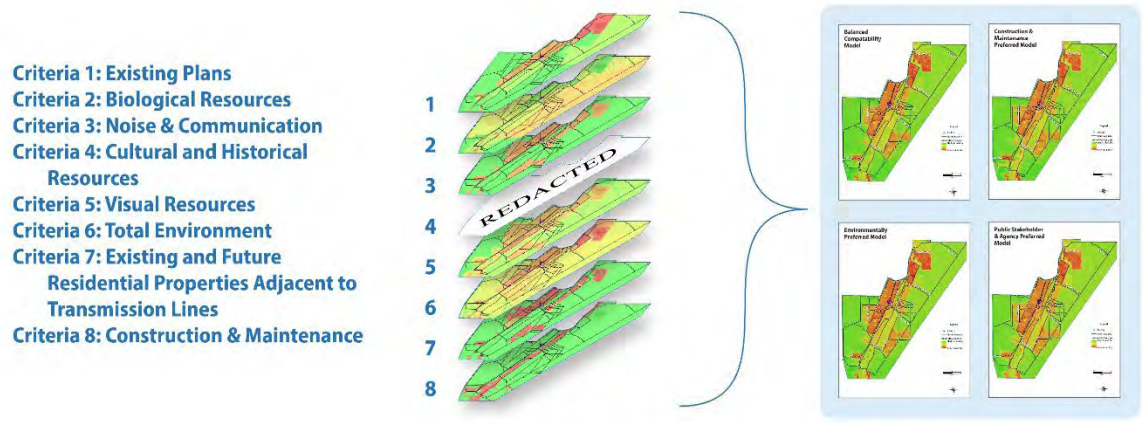
2. Create several composite models, using the criteria above to evaluate the compatibility of links and segments with respect to the environmental, land use, and other factors considered by statute in granting a Certificate of Environmental Compatibility. At a minimum, a model should be created for each of the following:
    A. Balanced Compatibility Model
        - Criteria 1: Existing Plans (1/8 weight)
        - Criteria 2: Biological Resources (1/8 weight)
        - Criteria 3: Noise & Communication (1/8 weight)
        - Criteria 4: Cultural and Historic Resources (1/8 weight)
        - Criteria 5: Visual Resources (1/8 weight)
        - Criteria 6: Total Environment (1/8 weight)
        - Criteria 7: Existing and Future Residential Properties Adjacent to Transmission Lines (1/8 weight)
        - Criteria 8: Construction and Maintenance (1/8 weight)
    B. Environmentally Preferred Model
        - Criteria 1: Existing Plans (1/9 weight)
        - Criteria 2: Biological Resources (1/9 weight)
        - Criteria 3: Noise & Communication (1/9 weight)
        - Criteria 4: Cultural and Historic Resources (1/9 weight)
        - Criteria 5: Visual Resources (1/9 weight)
        - Criteria 6: Total Environment (2/9 weight)
        - Criteria 7: Existing and Future Residential Properties Adjacent to Transmission Lines (1/9 weight)
        - Criteria 8: Construction and Maintenance (1/9 weight)

C. Public, Stakeholder, and Agency Preferred Model
    - Criteria 1: Existing Plans (weight based on proportion of comments received on this criteria, with a minimum weight of 5%) **5% Weight**
    - Criteria 2: Biological Resources (weight based on proportion of comments received on this criteria, with a minimum weight of 5%) **5% Weight**
    - Criteria 3: Noise & Communication (weight based on proportion of comments received on this criteria, with a minimum weight of 5%) **10% Weight**
    - Criteria 4: Cultural and Historic Resources (weight based on proportion of comments received on this criteria, with a minimum weight of 5%) **10% Weight**
    - Criteria 5: Visual Resources (weight based on proportion of comments received on this criteria, with a minimum weight of 5%) **25% Weight**
    - Criteria 6: Total Environment (weight based on proportion of comments received on this criteria, with a minimum weight of 5%) **35% Weight**
    - Criteria 7: Existing and Future Residential Properties Adjacent to Transmission Lines (weight based on proportion of comments received on this criteria, with a minimum weight of 5%) **5% Weight**
    - Criteria 8: Construction & Maintenance (weight based on proportion of comments received on this criteria, with a minimum weight of 5%) **5% Weight**

D. Construction and Maintenance Preferred Model
    - Criteria 1: Existing Plans (1/9 weight)
    - Criteria 2: Biological Resources (1/9 weight)
    - Criteria 3: Noise & Communication (1/9 weight)
    - Criteria 4: Cultural and Historical Resources (1/9 weight)
    - Criteria 5: Visual Resources (1/9 weight)
    - Criteria 6: Total Environment (1/9 weight)
    - Criteria 7: Existing and Future Residential Properties Adjacent to Transmission Lines (1/9 weight)
    - Criteria 8: Construction & Maintenance (2/9 weight)

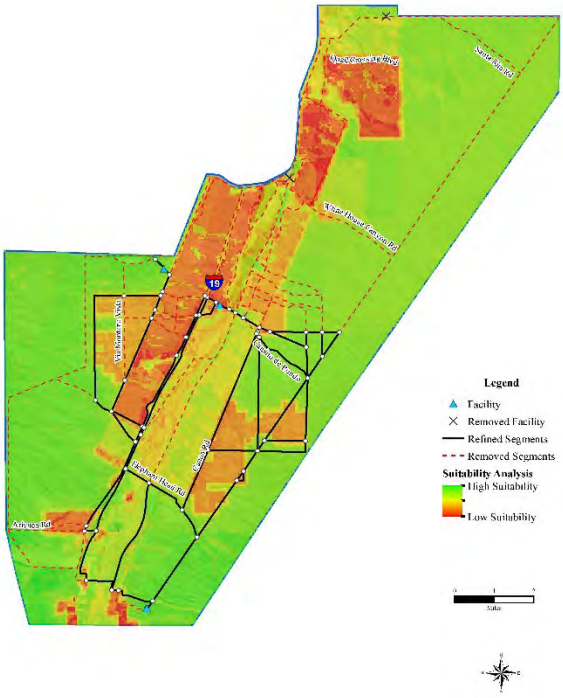
Use raster calculator to add each of the criteria together with the appropriate weights to create the models. Then overlay the links and connect them based on the routes with the least impact to create alternatives most compatible based on the evaluation model.

Figure 9. Criteria Modes Weighted



Four composite suitability models were created as described below.

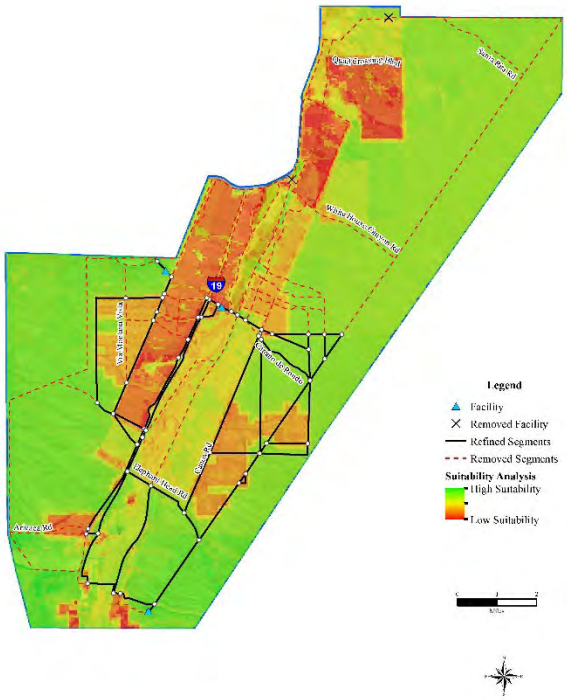
Figure 10. Balanced Model



a. Balanced Suitability Model (**Figure 12**)

- Criteria 1: Existing Plans (1/7 weight)
- Criteria 2: Biological Resources (1/7 weight)
- Criteria 3: Noise & Communication (1/7 weight)
- Criteria 4: Scenic & Cultural Resources (1/7 weight)
- Criteria 5: Total Environment (1/7 weight)
- Criteria 6: Construction & Maintenance (1/7 weight)
- Criteria 7: Outreach (1/7 weight)

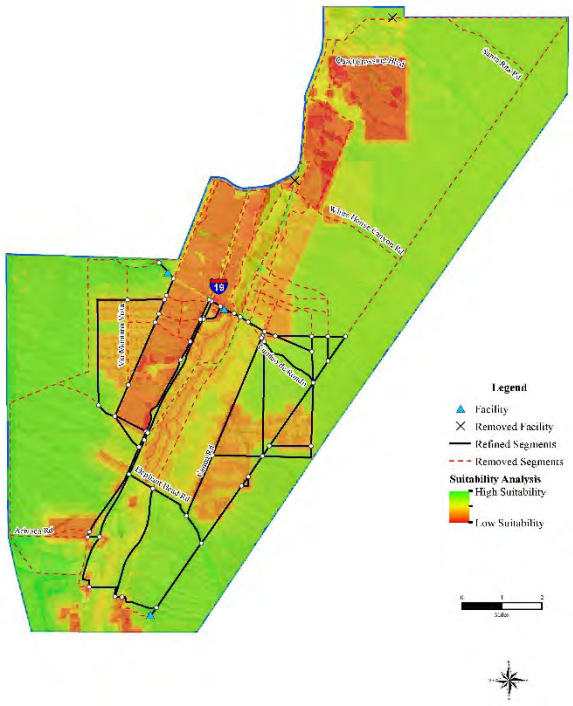
Figure 11. Environmental Preferred Model



b. Environmental Preferred Model (**Figure 13**)

- Criteria 1: Existing Plans (10% weight)
- Criteria 2: Biological Resources (25% weight)
- Criteria 3: Noise & Communication (10% weight)
- Criteria 4: Scenic & Cultural Resources (10% weight)
- Criteria 5: Total Environment (25% weight)
- Criteria 6: Construction & Maintenance (10% weight)
- Criteria 7: Outreach (10% weight)

Figure 12. Public/Stakeholder Preferred Model

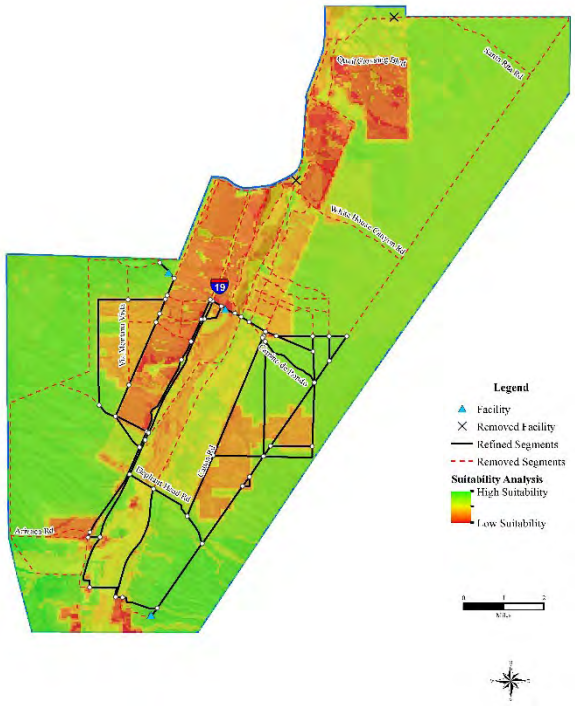


c. Public, Stakeholder, and Agency Preferred Model (**Figure 14**)

Weights are based on the proportion of public and stakeholder comments received on each criteria, with a minimum weight of 5% for each criteria model.

- Criteria 1: Existing Plans (5% Weight)
- Criteria 2: Biological Resources (14% Weight)
- Criteria 3: Noise & Communication (5% Weight)
- Criteria 4: Scenic & Cultural Resources (24% Weight)
- Criteria 5: Total Environment (47% Weight)
- Criteria 6: Construction & Maintenance (5% Weight)
- Criteria 7: N/A

Figure 13. Construction and Maintenance Preferred Model



d. Construction and Maintenance Preferred Model (**Figure 15**)

- Criteria 1: Existing Plans (10% weight)
- Criteria 2: Biological Resources (10% weight)
- Criteria 3: Noise & Communication (10% weight)
- Criteria 4: Scenic & Cultural Resources (10% weight)
- Criteria 5: Total Environment (10% weight)
- Criteria 6: Construction & Maintenance (40% weight)
- Criteria 7: Outreach (10% weight)

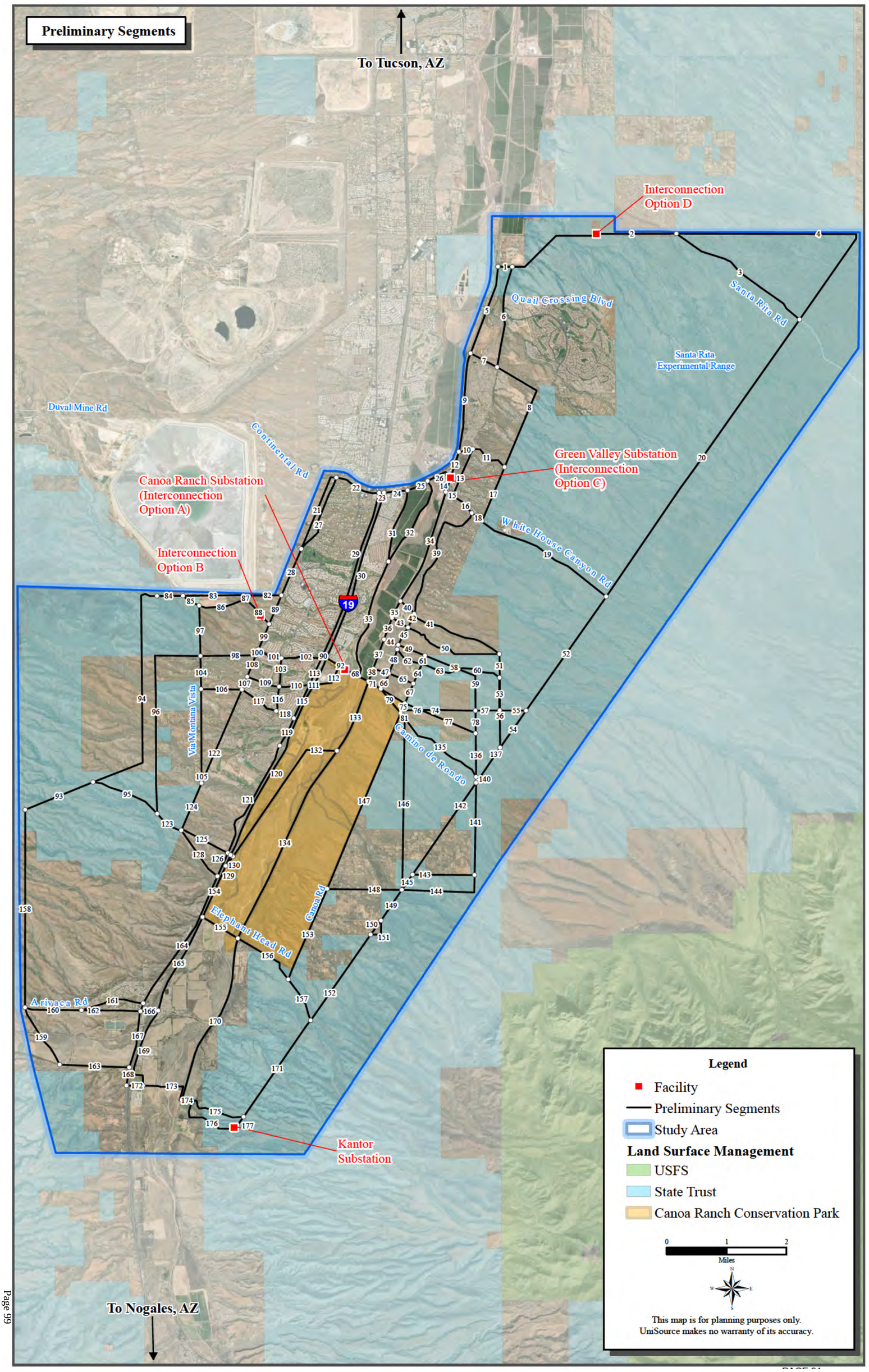
Once the composite suitability models were created, the preliminary links were overlaid on top of the models. A visual evaluation of each link, on each model, was completed to determine which routes were most suitable and alternatively which links would potentially result in the highest impact. This exercise resulted in the elimination of most links.

APPENDIX C
SEGMENTS REMOVED MAP AND SUMMARY TABLE

TABLE 1 PHASE 3 ROUTING OPTIONS BY SEGMENTS	
Segment #	**Justification For Removal**
Interconnection Option C	Removed from consideration as an agreement with Pima County to access the Canoa Ranch Substation within the Canoa Ranch Conservation Park is currently being pursued.
Interconnection Option D	Removed from consideration as an agreement with Pima County to access the Canoa Ranch Substation within the Canoa Ranch Conservation Park is currently being pursued.
1-53, 58-67	Removed due to Interconnection Options C and D were removed from consideration and as a result segments are no longer viable.
69	Removed because it was redundant with segment 68, which illustrates a general siting corridor.
76	Removed because it was redundant with segment 73, which illustrates a general siting corridor.
79	Removed because it crosses the Canoa Ranch Conservation Park, which includes a conservation easement with development restrictions; high visual impact; culturally sensitivity.
82	Removed due to interference with mine operations.
83	Removed due to interference with mine operations.
84	Removed due to interference with mine operations.
85	Removed due to interference with mine operations.
86	Removed due to interference with mine operations.
87	Removed because segment is no longer viable due to removal of nearby segments.
89	Removed because segment is no longer viable due to removal of nearby segments.
93	Removed because segment is no longer viable due to segment removals around Sopori Creek and Farm conservation easement area.
94	Removed due to interference with mine operations.
95	Removed because segment is no longer viable due to segment removals around Sopori Creek and Farm conservation easement area.
97	Removed due to interference with mine operations.
101	Removed as a result of suitability assessment. Primary factors included: medium density residential and golf courses; visual impacts within residential area and views to the east and west.
102	Removed as a result of suitability assessment. Primary factors included: medium density residential and golf courses; visual impacts within residential area and views to the east and west.
103	Removed as a result of suitability assessment. Primary factors included: medium density residential and golf courses; visual impacts within residential area and views to the east and west.
104	Removed as a result of suitability assessment. Primary factors included: high visual impact, existing residential (Montana Vista).
105	Removed as a result of suitability assessment. Primary factors included: high visual impact, existing residential (Montana Vista).

TABLE 1 PHASE 3 ROUTING OPTIONS BY SEGMENTS	
Segment #	**Justification For Removal**
106	Removed as a result of suitability assessment. Primary factors included: high visual impact, existing residential (Montana Vista).
109	Removed as a result of suitability assessment. Primary factors included: medium density residential and golf courses; visual impacts within residential area and views to the east and west.
110	Removed as a result of suitability assessment. Primary factors included: medium density residential and golf courses; visual impacts within residential area and views to the east and west.
116	Removed as a result of suitability assessment. Primary factors included: medium density residential and golf courses; visual impacts within residential area and views to the east and west.
117	Removed as a result of suitability assessment. Primary factors included: medium density residential and golf courses; visual impacts within residential area and views to the east and west.
118	Removed as a result of suitability assessment. Primary factors included: medium density residential and golf courses; visual impacts within residential area and views to the east and west.
127	Removed because it crosses the Canoa Ranch Conservation Park, which includes a conservation easement with development restrictions; high visual impact; culturally sensitivity.
131	Removed because it crosses the Canoa Ranch Conservation Park, which includes a conservation easement with development restrictions; high visual impact; culturally sensitivity.
132	Removed because it crosses the Canoa Ranch Conservation Park, which includes a conservation easement with development restrictions; high visual impact; culturally sensitivity.
133	Removed because it crosses the Canoa Ranch Conservation Park, which includes a conservation easement with development restrictions; high visual impact; culturally sensitivity.
134	Removed because it crosses the Canoa Ranch Conservation Park, which includes a conservation easement with development restrictions; high visual impact; culturally sensitivity.
138	Removed because it was redundant with segment 136, which illustrates a general siting corridor.
139	Removed because it was combined with segment 137.
140	Removed because it was combined with segment 136.
158	Removed because segment is no longer viable due to segment removals around Sopori Creek and Farm conservation easement area.
159	Removed because it crosses the Sopori Creek and Farm conservation easement area.
160	Removed because it crosses the Sopori Creek and Farm conservation easement area.
161	Removed as a result of suitability assessment. Primary factors included: medium density residential; adjacent Sopori Elementary School; visual impacts within residential area and views to the south (Tumacacori Mtns.), west (Cerro Colorado Mtns) and east (Santa Rita Mtns.); segment also no longer viable due to segment removals around Sopori Creek and Farm conservation easement area

TABLE 1 PHASE 3 ROUTING OPTIONS BY SEGMENTS	
Segment #	**Justification For Removal**
162	Removed because it crosses the Sopori Creek and Farm conservation easement area.
163	Removed because it crosses the Sopori Creek and Farm conservation easement area.
167	Removed because it crosses the Sopori Creek and Farm conservation easement area.
168	Removed because it crosses the Sopori Creek and Farm conservation easement area.
172	Removed because segment is no longer viable due to segment removals around Sopori Creek and Farm conservation easement area.
176	Removed as a result of suitability assessment. Primary factors included: undisturbed habitat with no advantage to adjacent segment along existing disturbance and linear infrastructure.


Preliminary Segments
To Tucson, AZ
Interconnection Option D
Quail Crossing Blvd
Santa Rita Rd
Santa Rita Experimental Range
Duval Mine Rd
Continental Rd
Green Valley Substation (Interconnection Option C)
Canoa Ranch Substation (Interconnection Option A)
White House Canyon Rd
Interconnection Option B
19
Via Montana Vista
Camino de Rondo
Canoa Rd
Elephant Head Rd
Arivaca Rd
Kantor Substation
To Nogales, AZ
Legend
Facility
Preliminary Segments
Study Area
Land Surface Management
USFS
State Trust
Canoa Ranch Conservation Park
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APPENDIX D
COMPATABILITY MATRIX

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Segment #	Existing and Planned Land Use	Adjacent Residential Properties	Fish, Wildlife, Plants, Includes T&E Species	Scenic Areas	Residential Visual Impact	Archaeological and Historical Resources	Total Environment	Noise Compatibility	Communication Signal Compatibility	Compliance with State, County, or City Ordinances	Safety and Operational Impacts	Engineering/Construction	ROW Acquisition	Cost Compatibility	Overall Average	Weighted by Public /	Compatibility Rating Guide
Public/Stakeholder Weight	3	22	3	3	28	3	3	3	3	3	17	3	3	3			
54	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.0	Compatible = 1
55	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1.1	1.3	Possible Negative Impacts = 2
56	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1.1	1.3	Known Negative Impacts = 3
57	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1.1	1.3	Unacceptable Impacts = 100
68	2	2	1	1	2	3	2	1	3	1	3	1	2	1	1.8	2.1	
70	2	2	1	1	2	2	1	1	1	1	3	2	1	1	1.5	1.9	
71	2	1	1	3	3	3	1	1	1	1	3	1	2	1	1.7	2.1	
72	2	1	1	3	3	3	1	1	1	1	3	1	2	1	1.7	2.1	
73	1	1	1	3	3	3	1	1	1	1	3	1	1	1	1.6	2.0	
74	1	1	1	3	2	1	1	1	1	1	2	1	2	1	1.4	1.5	
75	2	1	1	3	3	3	1	1	1	1	3	1	1	1	1.6	2.1	
77	1	1	1	3	2	1	1	1	1	1	2	1	2	1	1.4	1.5	
78	1	1	1	1	2	1	1	1	1	1	2	1	1	1	1.1	1.5	
80	2	1	1	3	3	2	1	1	1	1	3	1	2	1	1.6	2.1	
81	1	1	1	3	3	2	1	1	1	1	3	1	2	1	1.6	2.0	
88	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.0	
90	3	1	1	1	1	3	2	1	1	1	2	1	1	1	1.4	1.3	
91	2	2	1	1	2	3	2	1	1	1	3	1	2	1	1.6	2.0	
92	2	2	1	3	2	3	2	1	1	1	3	1	1	1	1.7	2.0	
96	1	2	1	3	2	1	1	1	1	1	3	2	2	1	1.6	2.0	
98	1	2	1	3	3	3	1	1	1	1	2	2	2	1	1.7	2.1	
99	2	1	1	3	2	1	1	1	1	1	1	2	2	3	1.6	1.5	
100	2	1	1	1	2	1	1	1	1	1	1	2	2	3	1.4	1.4	
107	2	1	1	3	2	1	1	1	1	1	1	2	2	3	1.6	1.5	
108	2	1	1	1	2	1	1	1	1	1	1	2	2	3	1.4	1.4	
111	3	1	1	3	1	2	2	1	1	1	2	3	2	1	1.7	1.4	
112	2	1	1	3	2	3	2	1	1	1	3	1	2	1	1.7	1.8	
113	3	2	1	3	1	1	2	1	1	1	1	2	2	1	1.6	1.4	
114	2	1	1	3	1	3	2	1	1	1	2	1	1	1	1.5	1.4	
115	3	2	1	3	1	1	2	1	1	1	2	2	1	1	1.6	1.6	
119	3	2	1	3	1	2	2	1	1	1	1	1	1	1	1.5	1.4	
120	2	1	1	3	1	3	2	1	1	1	2	1	1	1	1.5	1.4	
121	2	2	1	3	1	2	2	1	1	1	1	2	1	1	1.5	1.4	
122	2	1	1	1	2	1	1	1	1	1	1	2	2	3	1.4	1.4	
123	1	1	1	1	2	1	1	1	1	1	3	1	1	1	1.2	1.6	
124	2	1	1	3	2	1	1	1	1	1	2	2	1	3	1.6	1.6	
125	3	1	1	1	2	1	2	1	1	1	2	2	1	3	1.6	1.6	
126	2	1	1	3	1	2	1	1	1	1	1	3	1	3	1.6	1.2	
128	3	1	1	1	2	1	2	1	1	1	2	1	1	1	1.4	1.5	
129	2	1	1	3	1	1	2	1	1	1	1	2	2	1	1.4	1.2	
130	2	1	1	3	1	3	1	1	1	1	2	1	2	1	1.5	1.4	
135	1	1	1	1	2	1	1	1	1	1	2	1	2	1	1.2	1.5	
136	1	1	1	1	2	1	1	1	1	1	2	2	1	1	1.2	1.5	
137	1	1	1	1	1	3	1	1	1	1	2	1	1	1	1.2	1.2	
141	1	1	1	1	3	1	1	1	1	1	3	1	1	1	1.3	1.9	
142	2	1	1	1	2	1	1	1	1	1	3	1	1	1	1.3	1.7	
143	1	1	1	3	3	1	1	1	1	1	3	1	1	1	1.4	2.0	
144	1	1	1	1	2	1	1	1	1	1	3	2	1	1	1.3	1.7	
145	1	1	1	1	2	1	1	1	1	1	3	1	1	1	1.2	1.6	
146	2	3	1	1	2	1	1	1	1	1	3	3	2	3	1.8	2.2	
147	2	2	1	3	3	3	1	1	1	1	3	2	3	3	2.1	2.4	
148	2	3	1	3	3	3	1	1	1	1	3	2	2	1	1.9	2.6	
149	1	1	1	1	2	3	1	1	1	1	3	2	1	3	1.6	1.8	
150	2	1	1	3	2	1	2	1	1	1	3	1	1	1	1.5	1.7	
151	2	2	1	3	3	1	2	1	1	1	3	1	1	1	1.6	2.2	
152	1	1	1	1	2	3	1	1	1	1	3	2	1	1	1.4	1.7	
153	2	2	1	3	3	3	1	1	1	1	2	1	2	1	1.7	2.1	
154	2	1	1	3	1	3	1	1	3	1	2	2	2	3	1.9	1.5	
155	2	1	1	1	1	2	1	1	1	1	2	2	2	3	1.5	1.4	
156	2	1	1	1	1	3	1	1	1	1	2	1	1	1	1.3	1.3	
157	1	1	1	1	1	3	1	1	1	1	3	1	1	1	1.3	1.4	
164	2	2	1	3	3	1	1	1	3	1	1	2	2	1	1.7	2.0	
165	1	1	1	3	2	2	1	1	1	1	2	2	2	3	1.6	1.7	
166	1	1	1	1	3	1	1	1	1	1	1	2	2	1	1.3	1.6	
169	2	2	1	3	3	1	1	2	1	1	2	2	2	3	1.9	2.2	
170	2	1	2	3	2	2	1	1	1	1	2	1	2	3	1.7	1.7	
171	1	1	2	1	1	3	1	1	1	1	3	2	1	1	1.4	1.5	
173	1	1	1	3	3	1	1	2	1	1	2	2	2	3	1.7	1.9	
174	1	2	2	3	3	1	1	1	1	1	1	2	1	3	1.6	2.0	
175	3	1	1	3	2	3	1	1	1	1	2	1	1	1	1.6	1.6	
177	1	1	1	1	1	3	1	1	3	1	1	2	1	3	1.5	1.2	

SANTA CRUZ RELIABILITY PROJECT NORTH

APPENDIX D - COMPATIBILITY MATRIX

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APPENDIX E
PREFERRED ROUTE DECISION MATRIX

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APPENDIX E
PREFERRED ROUTE DECISION MATRIX

Alternative Route	Length	Cost Est. ($Millions)	Distance	Existing and Planned Land Use	Adjacent Residential Properties	Fish, Wildlife, Plants, Includes T&E Species	Scenic Areas	Residential Visual Impact	Archaeological and Historical Resources	Total Environment	Safety and Operational Impacts	Engineering/ Construction	ROW Acquisition	Cost	Public/ Stakeholder Feedback
Alternative 1	12	$16.9													
Alternative 2	9	$13.4													
Alternative 3	10	$15.2													
Alternative 4	11	$28.3													
Alternative 5	12	$29.7													

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EXHIBIT C

AREAS OF BIOLOGICAL WEALTH

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EXHIBIT C. AREAS OF BIOLOGICAL WEALTH

As stated in the Arizona Administrative Code, Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, Exhibits to Application, **Exhibit C**:

> *"Describe any areas of 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."*

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Introduction

UNS Electric, Inc. (UNSE) evaluated the potential impacts of the Santa Cruz Reliability North Transmission Project (SCR North or Project) on existing biological wealth within the broader Project Siting Area. The following exhibit describes an analysis of the potential impacts to areas of biological wealth within the Project Study Area, defined as the area encompassing a 1-mile buffer around the Preferred and Alternative routes evaluated for the Project.

Biological Wealth

Figure C-1 provides mapping of the proposed Preferred and Alternative routes in relation to major washes and riparian habitats that are found within and near the Project Study Area. The Biological Evaluation (BE), included as **Exhibit C-1**, along with this section, offers an overview of the existing environmental conditions in the Project Study Area, with a focus on vegetation, wildlife, and the potential presence of special status species. The Project Siting Area refers to the full siting study area established for the Project, which was later refined following UNSE's determination of the Preferred and Alternative routes.

The vicinity of the Project Study Area contains areas of moderate biological value, including Important Bird Areas (IBAs), riparian areas, and identified wildlife movement corridors. These features are further described in the following sections.

This analysis incorporated information from multiple sources, including the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online system, Arizona Game and Fish Department (AZGFD) Heritage Data Management System Online Environmental Review Tool (OERT), USFWS National Wetlands Inventory maps, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, and species-specific habitat and life history data.

Project biologists conducted several field visits of the Project Study Area between January 2024 and August 2025 to document existing conditions, verify the results of the desktop analyses, and to assess the habitat for special-status species that may occur within the Project Study Area. Information including habitat requirements, known occurrences, and habitat types was used to evaluate the potential of each species to occur in the area and to analyze the potential effects of the Project.

Areas of Biological Wealth

The following areas of biological wealth are present in or near the Project Study Area.

Critical Habitat

Results of USFWS IPaC confirmed that no Designated Critical Habitat for listed species is mapped within the Project Study Area. Thus, no critical habitat designated under the Endangered Species Act (ESA) will be impacted by construction of either the Preferred or Alternative Route.

Important Birding Areas

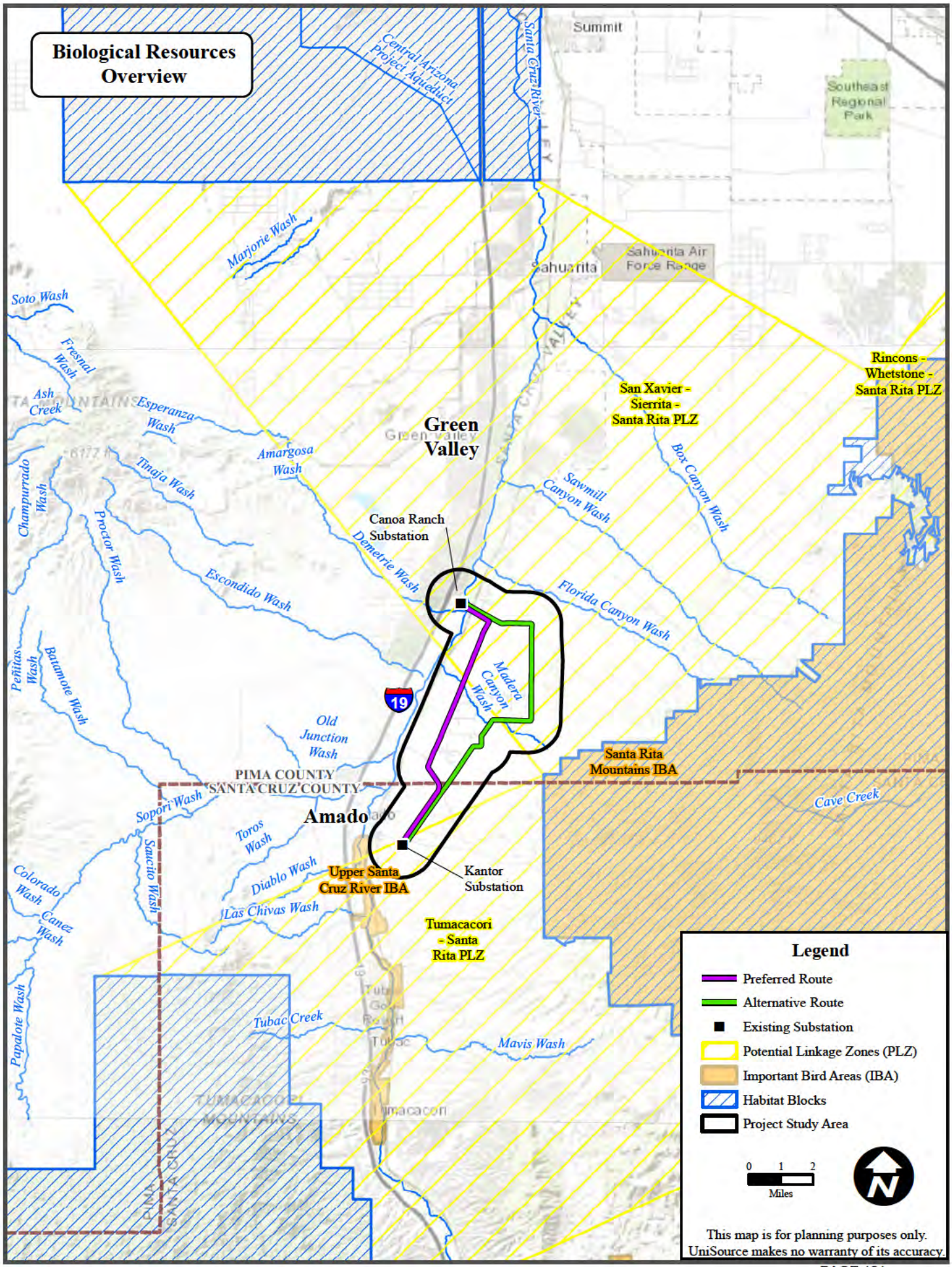
The Upper Santa Cruz River IBA is a 9.5 kilometer-long, state-recognized conservation zone located in southern Arizona. It is situated along the banks and adjacent riparian areas of the Santa Cruz River, of which a small portion overlaps the southern end of the Project Study Area, east of Amado, Arizona. The IBA plays a critical role in protecting bird habitat and biodiversity along the Santa Cruz River riparian corridor and supports over 115 bird species, including 18 Bird Species of Conservation Concern. Conservation efforts are coordinated through the Arizona IBA Program in partnership with AZGFD, federal agencies, and NGOs, with a focus on habitat protection, public education, and sustainable land management. **Figure C-2** depicts the Upper Santa Cruz River IBA in relation to the Project Study Area.

Although a small portion of the Project Study Area overlaps the northern edge of the Santa Cruz IBA, neither the Preferred Route nor Alternative Route intersect this IBA and it is not expected to be impacted by construction of the Project.

Wildlife Linkage Corridors

The Arizona Missing Linkages and the Arizona Wildlife Linkages Workgroup (AWLW) are closely related initiatives aimed at identifying ideal connections within or between intact blocks or core habitats. The purpose of wildlife linkage corridors is to preserve connections between habitats that will allow animals to move, find food and mates, and maintain genetic diversity. The AWLW initiated the wildlife corridor assessment, while the Arizona Missing Linkages project refined the implementable corridor designs that emerged from that work. Additional multi-agency working groups and institutions, such as Northern Arizona University, have built upon these initiatives, creating a linkage design between several wildland blocks in the state. Two blocks are located near the Project: the Santa Rita Wildland Block, located approximately 15 miles to the east of Green Valley and the Sierrita Wildland Block located approximately 10 miles to the northwest of Green Valley. One named wildlife linkage corridor exists which traverses the Project Study Area and that may facilitate habitat connectivity between these two wildland blocks, aptly named the Santa Rita – Sierrita Linkage. However, the Pima County Wildlife Connectivity Assessment for the Santa Rita – Sierrita Linkage indicated several existing barriers which inhibit species movement between the two blocks. These include existing roadways, such as Interstate 19 and Frontage Roads, Union Pacific Railroad, stream impediments, and urban development. **Figure C-1** depicts the Santa Rita – Sierrita Linkage in relation to the Project Study Area.

The linkage design recommends measures such as constructing wildlife crossings over roads, removing barriers to movement, and enhancing riparian habitat to strengthen aquatic and terrestrial connectivity. Suggested mitigation strategies include preserving natural flood patterns, restricting ATV and off-highway vehicle activity within riparian zones, and controlling invasive species. Following approval of a final route, UNSE will consider these recommended measures in the final design of the Project, such as new access roads. Construction of the Project is not anticipated to impact the Santa Rita – Sierrita Linkage or limit mobility to species in the area.


Biological Resources Overview
Summit
Southeast Regional Park
Central Arizona Project Aqueduct
Santa Cruz River
Marjorie Wash
Sahuarita
Sahuarita Air Force Range
Soto Wash
Fresnal Wash
Ash Creek
Esperanza Wash
Amargosa Wash
Tinaja Wash
Champurrado Wash
Proctor Wash
Escondido Wash
Peñitas Wash
Batamote Wash
Green Valley
Canoa Ranch Substation
Demetrie Wash
Sawmill Canyon Wash
Box Canyon Wash
Florida Canyon Wash
Madera Canyon Wash
Rincons - Whetstone - Santa Rita PLZ
San Xavier - Sierrita - Santa Rita PLZ
19
Old Junction Wash
PIMA COUNTY
SANTA CRUZ COUNTY
Santa Rita Mountains IBA
Cave Creek
Sopori Wash
Amado
Toros Wash
Saucito Wash
Diablo Wash
Upper Santa Cruz River IBA
Kantor Substation
Las Chivas Wash
Coloredo Wash
Canez Wash
Tumacacori - Santa Rita PLZ
Papalote Wash
Tubac Creek
Mavis Wash
Tubac
Tumacacori
TUMACACORI MOUNTAINS
SANTA RITA MTS
Legend
Preferred Route
Alternative Route
Existing Substation
Potential Linkage Zones (PLZ)
Important Bird Areas (IBA)
Habitat Blocks
Project Study Area
0 1 2
Miles
N
This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

Special-Status Species

Special-status species with the potential to occur in or near the proposed Project were also analyzed, including federally listed species, Arizona State Sensitive and Conservation Agreement Species, and avian species protected under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). A BE has been prepared and includes a full evaluation of the Project relative to these species and is included as **Exhibit C-1**.

Federally Listed Species

Results of desktop analysis using USFWS IPaC and AZGFD OERT identified the following 14 federally protected Threatened and Endangered (T&E) species of plants and wildlife that have the potential to occur within or near the Project Study Area. These species listings are primarily based on current and historic ranges and the potential for suitable habitat to be present:

- Jaguar (*Panthera onca;* Endangered)
- Ocelot (*Leopardus [=Felis] pardalis;* Endangered)
- Cactus Ferruginous Pygmy-Owl (*Glaucidium brasilianum;* Threatened)
- California Least Tern (*Sternula antillarum browni;* Endangered)
- Masked Bobwhite Quail (*Colinus virginianus ridgwayi;* Endangered)
- Mexican Spotted Owl (*Strix occidentalis lucida;* Threatened)
- Southwestern Willow Flycatcher (*Empidonax traillii extimus;* Endangered)
- Yellow-Billed Cuckoo (*Coccyzus americanus;* Threatened)
- Sonoyta Mud Turtle (*Kinosternon sonoriense longifermorale;* Endangered)
- Chiricahua Leopard Frog (*Rana chiricahuensis;* Threatened)
- Gila Chub (*Gila intermedia;* Endangered)
- Gila Topminnow (*Poeciliopsis occidentalis*; Endangered)
- Arizona Eryngo (*Eryngium sparganophylum;* Endangered)
- Pima Pineapple Cactus (*Coryphantha scheeri* var. *Robustispina;* Endangered)

Further review of these 14 federally protected species determined that three species have the potential to exist within the Project Study Area based on documented occurrences within 3 miles of the Project Study Area, species habitat requirements, and field observations of existing habitat conditions. These species are the Cactus Ferruginous Pygmy-Owl, Yellow-Billed Cuckoo, and Pima Pineapple Cactus (**Table C-1**).

Table C-1. Federally Listed Species with Potential to Occur in the Project Study Area

Scientific Name	Common Name	Status*	Potential to Occur
Birds			
Coccyzus americanus	Yellow-Billed Cuckoo	T	Possible
Glaucidium brasilianum cactorum	Cactus Ferruginous Pygmy-Owl	T	Possible
Plants			
Coryphantha scheeri var. *robustispina*	Pima Pineapple Cactus	E	Possible
*Key: E = Endangered (USFWS); T = Threatened (USFWS)			

The remaining eleven species were determined unlikely to occur in the Project Study Area (see **Exhibit C**) due to lack of suitable habitat. Although not currently listed under the ESA, IPaC results indicated the potential for occurrence of and/or suitable habitat for the Sonoran Pronghorn (*Antilocapra americana sonoriensis;* Experimental Population, Non-Essential) and the Monarch Butterfly (*Danaus plexippus;* Proposed Threatened*).*

Cactus Ferruginous Pygmy-Owl

The cactus ferruginous pygmy-owl, a species identified by USFWS as Threatened, inhabits the desert regions of southern Arizona and northern Mexico. It prefers desert scrub and riparian areas with dense vegetation like saguaros and other large cacti, which provide suitable nesting habitat and shelter. The owl may also use trees such as mesquite and palo verde for these purposes, especially in riparian zones. According to Pima County's official species account, pygmy-owls are closely associated with habitat along desert washes and require large cacti or tree cavities for nesting (Pima County 2024).

It typically resides at lower elevations, from sea level to around 4,000 feet above mean sea level (amsl). The owl is adapted to desert environments but is listed as Threatened due to habitat loss (USFWS 2025a). Currently suitable habitat in Arizona is limited to specific regions in southern Arizona, such as the Altar Valley and areas south of Tucson, where native vegetation and nesting structure remain intact. Designated Critical Habitat is not present within the Project Study Area vicinity. This species requires dense, xeroriparian woodland or desert scrub habitats with mature trees, saguaros, or mesquite bosques for nesting, features that are mostly absent from the disturbed and fragmented landscape of the Project Study Area. However, some scattered pockets of suitable nesting habitat are present in the Project Study Area and possible presence of the owl cannot totally be confirmed or refuted without proper protocol-level surveys.

Due to the presence of suitable habitat within and adjacent to each the Proposed and Alternative Route corridors, implementation of the Project could potentially impact cactus ferruginous pygmy-owl species and/or their habitat caused by permanent vegetation removal, as well as temporary displacement due to construction activities occurring during the nesting season. To reduce the potential for Project-related impacts to the species, it is recommended that UNSE follow the recommended mitigation measures outlined in this exhibit, including conducting preconstruction presence/absence surveys, avoiding construction during the nesting season where feasible and minimizing vegetation removal to only that which is necessary for construction.

Yellow-Billed Cuckoo

The yellow-billed cuckoo, a species determined to be Threatened by USFWS, primarily inhabits riparian woodlands and wetland areas in North America. It prefers areas with dense, deciduous trees and shrubs, particularly along rivers, streams, and wetlands. The cuckoo is found in regions with abundant willows (*Chilopsis linearis*), cottonwoods (*Populus fremontii*), and sycamores (*Platanus wrightii*), as these trees provide cover and nesting sites. It typically occupies low to mid-elevation areas, especially in the western U.S., and is closely tied to habitats with lush, thick vegetation for foraging and shelter. Habitat loss due to water diversion, agriculture, and urban development has contributed to its Threatened status (USFWS, 2025b). Designated Critical Habitat does not occur within the Project vicinity.

The majority of the undeveloped native land located in the Project Study Area, which may contain suitable dispersal habitat, is directly connected to riparian habitat found in and along the banks of the Santa Cruz River. The Santa Cruz River is traversed by both proposed routes in the northeastern portion of the study area, along the northern edge of the Pima County conservation lands. No suitable nesting habitat for the Yellow-billed Cuckoo is present within or near either of the proposed routes, though the species has been documented within 3 miles of the area. Given that suitable dispersal habitat for the yellow-billed cuckoo

exists within the Project Study Area and the cuckoo is known to nest along the Santa Cruz River south of the Project Study Area where suitable habitat does occur, the possibility remains that the implementation of the Project may potentially affect the species and/or its habitat during the nesting season or dispersal.

To reduce the potential for Project-related impacts to the species, it is recommended that UNSE follow the recommended mitigation measures outlined in this exhibit, including avoidance of construction activities within ½-mile of any suitable nesting habitat during the nesting season, minimizing permanent removal of riparian vegetation which may provide suitable dispersal habitat, and conducting preconstruction protocol-level surveys should construction avoidance measures during the nesting season not be feasible.

Pima Pineapple Cactus

The Pima pineapple cactus, classified as Endangered by USFWS, is found in the Sonoran Desert of southern Arizona, particularly in sandy, rocky soils at low elevations. It typically grows in open, desert scrub habitats, often near dry washes, and is commonly associated with saguaro cacti and other desert vegetation. This cactus thrives in areas with limited water and high temperatures but is sensitive to habitat disturbance and has become endangered due to urban development, grazing, and off-road vehicle activity. The Pima pineapple cactus has no Designated Critical Habitat under the ESA.

Much of the undeveloped land within the Project Study Area provides suitable habitat. The species was not observed by Eocene biologists; however, given the presence of suitable habitat for the Pima pineapple cactus and known occurrence for the cacti within 3 miles of the area, the Project's implementation could potentially affect species and/or suitable habitat through ground disturbance resulting in permanent loss to habitat (*e.g.*, new, bladed access roads, structure pad sites, etc.).

To minimize potential Project-related impacts, it is recommended that UNSE and follow the mitigation measures outlined in this exhibit, including conducting preconstruction protocol-level presence/absence surveys in all areas of suitable habitat found within 300 feet of the Project footprint. These surveys would be conducted within 1 year prior to construction and occur during the flowering season (early July through August).

Protected State Sensitive Species

Eocene utilized the AZGFD OERT to review known documented occurrences of special status species in order to assess their potential to occur during implementation of the Project. The results provided by the report indicated that 92 wildlife Species of Greatest Conservation Need or Arizona state native plants have been documented within a 3-mile radius of the Project Siting Area. A list of these special status species and their protected status is included in the OERT report located in **Appendix B** of the BE (**Exhibit C-1**).

Sonoran Desert Tortoise

Sonoran desert tortoise typically inhabits the Sonoran desert scrub community, favoring rocky slopes and bajadas. Suitable habitat for this species exists within the Project Study Area and there are documented observations of tortoises within 3 miles of the Project Study Area. Furthermore, according to the U.S. Geological Survey's Gap Analysis Program, the Santa Rita Mountains east of the Project Study Area and the Sierrita Mountains west of the Project Study Area contain suitable burrowing habitat for the tortoise. Additionally, most of the undeveloped native land within the Project Study Area contains desert washes and intermountain valleys which may provide suitable dispersal habitat.

Currently, the Sonoran desert tortoise is not a federally listed species. It was determined by USFWS in their 2022 ruling that the species did not warrant federal protection under the ESA. However, there still exists

the current conservation agreement that was created in 2015, known as the Candidate Conservation Agreement (CCA), which does afford the species some general protection and contains recommended mitigation measures for developers in the state of Arizona. The CCA is a voluntary conservation agreement administered by USFWS, in which the Arizona Department of Transportation and AZGFD are participating state agencies. It remains as a comprehensive statewide framework for conservation of the species and its habitat and aims to identify present and future threats to species being considered for ESA listing. Additionally in 2016, Pima County's Conservation Lands and Resources Department developed and currently oversees the Multi-Species Conservation Plan (MSCP) aimed at providing a landscape-level, coordinated mitigation for 44 sensitive species found within Pima County managed lands. Information available on the County's MSCP website indicates that data collection and monitoring efforts for the species are outside of the Project Study Area and are being focused primarily on areas where tortoises have been found to be in higher abundance. These areas include the Tucson Mountains and Painted Hills properties. Specific to the Project, due to the limited availability of suitable burrowing habitat within the Project Study Area and that construction of the Project would not significantly inhibit mobility by the species between areas where suitable burrowing habitat is located, it is anticipated that construction of the Project would not impact Sonoran desert tortoises. Furthermore, it is recommended that UNSE coordinate, as needed, with Pima County Office of Sustainability and Conservation and AZGFD prior to the initiation of Project construction to determine if protocol-level surveys are recommended or required.

There is currently no federally Designated or Proposed Critical Habitat for the Sonoran desert tortoise.

Western Burrowing Owl

Although the western burrowing owl is not protected under the ESA, it is recognized by the USFWS as a National Bird of Conservation Concern. Additionally, it is listed as endangered, threatened, or a species of concern in nine states. All owl species are protected under the federal MBTA and Arizona state law (Arizona Revised Statute Title 17).

It is not anticipated that construction of the Project will impact the species as no suspected burrows or burrowing owls were observed during any field visits and no recorded occurrences were noted within 3 miles of the Project Study Area in the AZGFD OERT. However, to reduce potential impacts to the western burrowing owl, it is recommended that UNSE coordinate with AZGFD, as needed, prior to construction to determine if protocol-level surveys are recommended or required.

Migratory Bird Treaty Act

Migratory birds are protected under the MBTA of 1918, as amended (16 U.S. Code §§ 703–712). Under the MBTA, it is unlawful to take, kill, or possess migratory birds, their eggs, parts, or nests without a valid permit (50 Code of Federal Regulations [CFR] § 21.11).

Results from recent IPaC analysis for the Project Study Area indicate 29 species of migratory Birds of Conservation Concern (BCC) could inhabit the area. The BCC species included in the report are American Avocet (*Recurvirostra americana*), Arizona Woodpecker (*Dryobates arizonae*), Bendire's Thrasher (*Toxostoma bendirei*), Black-Chinned Sparrow (*Spizella atrogularis*), Black-Throated Gray Warbler (*Setophaga nigrescens*), Broad-Tailed Hummingbird (*Selasphorus platycercus), Chestnut-Collard Longspur (Calcarius ornatus*), Clark's Grebe (*Aechmophorus clarkii*), Cordilleran Flycatcher (*Empidonax occidentalis*), Costa's Hummingbird (*Calypte costae*), Elegant Troon (*Trogon elegans*), Gila Woodpecker (*Melanerpes uropygialis*), Grace's Warbler (*Setophaga graciae*), Lawrence's Goldfinch (*Spinus lawrencei*), Lewis's Woodpecker (*Melanerpes lewis*), Long-Eared Owl (*Asio otus),* Marbled Godwit (*Limosa fedoa*), Mexican Whip-Poor-Will (*Antrostomus arizonae*), Olive-Sided Flycatcher (*Contopus cooperi*), Phainopepla (*Phainopepla nitens lepida*), Plumbeous Vireo (*Vireo plumbeus*), Red-Faced Warbler

(*Cardellina rubrifrons), Scott"s Oriole (Icterus parisorum*), Sprague's Pipit (*Anthus spragueii*), Varied Bunting (*Passerina versicolor*), Virginia's Warbler (*Leiothlyps virginiae*), Western Grebe (*Aechmophorus occidentalis*), Whiskered Screech-Owl (*Megascops trichopsis*) and Willet (*Tringa semipalmata*). Further coordination with the USFWS and AZGFD may be necessary if updated data becomes available or if project timing overlaps with known nesting periods.

Suitable nesting habitat is present throughout most of the Project Study Area and may host several species of active nesting birds during the nesting season (March 1 to August 31). It should be assumed there is high likelihood that nesting activity will occur during construction within and/or adjacent to the approved route once it is determined. To avoid impacting nests during the active nesting season and to limit the potential for take of species, formal preconstruction migratory bird and raptor nest surveys are recommended to be conducted by a qualified biologist within 10 days prior to the initiation of construction activities. These preconstruction surveys will be continued, as needed, as construction moves to new areas not previously or recently surveyed or those areas that have had no construction activities take place for longer than 10 consecutive days. If active nests are discovered, a species-specific avoidance buffer would be established, and no construction activities would take place within that buffer until it is confirmed by a qualified biologist that the nestlings have successfully fledged or the nest is later determined by the biologist to be inactive. Vegetation will be surveyed prior to construction to confirm that no protected bird species would be impacted.

Bald and Golden Eagle Protection Act

In addition to the MBTA, Bald and Golden eagles are protected under the BGEPA, originally enacted in 1940, and amended in 1962. The BGEPA prohibits the take, possession, sale, purchase, barter, transport, export, or import of bald or golden eagles, including any part, nest, or egg, unless authorized by permit (16 United States Code § 668[a]; 50 CFR § 22). The definition of "take" includes both direct harm and disturbance.

Bald eagles typically nest in tall trees or saguaros near water and feed opportunistically on fish, waterfowl, small mammals, and carrion. No suitable nesting habitat exists for bald eagles within the Project Study Area. However, results from the OERT indicated documented observations of bald eagles within 3 miles of the Project Study Area. Additionally, the online citizen observation tool, eBird, has documented occurrences of bald eagles flying in the areas of Green Valley and nearby Tubac, Arizona.

Golden eagles are generally found in open or mountainous terrains and nest on cliffs, rock ledges, or large trees. In Arizona, they are primarily located in mountainous regions and are largely absent from desert areas outside the breeding season. Like bald eagles, no suitable nesting habitat is located within the Project Study Area or vicinity, but there were documented occurrences in both the OERT and via eBird observations. The closest suitable nesting habitat exists approximately six miles east of the Project Study Area in the nearby Santa Rita Mountains.

Based on available habitat and observation records, bald and golden eagles may transiently inhabit the Project area during construction; however, their presence would likely be limited to migratory and/or hunting behavior as there is no suitable nesting habitat for either species found within or near to the Project Study Area. During hunting, eagles may use transmission and distribution poles as perches.

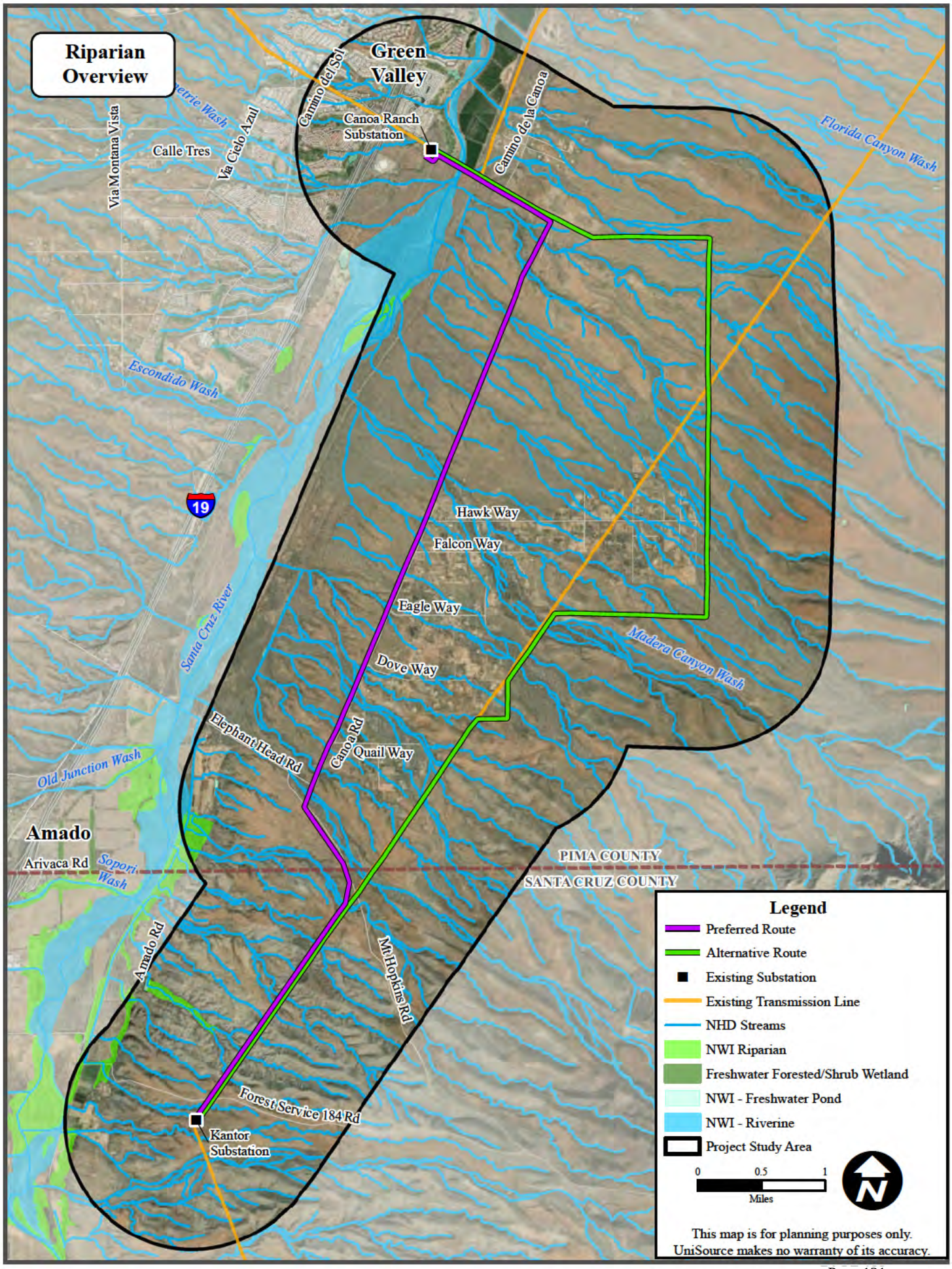
Construction of the proposed Project is unlikely to result in the impact or take of individuals or nests of either species. During preconstruction migratory bird and raptor nest surveys, observations of bald and golden eagles will be recorded. To minimize the potential for mortality caused by electrocution to eagles and other species while flying, hunting, or perching on poles, UNSE designs their lines in accordance with the guidelines and recommendations set forth by the Avian Power Line Interaction Committee (APLIC).

Important Riparian Areas

The riparian features within the Project Study Area depicted in **Figure C-2** are concentrated along a network of washes and stream corridors that traverse the Project Study Area. These habitats are primarily associated with perennial and intermittent watercourses such as the Santa Cruz River, Sopori Wash, Box Canyon Wash, Madera Canyon Wash, and several others including Toros, Diablo, and Florida Canyon Washes. UNSE identified riparian zones using National Wetlands Inventory classifications, highlighting areas of freshwater forested and shrub wetlands, ponds, lakes, and riverine systems. These riparian corridors support dense vegetation and serve as critical ecological zones for wildlife, offering habitat, migration pathways, and water resources in an otherwise arid landscape. The presence of these habitats within the Project Study Area underscores the importance of careful siting and environmental consideration to avoid disruption to sensitive ecosystems.

In order to inform design of where avoidance is required, it is recommended that prior to construction an aquatic resources delineation be conducted to identify the Ordinary High-Water Mark of the Santa Cruz River and other potentially jurisdictional streams that traverse the approved route corridor.

During construction, UNSE will utilize all appropriate Best Management Practices (BMPs), such as silt fencing and straw wattles, to limit potential impacts to jurisdictional aquatic resources.


Riparian Overview
Green Valley
Canoa Ranch Substation
Camino del Sol
Camino de la Canoa
Via Montana Vista
Calle Tres
Via Cielo Azul
Florida Canyon Wash
Escondido Wash
Santa Cruz River
Hawk Way
Falcon Way
Eagle Way
Dove Way
Madera Canyon Wash
Elephant Head Rd
Canoa Rd
Quail Way
Old Junction Wash
Amado
Arivaca Rd
Sopori Wash
PIMA COUNTY
SANTA CRUZ COUNTY
Amado Rd
Mt Hopkins Rd
Forest Service 184 Rd
Kantor Substation
19
Legend
Preferred Route
Alternative Route
Existing Substation
Existing Transmission Line
NHD Streams
NWI Riparian
Freshwater Forested/Shrub Wetland
NWI - Freshwater Pond
NWI - Riverine
Project Study Area
0
0.5
1
Miles
N
This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

Summary of Potential Effects

The BE assessed the potential for Project activities to impact special status species and/or their habitat, with findings consistent across both the Preferred and Alternative routes. Although three federally listed species may occur within the Project Study Area, no individuals were observed during field visits, and it is anticipated that any impacts to these species or their habitats can be minimized through implementation of appropriate Environmental Protection Measures (EPMs). All other federally listed species under the ESA are expected to be unaffected ("No Effect") due to the absence of suitable habitat.

Similarly, impacts to state-sensitive species are not anticipated to occur and appropriate wildlife agency coordination will be conducted by UNSE to determine if any species-specific surveys or mitigation measures are recommended.

Regarding migratory birds, suitable nesting habitat exists throughout the Project Study Area. However, mitigation through preconstruction nest surveys, avoidance of known active nests, and other measures are expected to minimize the potential for any impacts to species and/or their nests.

No suitable nesting habitat for bald or golden eagles exists within or near to the Project. No impacts to these species are anticipated.

There remains the possibility for mortality of avian species by electrocution once the Project is constructed; however, UNSE will design the transmission line to limit these impacts according to guidelines provided by the APLIC.

Construction

Construction of the Project is not expected to have an effect on ESA-listed or other special status species, minimal impact on water resources, and no significant impact on riparian habitat. Long-term effects on urban wildlife movement or the creation of wildlife

barriers are also not expected as the Project would not create any significant barriers to species mobility once complete. Some native vegetation, including some riparian species, may be trimmed or removed to allow equipment access during construction. To minimize potential impacts to wildlife, UNSE will conduct appropriate pre-construction surveys and implement mitigation and reclamation measures, as needed.

Recommended Environmental Protection Measures

The following mitigation measures are designed to reduce the impact to special status species, risk of animal injury, or spread of invasive species.

Cactus Ferruginous Pygmy-Owl

- As suitable habitat may be present, UNSE will conduct informal Section 7 consultation with the USFWS to confirm impacts to federally listed species and to determine additional Project-specific mitigation measures, as appropriate.
- Preconstruction surveys will be performed by a qualified biologist in areas of suitable habitat to identify individual owls, following protocols outlined in *USFWS's Recommended Guidance for Private Landowners Concerning the Cactus Ferruginous Pygmy-owl; and the Cactus Ferruginous Pygmy-owl Survey Protocol* (65 FR 14999, 2020).Construction will be avoided in suitable or occupied nesting habitat from mid-June to mid-August during the most active nesting season.

- ½-mile no-work buffers will be established around all active nests until the young have fledged, or the nest is determined by a qualified biologist to no longer be active.
- Clearing of vegetation will be kept to the minimum amount that is required for construction of the Project.

Yellow-Billed Cuckoo

- If it is determined that suitable nesting habitat exists within ½-mile of the Project, UNSE will conduct informal Section 7 consultation with the USFWS to confirm impacts to federally listed species and to determine additional Project-specific mitigation measures, as appropriate.
- If determined necessary through Section 7 consultation, pre-construction surveys will be performed by a qualified biologist within suitable habitat to locate individual Yellow-Billed Cuckoo, in accordance with USFWS survey protocol found in *A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo (Halterman et al, 2016)*.
- Alternatively, if suitable nesting habitat is confirmed, all construction activities within ½-mile of the edge of suitable nesting habitat will be avoided during July and August of the breeding season.
- ½-mile no-work buffers will be established around all active nests until the young have fledged, or the nest is determined by a biologist to no longer be active.
- Clearing of vegetation will be kept to the minimum amount that is required.
- If habitat loss occurs, appropriate restoration measures will be implemented.

Pima Pineapple Cactus

- As suitable habitat may be present, UNSE will conduct informal Section 7 consultation with the USFWS to confirm impacts to federally listed species and to determine additional Project-specific mitigation measures, as appropriate.
- Conduct pre-construction presence/absence surveys in suitable habitat to identify individual plants, following standard survey protocols set forth in Pima County's MSCP.
- Direct impacts to known Pima pineapple cactus individuals and their surrounding habitat will be avoided whenever possible.
- Protective buffers will be established around all identified cacti (commonly 10 to 50 feet), particularly during construction or ground-disturbing activities.
- Avoidance areas using flagging and fencing will be established around cacti individuals during construction to prevent accidental disturbance.
- To the extent possible, construction will be timed to avoid soil compaction and disturbance during wet seasons, especially monsoon months.
- Surface disturbance will be minimized in suitable habitat areas by limiting grading, vehicle travel, and trenching.
- Appropriate erosion and sediment control measures and BMPs will be implemented to protect habitat from runoff or degradation.
- Temporarily disturbed cactus habitat will be restored to pre-Project conditions using native seed and vegetation.
- Coordination with USFWS will be required if Project modifications are necessary or if previously undetected individuals are found during construction.
- Prohibit plant collection or removal and educate workers on the species' presence and legal protections.

Avian Species

- UNSE will design the Project to incorporate reasonable measures to minimize electrocution of and impacts to avian species following the guidelines outlined in *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* (APLIC) 2006) and *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* (APLIC 2012).
- If vegetation clearing is to occur during the migratory bird breeding season (March 1–August 31), a preconstruction survey for migratory birds and nests would be conducted no more than 10 days prior to ground-disturbing activities. If any listed species are found, construction will be delayed until UNSE has coordinated with the appropriate federal and state wildlife agencies.
- If vegetation clearing is to occur during the migratory bird breeding season (March 1–August 31), UNSE shall avoid any active bird nests. During the non-breeding season (September 1–February 28), vegetation removal is not subject to this restriction.
- Disturbance and removal of vegetation, particularly found in riparian zones and saguaro-rich habitats would be kept to the minimum amount required to complete construction.

Noxious and Invasive Species

- All surfaces and the undercarriages of vehicles and equipment will be thoroughly washed before moving to the Project site to remove any noxious or non-native plant seeds. This will reduce the possibility of transporting noxious or non-native plants from one site to another.
- To prevent invasive species seeds from leaving the site, the contractor will inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site. If possible, the vehicles will be thoroughly washed prior to leaving the construction site.

State-Protected Species

- Targeted surveys should be conducted during appropriate seasons to confirm species presence or absence.
- Coordination with the AZGFD is recommended to determine applicable permitting requirements and to identify any BMPs or additional mitigation measures for state-protected species.
- Where possible, Project design should avoid or minimize disturbance to suitable habitat, particularly during sensitive periods such as breeding or nesting seasons.
- Protective buffers or fencing may be established around key habitat features to further reduce impacts.
- If temporary habitat disturbance is unavoidable, disturbed areas should be restored using native vegetation and appropriate soil stabilization methods.
- Should any state-protected species be encountered during construction, work in the immediate area should cease and AZGFD should be notified. Post-construction monitoring may also be implemented to ensure habitat recovery and assess ongoing wildlife use.
- If western burrowing owls (*Athene cunicularia hypugaea*) are identified in the Project Area, measures to avoid any active burrows should be taken. Because some burrowing owls are year-round residents, surveys for this species should be conducted prior to the initiation of ground disturbance and vegetation removal activities. Further the AZGFD's *Burrowing Owl Project Clearance Guidance for Landowners* (Arizona Burrowing Owl Working Group 2009) should be followed.
- To reduce the potential of negative effects to terrestrial species through collisions, worker awareness training and low-level speed limits should be implemented. If Sonoran desert tortoises (*Gopherus morafkai*) are observed, adherence to the AZGFD's (2014) *Guidelines for Handling*

Sonoran Desert Tortoises Encountered on Development Projects would minimize the potential for direct impacts to this species.

- If trenching is included as part of Project construction, the following should be considered to minimize injury to wildlife: when trenches cannot be backfilled immediately, escape ramps, which can be short lateral trenches or wooden planks sloping to the surface, should be constructed at least every 90 meters, trench slopes should be less than 45 degrees (1:1), and any trenches left open overnight should be inspected to remove wildlife prior to backfilling.

Conclusion

The Project is not expected to impact any areas of biological wealth or affect any rare or endangered species through implementation of appropriate EPMs.

The potential effects on federally listed or other special status species are expected to be similar for the Proposed Route and Alternative Route. The Project may impact federally listed species or their habitat; however, preconstruction surveys and other appropriate EPMs, as outlined above, will be implemented to reduce these potential impacts. Prior to construction, coordination with the USFWS is anticipated to confirm impacts to federally listed species and to determine additional Project-specific mitigation measures, as appropriate.

Potential impacts to migratory birds will be mitigated by avoiding occupied nests during the nesting season and these would be identified during nest surveys conducted prior to the initiation of construction activities. Furthermore, as no suitable nesting habitat for bald eagles, or golden eagles is present within or near to the Project Study Area, no impacts to these species due to construction of the Project is anticipated.

The proposed Project disturbance footprint would be limited to poles and access roads (some of which would be temporary) with minimal disturbance to the landscape, and as a result, no effect to terrestrial wildlife using these areas is expected to be incurred. The small disturbance footprint and relatively short time frame of construction would minimize migratory species avoidance and migratory stopover habitat loss. As such, any loss of vegetation from construction activities would not contribute meaningfully to habitat fragmentation or decrease connectivity between habitats, regardless of which route alternatives are chosen.

Although impacts to sensitive species are not anticipated, conducting preconstruction surveys, adjusting construction timing, and/or modifying pole placement or configuration could help avoid any potential conflicts.

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EXHIBIT C-1

BIOLOGICAL EVALUATION

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BIOLOGICAL EVALUATION

Santa Cruz Reliability Project North

Pima and Santa Cruz Counties, Arizona

Prepared for:

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July 2025

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INTRODUCTION

UNSE, a subsidiary of UniSource Energy Services, has proposed SCR North, which would result in the following:

- Construction of a new 138-kilovolt (kV) transmission line;
- Expansion of the existing Kantor Substation; and
- Installation of supporting infrastructure and maintenance roads.

SCR North is designed to reduce the potential for a major sustained outage in Santa Cruz County. The Project will be the first of three phases of the wider Santa Cruz Reliability Project and will strengthen the local energy grid by constructing a second 138-kV transmission line to connect the Kantor substation, located in Santa Cruz County to the regional electric grid in Pima County. This Project would improve service reliability for customers by beginning the process of converting the current radial line configuration to a looped transmission system. A looped system would increase reliability and resiliency by adding a second path of transmission. Specifically, the looped system would allow UNSE to serve residents, businesses, service providers, and other customers in the area from more than one direction and quickly restore power when outages occur by rerouting service from another direction.

UNSE contracted Eocene Environmental Group, Inc. (Eocene) to assess the Project area for potential impacts to natural resources, including species protected under the ESA, Arizona state-listed sensitive and Conservation Agreement species, and avian species protected under the MBTA and BGEPA. These species are collectively referred to as special-status species.

This BE was prepared to document potential occurrences of special-status species, the presence of suitable and/or Critical Habitat, and to evaluate the potential impacts that this Project may have on special-status species and their habitat.

Throughout this BE, the term “Project Study Area” is used to define the Project study area that will be assessed to determine the approved route for the proposed transmission line and ultimately the footprint of the Project. Further preconstruction studies and/or protocol-level surveys may be required once an approved route has been determined and Project designs are finalized.

PROJECT LOCATION AND DESCRIPTION

UNSE is preparing plans for new transmission facilities to improve reliability and resiliency of the electrical transmission system serving Santa Cruz County. It should be noted that at this time, the Project is still in the siting and design phase and an approved route has not been selected.

Once the approved route is determined, the new 138-kV aboveground transmission line would require up to a 100-foot-wide right-of-way (ROW). Tubular weathering steel monopoles, approximately 75–85 feet tall, would support a single three-phase transmission circuit within the approved ROW. Access roads would be bladed and maintained at a minimum width of 12 feet for construction, operations, and maintenance phases.

UNSE would also construct an expansion of the existing Kantor Substation as part of this Project, increasing the property boundary of the substation by approximately 6 acres to accommodate setback, security, and operations and maintenance requirements. The expanded substation would use Breaker and a Half configuration, which provides for maintenance without service

interruption of circuits. It would also include five terminations, eight breakers, 16 disconnect switches, and associated protective equipment.

Despite the physical capacity of the existing Vail to Valencia 138-kV transmission line, operational limitations restrict the Maximum Import Capability (MIC) due to voltage limitations at substations on the existing radial line. The Project will increase the MIC from 135 megawatts (MW) to 196 MW and would improve system performance, quality and efficiency.

The Project Study Area is located within and near the unincorporated areas of Green Valley and Amado, Arizona in Pima County, Arizona (**Figure 1**). The southern portion of the Project Study Area extends south into Santa Cruz County. Township, Range and Section information for the Project Study Area is detailed below in **Table 1** (USGS).

TABLE 1
PROJECT LOCATION

Township	Range	Section
17 South	13 East	25, 36
17 South	14 East	25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36
17 South	15 East	31
18 South	12 East	25, 26, 27, 34, 35, 36
18 South	13 East	1, 12, 13, 14, 15, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36
18 South	14 East	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 27, 28, 29, 30, 31, 32, 33, 34
18 South	15 East	6, 7
19 South	12 East	1, 2, 3, 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, 36
19 South	13 East	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35
19 South	14 East	4, 5, 6, 7, 8, 18, 19
20 South	12 East	1, 2, 3, 11, 12, 13, 14
20 South	13 East	2, 3, 4, 5, 6, 7, 8, 9, 10, 16, 17, 18

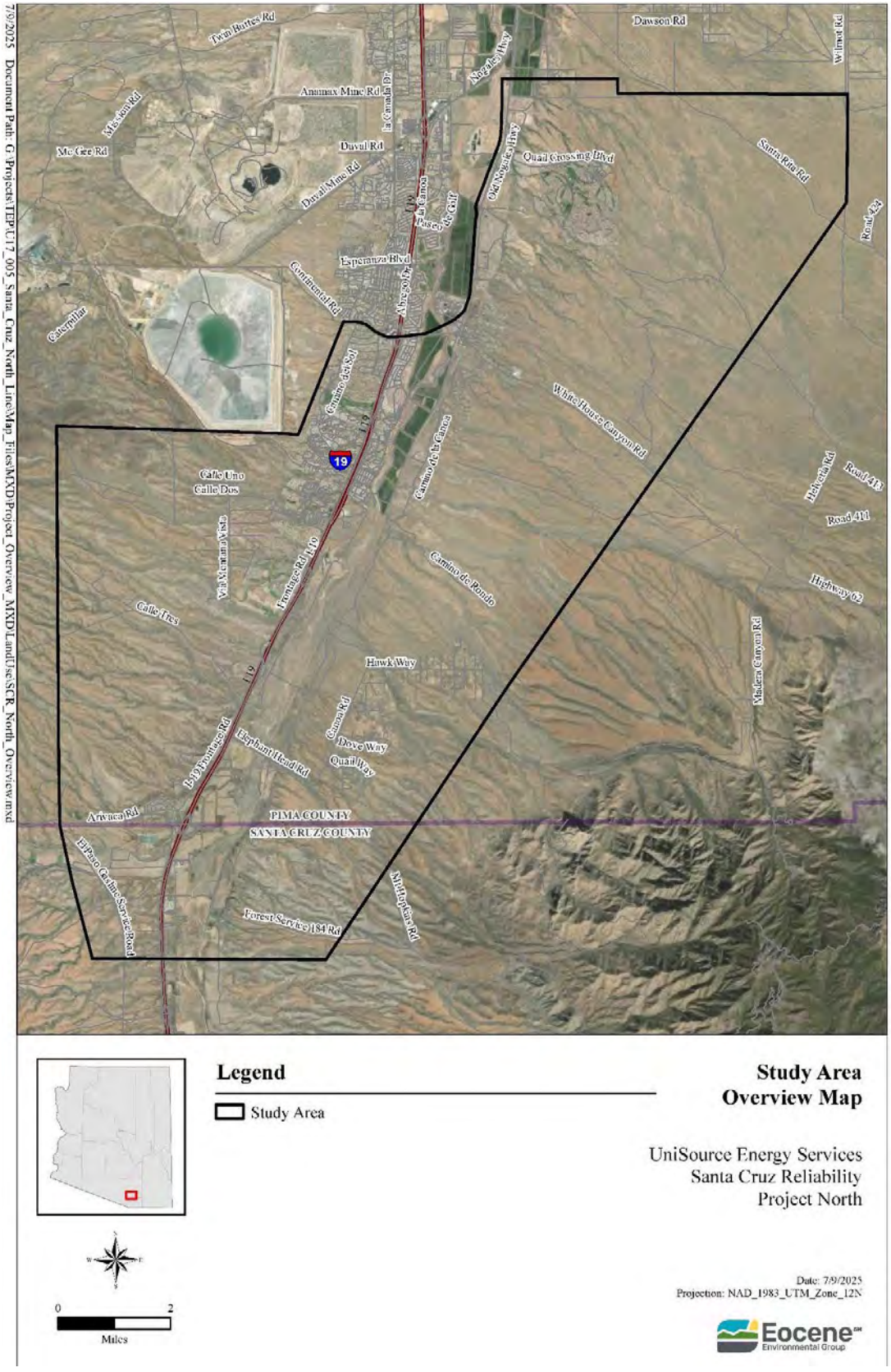


Figure 1. Study Area Overview Map

AFFECTED ENVIRONMENT

The Project Study Area is situated within Arizona's Sonoran Desert ecoregion. Elevations within the Project Study Area vary, ranging from approximately 2,919 feet amsl in the northern and eastern sections to around 3,168 feet amsl in the southwestern part. The terrain across the Project Study Area and its immediate surroundings is predominantly flat, with hills scattered throughout and small mountains bordering the eastern and western portions of the study area.

The Project Study Area comprises a blend of undeveloped native desert, fallow lands, and developed areas. Existing disturbances on the landscape include both paved and unpaved county and private roads, off-highway-vehicle trails, abandoned and operational irrigation canals, residential, agricultural and commercial developments and numerous existing overhead electrical transmission and distribution lines. Similar disturbances are observed in lands adjacent to the Project Study Area, along with residential and municipal areas (**Figure 1**). Photos depicting the existing conditions, vegetation, and other environmental resources within the Project Study Area are found in **Appendix A.**

Vegetation and Soils

The Project Study Area falls within the Semidesert Grassland vegetation community (Brown 1994). According to the Arizona State Land Department and the AZGFD, most of the Project Study Area is situated within the Semidesert Grassland (Lower Colorado River Valley) vegetation community, while the northern section lies within the Sonoran Desertscrub vegetation community (Brown, 1994).

Approximately 85 percent of the Project Study Area is comprised of Desert Shrub/Scrub (USGS 2025). Desert Shrub/Scrub vegetation in the Semidesert Grassland, occurring in the northern portion of the Project Study Area, generally consists of black grama (*Bouteloua eriopoda*), sideoats grama (*Bouteloua curtipendula*), plains lovegrass (*Eragrostis intermedia*), and tobosa grass (*Hilaria mutica*). Common shrubs associated with these vegetation communities include velvet mesquite (*Prosopis velutina*), snakeweed (*Gutierrezia sarothrae*), and creosote bush (*Larrea tridentata*), while succulents and cacti are characterized by soaptree yucca (*Yucca elata*), prickly pear (*Opuntia spp.*), and agave (*Agave spp.*). Vegetation within the Sonoran Desert Scrub vegetation community include saguaro (*Carnegiea gigantea*), barrel cactus (*Ferocactus spp.*), cholla (*Cylindropuntia spp.),* brittlebush (*Encelia farinosa*), bursage (*Ambrosia spp.*), wolfberry (*Lycium spp.*), palo verde (*Parkinsonia spp.*), ironwood (*Olneya tesota*), and mesquite (*Prosopis spp.*).

Roughly nine percent of the Project Study Area consists of developed area. Development refers to developed land with open space, low intensity development, medium intensity development, and high intensity development, including that associated with agricultural, residential and commercial development. There is approximately four percent of herbaceous land cover. The remaining two percent of the Project Study Area is a mix of a variety of land cover types including Open Water, Barren Land, Deciduous Forest, Mixed Forest, Hay/Pasture, Cultivated Crops, Woody Wetlands, and Emergent Herbaceous Wetlands. Refer to **Appendix A** for photographs illustrating examples of vegetation types that are found within the Project Study Area.

Table 2 below lists the Map Unit Symbol (MUSYM), soil types, and approximate acreages of each that are present within the Project Study Area (NRCS 2025).

TABLE 2 SOIL TYPES		
MUSYM	**Name**	**Acres**
19	Comoro sandy loam, 0 to 2 percent slopes	191.57
23	Deloro-Andrada complex, 5 to 35 percent slopes	172.94
3	Anthony fine sandy loam, 0 to 3 percent slopes	674.92
30	Glendale silt loam, 0 to 3 percent slopes	54.84
31	Graham-Pantak complex, 2 to 15 percent slopes	23.38
32	Graham-Pantak-Rock outcrop complex, 15 to 45 percent slopes	689.3
35	Hayhook sandy loam, 1 to 5 percent slopes	283.71
37	Keysto extremely gravelly fine sandy loam, 2 to 8 percent slopes	278.52
41	Lehmans-Delthorny-Lajitas complex, 15 to 50 percent slopes	2.78
5	Arizo-Riverwash complex, 0 to 3 percent slopes	1659.1
51	Nolam-Tombstone complex, 8 to 30 percent slopes	968.33
54	Palos Verdes-Jaynes complex, 2 to 8 percent slopes	72.52
60	Pinaleno-Stagecoach complex, 5 to 16 percent slopes	4136.79
61	Pinaleno-Stagecoach-Palos Verdes complex, 10 to 35 percent slopes	2374.72
64	Pits, dumps	2.01
68	Riveroad and Comoro soils, 0 to 2 percent slopes	13.64
72	Sahuarita soils, mohave soils and urban land, 1 to 5 percent slopes	45.05
73	Sasabe-Caralampi complex, 1 to 15 percent slopes	2734.94
8	Bucklebar-Sahuarita complex, 0 to 3 percent slopes	154.16
81	Tubac gravelly loam, 1 to 8 percent slopes	3989.26
82	Tubac sandy loam, 0 to 2 percent slopes	601.08
84	White House-Caralampi complex, 5 to 25 percent slopes	51.67
86	Yaqui fine sandy loam, 1 to 3 percent slopes	0.16
AhA	Anthony sandy loam, 0 to 1 percent slopes	212.49
AhB	Anthony sandy loam, 1 to 3 percent slopes	37.35
An	Anthony soils	8313.24
AnA	Anthony gravelly sandy loam, 0 to 1 percent slopes	182.38
AnB	Anthony gravelly sandy loam,1 to 3 percent slopes	751.27
Ao	Anthony soils, very gravelly variants	152.96
ApB	Anthony soils, 0 to 3 percent slopes	273.35
Au	Anway loam	3.94
Az	Arizo gravelly sandy loam	339.05
Br	Brazito loamy sand	140.44

TABLE 2 SOIL TYPES		
MUSYM	**Name**	**Acres**
BsB	Brazito gravelly loamy sand, 1 to 3 percent slopes	469.14
Bt	Brazito sandy loam	30.35
Ca	Calciorthids-Haplargids association	740.51
Cm	Comoro sandy loam	1005.88
CnB	Comoro gravelly sandy loam, 1 to 3 percent slopes	861.16
Co	Comoro loam	222.39
CtB	Comoro soils, 0 to 5 percent slopes	2891.51
CuC	Continental soils, 1 to 10 percent slopes	4964.7
CvE2	Continental-Rillino complex, 1 to 40 percent slopes, eroded	1472.75
EbC	Eba very gravelly sandy loam, 0 to 10 percent slopes	3930.71
GbA	Gila loam, 0 to 1 percent slopes	97.62
GbB	Gila loam, 1 to 3 percent slopes	44.82
Gd	Glendale loam	8.49
Ge	Grabe soils	168.79
GgB	Grabe gravelly sandy loam, 1 to 3 percent slopes	191.22
Gh	Grabe loam	1759.43
GkA	Grabe gravelly loam, 0 to 1 percent slopes	110.32
GkB	Grabe gravelly loam, 1 to 3 percent slopes	298.14
Gm	Grabe silty clay loam	55.27
Gr	Gravelly alluvial land	637.5
HhE2	Hathaway soils, 1 to 40 percent slopes, eroded	152.56
LmB	Laveen complex, 0 to 5 percent slopes	1049.4
LrB	Laveen-Rillito complex, 0 to 3 percent slopes	29.41
MdB	Mohave sandy loam, 1 to 3 percent slopes	32.1
MhB	Mohave loam, 1 to 3 percent slopes	32.44
Mo	Mohave clay loam	29.26
Pm	Pima silty clay loam	1063.56
Pn	Pima clay loam, sandy clay loam subsoil variant	718.02
PoC	Pinalino gravelly sandy loam, 0 to 10 percent slopes	2464.88
ReC	Rillito gravelly sandy loam, 0 to 8 percent slopes	225.96
RlE2	Rillino soils, 8 to 40 percent slopes, eroded	1933.92
Ru	Riverwash	499.74
Rw	Rough broken land	588.18
SmA	Sonoita sandy loam, 0 to 1 percent slopes	60.9

TABLE 2 SOIL TYPES		
MUSYM	**Name**	**Acres**
SmB	Sonoita sandy loam, 1 to 3 percent slopes	248.49
So	Sonoita sandy clay loam	67.19
SoB	Sonoita gravelly sandy loam, 1 to 8 percent slopes	5655.13
StB	Sonoita-Tubac complex, 1 to 3 percent slopes	953.01
Th	Torrifluvents and haplustolls	2279.53
TtB	Tubac sandy loam, 1 to 3 percent slopes	72.06
TuB	Tubac sandy clay loam, 1 to 3 percent slopes	172.47
Tv2	Tubac clay, eroded	4.6
TxB	Tubac complex, 0 to 5 percent slopes	409.28
VsA	Vinton loamy sand, 0 to 1 percent slopes	68.91
VsB	Vinton loamy sand, 1 to 3 percent slopes	19.32
Vt	Vinton sandy loam	2.53
WhC	White House cobbly sandy loam, 1 to 15 percent slopes	1579.27
WoE	White House-Caralampi complex, 10 to 35 percent slopes	2185.94

Aquatic Resources

An examination of the Project Study Area using a blend of aerial imagery, data sourced from the Flood Control District of Pima County, and on-site inspections, revealed numerous ephemeral and braided streams intersecting the Project Study Area. These streams channel sheet flow towards the Santa Cruz River which bisects the Project Study Area from north to south, just east of Interstate 19 (I-19). Several of these ephemeral streams harbor riparian vegetation or habitat which could be suitable for sensitive species.

According to the Federal Emergency Management Agency Flood Insurance Rate Map Panel Nos. 0419C3935L, 0419C3955L, 04019C3930L, and 0419C3965L, the Project Study Area includes several designated flood zones (FEMA 2025).

Data from the Arizona Department of Water Resources website was consulted regarding water wells in the vicinity of the Project Study Area. According to well registration records, groundwater is situated at depths 100 feet below ground surface (ADWR 2025). Groundwater levels may fluctuate due to seasonal variations, groundwater extraction or injection activities, and other factors.

SPECIES ASSESSMENT

This BE addresses special-status species with the potential to occur in or near the proposed Project Study Area, including federally listed species, Arizona state sensitive and Conservation Agreement species, and avian species protected under the MBTA and the BGEPA. Prior to field reconnaissance, Eocene biologists conducted a desktop analysis to determine any special-status species or federally protected habitats that may occur in the proposed Project Study Area. These species were identified using the USFWS IPaC tool. The AZGFD OERT was also utilized to

provide information on documented occurrences of special-status species near the Project Study Area. Search results from IPaC and the OERT are included in **Appendix B**.

The results of this desktop review and habitat assessment are discussed below.

Federally Listed Species

Eocene obtained an official species list for the Project Study Area from the USFWS IPaC system on February 12, 2025 (**Appendix B**) which indicated a total of 14 ESA-listed Threatened, Endangered, or Candidate species. A qualified biologist reviewed the list to determine the likelihood that species, suitable habitat, and/or USFWS designated critical habitat could occur in the Project Study Area and immediate vicinity. Designated critical habitat is a term used to describe the conservation designation tool used by USFWS and other federal agencies to identify the areas of habitat that are essential to conservation of ESA-listed Threatened and Endangered species. Additionally, field reconnaissance was conducted to further confirm habitat suitability multiple times between March 2024 and February 2025.

Of the fourteen species identified by IPaC, the following three species are analyzed in detail in the BE as they may be found or could have suitable habitat located within the Project Study Area: cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), yellow-billed cuckoo (*Coccyzus americanus*), and Pima pineapple cactus (*Coryphantha scheeri var. robustispina*). **Table 3** below addresses the remaining 10 species included in the USFWS list that were excluded from further evaluation due to lack of suitable habitat. These species are not likely to be found within the Project Study Area.

TABLE 3
FEDERALLY LISTED SPECIES EXCLUDED FROM FURTHER EVALUATION

Common Name (*Scientific Name*)	Status*	Habitat	Exclusion Justification
Sonoran pronghorn (*Antilocapra americana sonoriensis*)	Endangered and 10(j) Nonessential Experimental Population	This species can be found in broad inter-mountain alluvial valleys in low-elevation Sonoran desertscrub with creosote-bursage and paloverde-mixed cacti associations at elevations between 400 and 1,600 feet. Within Arizona, they are found on the Cabeza Prieta National Wildlife Refuge, the Organ Pipe Cactus National Monument, the Luke Air Force Barry M. Goldwater Gunnery Range, and possibly the Tohono O'odham Indian Reservation.	The Sonoran pronghorn population, which is listed as endangered under the ESA, occurs in Maricopa, Pima, and Yuma counties in Arizona. However, the Project Study Area is not located within the historic, current, or potential distribution range for this species, as identified by the AZGFD's HabiMap™ Arizona species distribution model. In 2013, a 10(j) Nonessential Experimental Population of Sonoran pronghorn was established on the Kofa National Wildlife Refuge in Yuma County. Since its establishment, this population has expanded beyond the refuge into parts of Maricopa County. The designated boundaries of the 10(j)

TABLE 3 FEDERALLY LISTED SPECIES EXCLUDED FROM FURTHER EVALUATION			
Common Name (*Scientific Name*)	**Status***	**Habitat**	**Exclusion Justification**
			Nonessential Experimental Population include areas within Maricopa, La Paz, Pima, Pinal, Santa Cruz, and Yuma counties. However, according to the 2016 Recovery Plan for the species, these designated areas are not in proximity to the Project Study Area and are not expected to be affected by the proposed activities.
Jaguar (*Panthera onca*)	Endangered	Range-wise, this species uses a wide variety of habitat types. Jaguars use lowland wet vegetative communities, including marshy savanna and tropical rainforest. This species is also found in arid regions like tropical dry forest, thornscrub, desertscrub, chaparral, semi-desert grassland, Madrean evergreen woodland, deciduous forest, and conifer forest. This species has been recorded as high as 9,186 feet in the northern extent of its range.	Records of this species are very rare, isolated, and occur in the large mountain ranges of southwestern Arizona. The only recent records are of a male known to use the Santa Rita Mountains that has not been recently sited, a possible male in the Huachuca Mountains, and a possible third male in Dos Cabezas. There are no occurrence records within 3 miles of the Project Study Area and the site is in a low-lying area well outside of the nearest known observation in the Santa Rita Mountains that is roughly 11 miles east. Given the rarity of this species across the landscape, it is unlikely that an individual of this species would occur in the Project Study Area. Additionally, the Project Study Area is outside of Designated Critical Habitat for this species.
Ocelot (*Leopardus pardalis*)	Endangered	Uses a wide range of densely vegetated habitats throughout its range including desertscrub, thornscrub, grasslands, marshlands, coastal tropical rain forest, oak woodlands, piedmont/montane scrub,	There are no occurrences within 3 miles of the Project Study Area and the sites lack appropriate habitat of densely vegetated areas. The nearest observation consists of one individual documented in the Santa Rita Mountains in 2013

TABLE 3 FEDERALLY LISTED SPECIES EXCLUDED FROM FURTHER EVALUATION			
Common Name (*Scientific Name*)	**Status***	**Habitat**	**Exclusion Justification**
		cloud forest, pine-oak forests, palm savanna, sandhills, shrub woodlands, deciduous forest and gallery forests. In Arizona, can generally be found below 4,000 feet but has been documented from sites as high as 9,514 feet in Mexico.	located roughly 11 miles east of the Project Area. Given the rarity of this species across the landscape and lack of appropriate habitats, it is unlikely that an individual of this species would occur in the Project Study Area. There is no Designated or Proposed Critical Habitat for this species.
California least tern (*Sterna antillarum browni*)	Endangered	This species can be found in open, bare, or sparsely vegetated sand, sandbars, gravel pits, or exposed flats along shorelines of inland rivers, lakes, reservoirs, or drainage systems below 2,000 feet. They are rarely found within Arizona, with individuals found within large lakes, recharge basins, or wetland areas in Maricopa County.	Suitable habitat for this species is not present in the Project Study Area, and the Project Study Area is outside the historic, present, and potential distribution range for this species according to the AZGFD's HabiMap™ Arizona species distribution model. No individuals were identified in the Project vicinity in AZGFD species occurrence data.
Masked bobwhite quail (*Colinus virginianus ridgwayi*)	Endangered	Habitat needs for many of the sub-species of Northern bobwhite tend to be similar with respect to vegetation structure, but the plant species compositions throughout the various geographic ranges of these sub-species may vary significantly. The basics required are a wide variety of forbs and associated insects for food, grasses of the appropriate density and conformation for nesting, and shrubs for escape cover and thermoregulation. It is assumed, therefore, that plant species preferred by masked bobwhites are indicative of native plants species present in mesic,	There are no occurrences within 3 miles of the Project Study Area and the sites lack appropriate habitat. The nearest observation consists of individuals documented in the Altar Valley roughly 22 miles to the west.

TABLE 3 FEDERALLY LISTED SPECIES EXCLUDED FROM FURTHER EVALUATION			
Common Name (*Scientific Name*)	**Status***	**Habitat**	**Exclusion Justification**
		subtropical Sonoran grassland areas within the historic range of masked bobwhites.	
Mexican spotted owl (*Strix occidentalis lucida*)	Threatened	In southern Arizona and New Mexico, the mixed conifer, Madrean pine-oak, Arizona cypress, encinal oak woodlands, and associated riparian forests provide habitat in the small mountain ranges (Sky Islands) distributed across the landscape. Owls are also found in canyon habitat dominated by vertical-walled rocky cliffs within complex watersheds, including tributary side canyons. Rock walls with caves, ledges, and other areas provide protected nest and roost sites. Canyon habitat may include small isolated patches or stringers of forested vegetation including stands of mixed-conifer, ponderosa pine, pine-oak, pinyon-juniper, and/or riparian vegetation in which owls regularly roost and forage. Owls are usually found in areas with some type of water source.	There are no occurrences within 3 miles of the Project Study Area and the sites lack appropriate habitat. The nearest observation consists of individuals documented in the Santa Rita Mountains roughly 11 miles east of the Project Study Area. Given the lack of appropriate habitats, it is unlikely that an individual of this species would occur in the Project Study Area. There is no Designated or Proposed Critical Habitat for this species within the Project Study Area.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	Endangered	This species requires dense riparian habitats (cottonwood/willow and tamarisk vegetation) with microclimatic conditions dictated by the local surroundings. Saturated soils, standing water, or nearby streams, pools, or ciénegas are a component of nesting habitat that also influences the microclimate and density	This species depends on dense riparian habitat, which is not present within the Project Study Area.

TABLE 3 FEDERALLY LISTED SPECIES EXCLUDED FROM FURTHER EVALUATION			
Common Name (*Scientific Name*)	**Status***	**Habitat**	**Exclusion Justification**
		vegetation component. Habitat not suitable for nesting may be used for migration and foraging. Recurrent flooding and a natural hydrograph are important to withstand invading exotic species (tamarisk). Typically found below 8,500 feet of elevation.	
Chiricahua leopard frog (*Rana chiricahuensis*)	Threatened	This species inhabits a variety of wetland environments, including permanent and temporary ponds, streams, springs, and reservoirs. It prefers slow-moving or still waters with aquatic vegetation, which provides both cover and breeding sites. Chiricahua leopard frogs are typically found at elevations ranging from 4,000 to 8,200 feet in mountainous and riparian habitats, often in areas with relatively warm temperatures. They require stable water sources, as they are sensitive to drying conditions.	There are no occurrences within 3 miles of the Project Study Area and the sites lack appropriate perennial waters. Known Arizona populations are present along the Mogollon Rim and along the Arizona-Mexico border.
Gila topminnow (*Poeciliopsis occidentalis*)	Endangered	This species is primarily found in spring-fed streams, rivers, and small ponds within the Gila River basin. The species prefers warm, slow-moving waters with clear, low-turbidity conditions and temperatures between 68°F–86°F. It thrives in habitats with sandy or gravelly substrates and abundant aquatic vegetation, which provide both shelter and food. Gila topminnows are typically found at elevations between 3,280	There are no occurrences within 3 miles of the Project Study Area and the site lacks appropriate habitat. Present only at Cienega Creek, Sabino Canyon, and lower Santa Cruz River.

TABLE 3 FEDERALLY LISTED SPECIES EXCLUDED FROM FURTHER EVALUATION			
Common Name (*Scientific Name*)	**Status***	**Habitat**	**Exclusion Justification**
		to 4,920 feet in desert regions.	
Arizona eryngo (*Eryngium sparganophyllum*)	Endangered	This species thrives in wetland and riparian habitats, typically along streambanks, marshes, and areas with intermittent water sources. These habitats often include floodplains and desert washes that retain moisture, especially during the monsoon season. Arizona eryngo grows in sandy or loamy soils and is usually found in regions with sparse vegetation, though it can coexist with grasses and other moisture-tolerant plants. The plant is typically found at elevations ranging from 900 to 3,600 feet in arid desert environments.	Project Study Area falls south of present population. Found at La Cebadilla east of Tucson.

Cactus Ferruginous Pygmy-Owl

The cactus ferruginous pygmy-owl, a species identified by USFWS as Threatened, inhabits the desert regions of southern Arizona and northern Mexico. It prefers desert scrub and riparian areas with dense vegetation like saguaros and other large cacti, which provide suitable nesting habitat and shelter. The owl may also use trees such as mesquite and palo verde for these purposes, especially in riparian zones. According to Pima County's official species account, pygmy-owls are closely associated with habitat along desert washes and require large cacti or tree cavities for nesting (Pima County 2024).

It typically resides at lower elevations, from sea level to around 4,000 feet amsl. The owl is adapted to desert environments but is listed as Threatened due to habitat loss (USFWS 2025a). Current suitable habitat in Arizona is limited to specific regions in southern Arizona, such as the Altar Valley and areas south of Tucson, where native vegetation and nesting structure remain intact. designated critical habitat is not present within the Project Study Area vicinity.

This species requires dense, xeroriparian woodland or desert scrub habitats with mature trees, saguaros, or mesquite bosques for nesting, features that are largely absent from the disturbed and fragmented landscape of the Project Study Area. Photos two and four in **Appendix A** depict suitable habitat for the species, limited to undeveloped land in the eastern portion of the Project Study Area.

Due to the presence of suitable habitat within and adjacent to the Project Study Area, implementation of the proposed Project could potentially impact cactus ferruginous pygmy-owl species and/or their habitat. To reduce the potential for Project-related impacts to the species, it is recommended that UNSE and contractors consider the recommended mitigation measures outlined in this report.

Yellow-Billed Cuckoo

The yellow-billed cuckoo, a species determined to be Threatened by USFWS, primarily inhabits riparian woodlands and wetland areas in North America. It prefers areas with dense, deciduous trees and shrubs, particularly along rivers, streams, and wetlands. The cuckoo is found in regions with abundant willows (*Chilopsis linearis*), cottonwoods (*Populus fremontii*), and sycamores (*Platanus wrightii*), as these trees provide cover and nesting sites. It typically occupies low to mid-elevation areas, especially in the western U.S., and is closely tied to habitats with lush, thick vegetation for foraging and shelter. Habitat loss due to water diversion, agriculture, and urban development has contributed to its Threatened status (USFWS, 2025b). designated critical habitat does not occur within the Project vicinity.

The majority of the undeveloped native land located in the eastern portion of the Project Study Area contains suitable dispersal habitat connected to suitable riparian habitat along the Santa Cruz River (**Appendix A, Photos 5 and 6**). No suitable nesting habitat for the Yellow-billed Cuckoo is present within the Project Study Area, and the species was not detected during any of the field surveys conducted by Eocene biologists. However, given that suitable dispersal habitat for the yellow-billed cuckoo exists within the proposed Project Study Area and the cuckoo is known to nest along the Santa Cruz River north and south of the Project Area where suitable habitat does occur, the possibility remains that the implementation of the Project may potentially affect the species and/or its habitat.

To reduce the potential for Project-related impacts to the species, it is recommended that UNSE and contractors consider the recommended mitigation measures outlined in this report.

Pima Pineapple Cactus

The Pima pineapple cactus, classified as Endangered by USFWS, is found in the Sonoran Desert of southern Arizona, particularly in sandy, rocky soils at low elevations. It typically grows in open, desert scrub habitats, often near dry washes, and is commonly associated with saguaro cacti and other desert vegetation. This cactus thrives in areas with limited water and high temperatures but is sensitive to habitat disturbance and has become endangered due to urban development, grazing, and off-road vehicle activity. The Pima pineapple cactus has no designated critical habitat under the ESA.

The majority of the undeveloped land within the eastern portion of the Project Study Area provides suitable habitat (**Appendix A, Photo 4**). The species was not observed by Eocene biologists, however, given the presence of suitable habitat for the Pima pineapple cactus within the Project Study Area, the Project's implementation could potentially affect species. To minimize potential Project-related impacts, it is recommended that UNSE and the contractor follow the mitigation measures outlined in this report.

State of Arizona Special-Status Species

Known ranges and habitat requirements for state sensitive plant and wildlife species that may occur within Pima and Santa Cruz Counties were examined to assess their potential to occur

within the Project Study Area and the likelihood that each species would be impacted by Project-related activities.

In Arizona, protections for state species are governed by a combination of state and federal regulations, with the AZGFD playing a central role in implementation and enforcement. At the state level, the Arizona Game and Fish Code (Title 17 of the Arizona Revised Statutes) provides the legal framework for managing wildlife resources, including the regulation of hunting, fishing, and trapping to ensure sustainable populations. Furthermore, AZGFD collaborates with the USFWS to complement the ESA by implementing state level protections to species that are federally listed as threatened or endangered within the state in an effort to prohibit their harm or harassment and mandating recovery efforts.

A key component of Arizona's conservation strategy is the Arizona Wildlife Conservation Strategy (AWCS), which identifies Species of Greatest Conservation Need. These are species that, while not federally listed, are considered vulnerable and in need of proactive conservation to prevent further decline. The AWCS is supported by tools like the Arizona Environmental Review Tool, which helps land managers and developers assess potential impacts on sensitive species and habitats during Project planning.

Additionally, Arizona enforces the ANPL, which safeguards native flora, particularly those with special conservation status. These state-level protections are reinforced by federal laws such as the ESA and the MBTA, which provide broader protections for listed species and migratory birds across state lines.

Together, these regulatory mechanisms aim to balance development and land use with the preservation of Arizona's unique biodiversity, ensuring that both wildlife and their habitats are protected for future generations.

The AZGFD OERT contains records of recent occurrences of 92 wildlife Species of Greatest Conservation Need or Arizona state native plants within 3 miles of the Project Study Area (**Appendix B**). Based on desktop and field review of the Project Study Area, OERT website records of occurrence and species' habitat requirements, including suitable geologic formations, soils, vegetation communities, and elevation, it was determined that suitable habitat may be present for nearly all of these species.

Migratory Birds

Migratory birds are protected under the MBTA of 1918, as amended by 16 U.S. Code 703-712. The MBTA states that it is unlawful to take, kill, or possess migratory birds, their eggs, parts, and/or nests that are listed under its protection unless authorized under a valid permit (50 CFR 21.11).

Migratory birds are protected under the MBTA of 1918, as amended (16 U.S. Code §§ 703–712). Under the MBTA, it is unlawful to take, kill, or possess migratory birds, their eggs, parts, or nests without a valid permit (50 CFR § 21.11).

Results from recent IPaC analysis for the Biological Study Area indicate 29 species of migratory BCC could inhabit the area. The BCC species included in the report are: American Avocet (*Recurvirostra americana*), Arizona Woodpecker (*Dryobates arizonae*), Bendire's Thrasher (*Toxostoma bendirei*), Black-Chinned Sparrow (*Spizella atrogularis*), Black-Throated Gray Warbler (*Setophaga nigrescens*), Broad-Tailed Hummingbird (*Selasphorus platycercus),*

Chestnut-Collard Longspur (Calcarius ornatus), Clark's Grebe (*Aechmophorus clarkii*), Cordelleran Flycatcher (*Empindonaxx occidentalis*), Costa's Hummingbird (*Calypte costae*), Elegant Troon (*Trogon elgans*), Gila Woodpecker (*Melanerpes uropygialis*), Grace's Warbler (*Setophaga graciae*), Lawrence's Goldfinch (*Spinus lawrencei*), Lewis's Woodpecker (*Melanerpes lewis*), Long-Eared Owl (*Asio otus),* Marbled Godwit (*Limosa fedoa*), Mexican Whip-Poor-Will (*Antrostomus arizonae*), Olive-Sided Flycatcher (*Contopus cooperi*), Phainopepla (*Phainopepla nitens lepida*), Plumbeous Vireo (*Vireo plumbeus*), Red-Faced Warbler (*Cardellina rubrifrons), Scott's Oriole (Icterus parisorum*), Sprague's Pipit (*Anthus spragueii*), Varied Bunting (*Passerina versicolor*), Virginia's Warbler (*Leiothlyps virginiae*), Western Grebe (*Aechmophorus occidentalis*), Whiskered Screech-Owl (*Megascops trichopsis*) and Willet (*Tringa semipalmata*). Further coordination with the USFWS and AZGFD may be necessary if updated data becomes available or if project timing overlaps with known nesting periods.

Suitable nesting habitat is present throughout most of the Biological Study Area and may host several species of active nesting birds during the nesting season (generally March 1 to August 31). It should be assumed there is the high likelihood that nesting activity will occur during construction within and/or adjacent to the approved route once it is determined. To avoid impacting nests during the active nesting season and to limit the potential for take of species, formal preconstruction migratory bird and raptor nest surveys are recommended to be conducted by a qualified biologist within 10 days prior to the initiation of construction activities. These preconstruction surveys will be continued, as needed, as construction moves to new areas not previously or recently surveyed or those areas that have had no construction activities take place for longer than 10 consecutive days. If active nests are discovered, a species-specific avoidance buffer would be established, and no construction activities would take place within that buffer until it is confirmed by a qualified biologist that the nestlings have successfully fledged or the nest is later determined by the biologist to be inactive.

Bald Eagles and Golden Eagles

In addition to the MBTA, bald and golden eagles are protected under the BGEPA, which was originally passed in 1940 and amended in 1962. The BGEPA prohibits the take, possession, sale, purchase, barter, offer to sell, transport, export, or import of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S. Code 668[a]; 50 CFR 22). The definition of take includes both direct take of individuals and take due to disturbance.

Bald eagle breeding territories in Arizona have been documented primarily along major water bodies such as the Salt and Verde Rivers, and lakes including Apache, Canyon, and Saguaro, where eagles typically nest in tall trees or saguaros near water and forage on fish, birds, mammals, and carrion (AZGFD 2011). Within Pima and Santa Cruz Counties, no suitable nesting or foraging habitat for bald eagles is present in or near the Project Study Area.

Golden eagles typically inhabit open and mountainous regions, nesting on cliffs or large trees and may reuse or rotate among several nest sites (AZGFD 2002). While the Project Study Area lacks suitable nesting habitat, the nearby Santa Rita Mountains provide appropriate nesting cliffs.

It is not anticipated that bald or golden eagles would inhabit the Project Study Area. Due to the lack of suitable nesting habitat within or adjacent to the Project Study Area, the implementation of the proposed Project would not likely result in the take of individual bald or golden eagles or their nests.

RECOMMENDED IMPACT AVOIDANCE MEASURES

According to the AZGFD, there are specific mitigation measures that should be considered during the planning, design, and construction phases of a transmission line Project (AZGFD 2010). In order to reduce potential impacts to species and habitat within the Project Study Area, Eocene has outlined mitigation measures from AZGFD, as well as applicable federally listed species mitigation measures from USFWS below.

Cactus Ferruginous Pygmy-Owl

Standard mitigation measures are required by the USFWS for the cactus ferruginous pygmy owl.

Mitigation measures include the following:

- Carry out surveys prior to construction in areas of suitable habitat to identify individual owls, following established USFWS protocols.
- Avoiding construction during the mid-June to mid-August breeding season in suitable or occupied habitat
- Establishing 0.25 to 0.5 mile no-work buffers around active nests
- Minimizing clearing of riparian vegetation

Yellow-Billed Cuckoo

Standard mitigation measures are established for the yellow-billed cuckoo (USFWS 2025b).

Mitigation measures include:

- Perform pre-construction surveys within suitable habitat to locate individual yellow-billed cuckoo, in accordance with USFWS survey protocols.
- Avoiding construction during July and August the breeding season in suitable or occupied habitat
- Establishing 0.25 to 0.5 mile no-work buffers around active nests
- Minimizing clearing of vegetation
- Restoring or enhancing suitable habitat if habitat loss occurs

Pima Pineapple Cactus

Standard mitigation measures are required by the USFWS for the Pima pineapple cactus:

- Conduct pre-construction surveys in suitable habitat to identify individual plants, following USFWS survey protocols
- Avoid direct impacts to known Pima pineapple cactus individuals and their surrounding habitat whenever possible
- Establish protective buffers around identified cacti (commonly 10 to 50 feet), particularly during construction or ground-disturbing activities
- Flag and fence avoidance areas during construction to prevent accidental disturbance
- Restrict construction timing to avoid soil compaction and disturbance during wet seasons, especially monsoon months
- Minimize surface disturbance in suitable habitat areas by limiting grading, vehicle travel, and trenching

- Implement erosion and sediment control measures to protect habitat from runoff or degradation
- Restore temporarily disturbed habitat to pre-Project conditions using native seed and vegetation
- Coordinate with USFWS if Project modifications are necessary or if previously undetected individuals are found during construction
- Prohibit plant collection or removal and educate workers on the species' presence and legal protections

Migratory Bird Species

- If vegetation clearing is to occur during the migratory bird breeding season (March 1–August 31), a preconstruction survey for migratory birds and nests would be conducted no more than 10 days prior to ground-disturbing activities.
- If vegetation clearing is to occur during the migratory bird breeding season (March 1–August 31), the contractor shall avoid any active bird nests. During the non-breeding season (September 1–February 28), vegetation removal is not subject to this restriction.
- Identify and avoid key nesting and foraging areas, establish species-appropriate buffer zones around active nests, and minimize disturbance to riparian zones and saguaro-rich habitats.
- If any listed species are located during construction, the contractor should be directed to stop work at that location and notify UNSE and the appropriate federal and/or state wildlife agencies immediately.

Noxious and Invasive Species

- All surfaces and the undercarriages of vehicles and equipment will be thoroughly washed before moving to the Project site to remove any noxious or non-native plant seeds. This will reduce the possibility of transporting noxious or non-native plants from one site to another.
- To prevent the introduction of invasive species seeds, all earth-moving and hauling equipment will be washed at the contractor's storage facility prior to entering the construction site.
- To prevent invasive species seeds from leaving the site, the contractor will inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site. If possible, the vehicles will be thoroughly washed prior to leaving the construction site.

State-Protected Species

The implementation of this Project has the potential to impact state-protected species by impacting suitable habitat within the Project Study Area. Proposed Project activities may directly or indirectly affect those species:

- Targeted surveys should be conducted during appropriate seasons to confirm species presence or absence.
- Coordination with the AZGFD is recommended to determine applicable permitting requirements and to identify any BMPs or additional mitigation measures for state-protected species.

- Where possible, Project design should avoid or minimize disturbance to suitable habitat, particularly during sensitive periods such as breeding or nesting seasons.
- Protective buffers or fencing may be established around key habitat features to further reduce impacts.
- If temporary habitat disturbance is unavoidable, disturbed areas should be restored using native vegetation and appropriate soil stabilization methods.
- Should any state-protected species be encountered during construction, work in the immediate area should cease and AZGFD should be notified. Post-construction monitoring may also be implemented to ensure habitat recovery and assess ongoing wildlife use.

SUMMARY

Based on desktop and field reviews, it was determined that the following federally protected species may occur within the Project Study Area and thus may be potentially impacted by implementation of the proposed Project: Pima pineapple cactus, cactus ferruginous pygmy-owl, and yellow-billed cuckoo. To reduce the potential for Project-related impacts to these species, it is recommended that formal consultation with USFWS, and potentially protocol-level surveys, be completed prior to initiation of construction activities.

This Project may also result in a potential impact to general migratory bird species and their habitat, should construction occur during the nesting season. To avoid impacts to migratory bird species and their nests, it is recommended that pre-construction nesting surveys and appropriate avoidance measures will be implemented, as needed.

Ultimately, the Project is not expected to result in deleterious impacts or disruptions to protected species or habitats. Impact avoidance measures, as set forth herein, will further reduce any potential impacts that may occur during construction and operation of the Project.

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APPENDIX A

PROJECT STUDY AREA PHOTOGRAPHS



Figure 1. Project overview facing northeast.



Figure 2. Project overview facing east.



Figure 3. View facing east towards FMI mine.



Figure 4. Santa Cruz River view facing south.



Figure 5. Santa Cruz River facing west.



Figure 6. Overview of Project Study Area facing north.



Figure 7. View of mesquite trees within the Project Study Area facing south.

APPENDIX B

INFORMATION FOR PLANNING AND CONSULTATION AND ONLINE ENVIRONMENTAL REVIEW TOOL RESULTS

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Pima and Santa Cruz counties, Arizona



Local office

Arizona Ecological Services Field Office

(602) 242-0210
(602) 242-2513

9828 North 31st Ave

#c3
Phoenix, AZ 85051-2517

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., *placing a dam upstream of a fish population even if that fish does not occur* at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

NOT FOR CONSULTATION

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Jaguar Panthera onca Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3944	Endangered
Ocelot Leopardus (=Felis) pardalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4474	Endangered
Sonoran Pronghorn Antilocapra americana sonoriensis No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4750	EXPN

Birds

NAME	STATUS
Cactus Ferruginous Pygmy-owl Glaucidium brasilianum cactorum Wherever found There is **final** critical habitat for this species. https://ecos.fws.gov/ecp/species/1225	Threatened
California Least Tern Sternula antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Masked Bobwhite (quail) Colinus virginianus ridgwayi Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3484	Endangered

NOT FOR CONSULTATION

Southwestern Willow Flycatcher Empidonax traillii extimus — Endangered
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/6749

Yellow-billed Cuckoo Coccyzus americanus — Threatened
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/3911

Fishes

NAME	STATUS
Desert Pupfish Cyprinodon macularius	Endangered
Gila Chub Gila intermedia	Endangered
Gila Topminnow (incl. Yaqui) Poeciliopsis occidentalis	Endangered

Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/7003

Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/51

Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1116

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus	Proposed Threatened

Wherever found
There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/9743

Flowering Plants

NAME	STATUS

NOT FOR CONSULTATION

Arizona Eryngo Eryngium sparganophyllum — Endangered

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/10705

Pima Pineapple Cactus Coryphantha scheeri var. robustispina — Endangered

Wherever found

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4919

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

NOT FOR CONSULTATION

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-

eagles-may-occur-project-action

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31

NOT FOR CONSULTATION

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

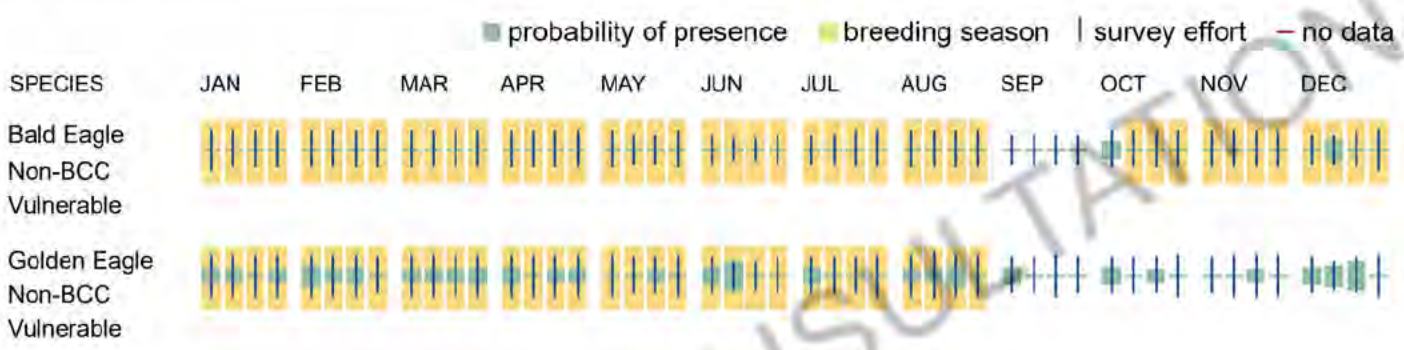
NOT FOR CONSULTATION

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report
On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

NOT FOR CONSULTATION

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

NOT FOR CONSULTATION

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
American Avocet Recurvirostra americana This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 21 to Aug 10
Arizona Woodpecker Dryobates arizonae This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 10 to Jun 30

NOT FOR CONSULTATION

Bald Eagle Haliaeetus leucocephalus — Breeds Oct 15 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1626

Bendire's Thrasher Toxostoma bendirei — Breeds Mar 15 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9435

Black-chinned Sparrow Spizella atrogularis — Breeds Apr 15 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9447

Black-throated Gray Warbler Setophaga nigrescens — Breeds May 1 to Jul 20

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Broad-tailed Hummingbird Selasphorus platycercus — Breeds May 25 to Aug 21

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Chestnut-collared Longspur Calcarius ornatus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cordilleran Flycatcher Empidonax occidentalis — Breeds Apr 25 to Jul 25

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Costa's Hummingbird Calypte costae — Breeds Jan 15 to Jun 10

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9470

NOT FOR CONSULTATION

Elegant Trogon Trogon elegans — Breeds Apr 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Gila Woodpecker Melanerpes uropygialis — Breeds Apr 1 to Aug 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/5960

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Grace's Warbler Setophaga graciae — Breeds May 20 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Lawrence's Goldfinch Spinus lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Lewis's Woodpecker Melanerpes lewis — Breeds Apr 20 to Sep 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9408

Long-eared Owl asio otus — Breeds Mar 1 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Marbled Godwit Limosa fedoa — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

NOT FOR CONSULTATION

Mexican Whip-poor-will Antrostomus arizonae — Breeds May 1 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Phainopepla Phainopepla nitens lepida — Breeds Mar 1 to Aug 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Plumbeous Vireo Vireo plumbeus — Breeds May 10 to Aug 5
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Red-faced Warbler Cardellina rubrifrons — Breeds May 10 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Scott's Oriole Icterus parisorum — Breeds May 21 to Aug 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Sprague's Pipit Anthus spragueii — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8964

Varied Bunting Passerina versicolor — Breeds Apr 25 to Sep 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Virginia's Warbler Leiothlypis virginiae — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9441

NOT FOR CONSULTATION

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

Whiskered Screech-owl Megascops trichopsis — Breeds Apr 15 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Willet Tringa semipalmata — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

NOT FOR CONSULTATION

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

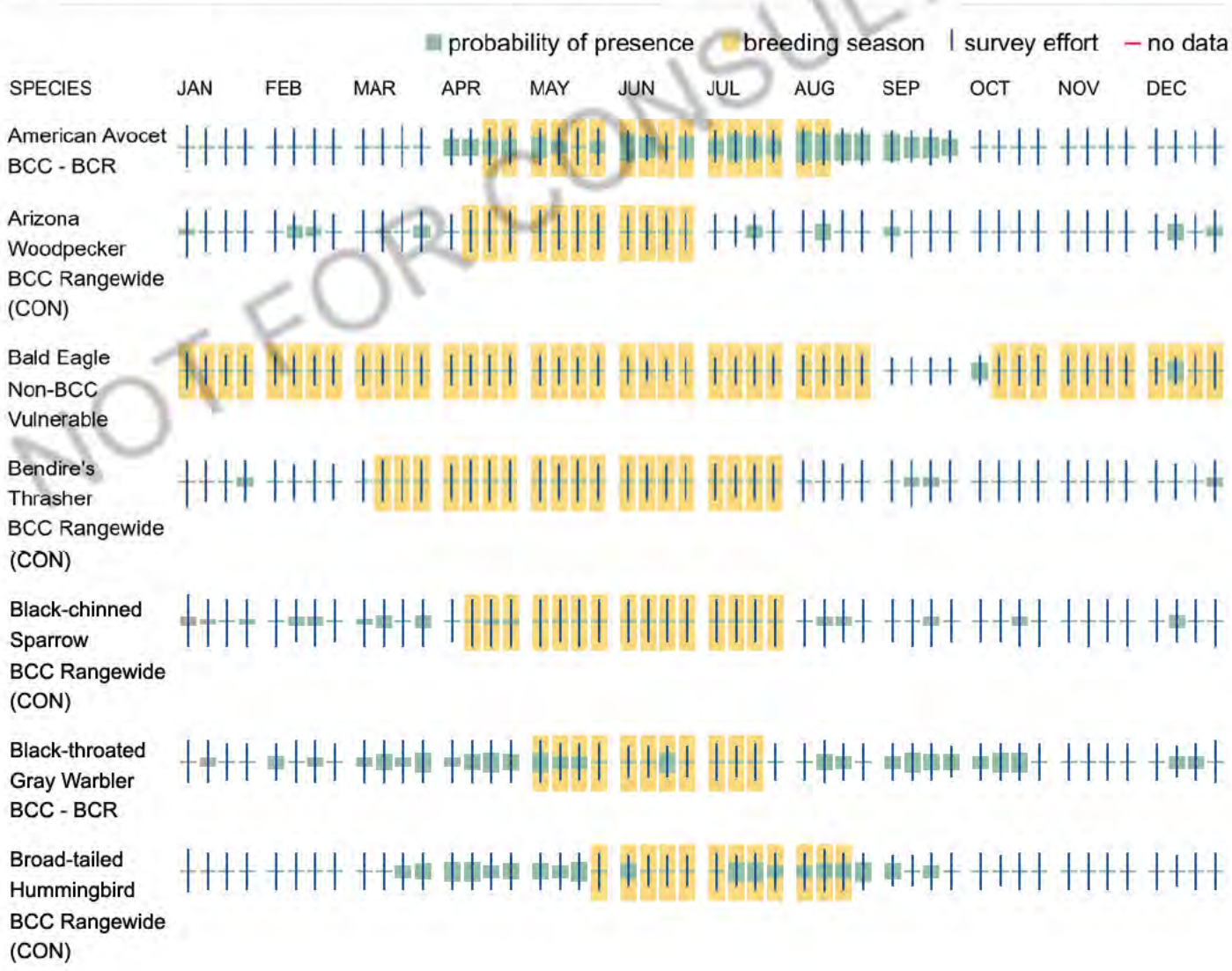
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

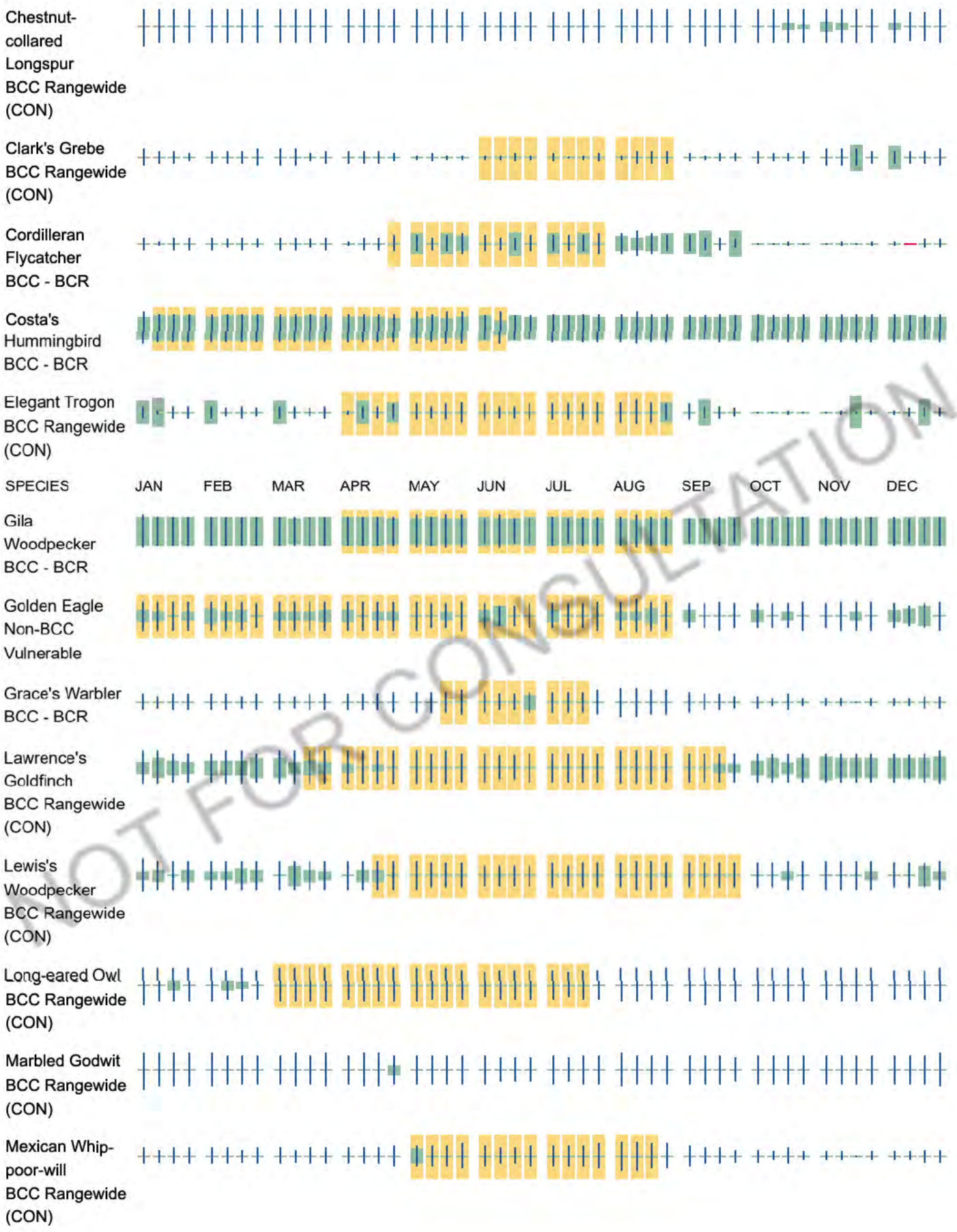
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



NOT FOR CONSULTATION



NOT FOR CONSULTATION



NOT FOR CONSULTATION

Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle (Bald and Golden Eagle Protection Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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Migratory birds delivered through IPaC fall into the following distinct categories of

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Bald and Golden Eagle Protection Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ "Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

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The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND
- PEM1A
- PEM1Ah

FRESHWATER FORESTED/SHRUB WETLAND
- PSS1/2A
- PSS1A

FRESHWATER POND
- PUBF
- PUBHx
- PUSAh
- PUBHh
- PUSAx
- PUSCh
- PUBFh
- PAB4Fx
- PUBFx
- PUSCx

RIVERINE
- R4SBC
- R4SBJ
- R4SBA
- R5UBH
- R5UBFx

A full description for each wetland code can be found at the National Wetlands Inventory website

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NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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Arizona Environmental Online Review Tool Report

Arizona Game and Fish Department Mission
To conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

The Department requests further coordination to provide project/species specific recommendations. Please use the Project Evaluation Form to submit your project to the Project Evaluation Program at PEP@azgfd.gov.

Project Name:
SCR North

Project Type:
Energy Production/Storage/Transfer, Energy Transfer, Power line/electric line (new)

Project ID:
HGIS-24582

Project Description:
SCR North

Contact Person:
Matt Ritter

Organization:
Eocene

On Behalf Of:
CONSULTING

Disclaimer:

1. This Environmental Review is based on the project study area that was entered. The report must be updated if the project study area, location, or the type of project changes.
2. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area. This review is also not intended to replace environmental consultation (including federal consultation under the Endangered Species Act), land use permitting, or the Departments review of site-specific projects.
3. The Departments Heritage Data Management System (HDMS) data is 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. HDMS data contains information about species occurrences that have actually been reported to the Department. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. Arizona Wildlife Conservation Strategy (AWCS), specifically Species of Greatest Conservation Need (SGCN), represent potential species distribution models for the State of Arizona which are subject to ongoing change, modification and refinement. The status of a wildlife resource can change quickly, and the availability of new data will necessitate a refined assessment.

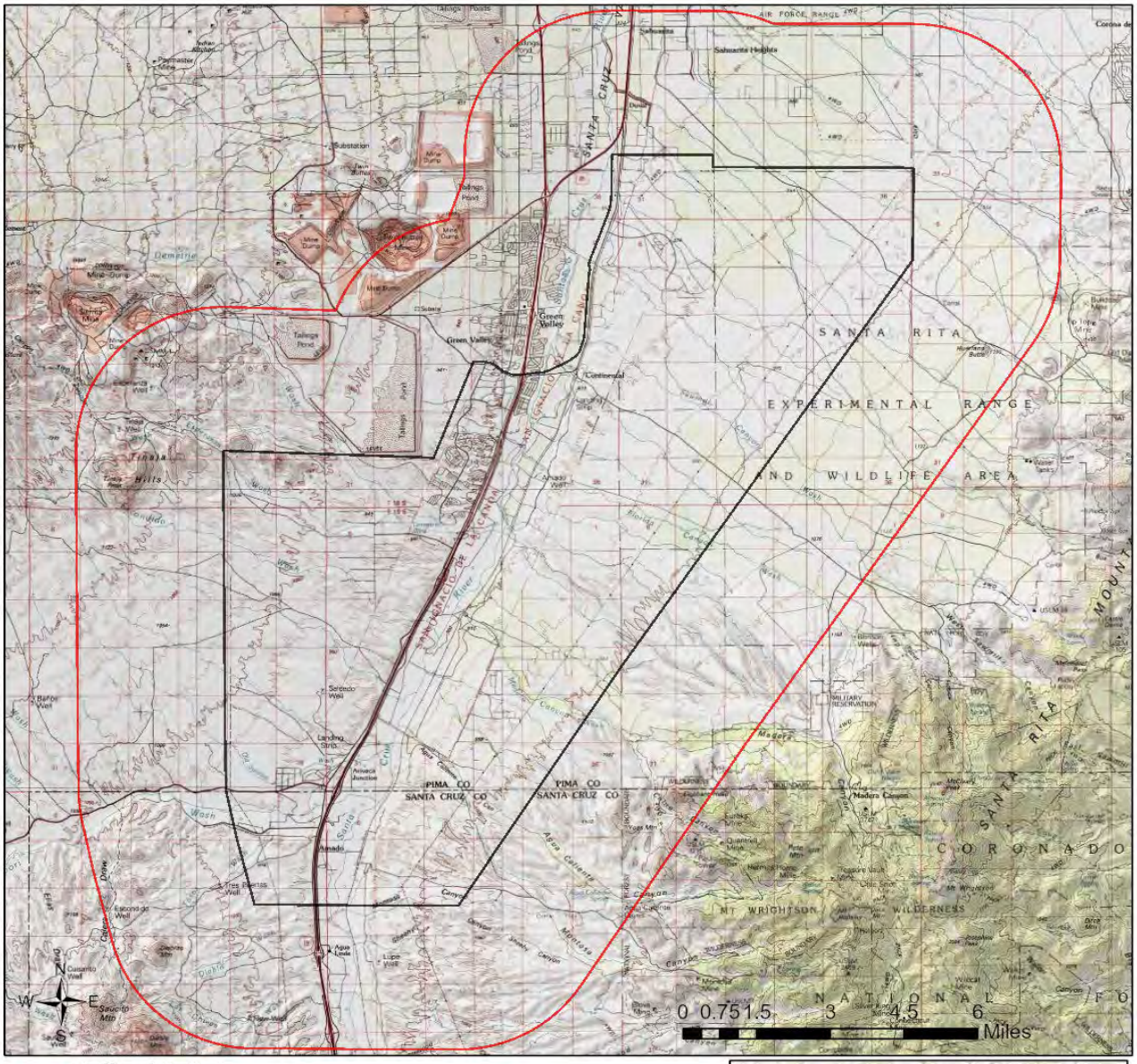
Locations Accuracy Disclaimer:
Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Report is solely responsible for the project location and thus the correctness of the Project Review Report content.

Recommendations Disclaimer:

1. The Department is interested in the conservation of all fish and wildlife resources, including those species listed in this report and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
2. Recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation).
3. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project. These recommendations are preliminary in scope, designed to provide early considerations on all species of wildlife.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. Further coordination with the Department requires the submittal of this Environmental Review Report with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map). Once AGFD had received the information, please allow 30 days for completion of project reviews. Send requests to:
   Project Evaluation Program, Habitat Branch
   Arizona Game and Fish Department
   5000 West Carefree Highway
   Phoenix, Arizona 85086-5000
   Phone Number: (623) 236-7600
   Fax Number: (623) 236-7366
   Or
   PEP@azgfd.gov
6. Coordination may also be necessary under the National Environmental Policy Act (NEPA) and/or Endangered Species Act (ESA). Site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies.

SCR North

USA Topo Basemap With Locator Map



Buffered Project Boundary

Project Boundary

Project Size (acres): 72,130.52

Lat/Long (DD): 31.8045 / -110.9921

County(s): Pima; Santa Cruz

AGFD Region(s): Tucson

Township/Range(s): T17S, R13E; T17S, R14E +

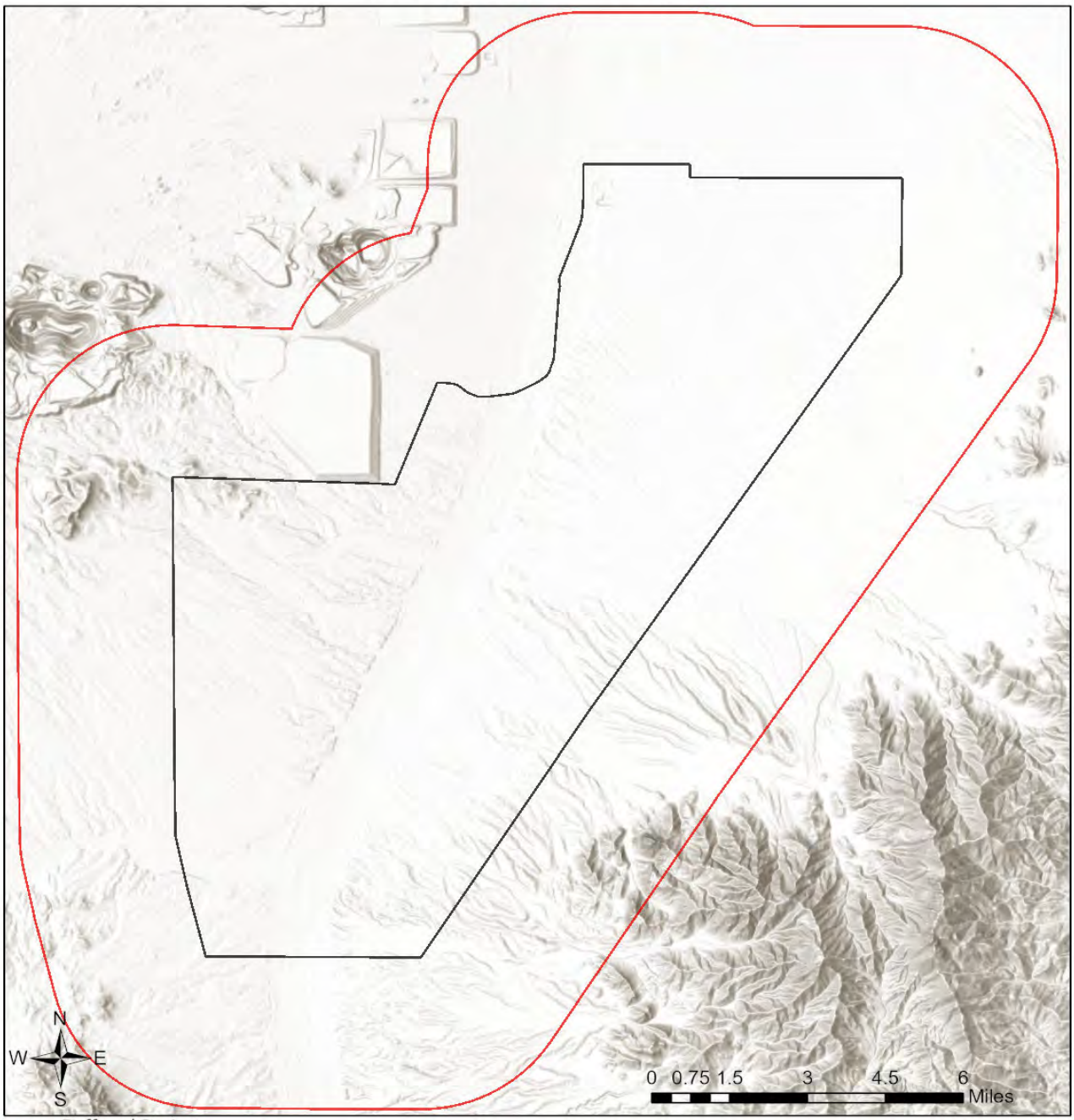
USGS Quad(s): AMADO; CORONA DE TUCSON +



County of Yavapai, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
Copyright:© 2013 National Geographic Society, i-cubed
Esri, USGS

SCR North

Web Map As Submitted By User



Buffered Project Boundary

Project Boundary

Project Size (acres): 72,130.52

Lat/Long (DD): 31.8045 / -110.9921

County(s): Pima; Santa Cruz

AGFD Region(s): Tucson

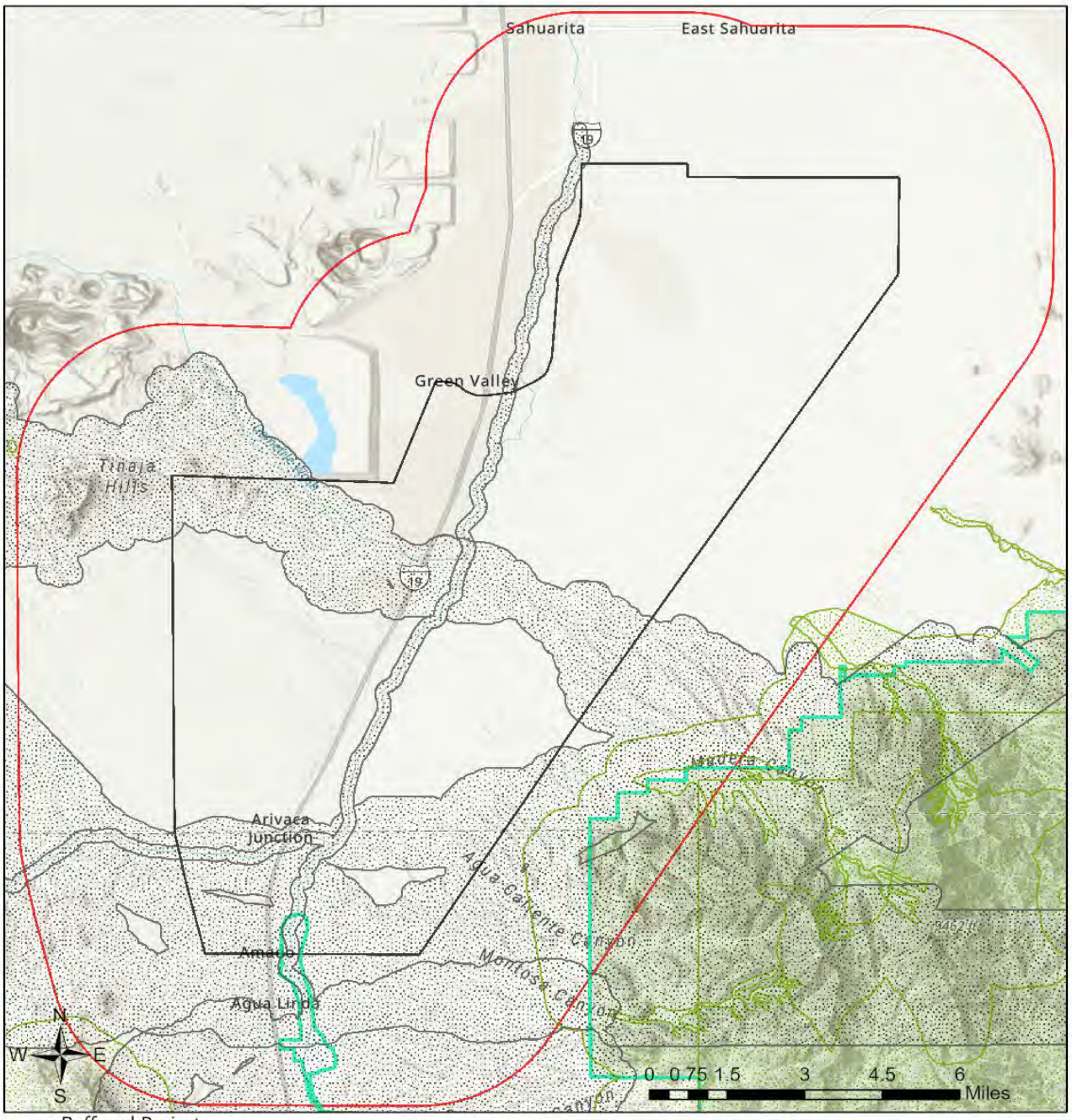
Township/Range(s): T17S, R13E; T17S, R14E +

USGS Quad(s): AMADO; CORONA DE TUCSON +

Esri, NASA, NGA, USGS

SCR North

Important Areas



- Buffered Project Boundary
- Project Boundary
- Important Bird Areas
- Critical Habitat
- Pinal County Riparian
- Wildlife Connectivity

Project Size (acres): 72,130.52

Lat/Long (DD): 31.8045 / -110.9921

County(s): Pima; Santa Cruz

AGFD Region(s): Tucson

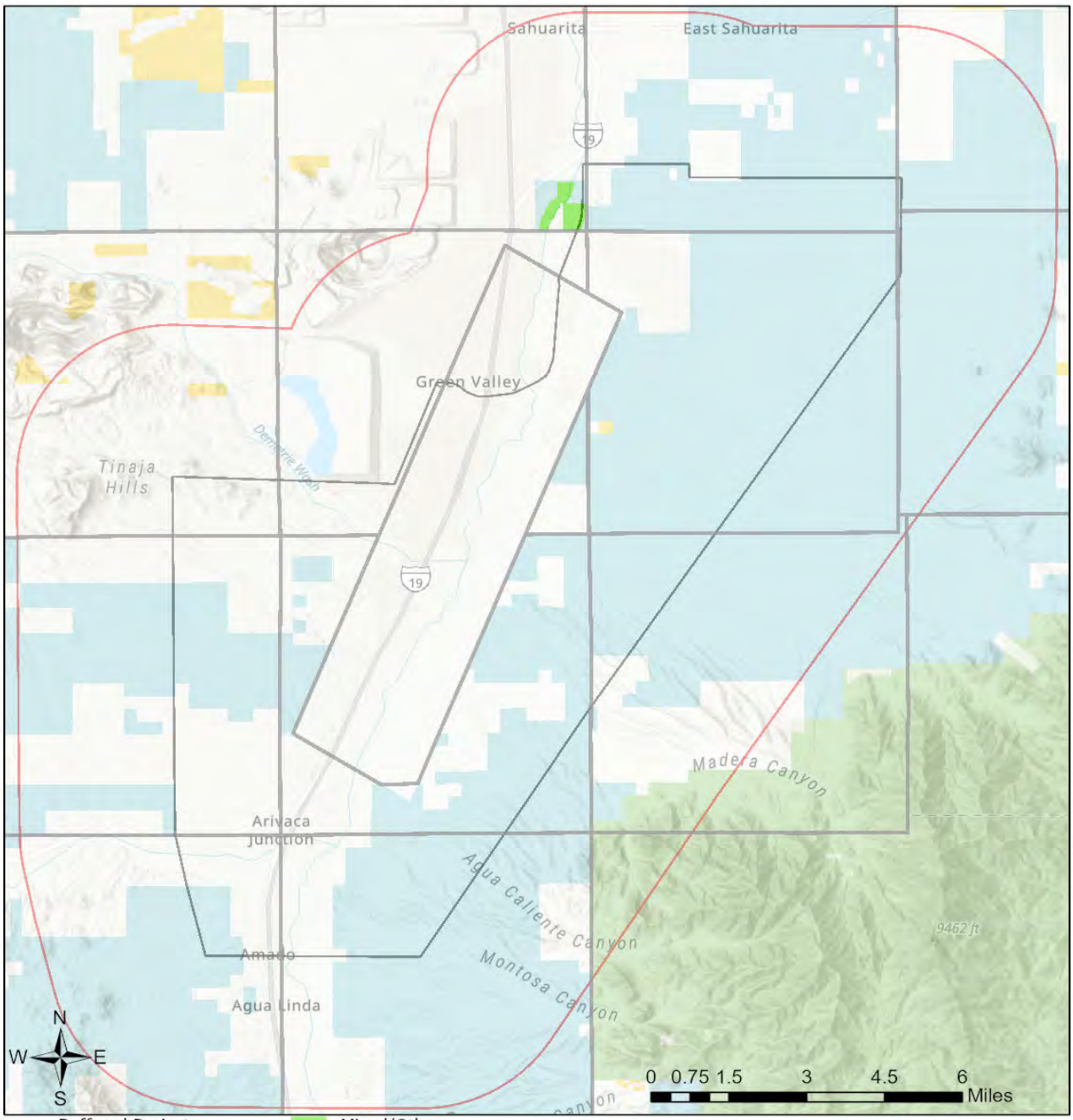
Township/Range(s): T17S, R13E; T17S, R14E +

USGS Quad(s): AMADO; CORONA DE TUCSON +

Esri, NASA, NGA, USGS
CONANP, Esri, TomTom, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

SCR North

Township/Ranges and Land Ownership



- Buffered Project Boundary
- Project Boundary
- AZ Game & Fish Dept.
- BLM
- BOR
- Indian Res.
- Military
- Mixed/Other
- National Park/Mon.
- Private
- State & Regional Parks
- State Trust
- US Forest Service
- Wildlife Area/Refuge
- Township/Ranges

Project Size (acres): 72,130.52

Lat/Long (DD): 31.8045 / -110.9921

County(s): Pima; Santa Cruz

AGFD Region(s): Tucson

Township/Range(s): T17S, R13E; T17S, R14E +

USGS Quad(s): AMADO; CORONA DE TUCSON +

Esri, NASA, NGA, USGS
CONANP, Esri, TomTom, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Abutilon parishii	Pima Indian Mallow	SC	S	S	SR	
Agelaius phoeniceus	Red-winged Blackbird					2
Ammospermophilus harrisii	Harris' Antelope Squirrel					2
Amoreuxia gonzalezii	Saiya	SC	S		HS	
Amphispiza quinquestriata	Five-striped Sparrow					2
Anthus rubescens	American Pipit					2
Antrostomus ridgwayi	Buff-collared Nightjar		S			2
Aquila chrysaetos	Golden Eagle	BGA		S		2
Aquila chrysaetos	Golden Eagle			S		2
Aspidoscelis sonorae	Sonoran Spotted Whiptail					2
Auriparus flaviceps	Verdin					2
Ayenia jaliscana	Ayenia		S			
Bat Colony						
Buteo plagiatus	Gray Hawk	SC				
Buteo regalis	Ferruginous Hawk			S		2
Buteo swainsoni	Swainson's Hawk					2
Calamospiza melanocorys	Lark Bunting					2
Callipepla squamata	Scaled Quail					2
Camptostoma imberbe	Northern Beardless-Tyrannulet		S			2
Campylorhynchus brunneicapillus	Cactus Wren					2
Cardinalis sinuatus	Pyrrhuloxia					2
Catharus guttatus	Hermit Thrush					2
Catharus ustulatus	Swainson's Thrush					2
Centronyx bairdii	Baird's Sparrow		S			2
Chaetodipus baileyi	Bailey's Pocket Mouse					2
Charadrius vociferus	Killdeer					2
Chilomeniscus cinctus	Banded Sandsnake					2
Choeronycteris mexicana	Mexican Long-tongued Bat	SC	S	S		2
Chordeiles minor	Common Nighthawk					2
Circus hudsonius	Northern Harrier					2
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S	S		1
Colaptes chrysoides	Gilded Flicker			S		2
Coluber bilineatus	Sonoran Whipsnake					2
Columbina inca	Inca Dove					2
Contopus cooperi	Olive-sided Flycatcher					2
Contopus sordidulus	Western Wood-Pewee					2
Corvus cryptoleucus	Chihuahuan Raven					2
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat		S	S		1
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1

Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Coryphantha scheeri var. robustispina	Pima Pineapple Cactus	LE		S		
Coryphantha scheeri var. robustispina	Pima Pineapple Cactus	LE		S	HS	
Crotalus tigris	Tiger Rattlesnake					2
Cynanthus latirostris	Broad-billed Hummingbird		S			2
Cyprinodon macularius	Desert Pupfish	LE		S		1
Danaus plexippus	Monarch	C, PT		S		
Dendrocygna autumnalis	Black-bellied Whistling-Duck					2
Didelphis virginiana californica	Mexican Opossum					2
Elgaria kingii	Madrean Alligator Lizard					2
Empidonax traillii extimus	Southwestern Willow Flycatcher	LE		S		1
Empidonax wrightii	Gray Flycatcher					2
Eremophila alpestris	Horned Lark					2
Erigeron lemmonii	Lemmon Fleabane	SC			HS	
Eryngium sparganophyllum	Arizona Eryngo	LE		S		
Euphagus cyanocephalus	Brewer's Blackbird					2
Falco mexicanus	Prairie Falcon					2
Falco peregrinus anatum	American Peregrine Falcon		S	S		1
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1
Falco sparverius	American Kestrel					2
Gastrophryne mazatlanensis	Sinoloan Narrow-mouthed Toad			S		2
Geothlypis tolmiei	MacGillivray's Warbler					2
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Haliaeetus leucocephalus	Bald Eagle	NA, BGA	S	S		1
Heloderma suspectum	Gila Monster					1
Hexalectris arizonica	Arizona Crested Coral-root		S		SR	
Hypsiglena sp. nov.	Hooded Nightsnake					2
Icterus bullockii	Bullock's Oriole					2
Icterus cucullatus	Hooded Oriole					2
Icterus parisorum	Scott's Oriole					2
Incilius alvarius	Sonoran Desert Toad					2
Kinosternon sonoriense sonoriense	Desert Mud Turtle			S		2
Lanius ludovicianus	Loggerhead Shrike					2
Lasiurus frantzii	Desert Red Bat		S			2
Lasiurus xanthinus	Western Yellow Bat		S			2
Leptonycteris yerbabuenae	Lesser Long-nosed Bat			S		1
Leptonycteris yerbabuenae	Lesser Long-nosed Bat	SC		S		1
Lepus alleni	Antelope Jackrabbit					2

Special Status Species Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Lilium parryi	Lemon Lily	SC	S		SR	
Macrotus californicus	California Leaf-nosed Bat	SC		S		2
Manihot davisiae	Arizona Manihot		S			
Megascops kennicottii	Western Screech-owl					2
Melanerpes uropygialis	Gila Woodpecker					2
Melospiza lincolnii	Lincoln's Sparrow					2
Melozone aberti	Abert's Towhee		S			2
Melozone fusca	Canyon Towhee					2
Micruroides euryxanthus	Sonoran Coralsnake					2
Myiarchus tuberculifer	Dusky-capped Flycatcher					2
Opuntia versicolor	Stag-horn Cholla				SR	
Oxybelis aeneus	Brown Vinesnake		S			2
Parabuteo unicinctus	Harris's Hawk					2
Passerculus sandwichensis	Savannah Sparrow					2
Perognathus amplus	Arizona Pocket Mouse					2
Peucaea carpalis	Rufous-winged Sparrow					2
Phrynosoma solare	Regal Horned Lizard					2
Phyllorhynchus browni	Saddled Leaf-nosed Snake					2
Plestiodon callicephalus	Mountain Skink		S			2
Poeciliopsis occidentalis occidentalis	Gila Topminnow	LE,UR		S		1
Polioptila nigriceps	Black-capped Gnatcatcher					2
Pooecetes gramineus	Vesper Sparrow					2
Progne subis hesperia	Desert Purple Martin			S		2
Rana chiricahuensis	Chiricahua Leopard Frog	LT		S		1
Sceloporus jarrovii	Yarrow's Spiny Lizard					2
Selasphorus platycercus	Broad-tailed Hummingbird					2
Senticolis triaspis intermedia	Northern Green Ratsnake		S			2
Setophaga nigrescens	Black-throated Gray Warbler					2
Sigmodon ochrognathus	Yellow-nosed Cotton Rat	SC				3
Spizella breweri	Brewer's Sparrow					2
Tadarida brasiliensis	Brazilian Free-tailed Bat					2
Terrapene ornata luteola	Desert Box Turtle			S		1
Tumamoca macdougalii	Tumamoc Globeberry	SC	S	S	SR	
Zephyranthes longifolia	Copper Zephyr Lily				SR	

Note: Status code definitions can be found at https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/state-wildlife-action-plan/state-wildlife-action-plan-status-definitions/.

Special Areas Documented that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Canoa Ranch to Santa Rita Experimental Range	Pima County Wildlife Movement Area - Landscape					
Esperanza/Demetrie Wash	Pima County Wildlife Movement Area - Riparian/Wash					
Lee Moore Wash Flow Corridors	Pima County Wildlife Movement Area - Riparian/Wash					
Madera Canyon	Pima County Wildlife Movement Area - Riparian/Wash					
Marley Ranch to Canoa Ranch	Pima County Wildlife Movement Area - Landscape					
Santa Cruz River to Santa Rita Experimental Range	Pima County Wildlife Movement Area - Landscape					
Santa Cruz River	Pima County Wildlife Movement Area - Riparian/Wash					
Santa Cruz River-Potrero Creek Confluence to Elephant Head Road	Conservation Opportunity Area					
Santa Rita - Sierrita Linkage Design	Wildlife Connectivity					
Santa Rita - Tumacacori Linkage Design	Wildlife Connectivity					
Santa Rita Experimental Range/Coronado National Forest Wildland Block	Pima County Wildlife Movement Area - Diffuse					
Santa Rita Wildlife Areas	Conservation Opportunity Area					
Sopori Wash	Pima County Wildlife Movement Area - Riparian/Wash					
Upper Santa Cruz River IBA	Important Bird Area					
Upper Santa Cruz River	Conservation Opportunity Area					
Wildlife Linkage across Old Nogales Highway to Santa Cruz River	Pima County Wildlife Movement Area - Landscape					

Note: Status code definitions can be found at https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/state-wildlife-action-plan/state-wildlife-action-plan-status-definitions/.

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Accipiter atricapillus	American Goshawk		S	S		2
Agosia chrysogaster	Longfin Dace			S		2
Ammodramus savannarum ammolegus	Arizona grasshopper sparrow		S	S		2
Ammodramus savannarum perpallidus	Western Grasshopper Sparrow					2
Ammospermophilus harrisii	Harris' Antelope Squirrel					2
Amphispiza quinquestriata	Five-striped Sparrow					2

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Anaxyrus retiformis	Sonoran Green Toad			S		2
Anthus spragueii	Sprague's Pipit					2
Antrostomus ridgwayi	Buff-collared Nightjar		S			2
Aquila chrysaetos	Golden Eagle	BGA		S		2
Asio otus	Long-eared Owl					2
Aspidoscelis sonorae	Sonoran Spotted Whiptail					2
Aspidoscelis stictogrammus	Giant Spotted Whiptail		S			2
Athene cunicularia hypugaea	Western Burrowing Owl		S	S		2
Auriparus flaviceps	Verdin					2
Botaurus lentiginosus	American Bittern					2
Buteo regalis	Ferruginous Hawk			S		2
Buteo swainsoni	Swainson's Hawk					2
Buteogallus anthracinus	Common Black Hawk					2
Calcarius ornatus	Chestnut-collared Longspur					2
Callipepla squamata	Scaled Quail					2
Calypte costae	Costa's Hummingbird					2
Camptostoma imberbe	Northern Beardless-Tyrannulet		S			2
Campylorhynchus brunneicapillus	Cactus Wren					2
Catharus ustulatus	Swainson's Thrush					2
Catostomus clarkii	Desert Sucker		S	S		2
Catostomus insignis	Sonora Sucker		S	S		2
Chaetodipus baileyi	Bailey's Pocket Mouse					2
Charadrius montanus	Mountain Plover					2
Chilomeniscus cinctus	Variable Sandsnake					2
Choeronycteris mexicana	Mexican Long-tongued Bat		S	S		2
Chordeiles minor	Common Nighthawk					2
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S	S		1
Colaptes chrysoides	Gilded Flicker			S		2
Coluber bilineatus	Sonoran Whipsnake					2
Columbina inca	Inca Dove					2
Corvus cryptoleucus	Chihuahuan Raven					2
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat		S	S		1
Crotalus tigris	Tiger Rattlesnake					2
Cynanthus latirostris	Broad-billed Hummingbird		S			2
Cynomys ludovicianus	Black-tailed Prairie Dog	CCA		S		1
Dendrocygna autumnalis	Black-bellied Whistling-Duck					2
Didelphis virginiana californica	Mexican Opossum					2
Elgaria kingii	Madrean Alligator Lizard					2
Empidonax wrightii	Gray Flycatcher					2

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Euderma maculatum	Spotted Bat		S	S		2
Eumops perotis californicus	Greater Western Bonneted Bat			S		2
Eumops underwoodi	Underwood's Bonneted Bat					2
Falco mexicanus	Prairie Falcon					2
Falco peregrinus anatum	American Peregrine Falcon		S	S		1
Falco sparverius	American Kestrel					2
Gastrophryne mazatlanensis	Sinoloan Narrow-mouthed Toad			S		2
Glaucidium brasilianum cactorum	Cactus Ferruginous Pygmy-owl	LT	S	S		1
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Haemorhous cassinii	Cassin's Finch					2
Heloderma suspectum	Gila Monster					1
Hypsiglena sp. nov.	Hooded Nightsnake					2
Icterus bullockii	Bullock's Oriole					2
Icterus cucullatus	Hooded Oriole					2
Icterus parisorum	Scott's Oriole					2
Incilius alvarius	Sonoran Desert Toad					2
Kinosternon sonoriense sonoriense	Desert Mud Turtle			S		2
Lanius ludovicianus	Loggerhead Shrike					2
Lasiurus cinereus	Hoary Bat					2
Lasiurus frantzii	Desert Red Bat		S			2
Lasiurus xanthinus	Western Yellow Bat		S			2
Leptonycteris yerbabuenae	Lesser Long-nosed Bat			S		1
Lepus alleni	Antelope Jackrabbit					2
Macrotus californicus	California Leaf-nosed Bat			S		2
Megascops kennicottii	Western Screech-owl					2
Melanerpes uropygialis	Gila Woodpecker					2
Melospiza lincolnii	Lincoln's Sparrow					2
Melozone aberti	Abert's Towhee		S			2
Micrathene whitneyi	Elf Owl					3
Micruroides euryxanthus	Sonoran Coralsnake					2
Myadestes townsendi	Townsend's Solitaire					2
Myiarchus tuberculifer	Dusky-capped Flycatcher					2
Myotis auriculus	Southwestern Myotis					2
Myotis thysanodes	Fringed Myotis					2
Myotis velifer	Cave Myotis			S		2
Myotis yumanensis	Yuma Myotis					2
Neotoma mexicana mexicana	Mexican Woodrat					2
Notiosorex cockrumi	Cockrum's Desert Shrew					2
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					2

Species of Greatest Conservation Need Predicted that Intersect with Project Footprint as Drawn, based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Nyctinomops macrotis	Big Free-tailed Bat					2
Panthera onca	Jaguar	LE		S		1
Parabuteo unicinctus	Harris's Hawk					2
Passerculus sandwichensis	Savannah Sparrow					2
Perognathus amplus	Arizona Pocket Mouse					2
Peucaea botterii arizonae	Arizona Botteri's Sparrow			S		2
Peucaea carpalis	Rufous-winged Sparrow					2
Phrynosoma solare	Regal Horned Lizard					2
Phyllorhynchus browni	Saddled Leaf-nosed Snake					2
Poeciliopsis occidentalis occidentalis	Gila Topminnow	LE,UR		S		1
Polioptila nigriceps	Black-capped Gnatcatcher					2
Pooecetes gramineus	Vesper Sparrow					2
Progne subis hesperia	Desert Purple Martin			S		2
Rana yavapaiensis	Lowland Leopard Frog		S	S		1
Setophaga nigrescens	Black-throated Gray Warbler					2
Sigmodon arizonae cienegae	Arizona Cotton Rat					2
Sonorella baboquivariensis	Baboquivari Talussnail					2
Spizella breweri	Brewer's Sparrow					2
Tadarida brasiliensis	Brazilian Free-tailed Bat					2
Terrapene ornata	Ornate Box Turtle			S		1
Thamnophis eques	Mexican Gartersnake	PS				1
Thomomys umbrinus intermedius	Southern Pocket Gopher					2
Toxostoma bendirei	Bendire's Thrasher					2
Troglodytes pacificus	Pacific Wren					2
Tyrannus crassirostris	Thick-billed Kingbird		S			2

Species of Economic and Recreation Importance Predicted that Intersect with Project Footprint as Drawn

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Callipepla gambelii	Gambel's Quail					
Callipepla squamata	Scaled Quail					
Odocoileus hemionus	Mule Deer					
Odocoileus virginianus	White-tailed Deer					
Patagioenas fasciata	Band-tailed Pigeon					
Pecari tajacu	Javelina					
Puma concolor	Mountain Lion					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

Project Type: Energy Production/Storage/Transfer, Energy Transfer, Power line/electric line (new)

Project Type Recommendations:
Minimize the potential introduction or spread of exotic invasive species, including aquatic and terrestrial plants, animals, insects and pathogens. Precautions should be taken to wash and/or decontaminate all equipment utilized in the project activities before entering and leaving the site. See the Arizona Department of Agriculture website for a list of prohibited and restricted noxious weeds at https://www.invasivespeciesinfo.gov/unitedstates/az.shtml and the Arizona Native Plant Society https://aznps.com/invas for recommendations on how to control. To view a list of documented invasive species or to report invasive species in or near your project area visit iMapInvasives - a national cloud-based application for tracking and managing invasive species at https://imap.natureserve.org/imap/services/page/map.html.

- To build a list: zoom to your area of interest, use the identify/measure tool to draw a polygon around your area of interest, and select “See What’s Here” for a list of reported species. To export the list, you must have an account and be logged in. You can then use the export tool to draw a boundary and export the records in a csv file.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

For any powerlines built, proper design and construction of the transmission line is necessary to prevent or minimize risk of electrocution of raptors, owls, vultures, and golden or bald eagles, which are protected under state and federal laws. Limit project activities during the breeding season for birds, generally March 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 the nesting season. For underground powerlines, trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herpetofauna (snakes, lizards, tortoise) from entering ditches. In addition, indirect affects to wildlife due to construction (timing of activity, clearing of rights-of-way, associated bridges and culverts, affects to wetlands, fences) should also be considered and mitigated.

Based on the project type entered, coordination with U.S. Fish and Wildlife Service (Migratory Bird Treaty Act) may be required (https://www.fws.gov/office/arizona-ecological-services).

Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

Project Location and/or Species Recommendations:
Analysis indicates that your project is located in the vicinity of an identified ***wildlife habitat linkage corridor***. The **Arizona Missing Linkages** represent ideal connections within or between intact blocks or core habitats. The blocks are currently disconnected or isolated and the linkages should be examined for improving permeability, or are currently intact and in need of preservation and/or enhancement. The reports provide recommendations for opportunities to preserve or enhance permeability. Project planning and implementation efforts should focus on maintaining and improving opportunities for wildlife permeability. For information pertaining to the linkage assessment and wildlife species that may be affected, please refer to: https://www.azgfd.com/wildlife/planning/habitatconnectivity/identifying-corridors/. Please contact the Project Evaluation Program (pep@azgfd.gov) for specific project recommendations.

HDMS records indicate that one or more native plants listed on the **Arizona Native Plant Law and Antiquities Act** have been documented within the vicinity of your project area. Please contact:
Arizona Department of Agriculture
1688 W Adams St.
Phoenix, AZ 85007
Phone: 602.542.4373
https://agriculture.az.gov/sites/default/files/Native%20Plant%20Rules%20-%20AZ%20Dept%20of%20Ag.pdf starts on page 44

Analysis indicates that your project is located in the vicinity of an identified **Conservation Opportunity Area (COA)**. While there are many areas in Arizona that present abundant conservation opportunities, COAs are specific areas on the landscape that the Department identified as having the greatest potential for conservation efforts. COAs were identified using species and habitat data, the presence of unique landscape features, and Departmental expertise. COAs range in size, scope, and focal species and/or habitats and are strictly a non-regulatory conservation tool for the public and our conservation partners to consider. For more information regarding this particular COA near your project area and the Department's suggestions for potential conservation efforts, please visit the COA profile at https://awcs.azgfd.com/conservation-opportunity-areas.

Analysis indicates that your project is located in the vicinity of an identified ***wildlife habitat connectivity feature***. The **County-level Stakeholder Assessments** contain five categories of data (Barrier/Development, Wildlife Crossing Area, Wildlife Movement Area- Diffuse, Wildlife movement Area- Landscape, Wildlife Movement Area- Riparian/Washes) that provide a context of select anthropogenic barriers, and potential connectivity. The reports provide recommendations for opportunities to preserve or enhance permeability. Project planning and implementation efforts should focus on maintaining and improving opportunities for wildlife permeability. For information pertaining to the linkage assessment and wildlife species that may be affected, please refer to: https://www.azgfd.com/wildlife-conservation/planning-for-wildlife/planning-for-wildlife-identifying-corridors/.
Please contact the Project Evaluation Program (pep@azgfd.gov) for specific project recommendations.

Analysis indicates that your project is located in the vicinity of an identified ***wildlife habitat connectivity feature***. The **Detailed Wildlife Connectivity Assessments** represent ideal connections within or between intact blocks or core habitats. The blocks are currently disconnected or isolated and the linkages should be examined for improving permeability, or are currently intact and in need of preservation and/or enhancement. The reports provide recommendations for opportunities to preserve or enhance permeability. Project planning and implementation efforts should focus on maintaining and improving opportunities for wildlife permeability. For information pertaining to the linkage assessment and wildlife species that may be affected, please refer to: https://www.azgfd.com/wildlife/planning/habitatconnectivity/identifying-corridors/
Please contact the Project Evaluation Program (pep@azgfd.gov) for specific project recommendations.

The analysis has detected one or more **Important Bird Areas** within your project vicinity. Please see http://aziba.org/?page_id=38 for details about the Important Bird Area(s) identified in the report.

HDMS records indicate that **Lesser Long-nosed Bats** have been documented within the vicinity of your project area. Please review the Lesser Long-nosed Bat Management Guidelines at: https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/FINALlecuyeHabitatGdln.pdf

HDMS records indicate that one or more **Listed, Proposed, or Candidate** species or **Critical Habitat** (Designated or Proposed) have been documented in the vicinity of your project. The Endangered Species Act (ESA) gives the US Fish and Wildlife Service (USFWS) regulatory authority over all federally listed species. Please contact USFWS Ecological Services Offices at https://www.fws.gov/office/arizona-ecological-services or:

Phoenix Main Office
9828 North 31st Avenue #C3
Phoenix, AZ 85051-2517
Phone: 602-242-0210
Fax: 602-242-2513

Tucson Sub-Office
201 N. Bonita Suite 141
Tucson, AZ 85745
Phone: 520-670-6144
Fax: 520-670-6155

Flagstaff Sub-Office
SW Forest Science Complex
2500 S. Pine Knoll Dr.
Flagstaff, AZ 86001
Phone: 928-556-2157
Fax: 928-556-2121

HDMS records indicate that **Peregrine Falcons** have been documented within the vicinity of your project area. Please review the Peregrine Falcon Management Guidelines at: https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/peregrineFalconConservGuidelines.pdf.

HDMS records indicate that **Sonoran Desert Tortoise** have been documented within the vicinity of your project area. Please review the Tortoise Handling Guidelines found at https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/2014%20Tortoise%20handling%20guidelines.pdf.

EXHIBIT D

BIOLOGICAL RESOURCES

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EXHIBIT D. BIOLOGICAL RESOURCES

As stated in Arizona Administrative Code (A.A.C.), Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, Exhibits to Application, **Exhibit D**:

> *"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."*

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Introduction

UNS Electric, Inc. (UNSE) evaluated the potential impacts of the Santa Cruz Reliability North Transmission Project (SCR North or Project) on existing biological resources within the broader Project Siting Area. This exhibit provides an analysis of potential impacts to biologically sensitive resources within the Project Study Area, defined as the area encompassing a one-mile buffer on either side of the Preferred and Alternative routes considered for this Project.

Existing Conditions

The Project will be constructed in a largely undeveloped area between the unincorporated communities of Green Valley and Amado, Arizona within Pima and Santa Cruz Counties, respectively. Elevations within the Project Area range from 3,000 to 3,300 feet above mean sea level. The Project Study Area includes a mix of disturbed and undeveloped lands, such as irrigated agricultural fields, scattered rural residential developments, fallow parcels, rangelands, and areas adjacent to existing utility corridors and roadways.

Average annual precipitation in the vicinity is approximately 13 inches. Summer high temperatures often exceed 100 degrees Fahrenheit, while winter lows average in the mid-30s. The Santa Cruz River, an intermittent stream channel and the primary drainage in the area, is located within the Project Study Area within the Santa Cruz Subwatershed of the Upper Santa Cruz Watershed (HUC 15050301). This area is relatively flat with slight to moderate rolling topography and is traversed by several ephemeral washes that generally drain westward toward the Santa Cruz River. The region is bounded by the Sierrita Mountains to the west and the Santa Rita Mountains to the east.

Soils in the Project Area include Pima silty clay loam, Comoro sandy loam, and Tubac gravelly loam, typically with slopes between 0 and 5 percent. These soils are common in the Santa Cruz Valley and support desert scrub vegetation and agricultural use. Additional soil mapping and a soils table are provided in the Biological Evaluation (BE) (**Exhibit C-1**).

Land use within the Project Study Area includes areas zoned for rural residential, agriculture, and open space conservation, with portions also designated for light industrial and utility infrastructure. The Project would primarily follow existing disturbed corridors, property boundaries, and utility alignments, minimizing new land disturbance to the greatest extent possible.

A summary of the vegetation types and wildlife species potentially occurring within the Project Study Area, along with an assessment of potential project-related impacts, is summarized below and further detailed in the BE (**Exhibit C-1**).

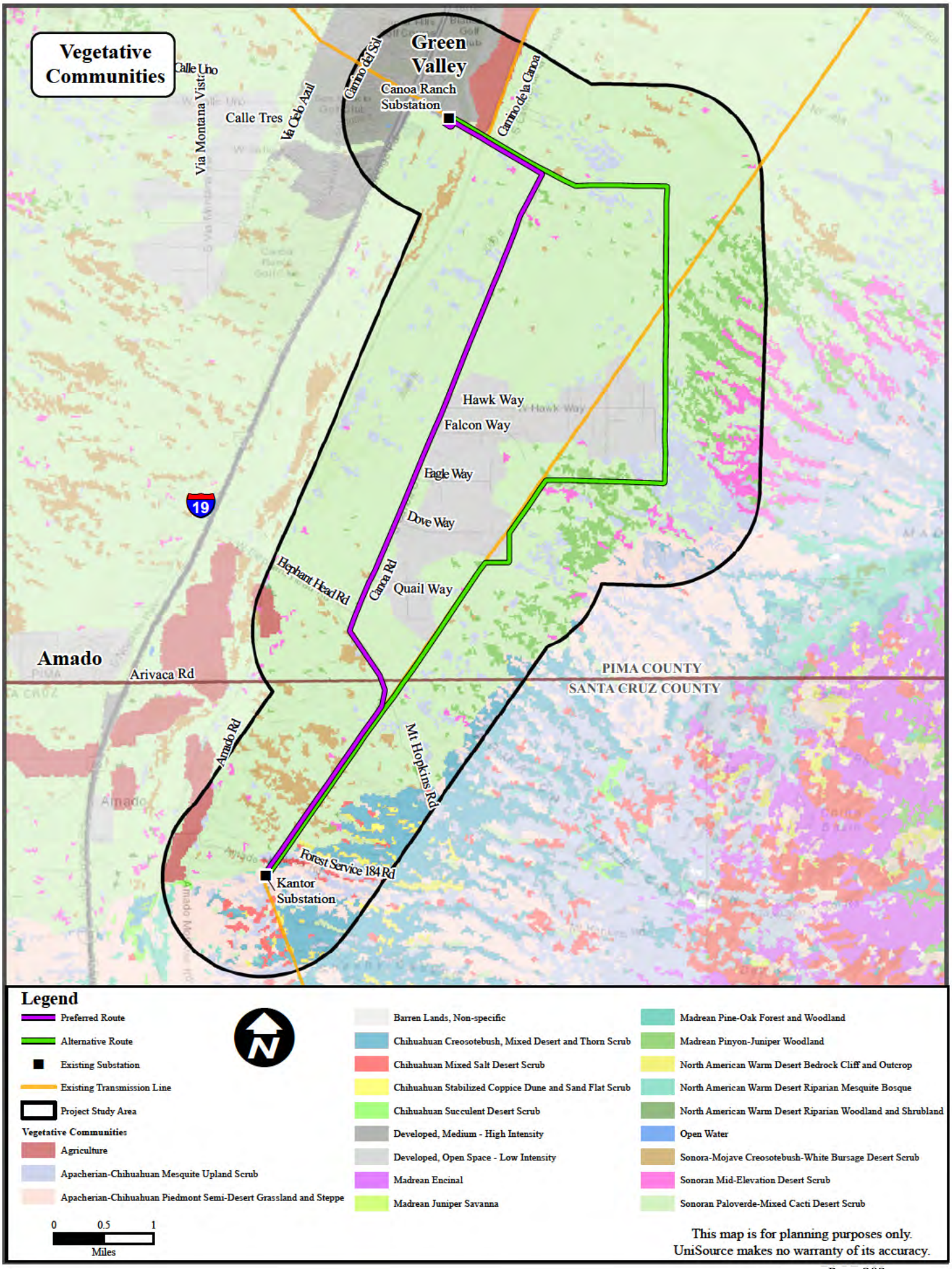
Vegetation

The Project Study Area falls within the semidesert grassland biotic community. According to the Arizona State Land Department and the Arizona Game and Fish Department, most of the Project Study Area is situated within the Semidesert Grassland vegetation community of the Lower Colorado River Valley, while the northern section lies within the Sonoran Desert scrub vegetation community.

Approximately 85 percent of the Project Study Area is comprised of desert shrub/scrub. Desert shrub/scrub vegetation in the Semidesert Grassland occurring in the northern, eastern, and western portions of the Project Study Area, generally consists of the following species listed in **Table 1** and as displayed in **Figure D-1**.

Table D-1.Vegetation Occurring in the Project Study Area

SCIENTIFIC NAME	COMMON NAME
Ambrosia spp.	Bursage
Bouteloua curtipendula	Sideoats Grama
Bouteloua eriopoda	Black Grama
Carnegiea gigantea	Saguaro
Cylindropuntia spp.	Cholla
Encelia farinosa	Brittlebush
Eragrostis intermedia	Plains Lovegrass
Ferocactus spp.	Barrel Cactus
Gutierrezia sarothrae	Ankeweed
Hilaria mutica	Toboasa Grass
Larrea tridentata	Creosote Bush
Lycium spp.	Wolfberry
Olneya tesota	Ironwood
Opuntia spp.	Prickly Pear Cactus
Parkinsonia spp.	Palo Verde
Prosopis velutina	Mesquite
Yucca elata	Soaptree Yucca


Vegetative Communities
Green Valley
Canoa Ranch Substation
Calle Uno
Calle Tres
Via Montana Vista
Via Ceb Azul
Camino del Sol
Camino de la Canoa
Hawk Way
Falcon Way
Eagle Way
Dove Way
Quail Way
Canoa Rd
Elephant Head Rd
19
Amado
Arivaca Rd
PIMA COUNTY
SANTA CRUZ COUNTY
Amado Rd
Mt Hopkins Rd
Forest Service 184 Rd
Kantor Substation
Legend
Preferred Route
Alternative Route
Existing Substation
Existing Transmission Line
Project Study Area
Vegetative Communities
Agriculture
Apacherian-Chihuahuan Mesquite Upland Scrub
Apacherian-Chihuahuan Piedmont Semi-Desert Grassland and Steppe
Barren Lands, Non-specific
Chihuahuan Creosotebush, Mixed Desert and Thorn Scrub
Chihuahuan Mixed Salt Desert Scrub
Chihuahuan Stabilized Coppice Dune and Sand Flat Scrub
Chihuahuan Succulent Desert Scrub
Developed, Medium - High Intensity
Developed, Open Space - Low Intensity
Madrean Encinal
Madrean Juniper Savanna
Madrean Pine-Oak Forest and Woodland
Madrean Pinyon-Juniper Woodland
North American Warm Desert Bedrock Cliff and Outcrop
North American Warm Desert Riparian Mesquite Bosque
North American Warm Desert Riparian Woodland and Shrubland
Open Water
Sonora-Mojave Creosotebush-White Bursage Desert Scrub
Sonoran Mid-Elevation Desert Scrub
Sonoran Paloverde-Mixed Cacti Desert Scrub
N
0 0.5 1
Miles
This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

Wildlife

The Project Study Area is located within the Sonoran Desert ecoregion, which supports a diverse range of wildlife adapted to arid and semi-arid conditions. Common mammals include javelina (*Pecari tajacu)*, coyote (*Canis latrans)*, desert cottontail (*Sylvilagus audubonii)*, black-tailed jackrabbit (*Lepus californicus)*, bobcat (*Lynx rufus)*, and various species of kangaroo rats (*Dipodomys spp.)*. Bird species frequently observed in the region include Gambel's quail (*Callipepla gambelii)*, greater roadrunner (*Geococcyx californianus)*, mourning dove (*Zenaida macroura)*, red-tailed hawk (*Buteo jamaicensis)*, and the western burrowing owl (*Athene cunicularia hypugaeaa)*. Reptiles are also abundant, with notable species such as the Sonoran desert tortoise (*Gopherus morafkai)*, western diamondback rattlesnake (*Crotalus atrox)*, desert spiny lizard (*Sceloporus magister)*, and the Gila monster (*Heloderma suspectum)*. Invertebrates such as tarantulas, scorpions, and native pollinators like bees and butterflies contribute to the ecological richness of the area. This diverse wildlife community reflects the unique habitat features of the Sonoran Desert and Semidesert Grassland vegetation types present within the Project Study Area. Species that were observed in the field by biologists are listed in **Table D-2**, below.

Table D-2. Wildlife Species Observed in the Project Study Area

SCIENTIFIC NAME	COMMON NAME
Mammals	
Canis latrans	Coyote
Erospermophilus tereticaudus	Round-Tailed Ground Squirrel
Lepus californicus	Desert Cottontail
Sylvilagus audubonii	Black-Tailed Jackrabbit
Birds	
Campylorhynchus brunneicapillus	Cactus Wren
Callipepla gambelii	Gambel's Quail
Geococcyx californianus	Greater Roadrunner
Melanerpes uropygialis	Gila Woodpecker
Passer domesticus	House Sparrow
Zenaida macroura	Mourning Dove
Buteo jamaicensis	Red-Tailed Hawk
Cathartes aura	Turkey Vulture
Toxostoma curvirostre	Curve-Billed Thrasher

Special status species, those recognized at the federal level and/or by the State of Arizona, are addressed in both **Exhibit C** and the BE included in this application as **Exhibit C-1**.

Summary of Potential Effects

Vegetation clearing and grading during construction could affect nesting birds protected under the Migratory Bird Treaty Act (MBTA). If construction is scheduled during the nesting or breeding season, UNSE will conduct pre-construction migratory bird and raptor nest surveys to document active nesting sites and to avoid disturbing active nests until fledging is complete. Vegetation will be surveyed prior to construction to confirm that no protected bird species would be impacted.

Native plants within the Project Study Area listed under A.A.C., Article 11, Appendix A are protected under the Arizona Native Plant Law (ANPL) (ARS § 3-901 et seq.). UNSE will comply with the requirements outlined in ARS § 3-904 and the Santa Cruz County Zoning and Development Code (ARS § 3-904 (2024)). The Santa Cruz City Zoning and Development Code does not contain explicit provisions regarding the use or promotion of native plants. Instead, the regulations emphasize protecting significant trees/shrubs, preserving natural landforms, and ensuring adequate landscaping. Pima County's zoning code robustly protects native plants within its jurisdiction. The county not only defines and safeguards specific species but requires developers to engage in careful planning and preservation (ARS § 3-904 (2024)). This includes the submission of preservation plans, site design that retains native vegetation, and revegetation practices aligned with existing plant communities.

Some trimming or removal of native and riparian vegetation which may provide suitable habitat to native and/or special-status species may be necessary during construction. However, vegetation removal is anticipated to be minimal and should not contribute to adverse effects to any species. Additionally, the Project's placement within wildlife corridors is not expected to create barriers to wildlife movement or result in significant long-term effects on urban wildlife pathways.

There is potential for impacts to reptiles and other subterranean wildlife during grading and construction activities as these animals may be inadvertently harmed by heavy equipment and Project vehicle traffic. Species such as lizards, snakes, and burrowing mammals often inhabit underground refuges or shallow soil layers, making them particularly vulnerable to soil compaction, excavation, and mechanical disturbance. These impacts can disrupt local populations, especially if construction occurs during active periods such as breeding or foraging seasons. To mitigate these risks, worker awareness training and low-level speed limits should be implemented. Preconstruction surveys and avoidance measures should also be implemented in areas of the Project containing suitable habitat for sensitive terrestrial species (*i.e.*, burrowing owls and Sonoran desert tortoises). Ultimately, the Project may impact individuals (both wildlife and plant) but would be unlikely to result in significant impacts at the population level for any species.

Vegetation must meet clearance heights for transmission lines in accordance with North American Electric Reliability Corporation (NERC) and Federal Energy Regulatory Commission (FERC) standards to ensure safety and reliability. These regulations are designed to prevent vegetation from encroaching on transmission infrastructure, which can pose serious risks such as electrical faults and service interruptions. Compliance involves maintaining minimum vertical and horizontal clearances between vegetation and energized conductors, especially in areas prone to rapid plant growth or where native vegetation is dense. UNSE will implement vegetation management practices that align with these standards throughout the construction and operational phases to mitigate risk and ensure uninterrupted service.

There is potential for birds inhabiting the area to use the transmission poles as perches. To minimize the potential for mortality caused by electrocution to avian species while flying, hunting, or perching on poles, UNSE designs their lines in accordance with the guidelines and recommendations set forth by the Avian Power Line Interaction Committee (APLIC).

Furthermore, construction activities could introduce or spread noxious weeds, which pose a significant ecological risk. These invasive plant species can outcompete native vegetation, degrade habitat quality, and alter soil chemistry, making it less suitable for native flora and fauna. The spread of noxious weeds may also increase fire risk, reduce biodiversity, and disrupt ecological balances, thereby threatening sensitive biological species and potentially leading to long-term habitat degradation. UNSE will implement appropriate weed management practices, including equipment cleaning protocols and post-construction monitoring, to minimize these risks.

Environmental Protection Measures

The following environmental protection measures are designed to reduce the risk of wildlife injury or the spread of invasive species. For mitigation measures specific to special-status species, see **Exhibit C**.

- If native plants listed under the ANPL are present in the Project Area, the Arizona Department of Agriculture Notice of Intent to Clear Land form should be submitted prior to ground clearing. The submittal time frame depends on the acreage of the area to be cleared, as noted on the form.
- UNSE will design the Project to incorporate reasonable measures to minimize electrocution of and impacts to avian species following the guidelines outlined in *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) and *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* (APLIC 2012).
- To minimize the vegetation impacts, including the introduction and spread of invasive species and noxious weeds, standard best management practices (BMPs) will be used during construction. Standard construction BMPs include implementing stormwater pollution prevention and spill prevention plans, clearing of construction-related trash, and establishing vehicle washing protocols to minimize the introduction and spread of invasive and noxious weeds. Areas of ground disturbance will be restored to the extent possible upon completion of construction activities.
- If vegetation-disturbing activities are planned during the migratory bird nesting season (March 1–August 31), measures to avoid any active bird nests within the Project area, such as preconstruction surveys for migratory bird nests by a qualified biologist, will be taken to maintain compliance with the MBTA.
- To reduce the potential of negative effects to terrestrial species through collisions, worker awareness training and low-level speed limits should be implemented.
- If trenching is included as part of Project construction, the following should be considered to minimize injury to wildlife: when trenches cannot be backfilled immediately, escape ramps, which can be short lateral trenches or wooden planks sloping to the surface, should be constructed at least every 90 meters; trench slopes should be less than 45 degrees (1:1), and any trenches left open overnight should be inspected to remove wildlife prior to backfilling.
- Standard BMPs will be employed during construction to prevent contamination of stormwater runoff from the site

Conclusion

Disturbance to biological resources is expected to be minimal and would be similar for either route alternative. Further, any disturbance is expected to occur primarily during the construction phase of the Project. Vegetation clearing and grading during construction may impact nesting birds protected under the MBTA, as well as reptiles and other subterranean wildlife vulnerable to equipment disturbance. UNSE will conduct pre-construction surveys and follow seasonal timing restrictions to avoid active nests and sensitive habitats. Native plants are protected under the ANPL, and vegetation removal will be minimized to reduce ecological disruption. Vegetation must also meet clearance requirements under NERC and FERC standards to ensure transmission line safety. To minimize the potential for mortality caused by electrocution to migratory birds and raptor species while flying, hunting, or perching on poles, UNSE designs their lines in accordance with the guidelines and recommendations set forth by the APLIC.

EXHIBIT E

SCENIC AREAS, HISTORIC SITES AND STRUCTURES, AND ARCHAEOLOGICAL SITES

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

As stated in Arizona Administrative Code, Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, Exhibits to Application:

> *"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."*

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Introduction

UNS Electric, Inc. (UNSE) evaluated the potential impacts of the Santa Cruz Reliability North Transmission Project (SCR North or Project) on existing visual resources, historic sites and structures, cultural resources, and archaeological resources within the broader Project Siting Area. **Exhibit E** provides an analysis focused on the Project Study Area and evaluates the potential impacts the Preferred Route and Alternative Route may have on each resource.

Scenic Areas and Visual Resources

This section addresses scenic and visual resources within the Project Study Area, which includes those sensitive resources contained within state, county (e.g., Raúl M. Grijalva Canoa Ranch Conservation Park), and private land. No agency-specific protocol is required for the evaluation of impacts on visual resources.

Methodology

Through public and stakeholder input, desktop and field review, and consultation with local planners, the Project team identified designated and otherwise notable scenic features, sensitive observation locations and viewer groups. Sensitivity is a function of distance from the Project, duration of views, number of viewers, and expectations of viewers. This information was used as evaluation criteria to refine segments during the Siting Study (**Exhibit B**) and in the selection of the Preferred and Alternative Routes. The

Preferred and Alternative Routes were further evaluated with the establishment of key observation points (KOPs) to represent views of important resources and receptor groups. A visual simulation was prepared for each key observation location, and a contrast analysis was conducted. A specialist further evaluated the general impacts of each proposed route. Additionally, a visual assessment report in **Exhibit E-1** was prepared to develop and analyze the various alternative routes, and to assist in determining the Preferred and Alternative Routes.

Inventory Results

The Project Study Area does not include any specifically scenic designated national, state, or local scenic areas, however, the Historic Canoa Ranch and the Juan Bautista de Anza National Historic Trail are both within the Project Study Area. Both the ranch and the trail feature natural area views and open views of the Santa Rita Mountains (**Figure E-1**).

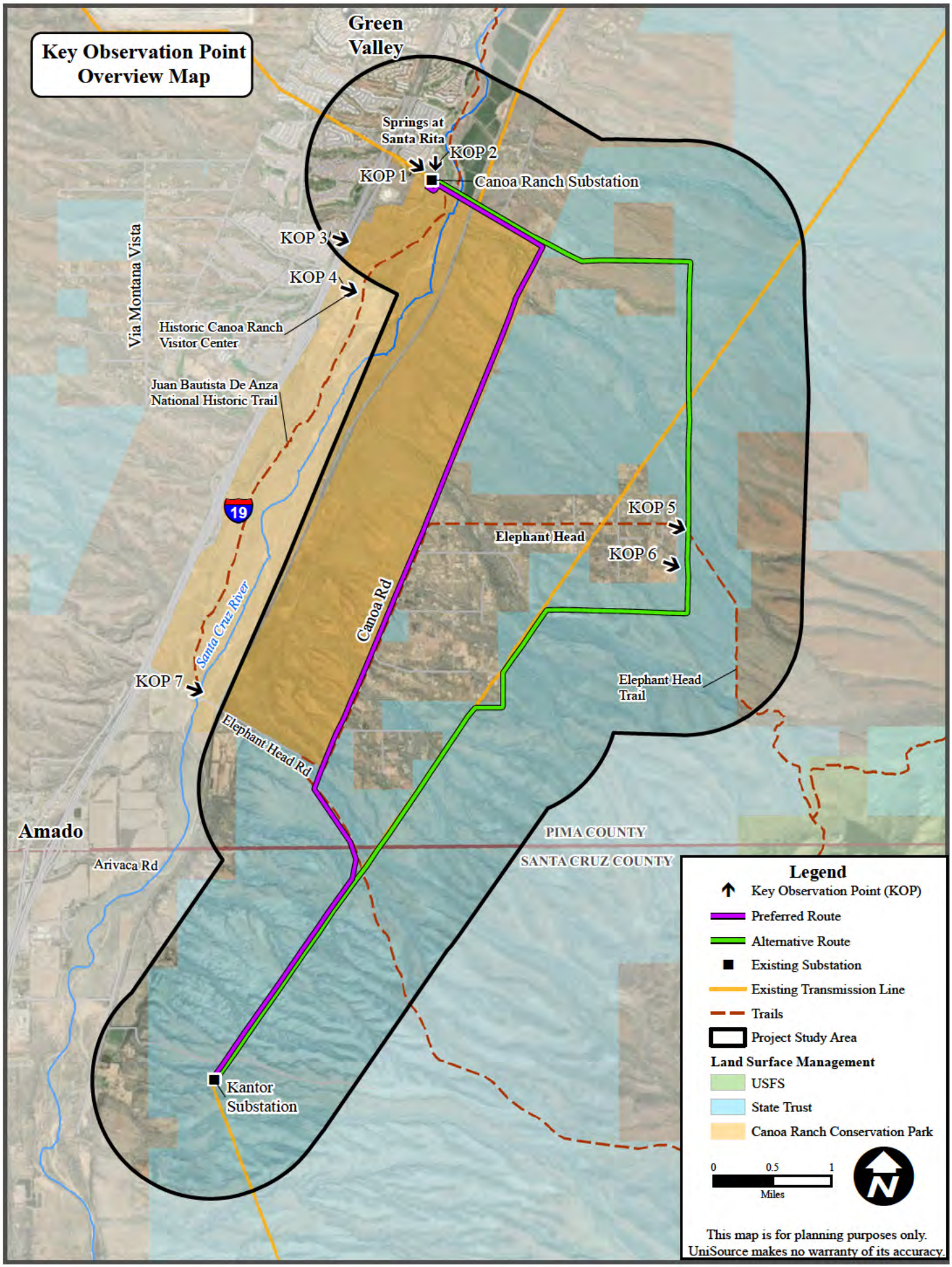
The Project Study Area lies in the Santa Cruz River Valley and is bordered by the Santa Rita Mountains to the east. These mountains offer a scenic backdrop to many residential and recreational areas throughout the Project Study Area (**Figures E-2–4**).

The landscape of the Project Study Area is characterized by a mix of rural to suburban residential and commercial use, desert scrub, rolling hills, riparian corridors, and undeveloped natural space in Pima and Santa Cruz Counties. The area lies within the Sonoran Desert region, featuring arid native vegetation such as mesquite, palo verde, and creosote bush.

Green Valley is a developed retirement and residential community with golf courses, planned neighborhoods, and commercial centers, while the nearby Elephant Head community retains a more rural character with ranches, open space, and agricultural lands. The surrounding terrain includes washes, low ridgelines, and open desert expanses, contributing to the area's visual openness and ecological diversity.

Local residents are the main viewers identified in the Project Study Area. There are approximately 42 residences within 1,000 feet of the Preferred and 30 within 1,000 feet of the Alternative Route. These viewers are able to view the project for one minute to multiple hours. Based on additional input and research, many of these residents place a high value on scenic integrity. Through public engagement efforts, it became known that residents were most interested in views toward the Santa Rita mountains with the Elephant Head rock formation being the focal point.

Both the Preferred Route and Alternative Route originate, from the north, at the Canoa Ranch Substation located in the central portion of the Project Study Area and terminate at the Kantor Substation near the southern end of the Project Study Area. Visual simulations from each KOP referenced in this assessment are found in **Exhibit G-5**.


Key Observation Point Overview Map
Green Valley
Springs at Santa Rita
KOP 2
KOP 1
Canoa Ranch Substation
KOP 3
KOP 4
Via Montana Vista
Historic Canoa Ranch Visitor Center
Juan Bautista De Anza National Historic Trail
19
KOP 5
Elephant Head
KOP 6
Canoa Rd
Santa Cruz River
KOP 7
Elephant Head Trail
Elephant Head Rd
Amado
PIMA COUNTY
SANTA CRUZ COUNTY
Arivaca Rd
Kantor Substation
Legend
Key Observation Point (KOP)
Preferred Route
Alternative Route
Existing Substation
Existing Transmission Line
Trails
Project Study Area
Land Surface Management
USFS
State Trust
Canoa Ranch Conservation Park
0
0.5
1
Miles
N
This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

Preferred Route

The Preferred Route begins at the Canoa Ranch Substation which sits between The Springs neighborhood and the Canoa Ranch Conservation Park. The Springs neighborhood in Green Valley, Arizona, reflects a blend of medium-density residential development and natural desert landscape with well-maintained homes, landscaped open spaces, and recreational amenities that contribute to a cohesive community aesthetic (**Figure E-2**).

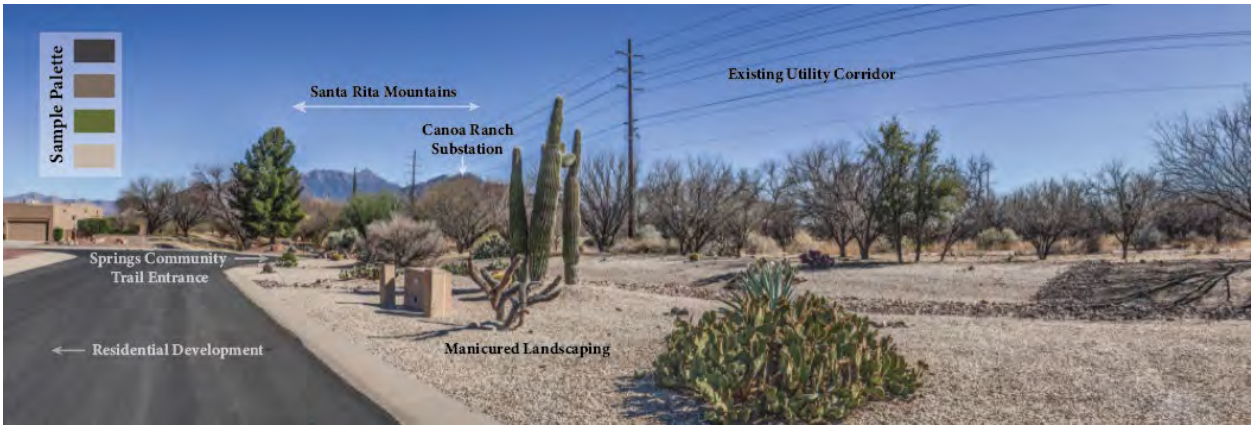


Figure E-2. Looking east from the southeast corner of The Springs community.

The Preferred Route goes east then south along the edge of the Canoa Ranch Conservation Park. The surrounding landscape transitions into a generally undeveloped natural area. Unlike the more developed settings to the north, this region features expansive open space, historic ranch lands, and limited modern infrastructure, making it visually and contextually distinct. It also contains a portion of the] Juan Bautista de Anza Historic Trail which generally runs down the central portion of the conservation park. Views from this area are illustrated in **Figure E-3**.



Figure E-3. Looking east from a point east of the Canoa Ranch Visitor Center on the Juan Bautista de Anza National Historic Trail.

The route follows the western edge of the Elephant Head community where the landscape reflects a mix of low-density development and open desert terrain. This region is characterized by scattered residential properties, utility corridors, and natural basins (**Figure E-4**).



Figure E-4. Looking east from the Elephant Head trailhead parking area just east of the Elephant Head community.

Just south of the Pima/Santa Cruz County line, the Preferred Route meets up and parallels an existing electric transmission line until it terminates at the Kantor Substation. This portion of the Project also passes through a generally natural area with slightly more terrain, access roads, and electric transmission and distribution lines.

Alternative Route

The first portion of the Alternative Route is the same as the Preferred Route originating at the Canoa Ranch Substation. From this starting point, the transmission line travels eastward in the same alignment as the Preferred Route. At the northeast corner of the Canoa Ranch Conservation Park, this alternative continues east before making a pronounced turn southward, passing near Camino de Rondo Road. This stretch of the route is characterized as an open natural area with a few off-road trails.

As the route continues southeast, it meets up with an existing electric transmission line corridor. The route passes to the east of the Elephant Head community with two notable deviations from the existing electric transmission line corridor. The purpose of these deviations is to stay east of the residential areas within the Elephant Head community. The two deviations pass through a natural landscape with a few trails (**Figure E-4**).

The Alternative Route parallels the existing electric transmission line southward until it reaches its terminus at the Kantor Substation. The final portion of this route is the same as the Preferred Route.

Visual Impact Assessment Results

A visual impact assessment was performed for the Preferred and Alternative Routes. Seven KOPs were selected to represent views of residential and recreational viewers toward the Santa Rita mountains and views for Historic Canoa Ranch and the Juan Bautista de Anza National Historic Trail viewers, also looking toward the Santa Rita mountains (**Exhibit E-1**). A visual simulation and contrast worksheet were prepared for each KOP, and a specialist evaluated the overall visual impacts for the two routes.

The following features of the Project may be visible along all alternative routes:

- Dark, weathering, typically 75- to 85-foot monopoles, but up to 115 feet as needed
- 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 rights-of-way (ROW)
- Temporary presence of workers and equipment on the ROW

UNSE 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 self-weathering steel poles, use of self-weathering steel attachments of the insulator bases to the poles, and use of matte gray insulators.

Visual contrast refers to the degree of change introduced to the visual environment by modifications to the landscape. The level of visual impact is directly related to how strongly proposed structures differ from the existing surroundings.

For the Project, visual contrasts were assessed based on how transmission routes and structures interact with the current landscape. Impacts were rated according to the extent of conflict with existing conditions, considering both the type of viewers (*e.g.*, residents, recreationists, travelers) and the anticipated changes to visual resources.

- **Weak Contrast**: The Project is located adjacent to or aligned with existing similar form, line, color, and texture and/or within a more industrial or developed setting. Viewer sensitivity to visual changes is expected to be low, particularly among casual observers.
- **Moderate Contrast**: The Project is near similar form, line, color, and texture, but viewer sensitivity to visual changes is moderate to high. The setting may include mixed-use or transitional landscapes where changes are more noticeable.
- **Strong Contrast**: The Project introduces new visual elements that noticeably differ from the form, line, color, and texture in the existing landscape. These areas are typically residential or recreational, where viewer sensitivity is high and visual changes are more likely to be perceived as intrusive.

To assess potential visual impacts from the perspective of a casual observer, the routes were analyzed from designated KOPs, as illustrated in **Table E-1** using simulations.

Table E-1. Visual Impact Assessment Matrix

KOP	ROUTE	CONTRAST RATING	VISUAL IMPACT	NOTES
1&2	Preferred Route	Weak	Low	Both the preferred and alternative routes are the same as viewed from this location. Numerous similar lines, forms, and colors from existing structures and development. The visual landscape is characterized by a consistent repetition of structural lines, architectural forms, and color schemes that are already present in the surrounding built environment. Additionally, most of the proposed changes are screened by vegetation from residential and trail areas represented by this KOP.
	Alternative Route	Weak	Low	See previous

KOP	ROUTE	CONTRAST RATING	VISUAL IMPACT	NOTES
3,4,7	Preferred Route	Weak	Low	The visual landscape is characterized by a consistent repetition of structural lines, architectural forms, and color schemes that are already present in the surrounding built environment.
	Alternative Route	None	Low	The proposed route may be visible from this location, but it is unlikely that poles or ground disturbance would be perceived by a casual observer.
5&6	Preferred Route	NA	NA	The proposed route isn't visible from this location due to the distance and vegetation.
	Alternative Route	Moderate	Moderate	The proposed transmission structures introduce new development into areas currently characterized by natural open space, altering the visual landscape. The primary viewers in this setting are residents, whose homes are located in close proximity to the proposed infrastructure and recreational users using trails.

Preferred Route

The Preferred Route would not directly impact any scenic resources. It would result in low to no impacts to sensitive views toward the Santa Rita Mountains for Historic Canoa Ranch, Juan Bautista de Anza National Historic Trail visitors, and residents and travelers near the project.

Residential Viewers

Approximately 30 residences on the western side of the Elephant Head community would be within 1,000 feet of the Preferred Route with potential views of less than one-minute to multiple hour duration depending on pole placement and view location. These residences are on the eastern side of the route, so the Project would not impact views to the Santa Rita Mountains and would result in minimal impacts on less sensitive views to the west where there is an existing distribution powerline. There are approximately 9 residences on the northern end of the route in the southeast corner of The Springs community within 1,000-feet of the Preferred Route with potential views of less than one-minute to multiple hour duration depending on the exact placement of poles and view location. The poles in this area would be between the residences and views to the Santa Rita Mountains. Based on the simulations, intervening vegetation and the presence of an existing powerline corridor, the contrast would be low. Due to terrain, vegetation, and structures, residences beyond 1,000-feet would have very low to no impacted views toward the Santa Rita Mountains. Overall, the impact to residential views would be low to none.

Recreation Viewers

The Preferred Route passes perpendicularly over the Juan Bautista de Anza National Historic Trail parallel to an existing transmission line. Based on a few informal observations, it is estimated that less than 50 people per day utilize the trail in this area. Based on contrast ratings, low to negligible impacts to sensitive views toward the Santa Rita Mountain are anticipated in this area. Most of the trail, including the trailhead near Elephant Head Road, is over a mile from the Preferred Route with low to no visibility, low to no contrast, and low to no impact. The Canoa Ranch visitor center is over a mile away from the Preferred

Route and most views are obscured by terrain, vegetation, or structures from the visitor center. The contrast ratings where the line may be visible are low, and impacts would be low to none. Overall impacts to recreation views of the Preferred Route would be low to none.

Road Viewers

The Preferred Route would be within 1,000 feet of travel corridors including Elephant Head Road, Mt. Hopkins Road, Forest Service 184 Road, South Canoa Road, South Wolf Run Road, and a few other minor residential roads. None of these roads were identified as sensitive view locations. The Preferred Route would be visible for less than one minute to less than 20 minutes while traveling these roads depending on mode of transportation. Most views from these roads include existing powerlines. Contrast would be low to none, and associated impacts to road viewers would be low to none.

Alternative Route

The Alternative Route would not directly impact any scenic resources. It would result in moderate to no impacts to sensitive views toward the Santa Rita Mountains for Historic Canoa Ranch, the Juan Bautista de Anza National Historic Trail, and residents and travelers near the project.

Residential Viewers

Approximately 20 residences on the eastern side of the Elephant Head community would be within 1,000 feet of the Alternative Route with potential views of less than one-minute to multiple hour duration depending on pole placement and view location. These residences are on the western side of the route with a generally natural landscape to the east. The Alternative Route would impact views to the Santa Rita Mountains resulting in moderate to low impacts. There are approximately 9 residences on the northern end of the route in the southeast corner of The Springs community within 1000-feet of the Alternative Route with potential views of less than one-minute to multiple hour duration depending on the exact placement of poles and view location. The poles in this area would be between the residences and views to the Santa Rita Mountains. Based on the simulations, intervening vegetation and the presence of an existing powerline corridor, the contrast would be low. Due to terrain, vegetation, and structures, residences beyond 1,000 feet would have very low to no impacted views toward the Santa Rita Mountains. Overall, the impact to residential views would be moderate to none.

Recreation Viewers

The Alternative Route passes perpendicularly over the Juan Bautista de Anza National Historic Trail parallel to an existing transmission line. Based on a few informal observations, it is estimated that less than 50 people per day utilize the trail in this area. Based on contrast ratings, low to negligible impacts to sensitive views toward the Santa Rita Mountain are anticipated in this area. Most of the trail, including the trailhead near Elephant Head Road, is over a mile from the Alternative Route with low to no visibility, low to no contrast, and low to no impact. The Canoa Ranch visitor center is over a mile away from the Alternative Route and most views of the Alternative Route are obscured by terrain, vegetation, or structures. The contrast ratings where the line may be visible are low. Impacts to views from the Canoa Ranch visitor center would be low to none. The Alternative Route would cross the Elephant Head Trail perpendicularly within 1,000 feet of the trailhead parking area east of the Elephant Head Community. The Alternative Route is between the parking area and the Santa Rita Mountains. Depending on pole placement, the poles and conductors would be visible above the horizon. Based on the contrast analysis, the impact would be moderate from this location. Views from the trail looking west are less sensitive and would be progressively farther away with limited to no views of the line due to distance, terrain, and vegetation. Overall impacts to recreations views would be moderate to none.

Road Viewers

The Alternative Route would be within 1,000 feet of travel corridors including Mt. Hopkins Road, Forest Service 184 Road, South Canoa Road, and a few other minor residential roads. None of these roads were identified as sensitive view locations. The Alternative Route would be visible for less than one minute to less than 20 minutes while traveling these roads depending on mode of transportation. Most views from these roads include existing powerlines. Contrast would be low to none, and overall associated impacts to road viewers would be low to none.

Scenic Area and Visual Resources - Conclusion

Through the siting process, both the Preferred and Alternative Routes were selected to minimize impacts to sensitive views and avoid designated scenic resources. The primary scenic impact difference between the two is the portion of the Alternative Route that passes between the Elephant Head community residences and the Elephant Head Trailhead parking area with views to the Santa Rita Mountains. The two routes are otherwise similar in the distance to and quantity of residences, recreation features, and roads. The overall contrast and impact of the Alternative Route would be moderate to none while the overall contrast and impact of the Preferred Route would be low to none with neither route directly impacting designated scenic resources.

Historic Sites and Structures, and Archaeological Sites

The potential impacts of the Project on historic and archaeological resources were evaluated. A Class I cultural resources inventory was conducted for the Project Siting Area. This inventory was also conducted to support compliance with the Arizona State Historic Preservation Act (Arizona Revised Statute [A.R.S.] §§ 41-861 through 41-864), which requires state agencies to consider the effects of their actions on properties listed in, or eligible for listing in, the Arizona Register of Historic Places (ARHP) or the National Register of Historic Places (NRHP).

Pursuant to the Arizona State Historic Preservation Act, agencies must identify and assess any historic sites, structures, or archaeological resources that may be affected by proposed developments. Additionally, the State Historic Preservation Office (SHPO) must be given the opportunity to review and comment on any actions that could impact such properties.

To be eligible for the ARHP, a property must be at least 50 years old (or sometimes less, if it has special significance) and have national, state, or local significance in American history, architecture, archaeology, engineering, or culture. The property should also possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet at least one of the four following criteria:

- Criterion (a): be associated with an event that made a significant contribution to the broad pattern of history
- Criterion (b): be associated with the life of a historically significant person
- Criterion (c): embodies a distinctive characteristic of a type, period, or method of construction, represents the work of a master, possesses high artistic value or represents a significant and distinguishable entity whose components may lack individual distinction
- Criterion (d): has yielded or is likely to yield important prehistorical or historical information.

Inventory Methods

UNSE conducted a Class I review of available data and relevant records within the Project Siting Area. As part of the review, several sources were consulted including the Arizona's online cultural resource inventory tool, AZSITE, the NRHP, U.S. Geological Survey (USGS) historic topographic maps, NETR online historical aerial imagery, USGS Mineral Resources Data System, and the General Land Office plat maps and land patents. The findings are documented in **Exhibit E-2** (Eocene 2025).

These sources were used to determine whether portions of the Project Siting Area had been previously surveyed for cultural resources, to identify any historic properties listed or eligible for listing in the ARHP or NRHP, and to provide recommendations regarding potential impacts to these resources. The results of this Class I inventory informed UNSE's route selection process, helping to avoid known historic properties and cultural resources.

Inventory Results

After considering the results of the Class I review, UNSE further narrowed potential routes to a Preferred Route and an Alternative Route. These routes are referred to as the Canoa Ranch East Option B and Canoa Ranch East Option A, respectively, in the Class I review found in **Exhibit E-2**. Within the refined Project Study Area, approximately 25 percent of the land had been previously surveyed and there are 95 previously documented sites as available from AZSITE as summarized in **Exhibit E-3**.

The Preferred Route corridor intersects or borders 17 previously documented sites – eleven of which are recommended eligible for NRHP inclusion. Six sites remain unevaluated for the NRHP and, until fully evaluated, are treated as eligible. The previously identified sites consist of six pre-contact artifact scatters, one pre-contact agricultural site, one historic road, one unknown site, and Canoa Ranch. Previously documented projects found within proximity to both the Preferred and Alternative Routes are illustrated in **Exhibit E-4**. Canoa Ranch is an NRHP listed Rural Historic Landscape. Descriptions and designations for these and other previously known and documented sites found within the broader Project Siting Area are provided in the Class I Cultural Resource Inventory in **Exhibit E-2**.

Sections of the Preferred Route have been previously surveyed for cultural resources from 1988 through 2019. The most recent guidance from Arizona State Museum (ASM) and the Arizona SHPO dictates that surveys conducted over 10 years prior are not adequate for city, county, or state lands (ASM 2024). Areas with expired surveys or that have not been surveyed before will require a Class III cultural resource inventory be conducted. For those areas with surveys less than 10 years old, these may be omitted from surveys and the existing data can be combined with the new survey data to complete the requirement. UNSE will coordinate with SHPO and Pima County prior to conducting Class III surveys to determine the adequacy of existing survey data and to ensure that the survey plan will meet SHPO's requirements for the Project.

The Alternative Route corridor intersects or comes into contact with eight previously documented sites. Seven of the sites are recommended eligible for NRHP inclusion or remain unevaluated, and one site is recommended not eligible. One of the eligible sites is Canoa Ranch, an NRHP nominated Rural Historic Landscape. The other sites along the Alternative Route include an eligible historic road and two unevaluated pre-contact artifact scatters.

Over 50 percent of the Alternative Route has been previously surveyed by cultural surveys from 1988 through 2013. However, all of the previous inventories took place prior to 2015, so the entirety of the Alternative Route would likely need to be surveyed.

Maps and tables detailing the previous projects and sites identified in the Class I can be found in **Exhibit E-2**.

Assessment of Effects

A project can have direct and/or indirect effects on a historic-era site, structure, or archaeological site when it alters the characteristics that qualify it for listing in the ARHP. Effects are adverse when they diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties (i.e., properties eligible for inclusion in the ARHP) include, but are not limited to:

- Physical destruction of or damage to all or part of the property
- Removal of the property from its historic location
- Change of the character of the property's use of physical features within the property's setting that contribute to its historic significance
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic characteristics
- Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to a Native American tribe
- Transfer, lease, or sale of a property out of government ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance

While portions of the Preferred Route and Alternative Route were previously surveyed, additional survey or a complete resurvey may be required by the land managing agencies, as SHPO and ASM may not deem prior surveys as adequate. UNSE will consult with SHPO and ASM regarding the Project and complete a Class III cultural inventory prior to construction for portions of the final ROWs that have not been previously surveyed to modern standards. A survey of the chosen route will be necessary to determine if the previously documented sites will be affected directly or indirectly by either the Preferred Route or the Alternative Route. The appropriate land managing agencies would be consulted on the adequacy of the survey and mitigation measures for any eligible properties.

Additionally, both routes encounter the NRHP nominated Canoa Ranch and multiple eligible cultural properties. While the area surrounding Canoa Ranch has already been modified by modern infrastructure, the potential adverse impacts to the Rural Historic Landscape and any other cultural properties the Routes may encounter may need to be accounted for through adequate documentation and NRHP evaluation.

Tribal Consultation and State Historic Preservation Office

Tribal Consultation

None of the 22 federally recognized tribes in Arizona manage lands within the Project Study Area. The Tohono O'odham Reservation is located over 12 miles away to the southwest of the Project Study Area. The Pascua Yaqui Reservation is located approximately 23 miles south of the Project Study Area, but the Tribe also has acquired properties at various locations within Pima County and the City of Tucson. No Pascua Yaqui-managed properties are located in the Project Study Area. For a summary of the outreach conducted with tribal communities, please refer to **Exhibit J**.

State Historic Preservation Office

In addition to the tribal consultations, UNSE also coordinated with representatives from the SHPO during outreach activities. This coordination included conducting a virtual meeting with Pima County's Cultural Resources and Historic Preservation manager to present the Project and to inquire about the presence of any additional sensitive resources not already captured by AZSITE data research. No additional resources were noted by Pima County. Additionally, SHPO was invited to and attended the four agency briefings conducted by UNSE for the Project. A summary of outreach and engagement with SHPO is included in **Exhibit J-13**.

Historic Sites and Structures, and Archaeological Sites - Conclusion

UNSE performed a Class I Inventory of the Project Siting Area to aid in identifying the Preferred and Alternative Routes for the proposed transmission line connecting the Canoa Ranch Substation to the Kantor Substation while considering environmental stewardship, cost-effectiveness, operational efficiency, and long-term sustainability. The findings from this assessment were used to evaluate potential impacts to known historic properties and cultural resources along the proposed alignments. All ground-disturbing activities carry the risk of inadvertently uncovering human remains or other culturally significant items. In accordance with A.R.S. § 41-844, if Native American human remains, funerary objects, sacred ceremonial items, or objects of national or tribal patrimony are discovered on state or private lands during such activities, work must immediately stop in the area of discovery, and the Director of the ASM must be notified immediately.

It is recommended that UNSE conduct a Class III cultural resources survey for any portion of the final ROW that has not been previously surveyed or has not been previously surveyed on state land in the last 10 years, to identify whether any additional historic properties are present. It is further recommended that UNSE take into consideration historic properties in Project design and avoid placement of structures or other ground-disturbing activities within the boundaries of these properties.

References

Arizona State Museum (ASM)

2024 *Policy and Procedures Regarding the Use of Previous Archaeological Survey Data.* Accessed online, from: https://statemuseum.arizona.edu/sites/default/files/2024-03/PolicyandProceduresRegardingtheUseofPreviousSurveyData.pdf.

O'Mack, Scott and Janet Pankhurst

2017 *National Register of Historic Places Nomination for Canoa Ranch Rural Historic District Pima County, Arizona.* Prepared for Pima County Office of Sustainability and Conservation-Cultural Resources and Historic Preservation Division, Tucson, Arizona.

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EXHIBIT E-1

VISUAL RESOURCE REPORT

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VISUAL ASSESSMENT

SCR North Reliability Project, Pima and Santa Cruz Counties, Arizona

Prepared for:

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

Prepared by:

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August 2025

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Appendix A Contrast Worksheets

PROJECT DESCRIPTION

The proposed UNS Energy, Inc. (UNSE) Santa Cruz Reliability Project North (SCR North) would result in the following:

- Construction of a new 10-mile 138-kilovolt (kV) transmission line
- Approximate 20-acre expansion of the Kantor Substation
- Installation of supporting infrastructure and maintenance roads

The new UNSE transmission line would originate within unincorporated Pima County, Arizona, at the existing Canoa Ranch Substation (Section 3, Township 19 South, Range 13 East, Gila and Salt River Meridian) and terminate within unincorporated Santa Cruz County, Arizona, at the UNSE Kantor Substation (Section 8, Township 20 South, Range 13 East, Gila and Salt River Meridian).

Description of Alternatives

No-Build Alternative (Baseline Conditions)

The No Build Alternative represents conditions in which the proposed transmission line project is not implemented. Under this scenario, existing land use, infrastructure, and visual conditions within a 1-mile buffer of the Preferred and Alternative Routes (Project Study Area) would remain as they are. This alternative serves as the environmental baseline against which the visual and other impacts of action alternatives are compared.

Preferred Route

Santa Cruz North is a north-south transmission corridor that generally parallels the Canoa Ranch Conservation Park extending from the Cantor Substation in Pima County to the Kantor Substation in Santa Cruz County. It traverses a mix of developed and natural landscapes, crossing or approaching key roads such as Elephant Head Road, Canoa Road, Camino del Sol, and residential streets including Falcon Way, Eagle Way, Dove Way, and Quail Way. The route also intersects the Santa Cruz River in one location. Land management along the corridor includes State Trust Lands and the Canoa Ranch Conservation Park, all within the study area. The route connects two existing substations and aligns with current transmission corridors where feasible, minimizing new land and vegetation disturbance. However, its proximity to residential communities like Green Valley and recreational areas such as the Canoa Ranch Conservation Area and Canoa Ranch Golf Resort introduces visual sensitivity concerns.

Alternative Route

Santa Cruz North follows a similar north-south alignment as the preferred route, connecting the Kantor Substation in Santa Cruz County to the Canoa Ranch Substation in Pima County, but diverges for most of the middle section of the alignment. It intersects or runs near several roads and residential areas, including Elephant Head Road, Canoa Road, Camino del Sol, and neighborhood streets such as Falcon Way, Eagle Way, Dove Way, and Quail Way, as well as crossing the Santa Cruz River. The alternative route also passes through or adjacent to State Trust Lands and the Canoa Ranch Conservation Park, remaining within the study area. The alternative route would utilize portions of existing transmission corridors, and it would require new segments or rights-of-way (ROWs).

Design Elements Common to All Build Alternatives

Both alternatives for constructing the proposed transmission line share several common design elements. Each alternative would use self-weathering steel monopole structures, typically ranging from 75 to 85 feet in height, though taller poles may be used to meet clearance requirements. The transmission line would be configured for 138-kV and utilize the same type of conductors—typically aluminum conductor steel-reinforced, to ensure consistent system reliability. A standard ROW width, generally between 60 and 100 feet, would be maintained to support construction, operation, and maintenance activities. Access roads would be established or improved as needed, often following existing routes to reduce ground disturbance. Construction methods such as auguring or drilling foundations, erecting poles with cranes, stringing conductors, and restoring disturbed areas would be consistent across alternatives. All options would incorporate best management practices. Coordination with landowners, utility providers, and public agencies would also occur under each alternative to ensure access, easement acquisition, and permit compliance. After construction, operations and maintenance activities—including inspections, vegetation management, and repairs—would follow the same protocols regardless of the selected route.

VISUAL ASSESSMENT METHOD

Methodology

The following methodology was used to evaluate impacts to aesthetic resources:

1. **Study Area.** A study area was selected based on professional judgement to include the extents of potentially viable alternatives. The visual study area includes all identified segments with a 0.5-mile buffer. A 0.5-mile buffer provided extra coverage for potential visibility of the pole, conductors, and disturbance. **Figure 1** illustrates the minimal visibility of a similar pole at 1,250 feet (less than 0.25 mile).



Figure 1. Minimal visibility of a similar pole at 1,250 feet

2. **Applicable Regulations.** A qualified planner conducted desktop review of federal, state, and local regulations and planning documents for applicable aesthetically driven regulations, mention of aesthetic resources, and mention of aesthetic sensitivity/concern. A qualified planner also met with city and county planning officials to understand the local concerns.
3. **Receptor Groups and Units.** A qualified planner identified visual receptor groups (i.e., a group of potential viewers with common viewing behavior in a similar setting) and quantified visual receptor units. A unit is a representative way to quantify the number of

receptors without counting each individual receptor (e.g., average number of automobiles each day, also known as annual average daily traffic).

4. **Key Observation Point Selection.** A qualified planner identified preliminary representative key observation points (KOPs) following public outreach efforts to understand primary sensitivities. A qualified planner carried out a field review to verify landscape character to provide a baseline for analysis, gather GPS data, select final KOPs to most accurately represent typical views of the project, and take photographs from KOPs using camera settings and methods intended to accurately represent typical views. For this study, the camera was set to 5.5 feet high, and a 50-millimeter full-frame equivalent zoom lens was used with ISO 100 and an f-stop 8.
5. **Prepare Visual Simulations.** UNSE engineering provided preliminary 3-D models of proposed aboveground features. For each KOP, a qualified planner utilized the preliminary 3-D model to create a simulated environment with a simulated location, date, and time that matched each KOP photo set. Realistic-looking materials were applied to the model's surface and the model was rendered and exported as a 2-D PNG file. Panorama photographs were stitched together to form a single 124-degree panorama. Proposed removal of existing lines and poles were photoshopped out of the panorama. The PNG was laid over the panorama. Slight adjustments to hue, temperature, intensity, and edges were made to match the existing environment as much as possible.
6. **Complete Contrast Analysis.** A qualified planner used each simulation to evaluate the level of potential contrast for each proposed route alternative.
7. **Impact Assessment.** A qualified planner carried out an assessment to present potential impacts for each alternative.

EXISTING CONDITIONS

Study Area

Overall Visual Setting

Regional Setting

The visual character of southern Pima County, Arizona, is defined by its desert landscape, wide open vistas, and the dramatic backdrop of the Santa Rita Mountains to the east. The area features a mix of natural desert vegetation, such as mesquite, creosote bush, and palo verde, interspersed with low-density residential development, golf courses, and linear infrastructure like roads and utility corridors. Viewsheds in this area are generally expansive due to the area's low-profile buildings and gently rolling terrain.

Local Setting

The local setting of southern Pima County is defined by a suburban-rural mix that blends low-density residential neighborhoods with open desert landscapes, community amenities, and pockets of agricultural and recreational land. Homes are typically one story with muted, earth-tone colors designed to complement the Sonoran Desert environment. Streetscapes are landscaped with native vegetation, and community design guidelines often aim to preserve visual continuity and minimize contrast with the surrounding terrain.

Key visual elements include views toward the Santa Rita Mountains, which dominate the eastern skyline and are a prominent scenic resource. Open spaces such as desert washes, golf courses, and greenbelts contribute to a sense of openness and visual relief within developed areas. Infrastructure, including utility lines, roads, and signage, is generally low-profile but can become visually prominent when not screened or located near sensitive viewpoints.

Landscape Units

TABLE 1 LANDSCAPE UNIT			
Landscape Unit	**Description**	**Key Features**	**Visual Sensitivity**
Urban/Residential	Medium-density subdivisions and retirement communities in Green Valley and Amado	Homes, roads, landscaped yards, community centers	Moderate to High
Agricultural/Rural	Fields, grazing lands, and agricultural infrastructure near Amado and southern areas	Irrigated fields, fences, barns, farmsteads	Moderate
Sonoran Desert Scrub/Open Space	Undeveloped desert scrub with native vegetation and natural terrain	Creosote, mesquite, palo verde, arroyos	High
Transportation/Utility Corridor	Corridors along Interstate 19 (I-19), major roads, and utility infrastructure	Highways, signage, utility lines, telecom towers	Low to Moderate
Riparian/Drainage	Areas along Santa Cruz River and washes with denser vegetation and intermittent water flow	Cottonwoods, willows, dry riverbeds, wildlife habitat	High

Visual Resources

Existing Visual Character

The existing visual character of the Project Study Area is defined by its desert suburban setting within the Sonoran Desert landscape. The area is characterized by a mix of natural desert vegetation, low-density residential development, and views framed by surrounding mountain ranges. Native plant species such as mesquite, paloverde, creosote bush, and various cacti are commonly found throughout both undeveloped and landscaped areas, contributing to the desert aesthetic.

Residential neighborhoods are typically planned with consistent architectural styles, often incorporating earth-toned stucco finishes, flat or tile roofs, and xeriscape landscaping that visually integrates with the natural environment. Structures are generally one to two stories in height, preserving distant views of the Santa Rita Mountains to the east and the Sierrita Mountains to the west.

The visual environment is open and expansive, with broad sightlines across gently sloping desert terrain. Washes, arroyos, and intermittent vegetation create subtle textural variation in the landscape. Major transportation routes such as I-19 and South Nogales Highway are present but do not dominate the visual experience due to low-profile design and surrounding natural features.

Overall, the visual character of Green Valley is a blend of natural desert elements and cohesive, low-scale development that maintains compatibility with the surrounding landscape and supports scenic views of the region's prominent landforms.

Existing Visual Quality

The existing visual quality of the Project Study Area is generally considered to be moderate to high due to the area's combination of natural desert features, open views, and locations of cohesive residential development. The landscape is dominated by Sonoran Desert vegetation, including native shrubs, cacti, and low-growing trees, which provide texture and visual interest across a gently rolling terrain. These natural elements are complemented by the distant, scenic backdrops of the Santa Rita and Sierrita Mountains, which enhance the area's visual appeal and contribute to a strong sense of place.

Development in the Project Study Area tends to be low-density and designed to harmonize with the desert setting. Buildings are typically constructed using muted, earth-tone colors and low-profile architectural styles that minimize visual intrusion. Landscaping frequently incorporates native and drought-tolerant plants, supporting a cohesive visual environment and reducing contrast with surrounding natural areas.

Transportation corridors and utility infrastructure are present but generally have a low visual profile. Roads are often lined with native vegetation or landscaped buffers, softening their appearance. While some areas near industrial or commercial development may exhibit lower visual quality due to more utilitarian structures or disturbed land, these are limited in extent and typically buffered from view by topography or vegetation.

Overall, the visual quality of the Project Study Area reflects a well-maintained desert community that preserves natural scenic values while accommodating residential and recreational uses in a visually compatible manner.

Local Plans

Pima County Comprehensive Plan

The Pima County Comprehensive Plan includes visual and scenic quality as key components of its land use and environmental goals, particularly within rural and conservation-oriented areas. The plan emphasizes preservation of scenic viewsheds, especially those of mountain ranges, river corridors, and natural desert landscapes, which contribute to the region's unique character and quality of life.

Key visual assessment principles in the plan include the following:

- **Protection of Scenic Corridors.** Roadways such as I-19, Mission Road, and other arterial routes are designated as scenic corridors, and development along these routes is subject to guidelines that limit visual disruption. Setbacks, building height limits, and native vegetation buffers are encouraged (Pima County 2025a).
- **Context-Sensitive Infrastructure.** The plan promotes infrastructure that blends with the natural environment. Utility and transmission line projects are expected to minimize visual contrast, particularly in or near designated Conservation Lands System areas or when adjacent to open space and low-density residential uses (Pima County 2025b).
- **Development Design Guidelines.** The plan encourages architectural and landscape designs that complement the Sonoran Desert environment. This includes using native

plant materials, low-reflectivity surfaces, and earth-tone color palettes (Pima County 2025b).

Santa Cruz County Comprehensive Plan

The Santa Cruz County Comprehensive Plan emphasizes the importance of preserving visual quality and scenic resources, particularly due to the county's rural character and reliance on tourism. Goal 9 of the plan supports infrastructure development that is thoughtfully designed to avoid adverse effects on the visual landscape and encourages routing along existing corridors to reduce visual intrusion. Land use policies promote development that is compatible with the natural environment and sensitive to scenic and cultural resources.

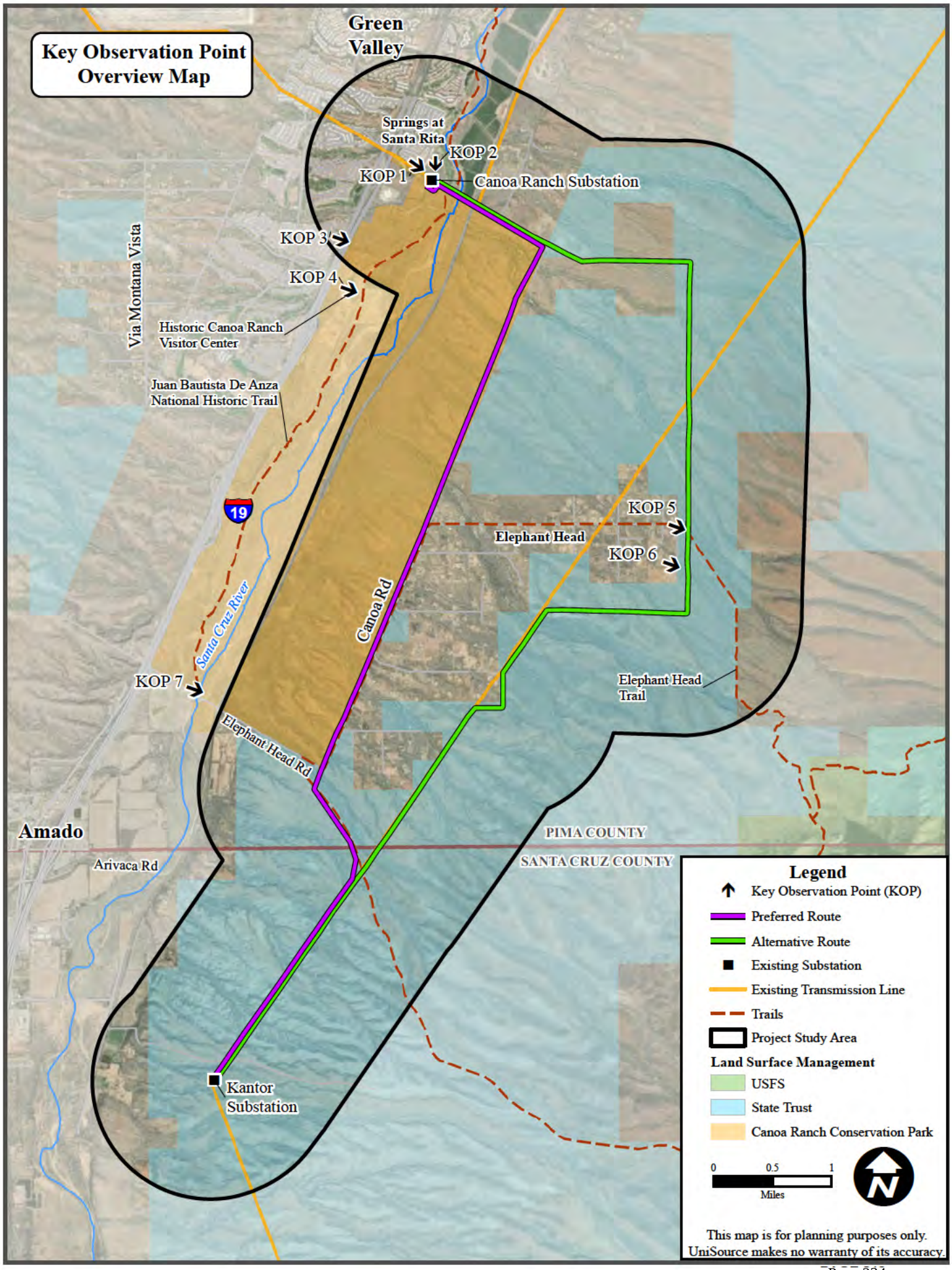
Receptor Groups and Units

The visual assessment considers a range of receptor groups likely to experience changes in visual character due to the proposed transmission line alternatives. These groups include the following:

- Residents – Individuals living in communities such as Green Valley and Amado, as well as rural homes near the proposed routes; these receptors are sensitive to changes in scenic quality and visual intrusion
- Recreational Users – Visitors to areas such as Canoa Ranch Conservation Park and nearby open spaces who value natural and scenic views for leisure and outdoor activities
- Motorists – Drivers traveling along regional roads including Canoa Road, Elephant Head Road, and Arivaca Road who will experience transient views of the infrastructure
- Land Managers and Agencies – Entities responsible for managing State Trust Lands, United States Forest Service lands, and conservation areas that may be visually affected by the project
- Local Businesses and Institutions – Commercial and public facilities located near substations or along major corridors that may be impacted by changes in visual context

Key Observation Points

A KOP is a strategically selected location used in visual impact assessments to evaluate how proposed infrastructure projects, such as transmission lines, will appear from specific vantage points in the surrounding landscape. KOPs are chosen based on their visibility, proximity to sensitive receptors (like residential areas, parks, or scenic routes), and their potential to represent public viewpoints. A visual simulation was prepared for each KOP to compare the current landscape with the projected view after the project is implemented, helping environmental professionals to assess the aesthetic and environmental implications of different route alternatives. **Figure 2** depicts each KOP and the direction it is facing.


Key Observation Point Overview Map
Green Valley
Springs at Santa Rita
KOP 2
KOP 1
Canoa Ranch Substation
KOP 3
KOP 4
Via Montana Vista
Historic Canoa Ranch Visitor Center
Juan Bautista De Anza National Historic Trail
19
KOP 5
Elephant Head
KOP 6
Canoa Rd
Santa Cruz River
KOP 7
Elephant Head Trail
Elephant Head Rd
Amado
PIMA COUNTY
SANTA CRUZ COUNTY
Arivaca Rd
Kantor Substation
Legend
Key Observation Point (KOP)
Preferred Route
Alternative Route
Existing Substation
Existing Transmission Line
Trails
Project Study Area
Land Surface Management
USFS
State Trust
Canoa Ranch Conservation Park
0
0.5
1
Miles
N
This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

Key Observation Point 1

- Location: Within the Springs neighborhood
- Views Provided:
    - Facing South – Preferred Route and Alternative Route
- Context: This location represents views for residents. This is close to an entry point for the community walking trail and dog park. **Figure 3** shows desert vegetation, a manicured communal landscape, dormant leafless trees and shrubs, power lines running parallel to the road, and views to the Santa Rita Mountains.



Figure 3. Key Observation Point 1

Key Observation Point 2

- Location: Nature trail southeast of The Springs community
- Views Provided:
    - South – Common portion of the preferred and alternative routes
- Context: This KOP represents views of trail user views utilizing the community trail south east of The Springs. **Figure 4** shows desert vegetation, signs and trail markers, power lines, and views to the Santa Rita Mountains.



Figure 4. Key Observation Point 2

Key Observation Point 3

- Location: Circle at the End of S Gloria View Ct within San Ignacio Vistas Community
- Views Provided:
    - Facing Southeast – Preferred Route
- Context: This KOP represents views from residences along the Eastern edge of the San Ignacio Vistas community. **Figure 5** shows the freeway, Canoa Ranch, natural landscape, and open views to the Santa Rita Mountains.



Figure 5. Key Observation Point 3

Key Observation Point 4

- Location: Near Historic Canoa Ranch, east of I-19 and on the Anza Trail
- Views Provided:
    - Facing East – Preferred Route
- Context: This KOP represents views of recreational viewers utilizing the Anza Trail and/or visiting the historic Canoa Ranch. **Figure 6** shows desert vegetation, signs and trail markers, power lines, and open views to the Santa Rita Mountains.



Figure 6. Key Observation Point 4

Key Observation Point 5

- Location: Near Elephant Head Road and Hawk Way
- Views Provided:
    - Facing East – Alternative Route
- Context: This KOP represents views from residences along the Eastern edge of the Elephant Head community and for recreational users utilizing the trail. **Figure 7** shows an undeveloped desert landscape, the trail, and open views to the Santa Rita Mountains.



Figure 7. Key Observation Point 5

Key Observation Point 6

- Location: At the south end of Monarch Way on the east side of the Elephant Head community
- Views Provided:
    - Facing Southeast and East – Alternative Route
- Context: This KOP represents views from residences along the Eastern edge of the Elephant Head community. **Figure 8** shows a rural residential landscape, fences, vehicles, other light development, and views to the Santa Rita Mountains.



Figure 8. Key Observation Point 6

Key Observation Point 7

- Location: Juan Bautista de Anza Trailhead Parking in Canoa Ranch Conservation Area
- Views Provided:
    - Southeast – Preferred Route
- Context: This KOP represents views from the trailhead for recreational users utilizing the trail. **Figure 9** shows an undeveloped desert landscape, the trail, powerlines, light development, and open views to the Santa Rita Mountains.



Figure 9. Key Observation Point 7

Visual Simulations

Visual simulations are digitally rendered images that depict how a proposed infrastructure project, such as a transmission line, would appear in the real-world landscape from specific vantage points.

Key Observation Point 1 Simulation

Parts of four new poles are somewhat visible. Most of the proposed changes would be screened by vegetation. No other vegetation removal or ground disturbance is visible from this angle.



Figure 10. Key Observation Point 1 Simulation

Key Observation Point 2 Simulation

Parts of four new poles are somewhat visible. Most of the proposed changes would be screened by vegetation. No other vegetation removal or ground disturbance is visible from this angle.



Figure 11. Key Observation Point 2 Simulation

Key Observation Point 3 Simulation

A large portion of the proposed line is faintly visible in the distance. No other vegetation removal or ground disturbance is visible from this angle.



Figure 12. Key Observation Point 3 Simulation

Key Observation Point 4 Simulation

A large portion of the proposed line is faintly visible in the distance. No other vegetation removal or ground disturbance is visible from this angle.



Figure 13. Key Observation Point 1 Simulation

Key Observation Point 5 Simulation

Two new poles are prominently visible along with the conductors and static wire. Both poles and conductors are above the mountain skyline. No other vegetation removal or ground disturbance is visible from this angle.



Figure 14. Key Observation Point 2 Simulation

Key Observation Point 6 Simulation

A few new poles are visible along with the conductors and static wire. Two-four poles and conductors are above the mountain skyline. No other vegetation removal or ground disturbance is visible from this angle.



Figure 15. Key Observation Point 6 Simulation

Key Observation Point 7 Simulation

A portion of the proposed line is faintly visible in the distance. No other vegetation removal or ground disturbance is visible from this angle.



Figure 16. Key Observation Point 7 Simulation

Contrast Analysis

A contrast analysis in a visual report evaluates how much of the proposed infrastructure, such as transmission lines, visually differs from the existing landscape when viewed from specific locations. It focuses on the degree of visual change introduced by the project and how noticeable or disruptive those changes are to the viewer. Contrast sheets are in **Appendix A**.

Key Observation Point 1

The visual simulation at the Springs neighborhood in Green Valley, Arizona, demonstrates a very weak level of contrast between the proposed transmission infrastructure and the existing landscape. The transmission poles and lines, while introducing vertical and linear elements, are visually subdued due to their alignment with existing features such as wooden posts, wire fencing, and informational signage along the dirt path.

The muted tones of the desert, primarily browns and grays, combined with the soft green of scattered vegetation and the pale hues of the mountains, allow the infrastructure to blend into the scene with minimal visual disruption. This weak contrast is especially evident in views facing south and southwest, where the new transmission line structures do not interrupt the horizon or dominate the visual field.

Key Observation Point 2

The visual simulation from The Springs nature trail, demonstrates a weak level of contrast between the proposed transmission infrastructure and the existing landscape. The transmission poles and lines, while introducing vertical and linear elements, are visually subdued due to their alignment with existing features such as wooden posts, poles, wire fencing, and informational signage along the dirt path.

The muted tones of the desert, primarily browns and grays, combined with the soft green of scattered vegetation and the pale hues of the mountains, allow the infrastructure to blend into the scene with minimal visual disruption. This weak contrast is especially evident in views facing south and southwest, where the new transmission line structures do not interrupt the horizon or dominate the visual field.

Key Observation Point 3

The visual simulation near San Ignacio Vistas, demonstrates a weak level of contrast between the proposed transmission infrastructure and the surrounding landscape. Limited contrasting elements such as additional vertical lines would be introduced by the proposed project.

Key Observation Point 4

The visual simulation near Historic Canoa Ranch in Green Valley, Arizona, demonstrates a very weak level of contrast between the proposed transmission infrastructure and the surrounding landscape. Limited contrasting elements such as additional vertical lines would be introduced by the proposed project.

Key Observation Point 5

The visual simulations from KOP 5 show a strong level of contrast between the existing landscape and the proposed transmission infrastructure. No development is currently visible in the existing landscape. The introduction of new poles and lines would be a strong contrast. The transmission poles and lines introduce prominent vertical and linear elements that stand out against the

otherwise open and undeveloped setting. The contrast is especially noticeable in views facing south and southwest where the infrastructure interrupts the natural horizon.

Key Observation Point 6

The visual simulations from KOP 6 show a moderate-low level of contrast between the existing landscape and the proposed transmission infrastructure. Rural development is currently visible in the existing landscape. The introduction of new poles and lines would be a moderate-low contrast. The transmission poles and lines introduce additional vertical and linear elements that stand out against the undeveloped background. The contrast is noticeable in views facing east where the infrastructure interrupts the natural horizon.

Key Observation Point 7

The visual simulation near Juan Bautisa de Anza Trailhead demonstrates a very weak level of contrast between the proposed transmission infrastructure and the surrounding landscape. Limited contrasting elements such as additional vertical lines would be visible from this location.

VISUAL IMPACT ASSESSMENT

No Build Alternative

Under the No Build Alternative, the proposed transmission line and associated infrastructure would not be constructed. As a result, there would be no new visual elements introduced into the landscape in the Green Valley and Amado areas. The existing visual environment, characterized by a mix of low-density residential, rural agricultural lands, desert scrub vegetation, and existing infrastructure such as roads and utility corridors, would remain unchanged. This alternative would preserve current viewsheds and maintain the visual character of the region as outlined in the Pima and Santa Cruz County Comprehensive Plans.

Construction-Related Impacts from Alternatives

Construction-related impacts from the transmission line alternatives primarily involve temporary but notable disturbances to the natural and built environment. Vegetation clearing will be required along each route, resulting in the removal of native desert plants. Soil disturbance from grading, trenching, and pole installation may lead to exposing different colored soils that contrast with the existing environment. Access roads and staging areas for equipment will be necessary, particularly in remote or undeveloped areas, which could expand the project footprint and introduce additional visual impacts. Visually, the presence of construction equipment, materials, and temporary structures will contrast with otherwise open or scenic landscapes.

Impacts for Preferred and Alternative Routes

A summary of visual impacts has been developed for each of the following alternatives.

Preferred Route

This alternative is projected to result in a relatively weak level of contrast within all visual assessment units as viewed from key observation points. In general, the visual changes introduced by this alternative are likely to be subtle and dispersed, minimizing the potential for impact to key receptors.

Alternative Route

This alternative is anticipated to result in a weak to strong degree of contrast across all visual assessment units, indicating that where the new line parallels existing lines, the contrast would be weak, and where the line would be new to the west of the Elephant Head community, the contrast would be strong.

Impact Summary

The preferred route would have an overall lower level of visual impact as viewed from typical view locations. Both routes are strongly compatible where they would parallel or replace existing lines. The primary visual sensitivity of views to the Santa Rita Mountains would be better served by the preferred alternative.

REFERENCES

Pima County. 2025a. Major Streets and Scenic Routes. Accessed on May 28, 2025. Major Streets & Scenic Routes. https://www.pima.gov/879/Major-Streets-Scenic-Routes

Pima County. 2025b. About the Conservation Lands System. Accessed on May 28, 2025. https://www.pima.gov/789/About-the-Conservation-Lands-System

APPENDIX A
CONTRAST WORKSHEETS

Form 8400-4
(June 2018)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 08/25/2025
District Office: NA
Field Office: NA
Land Use Planning Area:

SECTION A. PROJECT INFORMATION

1. Project Name	4. KOP Location (T.R.S)	5. Location Sketch
Santa Cruz North Reliability Project		See simulation panels
2. Key Observation Point (KOP) Name KOP 1&2		
3. VRM Class at Project Location N/A	(Lat. Long)	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat in the foreground, irregular in background, complex, diverse	Spherical, conical, cylindrical, irregular	Cylindrical, boxy, flat
LINE	Irregular, curved, indistinct	Indistinct	Vertical, horizontal, curvilinear road, curved
COLOR	Tans and browns, pink	Various greens, browns, tans, blue-greens, yellows, purples, reddish brown.	Dark, metallic, silver, tan, reddish brown
TEX-TURE	Irregular in the foreground transitioning to clumped in the distance	Sporadic	Regular, smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same with slightly more cylindrical elements
LINE	Same	Same	Same with slightly more vertical elements
COLOR	Same	Same	Same, with slightly more reddish-brown elements
TEX-TURE	Same	Same	Same

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 reverses side)

3. Additional mitigating measures recommended
___Yes ✓No (Explain on reverses side)

Evaluator's Names: Osmer Beck
Date: 08/25/2025

(Continued on Page 2)

Comments from item 2.

Does project design meet visual resource management objectives? Yes No

Not directly applicable as no set objectives exist.

Additional Mitigating Measures (See item 3)

Additional mitigating measures recommended? No

Apply general design criteria; non-specular conductors and attention to clean and orderly appearance around the base of structures; dull, non-reflective finish on structures to reduce potential for glare.

Form 8400-4
(June 2018)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 08/25/2025
District Office: NA
Field Office: NA
Land Use Planning Area:

SECTION A. PROJECT INFORMATION

1. Project Name	4. KOP Location (T.R.S)	5. Location Sketch
Santa Cruz North Reliability Project		See simulation panels
2. Key Observation Point (KOP) Name KOP 3, 4, 7		
3. VRM Class at Project Location N/A	(Lat. Long)	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat in the foreground, irregular in background, complex, diverse	Spherical, conical, irregular	Cylindrical, boxy, flat
LINE	Irregular, curved, indistinct	Indistinct	Vertical, horizontal, curved
COLOR	Tans and browns, pink, orange	Various greens, browns, tans, blue-greens, yellows, purples, reddish brown.	Metallic, silver, tan, reddish brown
TEX-TURE	Fine in the foreground transitioning to clumped in the distance	Sporadic	Regular, smooth

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Same
LINE	Same	Same	Same with slightly more vertical elements
COLOR	Same	Same	Same
TEX-TURE	Same	Same	Same

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 reverses side)

3. Additional mitigating measures recommended
___Yes ✓No (Explain on reverses side)

Evaluator's Names: Osmer Beck
Date: 08/25/2025

(Continued on Page 2)

Comments from item 2.

Does project design meet visual resource management objectives? Yes No

Not directly applicable as no set objectives exist.

Additional Mitigating Measures (See item 3)

Additional mitigating measures recommended? No

Apply general design criteria; non-specular conductors and attention to clean and orderly appearance around the base of structures; dull, non-reflective finish on structures to reduce potential for glare.

Form 8400-4
(June 2018)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VISUAL CONTRAST RATING WORKSHEET

Date: 08/25/2025
District Office: NA
Field Office: NA
Land Use Planning Area:

SECTION A. PROJECT INFORMATION

1. Project Name	4. KOP Location (T.R.S)	5. Location Sketch
Santa Cruz North Reliability Project		See simulation panels
2. Key Observation Point (KOP) Name KOP 5-6		
3. VRM Class at Project Location N/A	(Lat. Long)	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat in the foreground, rounded in the middleground, irregular in background, complex, diverse	Spherical, irregular	none
LINE	Irregular, curved, indistinct	Indistinct	None
COLOR	Tans and browns, pink, orange	Various greens, browns, tans, blue-greens, yellows, orange, reddish brown.	None
TEX-TURE	Fine in the foreground transitioning to clumped in the distance	Sporadic, clumped	None

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Same	Same	Addition of conical elements
LINE	Same	Same	Addition of vertical narrow and horizontal curved elements
COLOR	Same	Same	Addition of darker reddish-brown and silver elements
TEX-TURE	Same	Same	Addition of regular spaced, geometric elements

SECTION D. CONTRAST RATING __SHORT TERM __LONG TERM

1. 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				✓				✓	✓			
	LINE				✓				✓	✓			
	COLOR				✓				✓			✓	
	TEXTURE				✓				✓			✓	

2. Does project design meet visual resource management objectives? ___Yes ___No
(Explain on reverses side)

3. Additional mitigating measures recommended
___Yes ✓No (Explain on reverses side)

Evaluator's Names: Osmer Beck
Date: 08/25/2025

(Continued on Page 2)

Comments from item 2.

Does project design meet visual resource management objectives? Yes No

Not directly applicable as no set objectives exist.

Additional Mitigating Measures (See item 3)

Additional mitigating measures recommended? No

Apply general design criteria; non-specular conductors and attention to clean and orderly appearance around the base of structures; dull, non-reflective finish on structures to reduce potential for glare.

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EXHIBIT E-2

CLASS I INVENTORY REPORT

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CLASS I INVENTORY REPORT FOR SANTA CRUZ RELIABILITY PROJECT NORTH

Santa Cruz Reliability Project North

Pima and Santa Cruz Counties, Arizona

Prepared for:

UniSource Energy Services

Prepared by:

Lisa Stenten
Eocene Environmental Group, Inc.
1745 South Alma School Road, Suite 220
Mesa, Arizona 85210

September 2025 (Revised)

This Document Contains Confidential Non-Public Historic and Archaeological Information
Not for Public Distribution.

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PROJECT DESCRIPTION

UniSource Energy Services (UNSE) is proposing to build a new 138-kilovolt (kV) transmission line to connect the Kantor Substation located in Santa Cruz County to the regional electric grid in Pima County. The Santa Cruz Reliability Project North (SCR North; Project) aims to improve the reliability and resiliency of the electrical transmission system servicing Santa Cruz County. The UNSE area (Study Area) is located in southern Pima and northern Santa Cruz counties, approximately 23 miles south of Tucson along Interstate 19 (I-19). UNSE also plans on performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements. The SCR North Project would result in the construction of a new 138-kV transmission line, the expansion of the Kantor Substation, and the installation of supporting infrastructure and maintenance roads.

The new 138-kV aboveground transmission line would require up to a 100-foot right-of-way (ROW). Tubular, steel monopole structures, approximately 75 to 85 feet tall, would be erected within the ROW. The maintenance roads would be bladed with a minimum width of 12 feet. UNSE would also expand the Kantor Substation to the east, which would increase the property boundary to approximately 20 acres.

The purpose of this study is to identify a reasonable route for the transmission line connecting Canoa Substation to Kantor Substation while considering environmental stewardship, cost-effectiveness, operational efficiency, and long-term sustainability.

This Class I Inventory discusses the Study Area and five draft alternative alignments proposed for SCR North across private and State Trust Lands in Arizona (see Appendix A). Eocene Environmental Group, Inc. (Eocene) performed a background research review of previously recorded cultural resources and previously conducted cultural surveys in support of this Project. The state of Arizona State Historic Preservation Office (SHPO) requires a 1-mile buffer around the entire Study Area to determine and better understand any previously recorded cultural resources or surveys that may be affected by or overlap Project activities. This document presents existing information consisting of previous cultural surveys, inventories, historical contexts, and previously documented sites. The document is intended to serve as baseline information to facilitate identifying an appropriate route for the SCR North Project and devise a reasonable strategy for the identification and evaluation of historic properties.

Project Area/Area of Potential Effects

Address: N/A
Route: I-19
Mileposts Limits: MP 46 – MP 64
Nearest City/Town: Tucson
County: Puma and Santa Cruz Counties
Project Locator UTM: NAD 83
Zone:13
Baseline & Meridian: Gila-Salt River
United States Geological Survey (USGS) Quadrangle(s): Sahuarita, Twin Buttes, Green Valley, Esperanza Mill, Amado, Mount Hopkins, Arizona

Legal Description(s):
T17S, R13E, Sections 25, 35
T17S, R14E, Sections 25–36
T17S, R15E, Section 31
T18S, R12E, Sections 25, 26, 27, 34, 35, 36
T18S, R13E, Sections 01, 12, 13, 22–36
T18S, R14E, Sections 01–23, 27–34
T18S, R15E, Sections 06, 07
T19S, R12E, Sections 1, 2, 3, 10–15, 22–27, 34, 35, 36
T19S, R13E, Sections 01–35
T19S, R14E, Sections 04–08, 18, 19
T20S, R12E, Sections 01, 02, 03, 11, 12, 13, 14
T20S, R13E, Sections 02–10, 16, 17, 18

Project Registration and Permits

Arizona State Museum (ASM) Accession Number: N/A
AAA Permit Number: Arizona Antiquities Act (AAA) Permit 2025-030bl
Arizona State Land Department (ASLD) Lease Application Number: N/A
Other Permit Numbers: N/A

Organization

Name: Eocene Environmental Group, Inc.
Internal Project Number: 20250087
Internal Project Name: Santa Cruz Reliability North Transmission Project
Contact Name: Sean K. Flynn
Contact Address: 1745 South Alma School Road, Suite 220, Mesa, Arizona 85210
Contact Phone: (605) 662-6541
Contact Email: sflynn@eocene.com

Sponsor/Lead Agency

Sponsor: UniSource Energy Services
Lead Agency: Arizona Corporation Commission (ACC)
Agency Project Number:
Agency Project Name:
Funding Source: Private
Other Involved Agencies: ASM
Applicable Regulations: A.R.S. § 41-841 et seq., A.R.S. § 41-861 et seq. (the Arizona Historic Preservation Act); A. R. S. § 41-865 (Disturbing human remains or funerary objects; rules; violation; classification; definitions)

ENVIRONMENTAL CONTEXTS

The study area for the SCR North Project is located approximately 22.67 miles (36.48 kilometers) south of the city of Tucson, Arizona, along I-19. The study area goes as far north as the proposed Hartt Substation, east of the Los Arroyos community on I-19, and consists of acreage on the east and west sides of I-19 until it reaches the Kantor Substation just north of Aqua Linda. The east side acreage stretches approximately 5.62 miles (9.04 kilometers) along the Santa Cruz River Valley and stops before reaching the foothills of Madera Canyon and Helvetia. The acreage west of I-19 stretches for an average of 5 miles (8.05 kilometers) and stops before the Tinaja Hills. The Study Area crosses multiple ephemeral washes and bodies of water with varying levels of water,

with the most notable being the Santa Cruz River and its many tributaries. The Study Area is located within the Sonoran Desert with a mix of lower Sonoran Desert scrub including mesquite, acacia, cholla, and rabbit brush. The Study Area geology consists of areas of Holocene River alluvium along I-19, early Pleistocene to late Pliocene deposits just east and west of the I-19 corridor, and Quaternary deposits farther to the east and west. Rock layers of Paleozoic sedimentary rocks, early Tertiary to late Cretaceous rocks, and Jurassic granitic rocks can be found on the edges of the Study Area.

CLASS I INVENTORY METHODOLOGY

Eocene archaeologists reviewed relevant records and inventoried previously recorded sites and cultural resource surveys. As part of the review, Eocene consulted several sources including the Arizona Geographic Information System, USGS historic topographic maps, NETRonline for historical aerial imagery, USGS Mineral Resources Data System, and General Land Office (GLO) plat maps and land patents.

CLASS I INVENTORY

Previous Projects

Background research identified 223 previously conducted cultural resource projects within 1 mile of the Project Study Area. There are 171 projects within the Project Study Area. A total of 16 of the previously conducted projects were completed after 2015 and likely meet the SHPO standards for adequate survey. See Appendix B for project locations in relation to the Study Area.

TABLE 1.
PREVIOUS PROJECTS WITHIN THE STUDY AREA

Reference Number	Project Name	Survey Organization	Year
12.50.SHPO	State Lease #23-98551–Archaeological Survey near Amado (letter report)	PAST	1990
1991-123.ASM	El Paso Natural Gas Company Twin Buttes Pipeline, Pima and Santa Cruz Counties	ACS	1991
1976-2.ASM	Green Valley Sewers Project	ASMCRMD	1976
1980-131.ASM	Union Rock and Materials Batch Plant	ASMAD	1980
1980-106.ASM	Green Valley State Land Survey	ASMCRMD	1980
1982-190.ASM	Clearance Survey of Lakewood Estates, Amado, Pima County	ASMCRMD	1983
1984-127.ASM	Four Parcels of Land in Santa Cruz County for Vernon Swaback Associates	ASM	1984
1986-139.ASM	La Canada Drive Road Improvement	CES	1986
1986-187.ASM	Arizona Department of Transportation (ADOT) Material Pit 7489 Near Amado, Santa Cruz County	ARS	1986
1986-146.ASM	Green Valley American Legion	ASM	1986
1987-46.ASM	United States Postal Service Green Valley Post Office Site, Pima County	ASMCRMD	1987
1987-158.ASM	Next Generation Weather Radar (NEXRAD) Survey	ASMCRMD	1987

TABLE 1. PREVIOUS PROJECTS WITHIN THE STUDY AREA			
Reference Number	**Project Name**	**Survey Organization**	**Year**
1988-229.ASM	Archaeological Survey of 2720 Acres of State and Privately Held Lands Near Green Valley, Pima County	SWCA	1988
1988-215.ASM	Santa Cruz 115kV Transmission Line Upgrade	DAMES	1989
1989-4.ASM	Unknown	Unknown	1989
1989-153.ASM	Archaeological Survey of a Power Transmission ROW, Desert Hills Lutheran Church, Green Valley	CES	1989
1989-28.ASM	Proposed Materials Source (Pit 8703) in Agua Caliente Canyon East of Arivaca Junction	ARS	1989
1989-154.ASM	Archaeological Survey of a Power Transmission Line ROW, Desert Hills Lutheran Church, Green Valley	CES	1989
1989-127.ASM	Santa Cruz 115 kV Transmission Line Conductor Replacement: Amado to Tubac Segment	DAMES	1989
1990-37.ASM	State Lease 23-98551 Archaeological Exploration (PAST Job No. 90247)	PAST	1990
1991-13.ASM	Range Improvement Projects on the Santa Rita Experimental Range	ASM	1991
1991-203.ASM	GREEN VALLEY TUBAC SURVEY	SWCA	1991
1991-254.ASM	AMADO–TUMACACORI SURVEY	SWCA	1991
1992-78.ASM	Continental Road Survey	SWCA	1992
1992-241.ASM	FHP ARCH. SURVEY	SWCA	1992
1993-82.ASM	RANCHO NUEVO SURVEY	SWCA	1993
1993-261.ASM	ELEPHANT HEAD SURVEY	SWCA	1993
1994-404.ASM	CONTINENTAL ROAD, SECTION 22	PAST	1994
1995-72.ASM	TUCSON-NOGALES FIBER OPTICS ROW	ACS	1995
1995-82.ASM	GREEN VALLEY T.E.P. LINES	PAST	1995
1995-210.ASM	ELEPHANT HEAD ROAD SURVEY	AZTLAN	1995
1995-276.ASM	CONTINENTAL SURVEY	TIERRA	1995
2003-806.ASM	Cultural Resource Inventory for Fairfield Canoa Ranch Property	STATRES	1996
1995-479.ASM	TEP/Green Valley Testing and Mitigation	OPAC	1996
1996-204.ASM	Mt. Hopkins Survey	CES	1996
1996-412.ASM	Arivaca to Amado Survey	TIERRA	1996
1996-408.ASM	Interstate-19 Between Nogales and Amado	ARS	1996

TABLE 1. PREVIOUS PROJECTS WITHIN THE STUDY AREA			
Reference Number	**Project Name**	**Survey Organization**	**Year**
1996-431.ASM	Archaeological Assessment of a 1.5 Acre Parcel in Green Valley, Pima County, Arizona	TIERRAARCH	1996
1997-257.ASM	Pantano to Bicknell/Vail to Bicknell	SWCA	1997
1997-521.ASM	Madera Highlands	PAST	1998
1998-70.ASM	Arivaca Sewer Line Survey, through the Canoa Ranch Property, Pima County	STATRES	1998
1998-244.ASM	ADOT–Tucson I	STANTECH	1998
1998-554.ASM	Solar del Viejo Project	PAST	1998
1998-186.ASM	Green Valley: Assisted Living Survey	ACS	1998
1998-324.ASM	Green Valley Survey	DESARC	1998
1999-1.ASM	UA Soils Department Santa Rita Soils Contest	ASMAD	1999
1999-172.ASM	Canoa Ranch Rest Area Facility Rehabilitation	LSD	1999
1999-572.ASM	Madera Highlands Site Evaluation of AZ EE:1:285	STATRES	1999
1999-592.ASM	Tucson Maintenance I-19	ARS	1999
1999-498.ASM	Plant 225–Green Valley Pit/#cm 0326	ARS	1999
2000-1.ASM	Continental-Whitehouse Canyon Road Sidewalk Survey (PCO#12)	OPAC	2000
2000-194.ASM	Campbell Avenue Survey	SWCA	2000
2000-22.ASM	La Posada Testing Along Northern Periphery of AZ EE:1:32	OPAC	2000
2000-739.ASM	Quail Creek Survey	SWCA	2000
2000-203.ASM	Green Valley KM 59.8 and KM 60.9	ARS	2000
SHPO-2001-955	A Proposed Telecommunications Site at 575 East Whitehouse Canyon	SHPO	2001
2001-659.ASM	Arivaca Rd (MP 11-21)	PAST	2001
2005-291.ASM	Madera Highlands Data Recovery	SWCA	2001
2001-598.ASM	Section 28 Survey	PCC	2001
2001-217.ASM	I-19 West Frontage Road at Continental Interchange CRA	OPAC	2001
SHPO-2003-0867	Continental Partnership LLC–Proposed private development of a 5.6-acre parcel of land	TIERRAARCH	2001
2001-592.ASM	Continental Survey	TIERRAARCH	2001
SHPO-2002-124	Old Pueblo Archaeology Center Project No. 99001.49, W.O. 4ABCON, Abrego Drive and Continental Road	SHPO	2002
2002-2.ASM	W.O. 4ABCON. Abrego Drive and Continental Road Intersection Cultural Resources Assessment	OPAC	2002

TABLE 1. PREVIOUS PROJECTS WITHIN THE STUDY AREA			
Reference Number	Project Name	Survey Organization	Year
2002-255.ASM	Camino de Canoa Survey	DESARC	2002
2003-188.ASM	Green Valley	TIERRA	2002
2003-42.ASM	Santa Rita Experimental Range Survey	DESARC	2002
2003-455.ASM	Arivaca Road Survey	HEG	2002
2005-46.ASM	Quail Creek 250	PAST	2002
2003-476.ASM	Continental Vista Erosional Protection Survey	ARS	2003
2003-440.ASM	Arivaca Gravity Flow Sewer Survey	STATRES	2003
2003-442.ASM	Canoa ADOT Crossing	PAST	2003
2003-348.ASM	TEP La Canada	TIERRA	2003
2003-1029.ASM	Santa Rita Experimental Range Survey	HEG	2003
2004-494.ASM	Green Valley Hills Archaeological Survey	SWCA	2003
2005-639.ASM	Section 28 Survey	TIERRA	2003
2004-152.ASM	Quail Creek	TIERRA	2004
2004-607.ASM	Canoa-Mt. Hopkins Utility	CES	2004
2004-746.ASM	Green Valley Abrego Drive Survey	SWCA	2004
2005-589.ASM	Camino de la Canoa and Whitehouse Canyon Road Survey	NTHLDTEM	2004
2003-1491.ASM	De Anza Trail Survey	TIERRA	2004
2004-1869.ASM	Camino del Sol	ARS	2004
2004-1052.ASM	I-19, STR 6603	ECOPLAN	2004
2005-833.ASM	40 Acres in Green Valley	ARS	2004
2005-132.ASM	Solar del Viejo–ADOT Access	PAST	2005
2005-347.ASM	Elephant Head 1.25-Mile Survey	WEST	2005
2005-377.ASM	PDSI Monitoring Well Survey	WEST	2005
2005-439.ASM	Green Valley TEP Survey	DESARC	2005
2005-309.ASM	138 kV/Canoa	TIERRA	2005
2005-715.ASM	Cantor Substation	TIERRA	2005
2005-874.ASM	Abrego Drive Trailhead	HEG	2005
2007-588.ASM	Montosa Ranch Survey	WEST	2006
2006-758.ASM	Amado 21 Acres Environmental Due Diligence Support	WEST	2006
2006-274.ASM	Pollux Properties ASLD 106	PAST	2006
2006-394.ASM	Old Nogales and Continental	TIERRA	2006
2006-374.ASM	Rinker Green Valley Expansion	ALC	2006
2006-537.ASM	Green Valley Drainages	HEG	2006

TABLE 1. PREVIOUS PROJECTS WITHIN THE STUDY AREA			
Reference Number	Project Name	Survey Organization	Year
2006-544.ASM	Santa Rita Experimental Range State Land Surveys	WEST	2006
2008-193.ASM	Qual Creek Class III Two Half Section	WEST	2006
2006-275.ASM	Pollux Properties ASLD ROW	PAST	2006
2006-968.ASM	Rinker Valley Expansion # 2	ALC	2006
2006-902.ASM	Quail Crossing Boulevard	KIMHORN	2006
2007-132.ASM	Canoa Ranch ADOT ROW Class III	WEST	2007
2007-349.ASM	Quail Creek Park Survey	SWCA	2007
2013-129.ASM	Elephant Head 640	PAST	2007
2007-141.ASM	Continental Elementary and Middle School Safe Routes to School Project	ECOPLAN	2007
2007-792.ASM	Amado ADOT	PAST	2007
2007-711.ASM	CR Survey of Proposed Tower Locations, Customs and Border Protection Tucson West	HEG	2007
2008-269.ASM	FMI Waterline Class III Survey	WEST	2008
2007-471.ASM	I-19	HEG	2008
2009-428.ASM	Sierrita Five Drill Pads Cultural Resources Inventory	WEST	2008
2008-705.ASM	Desert Meadows Survey	TIERRA	2008
2008-695.ASM	I-19 Sign Rehab	LSD	2008
2009-73.ASM	Demetrie Wash South	WEST	2009
2009-252.ASM	Canoa Testing	TIERRA	2009
2009-388.ASM	Pantano-Bicknell Pole Replacement Monitoring	SWCA	2009
2009-648.ASM	Central Arizona Project Monitoring	ANTIGUA	2009
2009-776.ASM	Montana Vista Rebuild	SWCA	2009
2009-792.ASM	AZ0140/T938G	AZTLAN	2009
2009-830.ASM	Rosemont 138kV Transmission Line Survey	EPG	2009
2009-404.ASM	I-19 Frontage Road Data Recovery	TIERRA	2010
2010-152.ASM	Sopori Ranchland Archaeology Inventory	ESMI	2010
2013-196.ASM	Atlas 986 Survey	AZTLAN	2010
2010-368.ASM	Rosemont Transmission Line Additional Survey	EPG	2010
2011-112.ASM	Crisantes Properties Survey	DESARC	2010
2011-33.ASM	1920-Acre Survey	SWCA	2010
2011-17.ASM	Rita Ranch Road and South Country Club Road	WEST	2011

TABLE 1. PREVIOUS PROJECTS WITHIN THE STUDY AREA			
Reference Number	Project Name	Survey Organization	Year
2017-497.ASM	Green Valley UCHC parcel 304-18-9730 cultural resources survey project	OPAC	2011
2011-277.ASM	Lakewood Reservoir, Booster and Pipeline	WEST	2011
2012-288.ASM	Sierrita Cat Pond CR and PPC Surveys	SWCA	2011
2011-404.ASM	SWG Abrego Drive Survey	TIERRA	2011
2011-429.ASM	84 Acres near Sahuarita	WEST	2011
2012-282.ASM	Montana Vista Tie Line	SWCA	2011
2012-576.ASM	EPNG Sopori Meter Station	SWCA	2012
2012-195.ASM	Community Water Cultural Resources Survey	WEST	2012
2012-236.ASM	Trico Circuit 44 Rebuild	SWCA	2012
2013-69.ASM	FMI Sierrita Expansion	WEST	2012
2012-716.ASM	Atlas 0925 Survey	TIERRA	2012
2014-181.ASM	Rosemont Transmission Line III and IV	EPG	2013
2013-196.ASM	Atlas 926 Survey	AZTLAN	2013
2013-385.ASM	TEP Roads North of Kantor	WEST	2013
2013-380.ASM	Continental School Cultural Resources Assessment	ESMI	2013
2013-495.ASM	Continental Survey	TIERRA	2013
2006-314.ASM	Quail Creek Subdivision Archaeological Data Recovery	WEST	2013
2015-70.ASM	Santa Rita Exp Ranch Survey	TIERRA	2015
2015-214.ASM	I-19 MP 31.8–42.5 Canoa Ranch Rest Area to Duval Mine Road TI	ACS	2015
2015-329.ASM	ASLD Forestry Surveys, Tucson District, MLK, Willcox, and Montana Vista	LSD	2015
2015-319.ASM	Elephant Head Road Bridge Replacement Survey	SWCA	2015
2015-471.ASM	Canoa Ranch Pima County Survey	WEST	2015
2016-35.ASM	Santa Rita Fenceline	ASLD	2016
2017-13.ASM	AZ02-059 Checkpoint/TUC Quail Creek	TERRACON	2017
2017-123.ASM	Sahuarita Unified School District	ECOPLAN	2017
2018-488.ASM	Hartt C-1 Class III Survey	TIERRA	2018
2018-406.ASM	TEP South Loop to Green Valley	WEST	2018
2019-231.ASM	Canoa Ranch AZ DD:4:71(ASM) Site Mapping	SWCA	2019
1980-128.ASM	Duval Corporation Survey	ASMCRMD	1980

TABLE 1. PREVIOUS PROJECTS WITHIN THE STUDY AREA			
Reference Number	**Project Name**	**Survey Organization**	**Year**
1988-76.ASM	Archaeological Survey [P:87:20(2)] of the Proposed NEXRAD Radar Tower and Access Road near Sahuarita	ASM	1987
1989-182.ASM	Archaeological Survey of 3095 Acres of State and Privately-Owned Lands Near Green Valley, Pima Co.	SWCA	1989-11
1995-483.ASM	Madera Foothills Estates II	PAST	1995-04-31
2003-1283.ASM	Canoa Ranch 8 Acre Gravel Removal Area	STATRES	1996-01
R154.BLM	None	BLM	Unknown
B1980-131.BLM	None	BLM	1980
7.2811.SHPO	Hieroglyphic Mountains Survey	Unknown	Unknown
1987-264.ASM	Investigations into Prehistoric Settlement and Subsistence on the Santa Rita Experimental Range	Unknown	Unknown
1964-8.ASM	I-19, Tucson to Nogales	Unknown	Unknown
12-196.BLM	Unknown	Unknown	Unknown
12.1156.SHPO	Unknown	Unknown	Unknown
1109R	Unknown	Unknown	Unknown
10-1369.SHPO	Unknown	Unknown	Unknown
10.2324.SHPO	Unknown	Unknown	Unknown
10.1265.SHPO	An Archaeological Survey of the Proposed Alignment	Unknown	Unknown

Previous Sites

Background research identified 356 previously recorded cultural resource sites within 1 mile of the Project Study Area. Of these, 299 are within or intersect the Study Area (**Table 2**). In total, 135 sites in the Study Area have already been recommended or determined Eligible for National Register of Historic Places (NRHP) inclusion, and 113 sites have been left unevaluated. Unevaluated sites are treated as Eligible sites until further documentation and study is conducted. Both unevaluated and eligible sites are bolded in **Table 2**. A total of 51 sites in the Study Area have previously been recommended or determined Not Eligible for NRHP inclusion. The previously documented sites in the Study Area include prehistoric artifact scatters and habitation sites, historic ranch complexes, and old road alignments. See Appendix C for previous site locations in relation to the Study Area.

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ BB:13:653(ASM)	**Historic Highway**	**Historic**	**Eligible**	**2000**	**Private**	**ARS**	**Wright, Thomas E., and Terry L. Coriell**
AZ DD:4:203(ASM)	Historic Highway	Historic	Not Eligible	1991	Private	SWCA	Seymour, Gregory R.
AZ DD:4:212(ASM)	**Historic Features / Artifact Scatter**	**Historic**	**Eligible**	**1994**	**Private**	**OPAC**	**Severson, M., D. Stephen, C. Howard, J. Jones**
AZ DD:4:213(ASM)	**Prehistoric and Historic Artifact Scatter**	**Prehistoric, Historic**	**Eligible**	**1994**	**Private**	**OPAC**	**Severson, M., D. Stephen, C. Howard, J. Jones**
AZ DD:4:214(ASM)	**Prehistoric Features / Prehistoric and Historic Artifact Scatter**	**Prehistoric, Historic**	**Eligible**	**1994**	**Private**	**OPAC**	**Severson, M., D. Stephen, C. Howard, J. Jones**
AZ DD:4:216(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:217(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1995**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:218(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1995**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:219(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1995**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:220(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1995**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:221(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1995**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:222(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1995**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:223(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1995**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:224(ASM)	Prehistoric Lithic Scatter	Hohokam	Not Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:225(ASM)	**Prehistoric Features/ Artifact Scatter**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ DD:4:226(ASM)	Prehistoric Features/ Artifact Scatter	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:227(ASM)	Prehistoric Habitation / Artifact Scatter	Hohokam	Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:228(ASM)	Prehistoric Artifact Scatter	Hohokam	Not Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:229(ASM)	Prehistoric Lithic Scatter	Hohokam	Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:230(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:231(ASM)	Prehistoric Lithic Scatter	Hohokam	Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:232(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:233(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:234(ASM)	Prehistoric Artifact Scatter	Hohokam	Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:235(ASM)	Prehistoric Lithic Scatter	Hohokam	Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:236(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:237(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:238(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Not Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:240(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:241(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:242(ASM)	Prehistoric Artifact Scatter	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ DD:4:243(ASM)	Prehistoric Features	Hohokam	Not Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:244(ASM)	**Prehistoric Artifact Scatter**	**Hohokam**	**Eligible**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:245(ASM)	Prehistoric Artifact Scatter	Hohokam	Not Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:246(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:247(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:248(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:249(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:250(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**1995**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:251(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:252(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ DD:4:253(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Not Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:256(ASM)	**Prehistoric Features / Artifact Scatter**	**Unknown**	**Unevaluated**	**1998**	**Private**	**SRI**	**Riggs, C.; Deaver, W.**
AZ DD:4:261(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Not Eligible	1998	Private	PAST	David V.M. Stephen
AZ DD:4:262(ASM)	**Prehistoric and Historic Artifact Scatter**	**Prehistoric and Euro-American**	**Unevaluated**	**2001**	**Private**	**SRI**	**Riggs, Charles R., and S. Greg Johnson**
AZ DD:4:263(ASM)	**Historic Features**	**Euro-American**	**Eligible**	**2003**	**Pima County**	**SRI**	**Miljour, H.**
AZ DD:4:264(ASM)	Prehistoric Lithic Scatter	Prehistoric	Not Eligible	2003	Private	SWCA	I. Hesse, D. Tucker, M. Cook, J. Harrison

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	**Site Type**	**Affiliation/ Age**	**Eligibility Status**	**Year Recorded**	**Land Ownership**	**Report Reference***	**Report Author**
AZ DD:4:265(ASM)	Prehistoric Artifact Scatter	Prehistoric	Not Eligible	2003	Private	SWCA	I. Hesse, D. Tucker, M. Cook, J. Harrison
AZ DD:4:266(ASM)	Prehistoric Lithic Scatter	Prehistoric	Not Eligible	2003	Private	SWCA	I. Hesse, D. Tucker, M. Cook, J. Harrison
AZ DD:4:362(ASM)	Prehistoric Artifact Scatter	Prehistoric	Not Eligible	2009	Private	Westland Resources	Prasciunas, Mary M.
AZ DD:4:363(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**	**Westland Resources**	**Prasciunas, Mary M.**
AZ DD:4:364(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**	**Westland Resources**	**Prasciunas, Mary M.**
AZ DD:4:365(ASM)	Prehistoric Artifact Scatter	Prehistoric	Not Eligible	2009	State Trust	Westland Resources	Prasciunas, Mary M.
AZ DD:4:366(ASM)	Prehistoric Artifact Scatter	Prehistoric	Not Eligible	2009	State Trust	Westland Resources	Prasciunas, Mary M.
AZ DD:4:367(ASM)	Prehistoric Features	Prehistoric	Not Eligible	2009	State Trust	Westland Resources	Prasciunas, Mary M.
AZ DD:4:370(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**	**Westland Resources**	**Prasciunas, Mary M.**
AZ DD:4:373(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**	**Westland Resources**	**Prasciunas, Mary M.**
AZ DD:4:374(ASM)	**Prehistoric Lithic Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**	**Westland Resources**	**Prasciunas, Mary M.**
AZ DD:4:375(ASM)	**Prehistoric Lithic Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**	**Westland Resources**	**Prasciunas, Mary M.**
AZ DD:4:376(ASM)	Prehistoric Lithic Scatter	Prehistoric	Not Eligible	2009	State Trust	Westland Resources	Prasciunas, Mary M.
AZ DD:4:377(ASM)	Prehistoric Lithic Scatter	Prehistoric	Not Eligible	2009	State Trust	Westland Resources	Prasciunas, Mary M.
AZ DD:4:378(ASM)	**Prehistoric Lithic Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**	**Westland Resources**	**Prasciunas, Mary M.**
AZ DD:4:379(ASM)	Prehistoric Artifact Scatter	Prehistoric	Not Eligible	2009	State Trust	Westland Resources	Prasciunas, Mary M.
AZ DD:4:384(ASM)	**Prehistoric Lithic Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**	**Westland Resources**	**Prasciunas, Mary M.**

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	**Site Type**	**Affiliation/ Age**	**Eligibility Status**	**Year Recorded**	**Land Ownership**	**Report Reference***	**Report Author**
AZ DD:4:386(ASM)	**Prehistoric Lithic Scatter / Historic Ceramic Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**	**Westland Resources**	**Prasciunas, Mary M.**
AZ DD:4:387(ASM)	**Prehistoric Features / Lithic Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**	**Westland Resources**	**Prasciunas, Mary M.**
AZ DD:4:39(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1952**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ DD:4:390(ASM)	**Historic Cemetery**	**Historic, modern**	**Unevaluated**	**2009**	**Private**	**Westland Resources**	**Prasciunas, Mary M.**
AZ DD:4:393(ASM)	Historic Road	Historic	Not Eligible	2009	State Trust	Westland Resources	Prasciunas, Mary M.
AZ DD:4:394(ASM)	Historic Road	Historic	Not Eligible	2009	Private	Westland Resources	Prasciunas, Mary M.
AZ DD:4:395(ASM)	Historic Road	Historic	Not Eligible	2009	State Trust	Westland Resources	Prasciunas, Mary M.
AZ DD:4:397(ASM)	Historic Telephone Line	Historic	Not Eligible	2009	Private	Westland Resources	Prasciunas, Mary M.
AZ DD:4:40(ASM)	**Prehistoric Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1952**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ DD:4:41(ASM)	**Prehistoric Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1952**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ DD:4:42(ASM)	**Prehistoric Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1952**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ DD:4:43(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam, Unknown**	**Eligible**	**1952**	**Private**	**Tierra Right of Way Services**	**Frick, Paul S.**
AZ DD:4:44(ASM)	**Prehistoric Artifact Scatter**	**Hohokam**	**Eligible**	**1952**	**Unknown**	**Arizona State Museum**	**Frick, Paul S.**
AZ DD:4:45(ASM)	**Prehistoric Habitation**	**Hohokam**	**Eligible**	**1952**	**Private**	**SRI**	**Frick, Paul S.**
AZ DD:4:46(ASM)	**Prehistoric Habitation**	**Hohokam**	**Eligible**	**1952**	**Private**	**SRI**	**Frick, Paul, Huber, E., M. Thurtle, R. Jones**
AZ DD:4:47(ASM)	**Prehistoric Artifact Scatter**	**Historic**	**Eligible**	**1952**	**State Trust**	**Arizona State Museum**	**Frick, Paul S.**

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ DD:4:471(ASM)	Prehistoric Features / Lithic Scatter	Prehistoric	Eligible	2012	Private	Westland Resources	Sebastian Chamorro
AZ DD:4:473(ASM)	Historic Ranch	Historic	Eligible	2012	Private	Westland Resources	Sebastian Chamorro
AZ DD:4:48(ASM)	Prehistoric Habitation / Historic Artifact Scatter	Euro-American, Hohokam	Eligible	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:4:489(ASM)	Historic Road	Historic	Not Eligible	2015	State Trust	Logan Simpson Design	Garraty, Christopher P., Grant Fahrni, and Leigh Davidson
AZ DD:4:49(ASM)	Prehistoric Ceramic Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:4:50(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:4:51(ASM)	Prehistoric Features / Artifact Scatter	Archaic, Hohokam, Unknown	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:52(ASM)	Prehistoric Features / Artifact Scatter	Hohokam, Historic, Unknown	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:53(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:54(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:4:55(ASM)	Prehistoric Habitation	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:56(ASM)	Prehistoric Habitation	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:57(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:4:58(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ DD:4:59(ASM)	Prehistoric Features and Artifact Scatter / Historic Artifact Scatter	Hohokam, Historic, Unknown	Eligible	1952	Private	SRI	Frick, Paul S.
AZ DD:4:60(ASM)	Prehistoric Artifact Scatter	Prehistoric	Not Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:63(ASM)	Prehistoric Habitation	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:64(ASM)	Prehistoric Artifact Scatter	Hohokam	Unevaluated	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:65(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated		Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:66(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul S.
AZ DD:4:67(ASM)	Prehistoric Artifact Scatter / Historic Artifact Scatter	Prehistoric, Historic	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:68(ASM)	Prehistoric Features / Artifact Scatter	Hohokam, Non-Native Culture	Eligible	1953	Private	Arizona State Museum	Frick, Paul S.
AZ DD:4:69(ASM)	Prehistoric Habitation	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:70(ASM)	Prehistoric Habitation	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:4:71(ASM)	Prehistoric Habitation	Hohokam	Eligible	2006	Private	Arizona State Museum	Frick, Paul S.
AZ DD:4:72(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul S.
AZ DD:4:73(ASM)	Prehistoric Features / Artifact Scatter	Hohokam, Unknown	Eligible	1953	Private	Arizona State Museum	Frick, Paul S.
AZ DD:4:74(ASM)	Historic Ranch (Canoa Ranch)	Historic	Eligible	1961	Pima County	Tierra Right of Way Services	Unknown
AZ DD:8:100(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul S.

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ DD:8:101(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:102(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:103(ASM)	Prehistoric Burial / Artifact Scatter	Prehistoric	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:109(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1953	State Trust	Arizona State Museum	Frick, Paul S.
AZ DD:8:138(ASM)	Prehistoric Lithic Scatter	Prehistoric	Unevaluated	1988	State Trust	Dames & Moore	Bruder, J. Simon
AZ DD:8:155(ASM)	Prehistoric Lithic Scatter	Prehistoric	Unevaluated	1996	State Trust	Arizona State Museum	Heuett, M.
AZ DD:8:156(ASM)	Prehistoric Habitation	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:8:157(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:8:158(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:8:159(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:8:160(ASM)	Prehistoric Habitation	Hohokam	Eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:8:161(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ DD:8:193(ASM)	Historic Road	Euro-American	Eligible	2005	Arizona State Land Department	Tierra Right-of-Way Services	Williams, CaraMia
AZ DD:8:207(ASM)	Prehistoric Habitation, Historic Artifact Scatter	Multi-component	Eligible	2006	State Trust/ Private	Westland Resources	S. Plescia, L. Benz, V. Potter, M. Coughlan, and J. Howell
AZ DD:8:208(ASM)	Prehistoric Artifact Scatter	Prehistoric	Eligible	2006	Private	Westland Resources	S. Plescia, L. Benz, V. Potter, M. Coughlan, and J. Howell

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ DD:8:255(ASM)	Prehistoric Lithic Scatter	Prehistoric	Eligible	2010	Private	Desert Archaeology, Inc.	Whitney, G./Theriot, T.
AZ DD:8:256(ASM)	Historic Features / Artifact Scatter	Historic	Eligible	2010	Private	Desert Archaeology, Inc.	Whitney, G./Theriot, T.
AZ DD:8:257(ASM)	Historic Road	Historic	Not Eligible	2011	Pima County	Westland Resources	Martin, Anna
AZ DD:8:259(ASM)	Historic Road	Historic	Eligible	2013	State Trust	Tierra Right of Way Services	King, Anna M.
AZ DD:8:260(ASM)	Prehistoric Lithic Scatter	Prehistoric	Eligible	2007	Private	Harris Environmental Group, Inc.	Stembridge, J., B. Murphy
AZ DD:8:261(ASM)	Unknown	Unknown	Unknown	2017	Private	MCA Consulting	Unknown
AZ DD:8:50(ASM)	Prehistoric Ceramic Scatter	Hohokam	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:51(ASM)	Prehistoric Ceramic Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:52(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:53(ASM)	Prehistoric Habitation / Burial	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:54(ASM)	Prehistoric Lithic Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:55(ASM)	Prehistoric Lithic Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:56(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:58(ASM)	Prehistoric Artifact Scatter	Hohokam	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.
AZ DD:8:59(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul S.

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ DD:8:98(ASM)	Historic Habitation / Prehistoric Ceramic Scatter	Historic, Prehistoric	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul S.
AZ EE:1:1(ASU)	Prehistoric Ceramic Scatter	Prehistoric	Unevaluated	1976	State Trust	Arizona State University	Burton, R.
AZ EE:1:12(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Ritter, G., Paul Frick
AZ EE:1:15(ASM)	Prehistoric Ceramic Scatter	Prehistoric	Unevaluated	1952	Private	Arizona State Museum	Frick, Paul
AZ EE:1:165(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1988	Private	PAST	Billings, B., and Buist, C.
AZ EE:1:166(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1988	Private	PAST	Billings, B., and Buist, C.
AZ EE:1:167(ASM)	Prehistoric Lithic Scatter	Prehistoric	Unevaluated	1988	Private	Dames & Moore	Bruder, J.S.
AZ EE:1:168(ASM)	Prehistoric Lithic Scatter	Prehistoric	Unevaluated	1988	State Trust	Arizona State Museum	Bruder, J.S.
AZ EE:1:17(ASM)	Prehistoric Features / Artifact Scatter	Archaic, Hohokam	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul
AZ EE:1:173(ASM)	Prehistoric Habitation / Artifact Scatter	Prehistoric	Eligible	1989	Private	SWCA	Billings, J.R.
AZ EE:1:174(ASM)	Prehistoric Habitation / Burial	Prehistoric	Eligible	1989	Private	SWCA	Billings, J.R.
AZ EE:1:175(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1989	Private	SWCA	Billings, J.R.
AZ EE:1:176(ASM)	Prehistoric Habitation	Prehistoric	Eligible	1989	Private	SWCA	Billings, J.R.
AZ EE:1:177(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1989	Private	SWCA	Billings, J.R.
AZ EE:1:178(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1989	Private	PAST	Billings, J.R.
AZ EE:1:179(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1989	Private	SWCA	Billings, J.R., and Roman, J.A.

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Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ EE:1:18(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1953	Private	Arizona State Museum	Frick, Paul S.
AZ EE:1:180(ASM)	Prehistoric Artifact Scatter	Prehistoric	Eligible	1989	Private	SWCA	Billings, J.R., and Roman, J.A.
AZ EE:1:181(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1989	Private	PAST	Billings, J.R., and Roman J.A.
AZ EE:1:182(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1989	Private	PAST	Billings, J.R.
AZ EE:1:188(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1994	Private	PAST	Jones, J., and D. Stephen
AZ EE:1:189(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1994	Private	PAST	Jones, J., and D. Stephen
AZ EE:1:19(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1953	Private	Arizona State Museum	Frick, Paul S.
AZ EE:1:190(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1994	Private	PAST	Jones, J., and D. Stephen
AZ EE:1:191(ASM)	Prehistoric Features / Lithic Scatter	Prehistoric	Unevaluated	1994	Private	PAST	Jones, J., and D. Stephen
AZ EE:1:192(ASM)	Prehistoric Features / Lithic Scatter	Prehistoric	Unevaluated	1994	Private	PAST	Jones, J., and D. Stephen
AZ EE:1:194(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1994	Private	OPAC	Severson, M., D. Stephen, C. Howard, J. Jones
AZ EE:1:196(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1995	Private	PAST	Lenhart, Austin
AZ EE:1:197(ASM)	Prehistoric Features / Lithic Scatter	Prehistoric	Eligible	1995	Private	PAST	Lenhart, Austin
AZ EE:1:20(ASM)	Prehistoric Features / Lithic Scatter	Hohokam	Unevaluated	1953	Private	Arizona State Museum	Paul S. Frick
AZ EE:1:202(ASM)	Prehistoric Features / Lithic Scatter	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:203(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ EE:1:204(ASM)	Prehistoric Lithic Scatter	Prehistoric	Not eligible	1995	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:205(ASM)	Prehistoric Features / Lithic Scatter	Hohokam, Historic	Not eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:206(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ EE:1:207(ASM)	Prehistoric Features / Lithic Scatter	Hohokam	Not eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:208(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ EE:1:209(ASM)	Prehistoric Features / Lithic Scatter	Prehistoric	Not eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:21(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ EE:1:210(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ EE:1:211(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Not eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:212(ASM)	Prehistoric Features / Lithic Scatter	Prehistoric	Not eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:213(ASM)	Prehistoric Features / Lithic Scatter	Hohokam	Not eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:214(ASM)	Prehistoric Features / Lithic Scatter	Prehistoric	Not eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:22(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ EE:1:23(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**SRI**	**Huber, E., M. Thurtle, R. Jones**
AZ EE:1:231(ASM)	**Prehistoric Features**	**Unknown**	**Unevaluated**	**1985**	**Private**	**Texas Tech University**	**Buttery, Cynthia E.**
AZ EE:1:232(ASM)	**Prehistoric Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1987**	**Private**	**Texas Tech University**	**Buttery, Cynthia E.**
AZ EE:1:233(ASM)	**Prehistoric Features / Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1985**	**Private**	**Texas Tech University**	**Buttery, Cynthia E.**

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ EE:1:234(ASM)	Prehistoric Lithic Scatter	Prehistoric	Unevaluated	1985	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:235(ASM)	Unknown Rock Features	Unknown	Unevaluated	1985	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:236(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1985	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:237(ASM)	Prehistoric Features / Lithic Scatter	Prehistoric	Unevaluated	1985	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:238(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1985	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:239(ASM)	Prehistoric Ceramic Scatter	Prehistoric	Unevaluated	1985	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:24(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:240(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1986	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:242(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1985	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:243(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1985	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:244(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1985	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:245(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1986	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:25(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1996	Private	SRI	Huber, E., M. Thurtle, R. Jones
AZ EE:1:26(ASM)	Prehistoric Ceramic Scatter	Prehistoric	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul S.
AZ EE:1:270(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1986	Private	Texas Tech University	Buttery, Cynthia E.
AZ EE:1:275(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:276(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ EE:1:277(ASM)	Prehistoric Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:278(ASM)	Prehistoric Lithic Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:279(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:280(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:281(ASM)	Prehistoric Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:282(ASM)	Prehistoric Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:283(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:284(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:285(ASM)	Unknown Rock Wall	Unknown	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:286(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:287(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	1998	Private	PAST	Jones, J., and A. Lenhart
AZ EE:1:29(ASM)	Prehistoric Ceramic Scatter	Prehistoric	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul
AZ EE:1:291(ASM)	Prehistoric Habitation, Historic Artifact Scatter	Prehistoric	Eligible	1999	Private	ARS	Stone, Lyle M.
AZ EE:1:292(ASM)	Historic Artifact Scatter	Historic	Not Eligible	1999	Private	ARS	Stone, Lyle M.
AZ EE:1:293(ASM)	Prehistoric Artifact Scatter	Prehistoric	Eligible	1999	Private	ARS	Stone, Lyle M.
AZ EE:1:294(ASM)	Prehistoric Features	Prehistoric	Eligible	1999	Private	ARS	Stone, Lyle M.
AZ EE:1:296(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Not Eligible	2000	Private	OPAC	Jones, Jeffrey T.

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ EE:1:298(ASM)	Prehistoric Artifact Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J.
AZ EE:1:302(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	2000	Private	SWCA	Lyon, J., S. Plummer, and V. Evans
AZ EE:1:31(ASM)	Prehistoric Lithic Scatter	Prehistoric	Unevaluated	1953	Private	Arizona State Museum	Frick, Paul S.
AZ EE:1:311(ASM)	Prehistoric Features / Lithic Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:313(ASM)	Prehistoric Features / Lithic Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:315(ASM)	Prehistoric Artifact Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:316(ASM)	Prehistoric Features / Ceramic Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:317(ASM)	Prehistoric Artifact Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:318(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:319(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:32(ASM)	Prehistoric Village / Burials	Prehistoric	Eligible	1953	Private	Arizona State Museum	Frick, Paul S.
AZ EE:1:320(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:321(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:322(ASM)	Prehistoric Artifact Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:323(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans
AZ EE:1:325(ASM)	Prehistoric Features and Artifact Scatter / Historic Grave Marker	Prehistoric	Eligible	2000	Private	SWCA	Hesse, J., S. Plummer, J. Howell, V. Evans

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ EE:1:334(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2001**	**Private**	**Pima Community College**	**J. Heilen, M. Heilen, Y. Osborne, J. Sheehan, T. Tachihara, J. Treat**
AZ EE:1:346(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2002**	**Private**	**Desert Archaeology, Inc.**	**Diehl, A., Ryan, S.**
AZ EE:1:349(ASM)	**Historic Ranch and Irrigation System**	**Historic**	**Eligible**	**2002**	**Private**	**Desert Archaeology, Inc.**	**Thurtle, Mary Charlotte**
AZ EE:1:35(ASM)	**Prehistoric Village**	**Prehistoric**	**Eligible**	**1954**	**Private**	**OPAC**	**Frick, Paul**
AZ EE:1:350(ASM)	Historic Features and Artifact Scatter / Prehistoric Artifact Scatter	Historic; Prehistoric	Not Eligible	2002	Private	Tierra Right-of-Way Services	Thurtle, Mary Charlotte
AZ EE:1:354(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**		**Private**	**Desert Archaeology, Inc.**	**Swartz, D.**
AZ EE:1:356(ASM)	Prehistoric Features / Ceramic Scatter	Prehistoric	Not Eligible	2003	Private	Harris Environmental Group, Inc.	Twilling, S.D., and G. Fahrni
AZ EE:1:357(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2003**	**Private**	**Harris Environmental Group, Inc.**	**Twilling, S.D., and G. Fahrni**
AZ EE:1:36(ASM)	**Prehistoric Habitation / Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1980**	**Private**	**Arizona State Museum**	**Lange, R.**
AZ EE:1:366(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**2004**	**Private**	**Northland Research, Inc**	**Doug Craig, Maren Hopkins, Alexis Mills**
AZ EE:1:367(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**2004**	**Private**	**Northland Research, Inc**	**Doug Craig, Maren Hopkins, Alexis Mills**
AZ EE:1:368(ASM)	Prehistoric Lithic Scatter	Prehistoric	Not Eligible	2004	Private	Northland Research, Inc	Doug Craig, Maren Hopkins, Alexis Mills
AZ EE:1:369(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2004**	**Private**	**Northland Research, Inc**	**Doug Craig, Maren Hopkins, Alexis Mills**

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	**Site Type**	**Affiliation/ Age**	**Eligibility Status**	**Year Recorded**	**Land Ownership**	**Report Reference***	**Report Author**
AZ EE:1:381(ASM)	Historic Features	Historic	Not eligible	2004	Private	ARS	Bradford W. Stone
AZ EE:1:392(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Unevaluated**	**2006**	**Private**	**Arizona State Museum**	**Madsen, John, and William Gillespie**
AZ EE:1:393(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**Westland Resources**	**Cook, Mike**
AZ EE:1:394(ASM)	Prehistoric Artifact Scatter	Prehistoric	Not Eligible	2006	Private	Westland Resources	Cook, Mike
AZ EE:1:395(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Not Eligible	2006	Private	Westland Resources	Cook, Mike
AZ EE:1:396(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**Westland Resources**	**Cook, Mike**
AZ EE:1:397(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**Westland Resources**	**Cook, Mike**
AZ EE:1:398(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**Westland Resources**	**Cook, Mike**
AZ EE:1:399(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**Westland Resources**	**Cook, Mike**
AZ EE:1:400(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**Westland Resources**	**Cook, Mike**
AZ EE:1:401(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**Westland Resources**	**Cook, Mike**
AZ EE:1:402(ASM)	Historic Road	Historic	Not Eligible	2006	Private	Westland Resources	Cook, Mike
AZ EE:1:403(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**Biozone, Inc.**	**Christenson, Andrew**
AZ EE:1:404(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**Biozone, Inc.**	**Christenson, Andrew**
AZ EE:1:405(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**2006**	**Private**	**Biozone, Inc.**	**Christenson, Andrew**
AZ EE:1:406(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**Biozone, Inc.**	**Christenson, Andrew**
AZ EE:1:410(ASM)	Historic Artifact Scatter	Historic	Not Eligible	2007	Private	EcoPlan	Fenicle, Diane L.

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership	Report Reference*	Report Author
AZ EE:1:411(ASM)	Historic Artifact Scatter	Historic	Not Eligible	2007	Private	EcoPlan	Fenicle, Diane L.
AZ EE:1:412(ASM)	Historic Artifact Scatter	Historic	Not Eligible	2007	Private	EcoPlan	Fenicle, Diane L.
AZ EE:1:413(ASM)	Historic Artifact Scatter	Historic	Not Eligible	2007	Private	EcoPlan	Fenicle, Diane L.
AZ EE:1:441(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2009**	**Private**	**EPG**	**Swanson, Steve**
AZ EE:1:442(ASM)	Prehistoric Artifact Scatter	Historic	Not Eligible	2009	Private	EPG	Swanson, Steve
AZ EE:1:447(ASM)	Prehistoric Artifact Scatter	Prehistoric	Not Eligible	2010	Private	EPG	Swanson, Steve
AZ EE:1:448(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2010**	**Private**	**EPG**	**Swanson, Steve**
AZ EE:1:449(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2010**	**Private**	**EPG**	**Swanson, Steve**
AZ EE:1:46(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ EE:1:460(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2011**	**Private**	**Westland Resources**	**Chamorro, Sebastian**
AZ EE:1:464(ASM)	Historic Road	Historic	Not Eligible	2009	Private	EPG	Swanson, Steve
AZ EE:1:465(ASM)	Historic Transmission Line	Historic	Not Eligible	2009	Private	EPG	Swanson, Steve
AZ EE:1:47(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ EE:1:475(ASM)	**Prehistoric Quarry / Artifact Scatter**	**Prehistoric**	**Unevaluated**	**2013**	**Private**	**Aztlan Archaeology**	**Myers, L.**
AZ EE:1:48(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**1953**	**Private**	**SWCA**	**Frick, Paul S.**
AZ EE:1:49(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**1953**	**Private**	**SWCA**	**Frick, Paul S.**
AZ EE:1:50(ASM)	**Prehistoric Ceramic Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**

TABLE 2. PREVIOUSLY RECORDED SITES WITHIN THE STUDY AREA							
Site Number	**Site Type**	**Affiliation/ Age**	**Eligibility Status**	**Year Recorded**	**Land Ownership**	**Report Reference***	**Report Author**
AZ EE:1:51(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ EE:1:52(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**1953**	**Private**	**SWCA**	**Frick, Paul S.**
AZ EE:1:53(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**SRI**	**Frick, Paul S.**
AZ EE:1:54(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**1953**		**SWCA**	**Frick, Paul S.**
AZ EE:1:55(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ EE:1:56(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ EE:1:57(ASM)	**Prehistoric Ceramic Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ EE:1:58(ASM)	**Prehistoric Features / Ceramic Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ EE:1:59(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ EE:1:60(ASM)	**Prehistoric Features / Ceramic Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ EE:1:61(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1953**	**Private**	**Arizona State Museum**	**Frick, Paul S.**
AZ EE:1:82(ASM)	Historic Town Site	Historic	Not Eligible	1961	Private	OPAC	Dart, Allen
AZ EE:1:85(ASM)	**Prehistoric Features / Ceramic Scatter**	**Prehistoric**	**Unevaluated**	**1964**	**Private**	**Unknown**	**Wasley, W.**
AZ EE:1:88(ASM)	**Prehistoric Burial / Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1973**	**Private**	**Arizona State Museum**	**Urban, S.**
AZ EE:1:99(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**1981**	**Private**	**Westland Resources**	**Buttery, Cynthia E.; Holmlund, J.; Huckell, B.**

Note: Unevaluated and eligible sites are in bold.
* Archaeological Research Services, Inc. (ARS), EcoPlan Associates, Inc. (EcoPlan), Environmental Planning Group (EPG), Old Pueblo Archaeology Center (OPAC), Professional Archaeological Services & Technology (PAST), Statistical Research, Inc. (SRI), SWCA Environmental Consultants (SWCA)

Historical Document Review

General Land Office Records

Historic GLO maps for the Project Study Area indicate a few historic developments within or near the Study Area, including unnamed historic roads, fence lines, and structures. The GLO maps encompassing the Study Area date from 1872 to 1930.

TABLE 3.
OFFICE GENERAL LAND OFFICE RECORD RESULTS

Township/Range	Section(s)	Historic Features on GLO Map Results (Year of GLO Record)
T17S/R13E	25, 35	One road; 1872
T17S/R14E	25–36	No features; 1872
T17S/R15E	13	Two roads; 1930
T18S/R12E	25–27, 34–36	No features; 1873
T18S/R13E	01, 12,13, 22–36	No Features; 1873
T18S/R14E	01–23, 27–34	One road; 1873
T18S/R15E	06, 07	One road; 1906
T19S/R12E	1, 2, 3, 10–15, 22–27, 34, 35, 36	Multiple roads; 1921
T19S/R13E	01–35	Multiple roads, Canoa House, multiple houses; 1885
T19S/R14E	04–08, 18, 19	Multiple roads, fence lines, several structures; 1925
T20S/R12E	01–03, 11–14	Multiple roads; 1902
T20S/R13E	02–10, 16–18	Multiple roads; 1885

United States Geological Survey Mineral Resources Data

According to the USGS Mineral Resources Online Data System, there are two mining occurrences within the Project Study Area and two mining occurrences within a 1-mile buffer of the Project Study Area. These occurrences include two sand and gravel pits east of I-19, a silver and gold mine west of I-19, and a large copper operation west of Green Valley, Arizona.

Historic Districts

One historic district is located within the Study Area–Canoa Ranch Rural Historic Landscape. It is located directly east of I-19, between Nogales and Tucson. Canoa Ranch is a large historical-period ranch and is one of Arizona's first registered Hereford bull ranches. The Ranch was initially documented in 1961 with periodic updates to different sections up to 2009. Pima County nominated Canoa Ranch for inclusion on the NRHP in 2006 under Criterion A for its association with the development of cattle ranching in Arizona, and Criterion C for its collection of vernacular buildings and ranching related structures. Canoa Ranch was listed in the National Register in 2007. After realizing that the entirety of Canoa Ranch was not owned by Pima County, it was removed from the National Register in 2014 in consultation with the Arizona SHPO. In 2017, the county submitted a new nomination, with a revised boundary consisting of 4,881 acres (O'Mack and Pankhurst 2017).

Draft Alternatives

The following sections show the sites that five draft alternative routes intersect. A 10 m (32.8 ft) buffer was added to each of the alignments.

Route 1

The Route 1 alternative follows the eastern boundary of the Study Area until it reaches the Kantor Substation. This route intersects six previously documented sites. Four of the six sites are recommended eligible for NRHP inclusion or remain unevaluated. These sites are bolded in Table 4 below. AZSITE shows site AZ EE:1:346(ASM) as recommended eligible for NRHP inclusion in 2002 and recommended ineligible by SHPO in 2004. See Appendix C for previous sites in relation to Route 1.

TABLE 4.
PREVIOUSLY RECORDED SITES WITHIN 10 M OF ROUTE 1

Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership
AZ DD:4:74(ASM)	**Canoa Ranch**	**Historic**	**Eligible**	**2012**	**Pima County**
AZ DD:8:138(ASM)	**Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1988**	**State Trust**
AZ DD:8:193(ASM)	**Road**	**Historic**	**Eligible**	**2005**	**State Trust**
AZ DD:8:259(ASM)	Road	Historic	Not Eligible	2013	State Trust
AZ DD:8:261(ASM)	**Unknown**	**Unknown**	**Unevaluated**	**2017**	**Unknown**
AZ EE:1:346(ASM)	Lithic Scatter	Prehistoric	Not Eligible	2005	Private

Route 2

The Route 2 alternative begins at the Canoa Ranch Substation east of I-19 and travels along the edge of the Canoa Ranch property and historic district boundary until it encounters Mt. Hopkins Road. From there it follows Mt. Hopkins Road and then travels cross-country to the Kantor Substation. This route intersects with eight previously documented sites – all of which are recommended eligible for NRHP inclusion or have been left unevaluated (Table 5). See Appendix C for previous sites in relation to Route 2.

TABLE 5.
PREVIOUSLY RECORDED SITES WITHIN 10 M OF ROUTE 2

Site Number	Site Type	Affiliation/ Age	Eligibility Status	Year Recorded	Land Ownership
AZ DD:4:221(ASM)	**Artifact Scatter**	**Hohokam**	**Eligible**	**1996**	**Private**
AZ DD:4:225(ASM)	**Prehistoric Features**	**Hohokam**	**Eligible**	**1996**	**Private**
AZ DD:4:73(ASM)	**Habitation**	**Hohokam**	**Eligible**	**1953**	**Private**
AZ DD:4:74(ASM)	**Canoa Ranch**	**Historic**	**Eligible**	**2012**	**Pima County**
AZ DD:8:138(ASM)	**Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1988**	**State Trust**
AZ DD:8:193(ASM)	**Road**	**Historic**	**Eligible**	**2005**	**State Trust**

TABLE 5. PREVIOUSLY RECORDED SITES WITHIN 10 M OF ROUTE 2					
Site Number	**Site Type**	**Affiliation/ Age**	**Eligibility Status**	**Year Recorded**	**Land Ownership**
AZ DD:8:261(ASM)	**Unknown**	**Unknown**	**Unevaluated**	**2017**	**Unknown**
AZ EE:1:346(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2002**	**Private**

Route 3

The Route 3 alternative begins at the Canoa Ranch Substation and follows along the west side of I-19 from mile marker 59 to mile marker 53 where it crosses to the east side of I-19. From there the alternative travels south along the east side of I-19 until right before mile marker 51 where it follows the same route to Kantor Substation as Route 4 and Route 5. This alternative intersects with six previously documented sites – all of which have been recommended eligible for NRHP inclusion or remain unevaluated, see Table 6. Two of the previously documented sites, AZ DD:4:42(ASM) and AZ DD:4:47(ASM), have potentially been mitigated and/or destroyed by modern developments in the area. See Appendix C for previous sites in relation to Route 3.

TABLE 6. PREVIOUSLY RECORDED SITES WITHIN 10 M OF ROUTE 3					
Site Number	**Site Type**	**Affiliation/ Age**	**Eligibility Status**	**Year Recorded**	**Land Ownership**
AZ DD:4:42(ASM)	**Artifact Scatter**	**Prehistoric**	**Unevaluated**	**1952**	**Private**
AZ DD:4:47(ASM)	**Artifact Scatter**	**Historic**	**Eligible**	**2002**	**State Trust**
AZ DD:4:74(ASM)	**Canoa Ranch**	**Historic**	**Eligible**	**2012**	**Pima County**
AZ DD:8:138(ASM)	**Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1988**	**State Trust**
AZ DD:8:193(ASM)	**Road**	**Historic**	**Eligible**	**2005**	**State Trust**
AZ DD:8:261(ASM)	**Unknown**	**Unknown**	**Unevaluated**	**2017**	**Unknown**

Route 4

Route 4 begins west of I-19 and follows Via Cielo Azul 3.74 miles until it turns east towards I-19. It then follows I-19 south from mile marker 53 for 1.14 miles where it crosses I-19 and follows Elephant Head Road and Mt. Hopkins Road to the Kantor Substation. This alternative bisects six previously documented sites. Four of the six sites are eligible for NRHP inclusion or remain unevaluated, shown in bold in Table 7 below. For additional site information see Table 2 and Appendix C.

TABLE 7. PREVIOUSLY RECORDED SITES WITHIN 10 M OF ROUTE 4					
Site Number	**Site Type**	**Affiliation/ Age**	**Eligibility Status**	**Year Recorded**	**Land Ownership**
AZ DD:4:203(ASM)	Road	Historic	Not Eligible	1991	Private
AZ DD:4:393(ASM)	Road	Historic	Not Eligible	2009	State Trust
AZ DD:4:74(ASM)	**Canoa Ranch**	**Historic**	**Eligible**	**2012**	**Pima County**
AZ DD:8:138(ASM)	**Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1988**	**State Trust**
AZ DD:8:193(ASM)	**Road**	**Historic**	**Eligible**	**2005**	**State Trust**
AZ DD:8:261(ASM)	**Unknown**	**Unknown**	**Unevaluated**	**2017**	**Unknown**

Route 5

The Route 5 alignment begins west of I-19 travelling south until it turns east and meets I-19 at mile marker 53. From there the alignment follows the west side of I-19 for 1.14 miles when it crosses I-19 and follows Elephant Head Rd and Mt. Hopkins Road to the Kantor Substation. This alternative intersects eight previously documented sites. Six of the eight sites are recommended eligible for NRHP inclusion or remain unevaluated. These sites are bolded in the Table 8. For additional site information see Table 2 and Appendix C.

TABLE 8. PREVIOUSLY RECORDED SITES WITHIN 10 M OF ROUTE 5					
Site Number	**Site Type**	**Affiliation/ Age**	**Eligibility Status**	**Year Recorded**	**Land Ownership**
AZ DD:4:203(ASM)	Road	Historic	Not Eligible	1991	Private
AZ DD:4:375(ASM)	**Lithic Scatter**	**Prehistoric**	**Eligible**	**2009**	**State Trust**
AZ DD:4:393(ASM)	Road	Historic	Not Eligible	2009	State Trust
AZ DD:4:473(ASM)	**Ranch Complex**	**Historic**	**Eligible**	**2012**	**Private**
AZ DD:4:74(ASM)	**Canoa Ranch**	**Historic**	**Eligible**	**2012**	**Pima County**
AZ DD:8:138(ASM)	**Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1988**	**State Trust**
AZ DD:8:193(ASM)	**Road**	**Historic**	**Eligible**	**2005**	**State Trust**
AZ DD:8:261(ASM)	**Unknown**	**Unknown**	**Unevaluated**	**2017**	**Unknown**

SUMMARY AND RECOMMENDATIONS

Approximately 75 percent of the Project Study Area may require new Class III inventory. There are 299 previously documented cultural resource sites that are likely to require documentation during a Class III inventory, if the entire Study Area is inventoried. These estimates are based on prior survey efforts within the Study Area and within a 1-mile radius of the Project Study Area. A reduction in the size of the Study Area or limiting the Class III inventory to anticipated alignments would likely result in fewer resources.

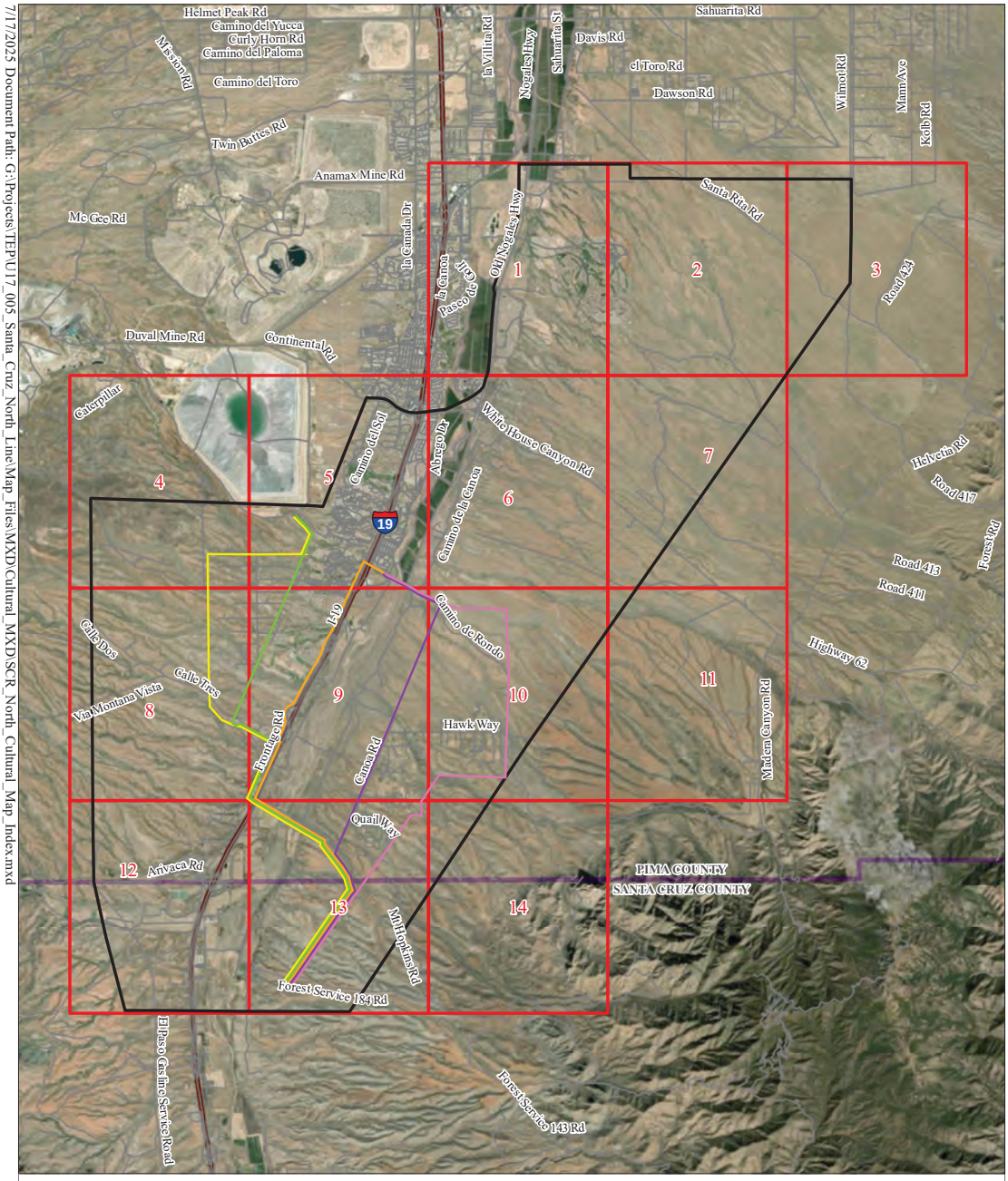
The five Draft Alternatives intersect a total of 15 previously documented sites. Nine of the sites are recommended eligible for NRHP inclusion, three sites remain unevaluated, and three sites are recommended not eligible.

REFERENCES CITED

O'Mack, Scott and Janet Pankhurst
2017 *National Register of Historic Places Nomination for Canoa Ranch Rural Historic District Pima County, Arizona.* Prepared for Pima County Office of Sustainability and Conservation-Cultural Resources and Historic Preservation Division, Tucson, Arizona.

APPENDIX A

STUDY AREA MAP



Legend

- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Map Panel
- Study Area

0 15,000
Feet

Previous Research Map Index

UniSource Energy Services
Santa Cruz Reliability
Project North

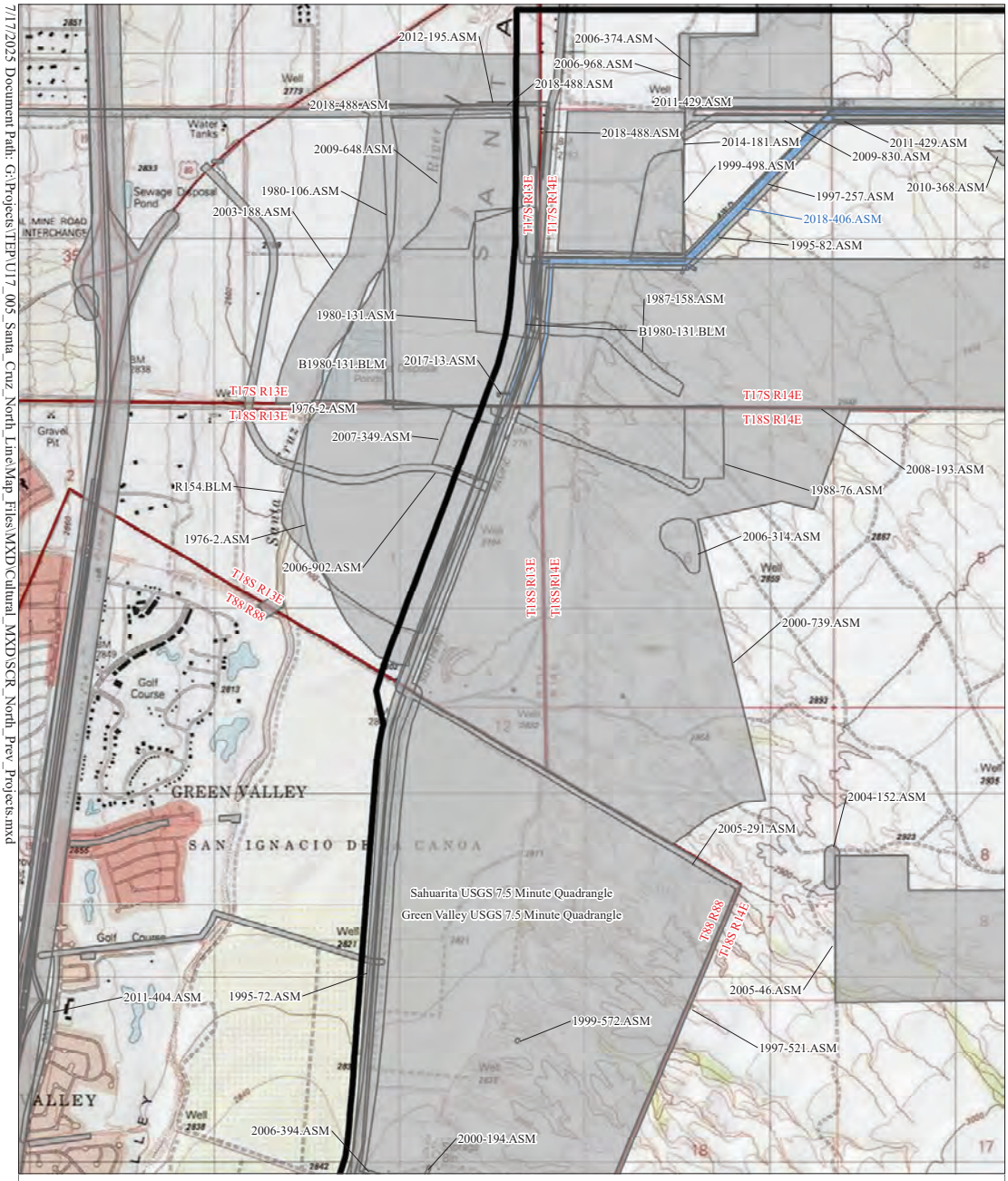
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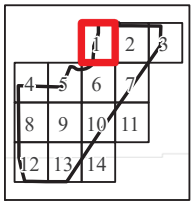
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APPENDIX B

PREVIOUS PROJECT LOCATION MAPS

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Legend

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- Project older than 10 years
- Study Area

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Feet

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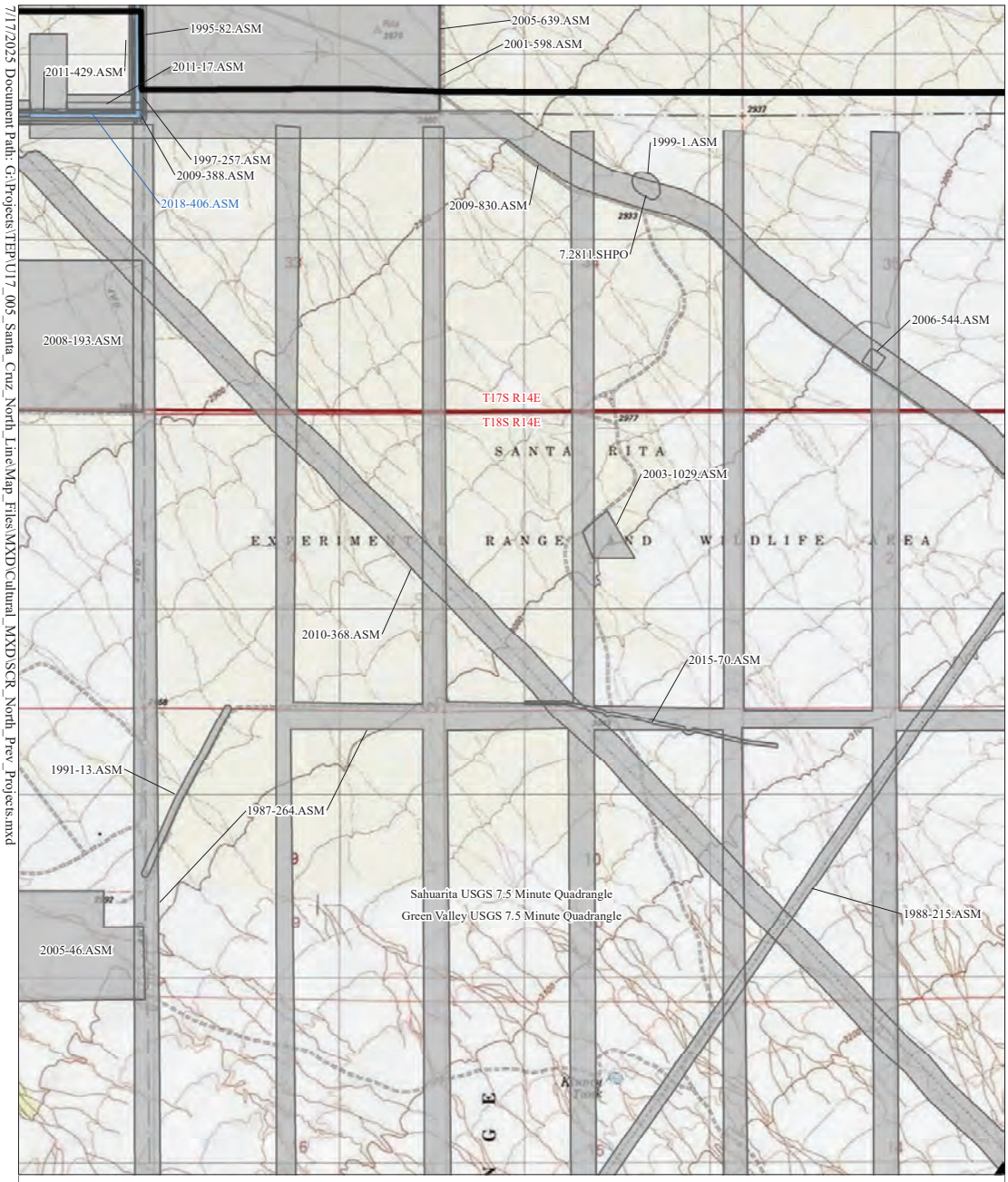
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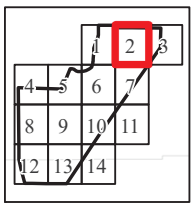
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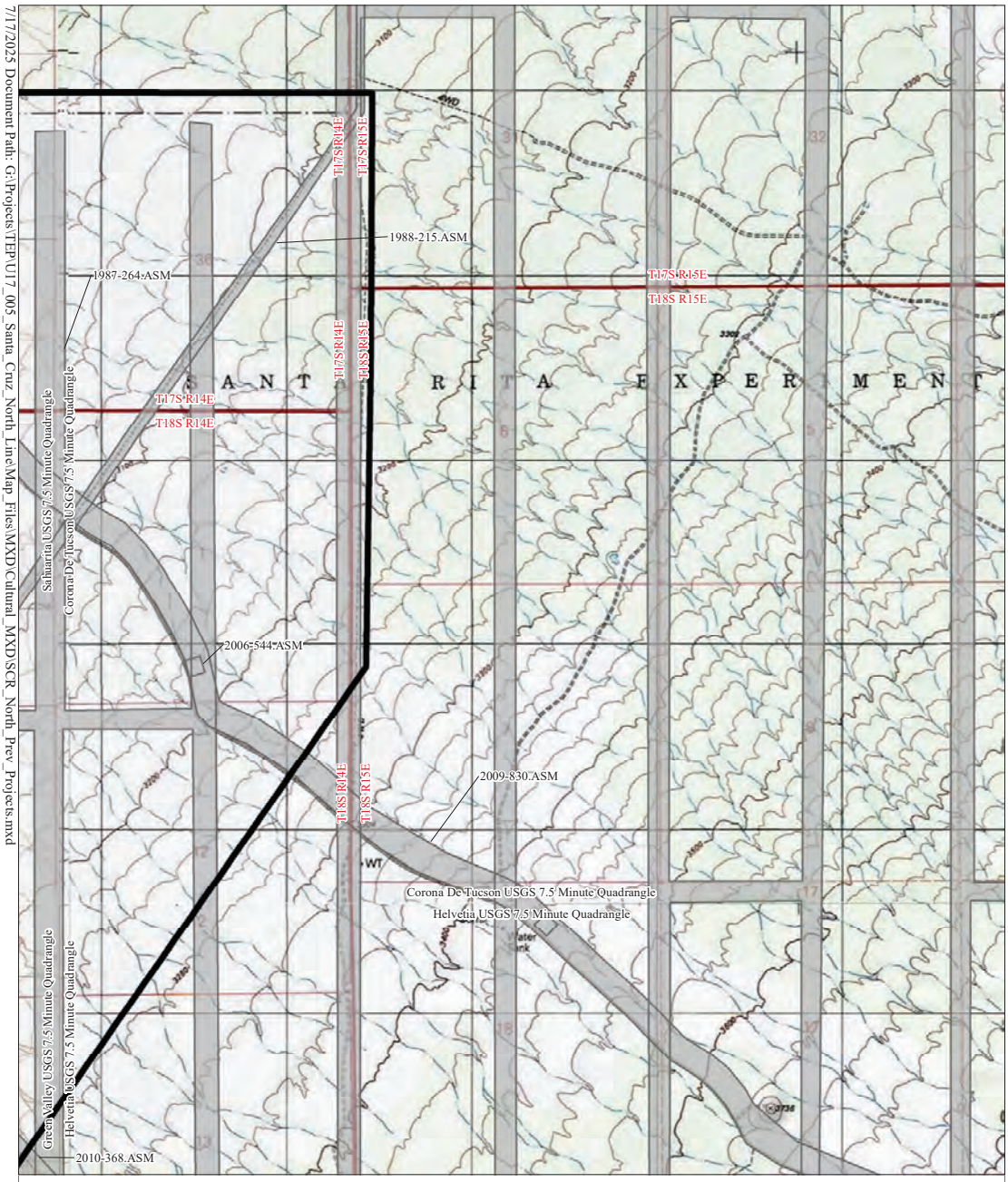
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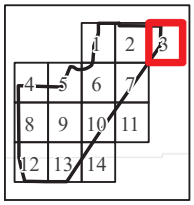
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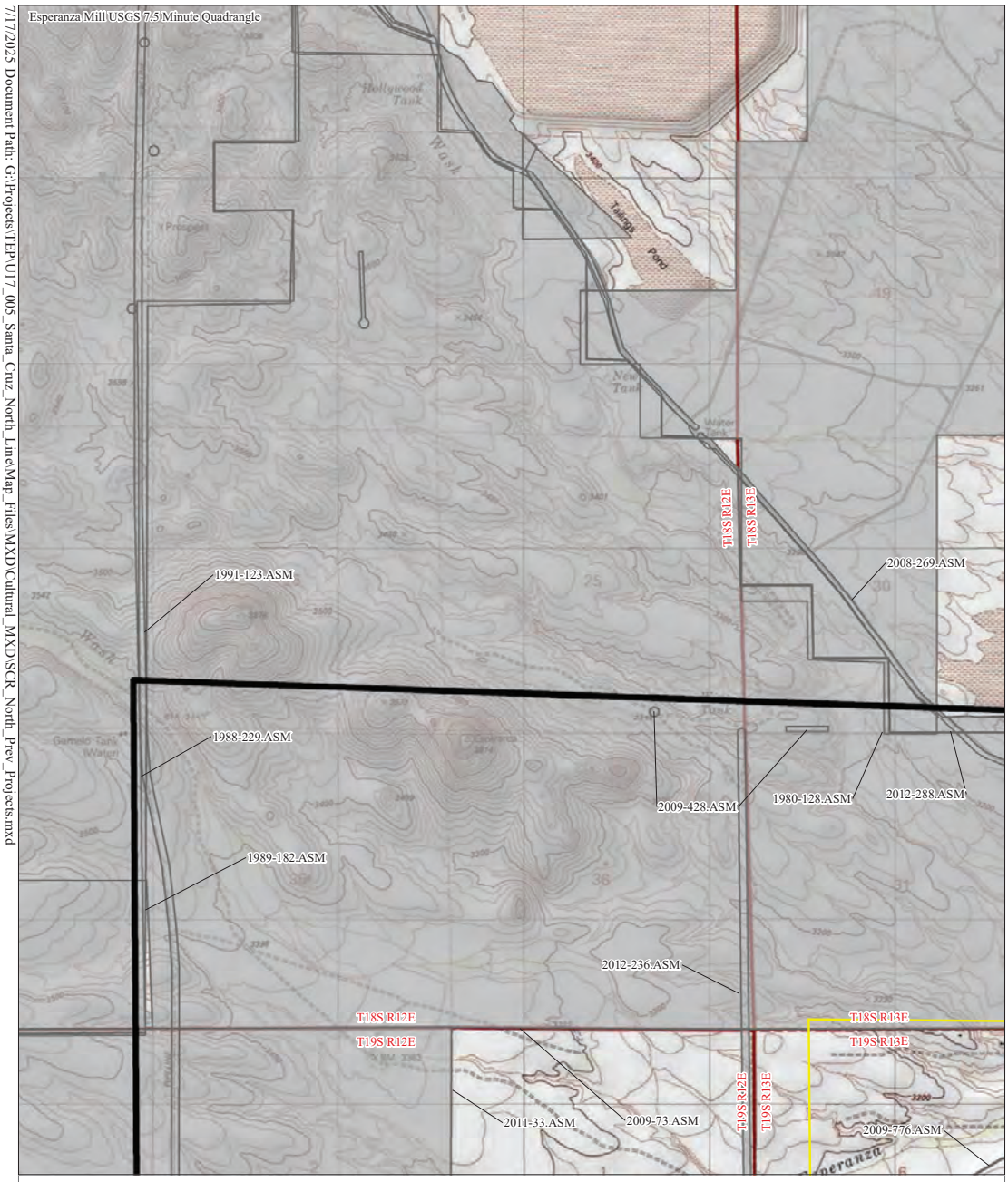
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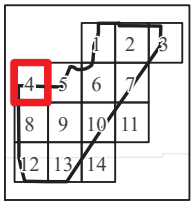
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- Study Area

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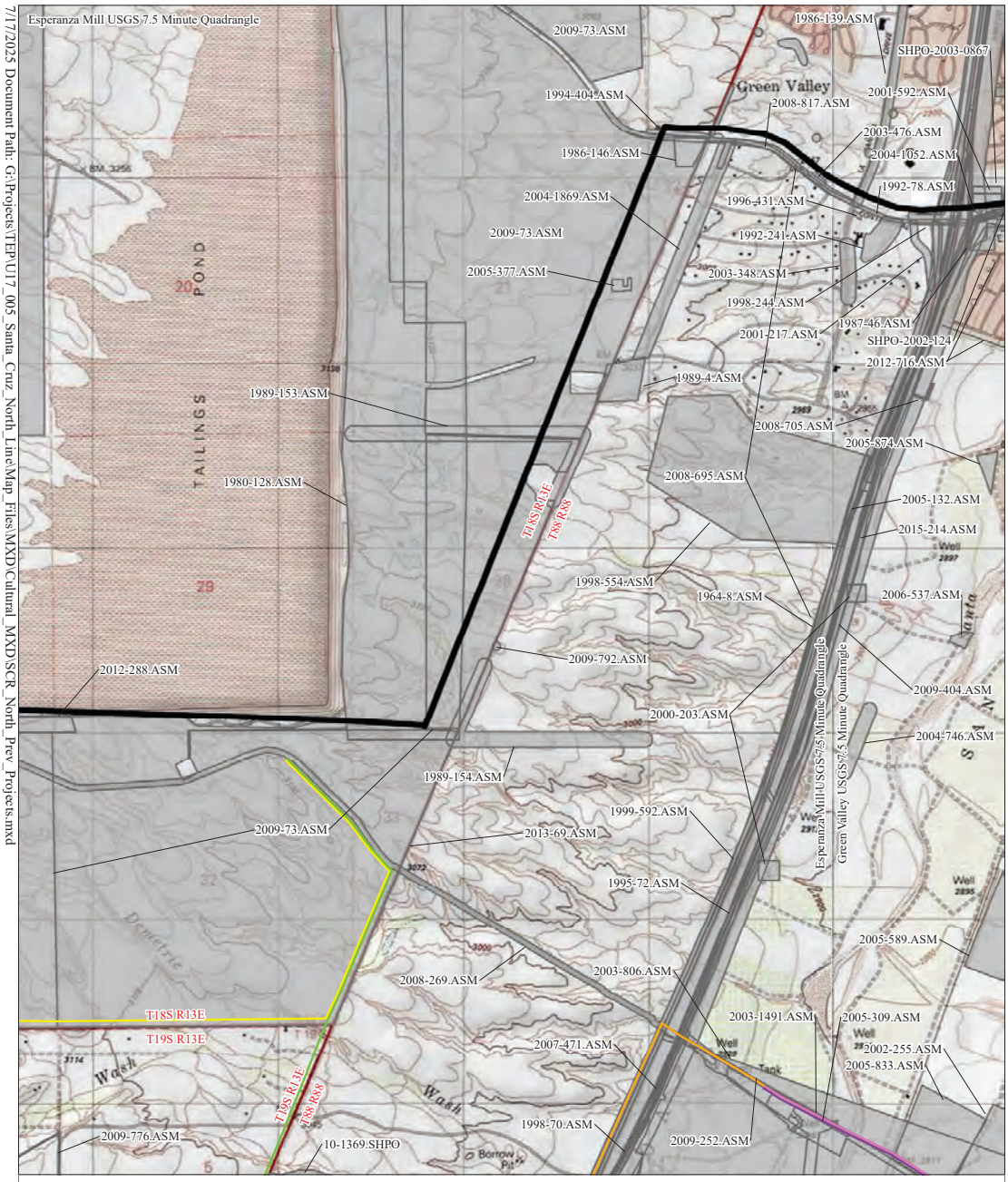
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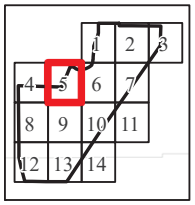
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Legend

- Route 1
- Route 2
- Route 3
- Route 4
- Route 5
- Recent project from last 10 years
- Project older than 10 years
- Study Area

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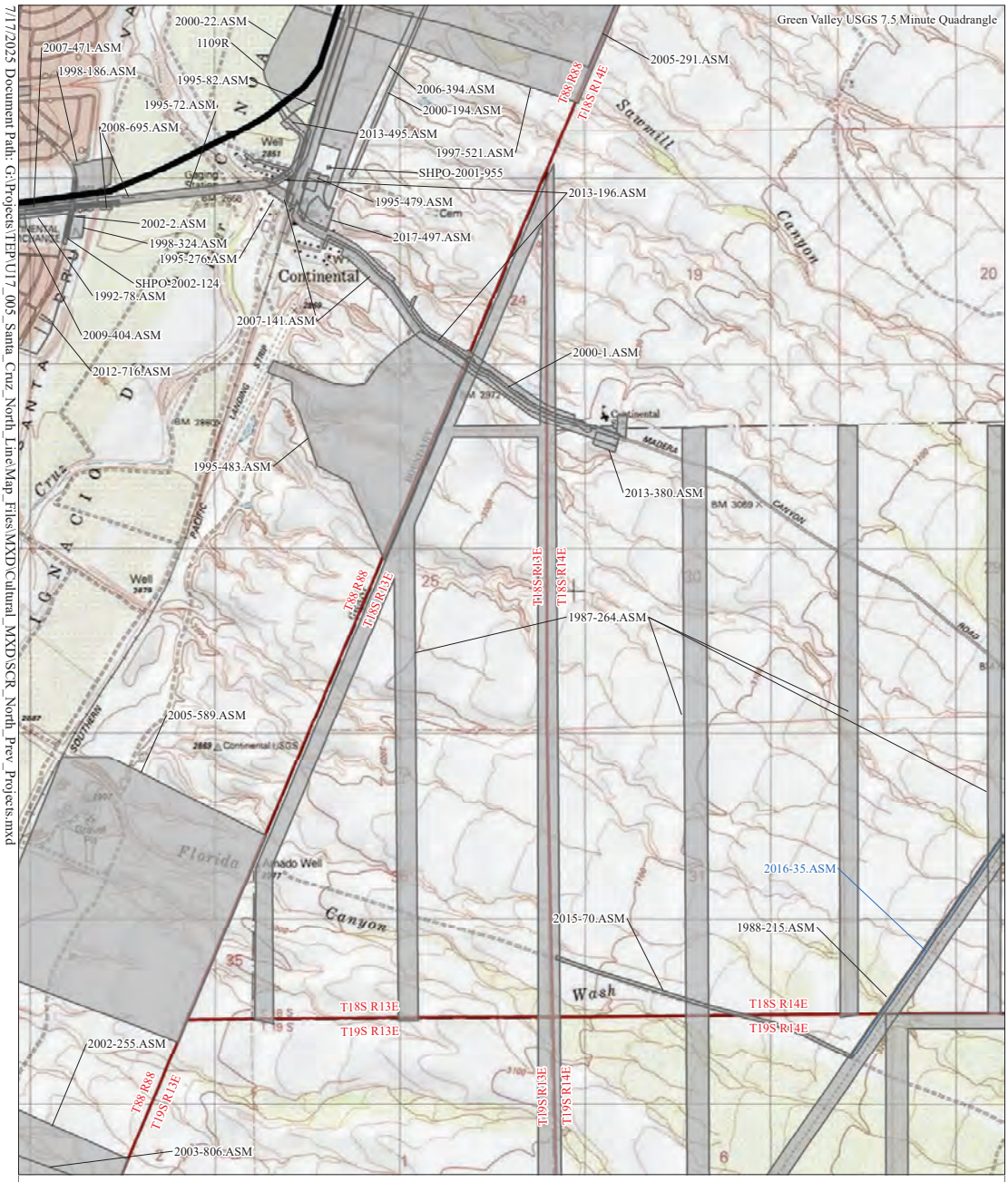
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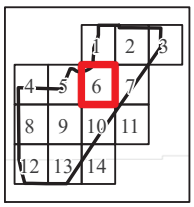
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Legend

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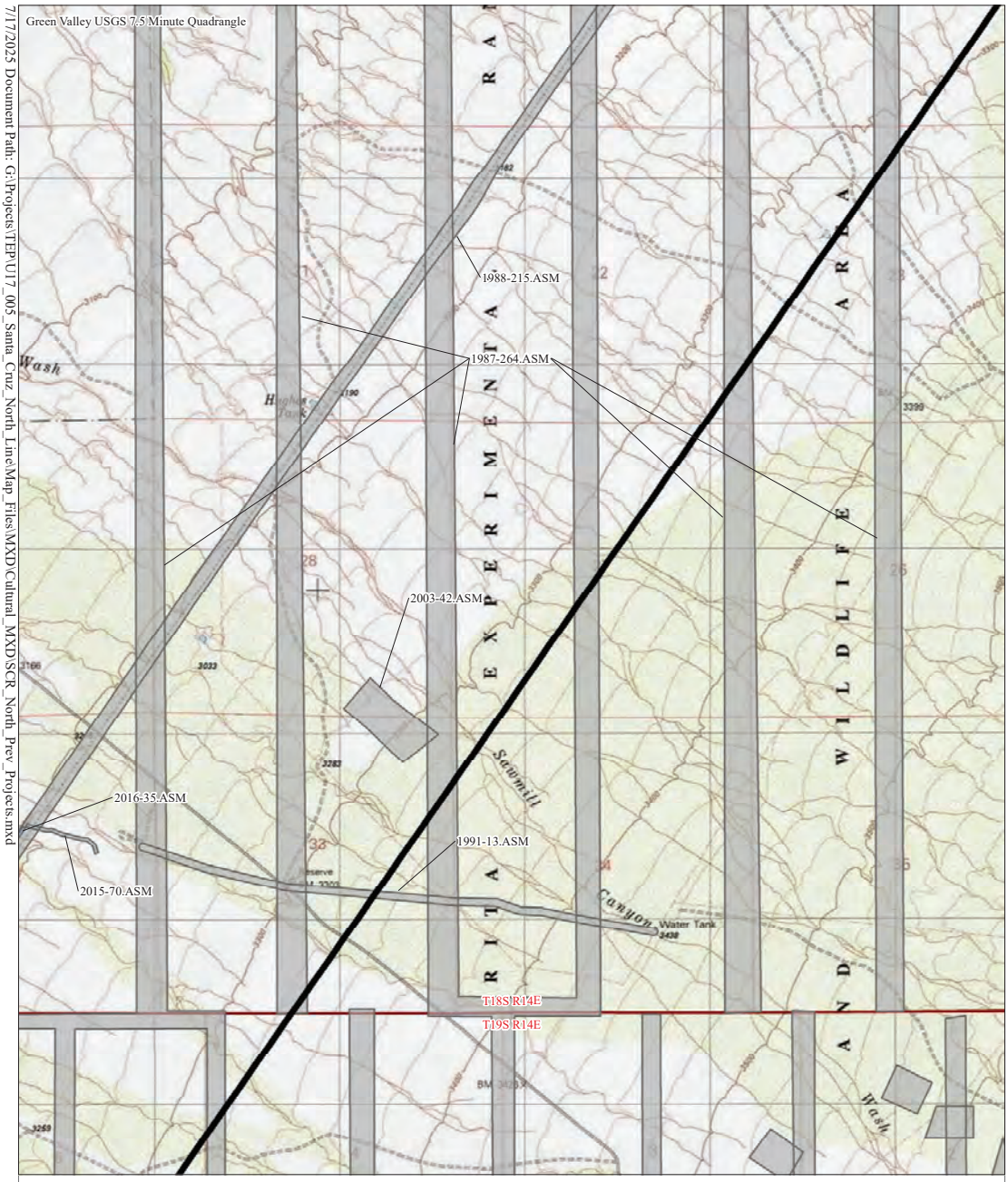
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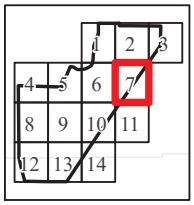
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Legend

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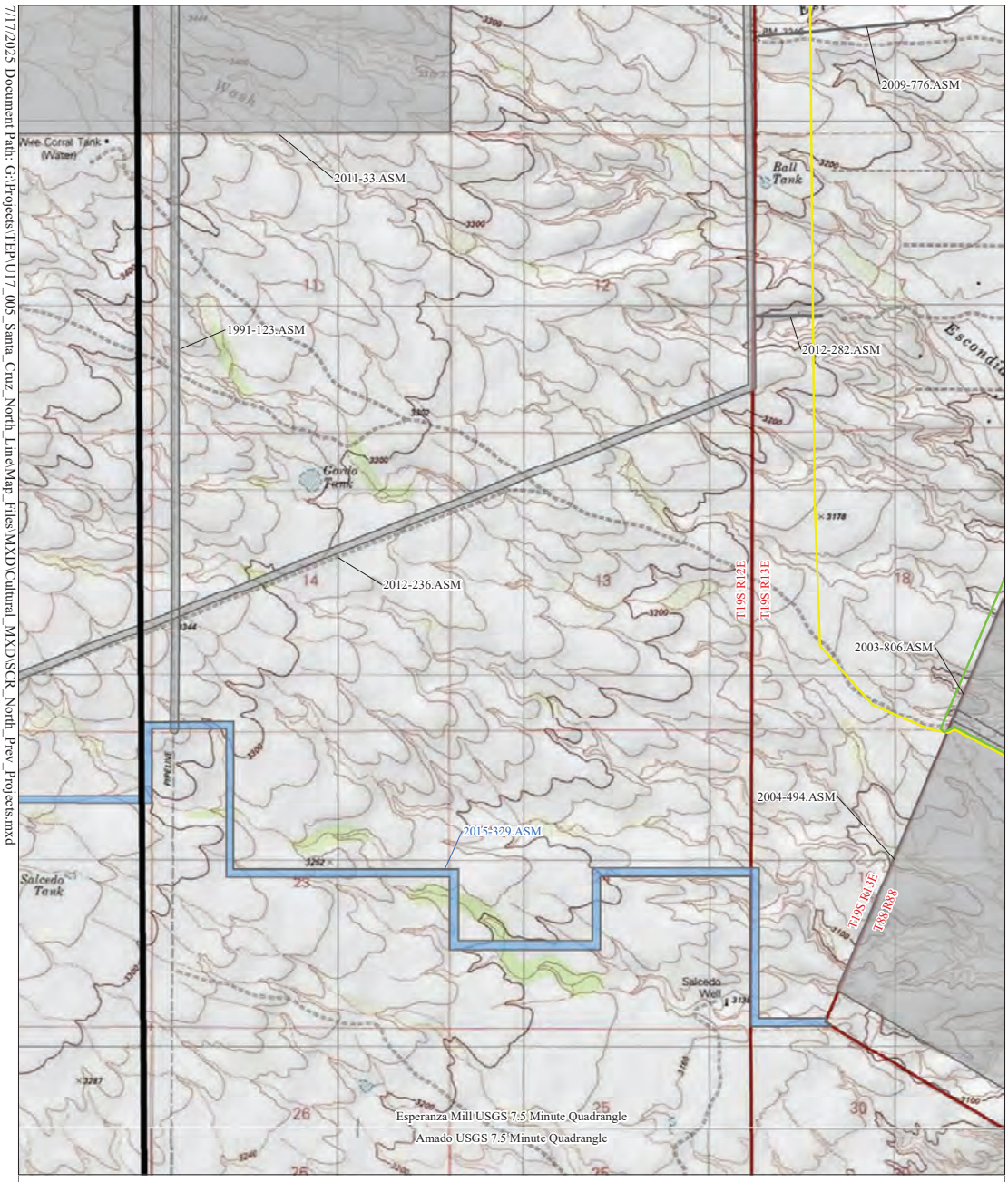
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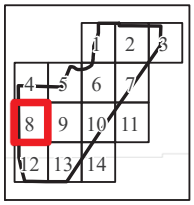
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Legend

- Route 4
- Route 5
- Recent project from last 10 years
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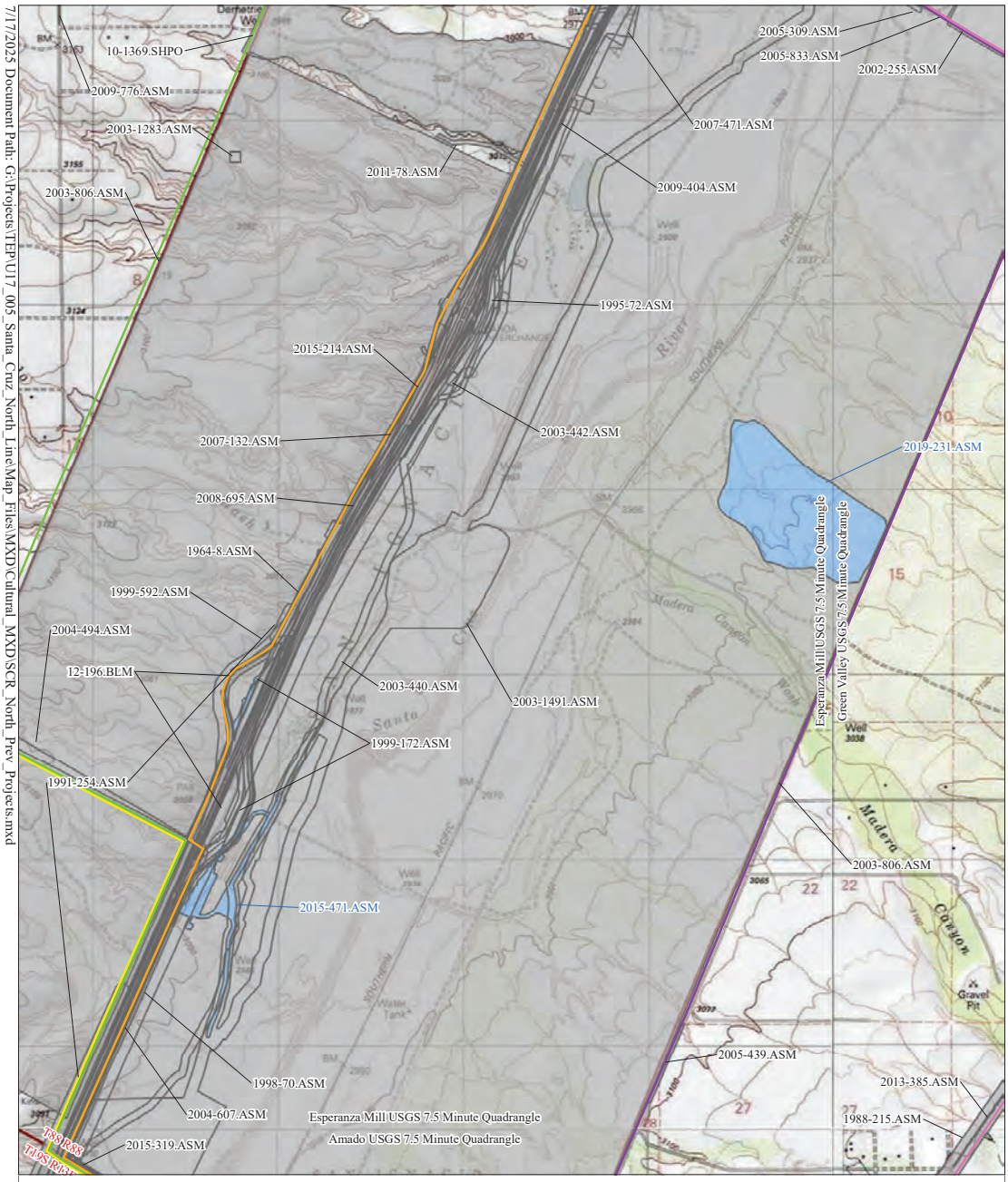
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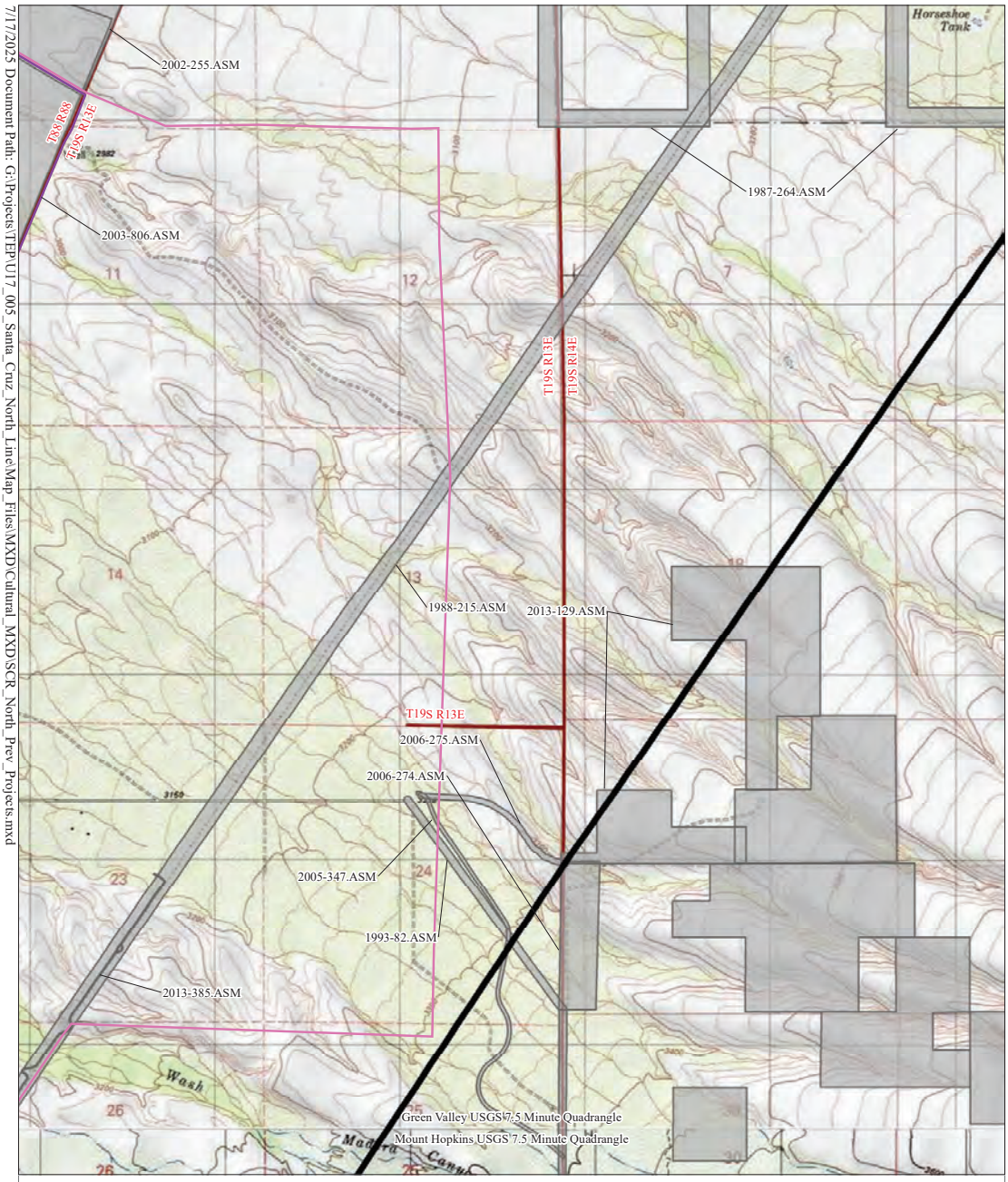
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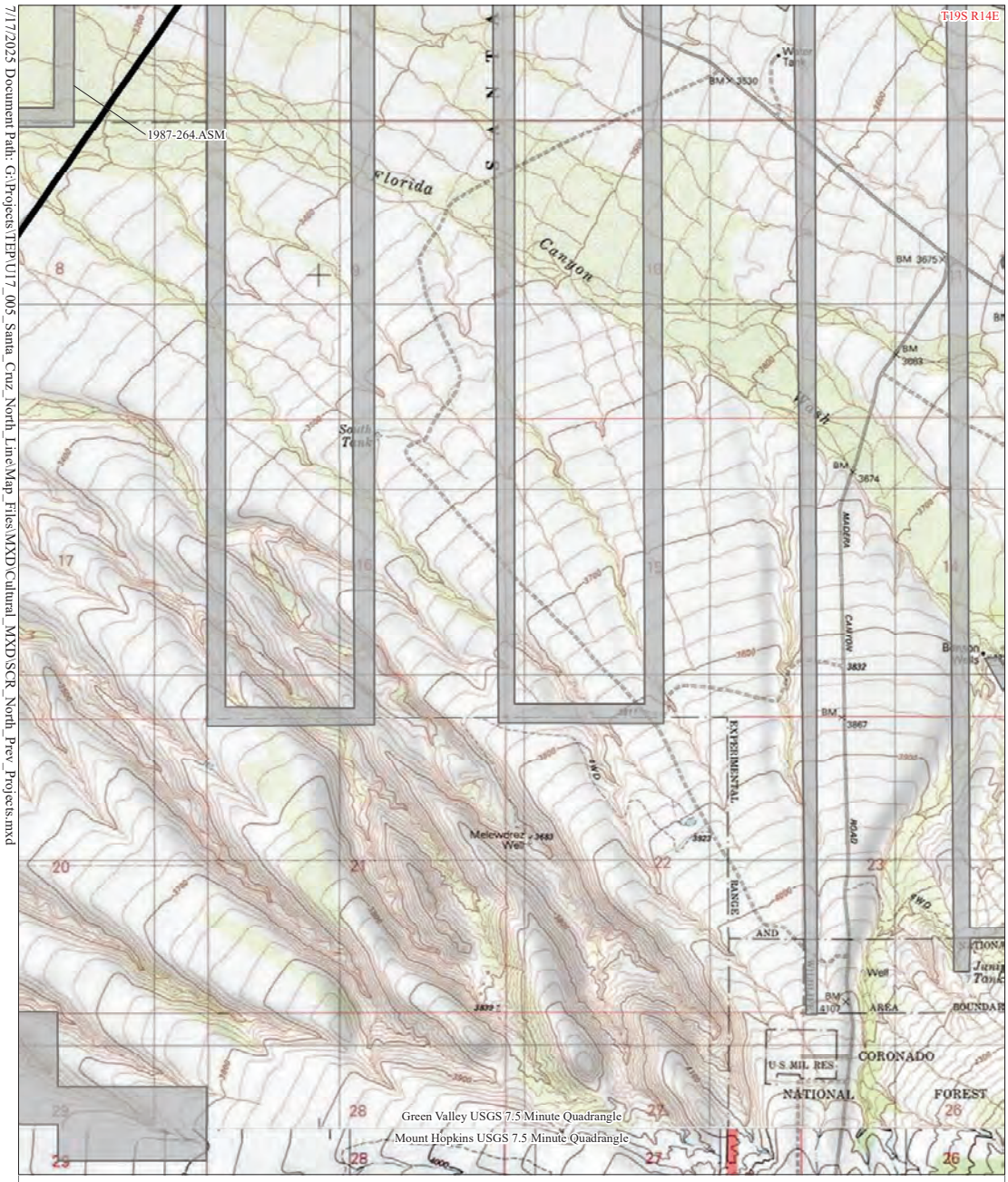
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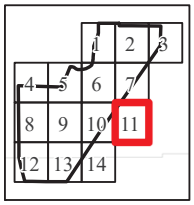
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Esperanza Mill USGS 7.5 Minute Quadrangle
Amado USGS 7.5 Minute Quadrangle
Esperanza Mill USGS 7.5 Minute Quadrangle
Green Valley USGS 7.5 Minute Quadrangle
Madera Canyon
Gravel Pit
Legend
Route 1
Route 2
Route 3
Route 4
Route 5
Recent project from last 10 years
Project older than 10 years
Study Area
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Feet
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Mount Hopkins USGS 7.5 Minute Quadrangle
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Route 2
Project older than 10 years
Study Area
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Legend

Project older than 10 years

Study Area

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Feet

Previous Projects Map

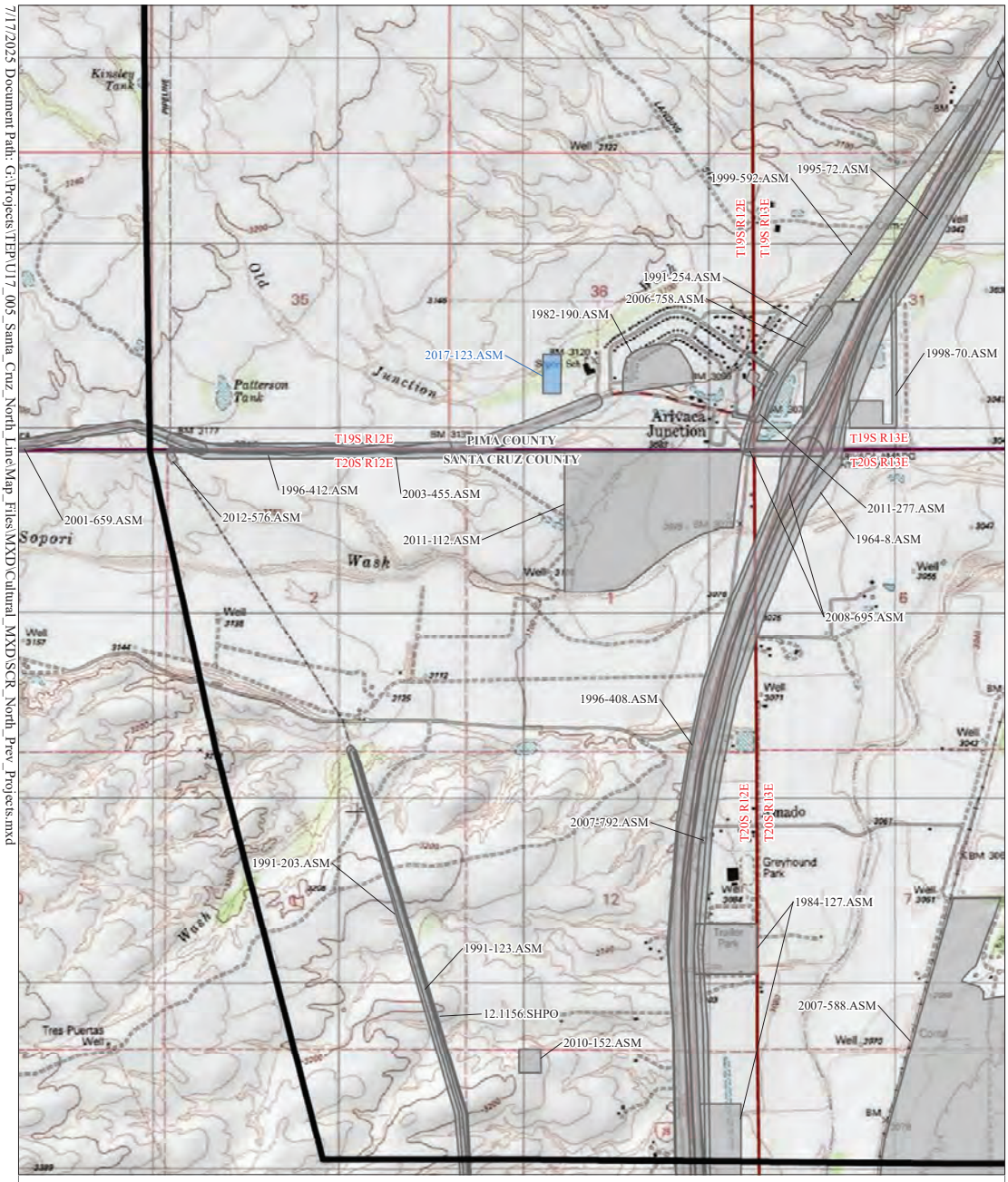
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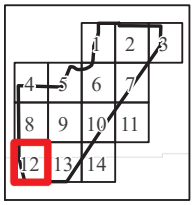
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Legend

- Recent project from last 10 years
- Project older than 10 years
- Study Area

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Feet

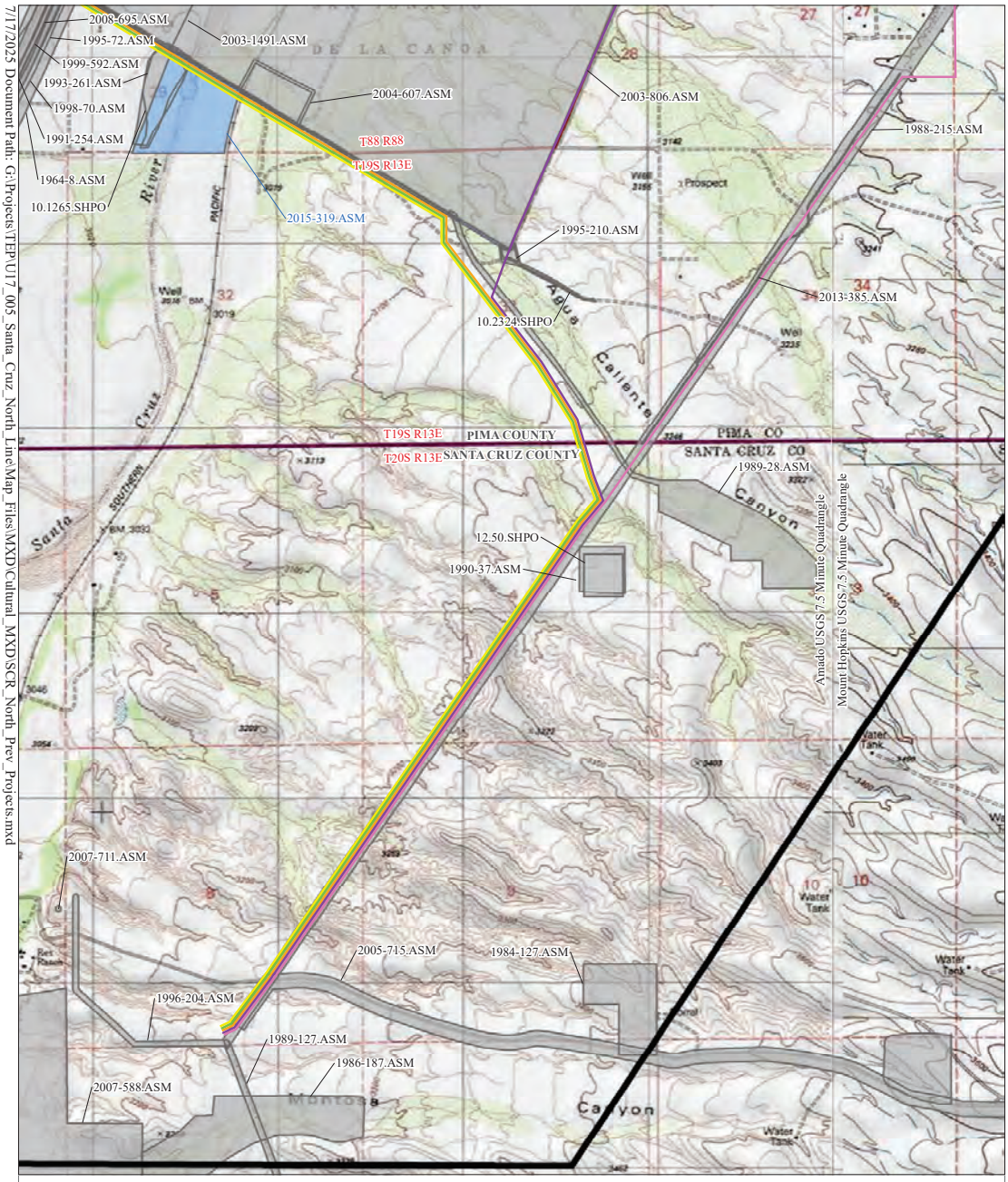
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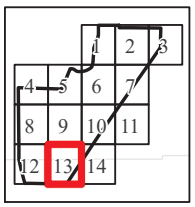
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Legend

- Route 1
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- Route 3
- Route 4
- Route 5
- Recent project from last 10 years
- Project older than 10 years
- Study Area

0 2,900
Feet

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Santa Cruz Reliability
Project North

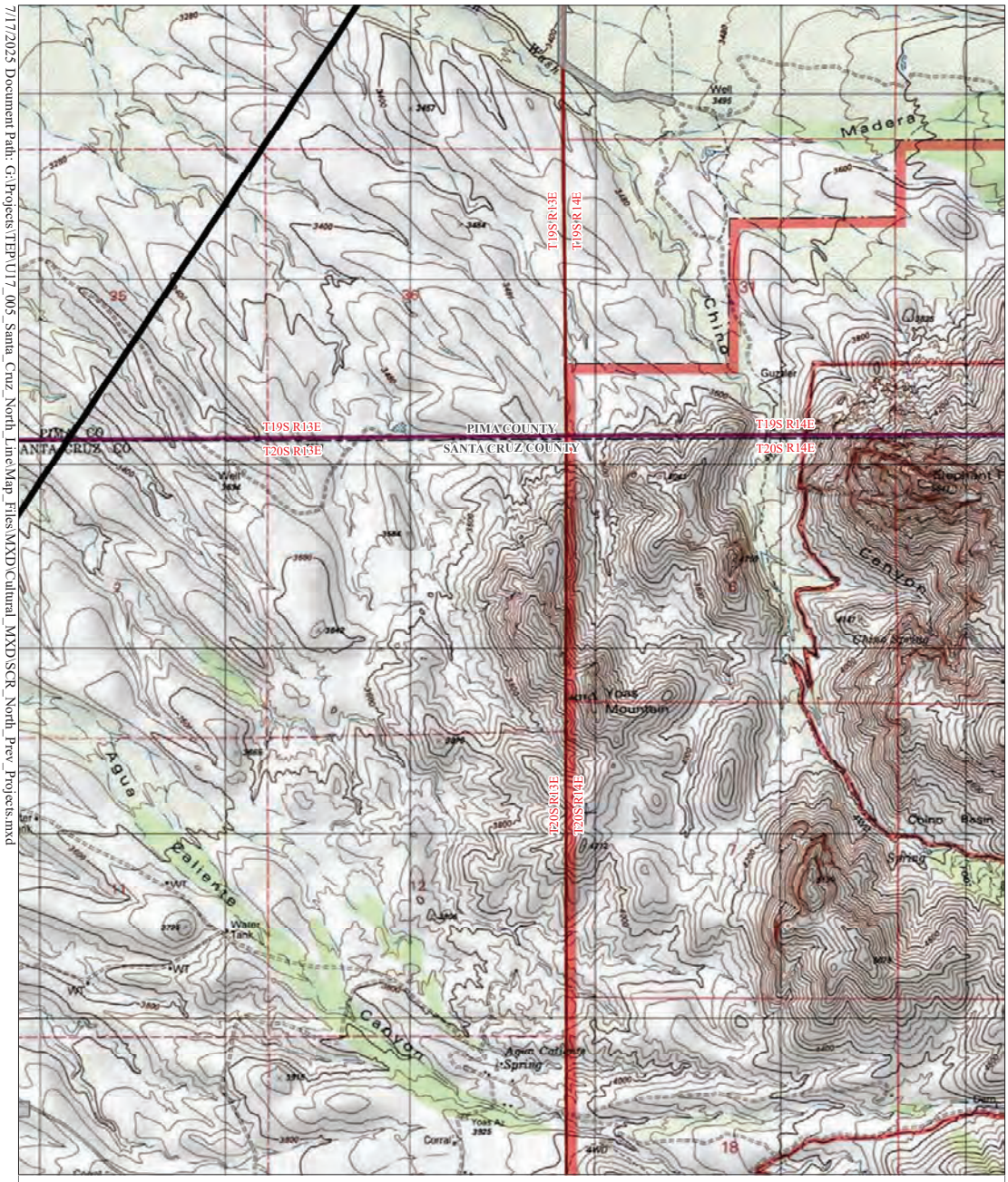
Panel 13 of 14

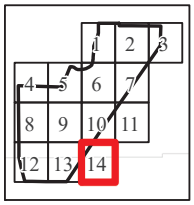
Date: 7/17/2025
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Legend

- Project older than 10 years
- Study Area

0 2,900
Feet

Previous Projects Map

UniSource Energy Services
Santa Cruz Reliability
Project North

Panel 14 of 14

Date: 7/17/2025
Projection: NAD_1983_UTM_Zone_12N

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EXHIBIT E-3

SUMMARY OF DOCUMENTED SITES PREVIOUSLY RECORDED WITHIN THE PROJECT STUDY AREA

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SITE NUMBER	SITE TYPE	AFFILIATION/AGE	ELIGIBILITY STATUS	YEAR RECORDED	LAND OWNERSHIP	OVERLAPS OR BORDERS ROUTE
AZ DD:4:212(ASM)	Historic Features	Historic	Eligible	1994	Private	N/A
AZ DD:4:213(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1994	Private	N/A
AZ DD:4:216(ASM)	Prehistoric Habitation	Hohokam	Eligible	1996	Private	N/A
AZ DD:4:217(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	Preferred
AZ DD:4:218(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	N/A
AZ DD:4:219(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	N/A
AZ DD:4:220(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	N/A
AZ DD:4:221(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1995	Private	Preferred
AZ DD:4:222(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1995	Private	Preferred
AZ DD:4:223(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1995	Private	N/A
AZ DD:4:225(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1995	Private	Preferred
AZ DD:4:226(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1996	Private	N/A
AZ DD:4:240(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1996	Private	N/A
AZ DD:4:241(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1996	Private	N/A
AZ DD:4:242(ASM)	Prehistoric Artifact Scatter	Hohokam	Eligible	1996	Private	N/A
AZ DD:4:243(ASM)	Prehistoric Features	Hohokam	Not Eligible	1996	Private	N/A
AZ DD:4:244(ASM)	Prehistoric Artifact Scatter	Hohokam	Eligible	1996	Private	N/A
AZ DD:4:245(ASM)	Prehistoric Artifact Scatter	Hohokam	Not Eligible	1996	Private	N/A
AZ DD:4:246(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1996	Private	N/A

SITE NUMBER	SITE TYPE	AFFILIATION/AGE	ELIGIBILITY STATUS	YEAR RECORDED	LAND OWNERSHIP	OVERLAPS OR BORDERS ROUTE
AZ DD:4:247(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1996	Private	N/A
AZ DD:4:248(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1996	Private	N/A
AZ DD:4:249(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1996	Private	N/A
AZ DD:4:251(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1996	Private	N/A
AZ DD:4:252(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1996	Private	N/A
AZ DD:4:253(ASM)	Prehistoric Features	Prehistoric	Not Eligible	1996	Private	N/A
AZ DD:4:39(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1952	Private	N/A
AZ DD:4:40(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1952	Private	N/A
AZ DD:4:41(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1952	Private	N/A
AZ DD:4:42(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1952	Private	N/A
AZ DD:4:43(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	2005	Private	Preferred; Alternative
AZ DD:4:44(ASM)	Prehistoric Artifact Scatter	Hohokam	Eligible	1952	Unknown	N/A
AZ DD:4:45(ASM)	Prehistoric Artifact Scatter	Hohokam	Eligible	1996	Private	N/A
AZ DD:4:63(ASM)	Prehistoric Artifact Scatter	Hohokam	Eligible	1996	Private	N/A
AZ DD:4:64(ASM)	Prehistoric Artifact Scatter	Hohokam	Unevaluated	1996	Private	N/A
AZ DD:4:65(ASM)	Prehistoric Artifact Scatter	Unknown	Unevaluated	1953	Private	N/A
AZ DD:4:66(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1953	Private	N/A
AZ DD:4:67(ASM)	Prehistoric and Historic Artifact Scatter	Prehistoric and Historic	Eligible	1996	Private	N/A

SITE NUMBER	SITE TYPE	AFFILIATION/AGE	ELIGIBILITY STATUS	YEAR RECORDED	LAND OWNERSHIP	OVERLAPS OR BORDERS ROUTE
AZ DD:4:68(ASM)	Prehistoric Features / Artifact Scatter	Hohokam and Non-Native Culture	Eligible	1953	Private	Preferred
AZ DD:4:69(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1996	Private	N/A
AZ DD:4:70(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Eligible	1996	Private	N/A
AZ DD:4:71(ASM)	Prehistoric Habitation	Hohokam and Non-Native Culture	Eligible	2006	Private	Preferred
AZ DD:4:72(ASM)	Prehistoric Habitation	Prehistoric	Unevaluated	1953	Private	N/A
AZ DD:4:73(ASM)	Prehistoric Habitation	Hohokam	Eligible	1953	Private	Preferred
AZ DD:4:74(ASM)	Ranch Complex	Historic	Eligible	1961; 2005	Pima County	Preferred; Alternative
AZ DD:8:101(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1953	Private	N/A
AZ DD:8:102(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1953	Private	N/A
AZ DD:8:103(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Unevaluated	1953	Private	N/A
AZ DD:8:109(ASM)	Prehistoric Artifact Scatter	Prehistoric	Unevaluated	1953	State Trust	N/A
AZ DD:8:138(ASM)	Prehistoric Lithic Scatter	Prehistoric	Unevaluated	1988	State Trust	Preferred; Alternative
AZ DD:8:155(ASM)	Prehistoric Lithic Scatter	Prehistoric	Unevaluated	1996	State Trust	N/A
AZ DD:8:156(ASM)	Prehistoric Artifact Scatter	Hohokam	Eligible	1996	Private	N/A
AZ DD:8:157(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	Preferred
AZ DD:8:158(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	N/A
AZ DD:8:159(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Unevaluated	1995	Private	N/A
AZ DD:8:160(ASM)	Prehistoric Habitation	Hohokam	Eligible	1995	Private	N/A

SITE NUMBER	SITE TYPE	AFFILIATION/AGE	ELIGIBILITY STATUS	YEAR RECORDED	LAND OWNERSHIP	OVERLAPS OR BORDERS ROUTE
AZ DD:8:161(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1995**	**Private**	**Preferred**
AZ DD:8:193(ASM)	**Road**	**Historic**	**Eligible**	**2005**	**State Trust**	**Preferred; Alternative**
AZ DD:8:207(ASM)	**Prehistoric Habitation and Historic Artifact Scatter**	**Prehistoric; Historic**	**Eligible**	**2006**	**State Trust/ Private**	**N/A**
AZ DD:8:208(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**2006**	**Private**	**N/A**
AZ DD:8:210(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**2006**	**Private**	**N/A**
AZ DD:8:259(ASM)	Road	Historic	Not Eligible	2013	State Trust	Alternative
AZ DD:8:260(ASM)	**Artifact Scatter**	**Historic**	**Eligible**	**2007**	**Private**	**N/A**
AZ DD:8:261(ASM)	**Unknown**	***Unknown***	**Unevaluated**	**2017**	***Unknown***	**Preferred; Alternative**
AZ EE:1:167(ASM)	**Prehistoric Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1988**	**Private**	**N/A**
AZ EE:1:168(ASM)	**Prehistoric Lithic Scatter**	**Prehistoric**	**Unevaluated**	**1988**	**State Trust**	**N/A**
AZ EE:1:17(ASM)	**Prehistoric Features / Artifact Scatter**	**Archaic and Hohokam**	**Unevaluated**	**1953**	**Private**	**Preferred**
AZ EE:1:18(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1953**	**Private**	**N/A**
AZ EE:1:19(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1953**	**Private**	**N/A**
AZ EE:1:20(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1953**	**Private**	**N/A**
AZ EE:1:202(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1996**	**Private**	**N/A**
AZ EE:1:203(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Eligible**	**1996**	**Private**	**Preferred; Alternative**
AZ EE:1:204(ASM)	Prehistoric Artifact Scatter	Prehistoric	Not eligible	*Unknown*	Private	N/A
AZ EE:1:205(ASM)	Prehistoric Features / Artifact Scatter	Hohokam; Historic	Not eligible	1996	Private	N/A

SITE NUMBER	SITE TYPE	AFFILIATION/AGE	ELIGIBILITY STATUS	YEAR RECORDED	LAND OWNERSHIP	OVERLAPS OR BORDERS ROUTE
AZ EE:1:206(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1996**	**Private**	**Preferred**
AZ EE:1:207(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Not eligible	1996	Private	N/A
AZ EE:1:208(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**N/A**
AZ EE:1:209(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Not eligible	1996	Private	N/A
AZ EE:1:21(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**N/A**
AZ EE:1:210(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**N/A**
AZ EE:1:211(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Not eligible	1996	Private	N/A
AZ EE:1:212(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Not eligible	1996	Private	N/A
AZ EE:1:213(ASM)	Prehistoric Features / Artifact Scatter	Hohokam	Not eligible	1996	Private	N/A
AZ EE:1:214(ASM)	Prehistoric Features / Artifact Scatter	Prehistoric	Not eligible	1996	Private	N/A
AZ EE:1:22(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1996**	**Private**	**N/A**
AZ EE:1:23(ASM)	**Prehistoric Features**	**Hohokam**	**Unevaluated**	**1996**	**Private**	**N/A**
AZ EE:1:231(ASM)	**Prehistoric Features**	**Unknown**	**Unevaluated**	**1985**	**Private**	**N/A**
AZ EE:1:24(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam**	**Eligible**	**1996**	**Private**	**N/A**
AZ EE:1:25(ASM)	**Prehistoric Features / Artifact Scatter**	**Hohokam and Unknown**	**Unevaluated**	**1996**	**Private**	**N/A**
AZ EE:1:346(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2002**	**Private**	**Alternative**
AZ EE:1:366(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**2004**	**Private**	**N/A**
AZ EE:1:367(ASM)	**Prehistoric Artifact Scatter**	**Prehistoric**	**Unevaluated**	**2004**	**Private**	**N/A**
AZ EE:1:369(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2004**	**Private**	**N/A**

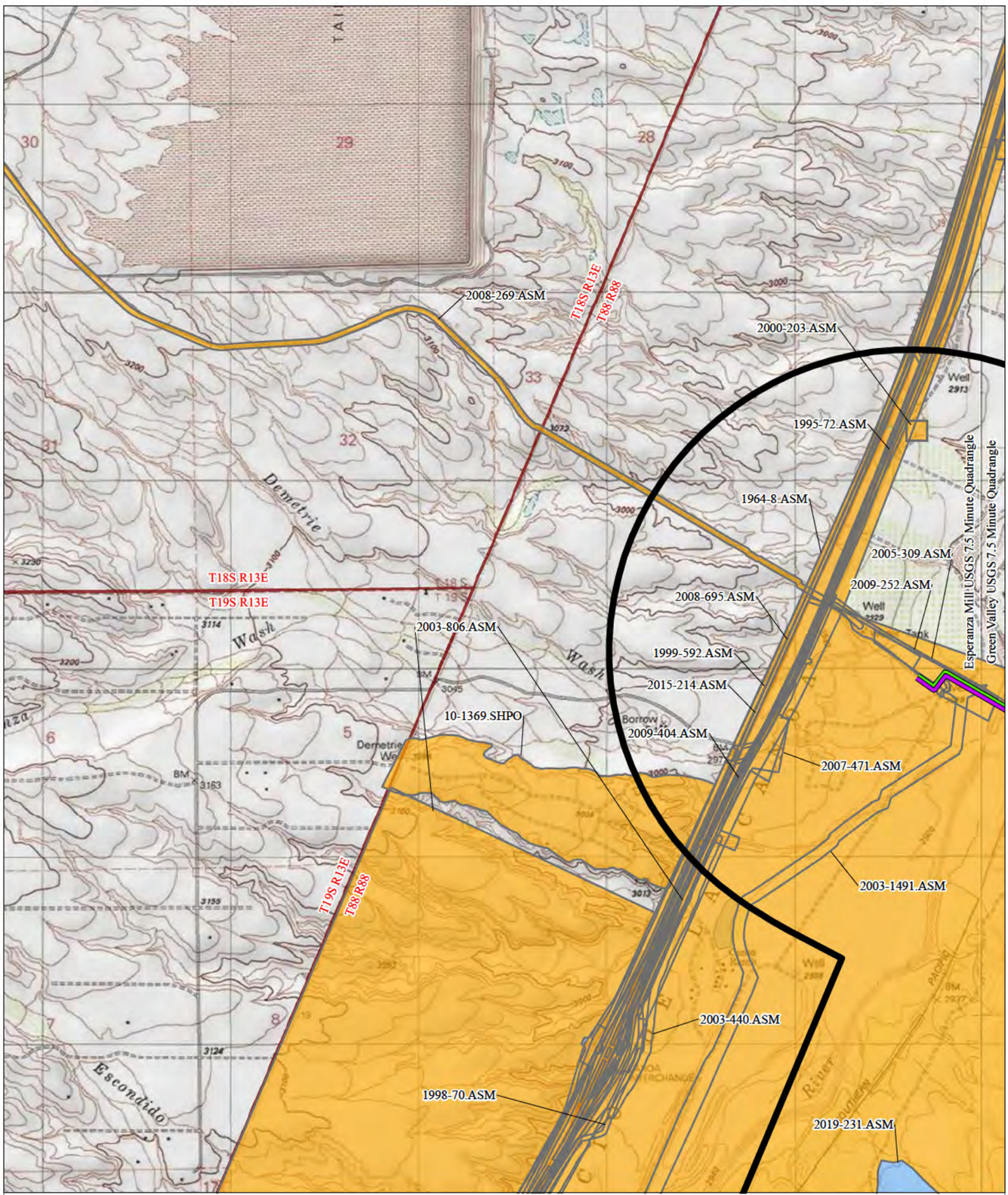
SITE NUMBER	SITE TYPE	AFFILIATION/AGE	ELIGIBILITY STATUS	YEAR RECORDED	LAND OWNERSHIP	OVERLAPS OR BORDERS ROUTE
AZ EE:1:381(ASM)	**Historic Features**	Euro-American	Not eligible	2004	Private	**N/A**
AZ EE:1:382(ASM)	**Prehistoric Features / Artifact Scatter and Historic Road**	**Euro-American; Hohokam**	**Eligible**	**2005**	**State Trust**	**N/A**
AZ EE:1:383(ASM)	**Prehistoric Features / Artifact Scatter**	**Prehistoric**	**Eligible**	**2005**	**State Trust**	**N/A**

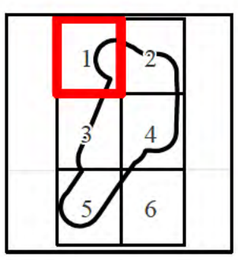
*Unevaluated and eligible sites are in bold.

EXHIBIT E-4

PREVIOUS CULTURAL RESOURCES STUDIES IN STUDY AREA

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Legend

- Recent project from last 10 years
- Project older than 10 years
- Preferred Route
- Alternate Route
- Project Study Area



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Feet

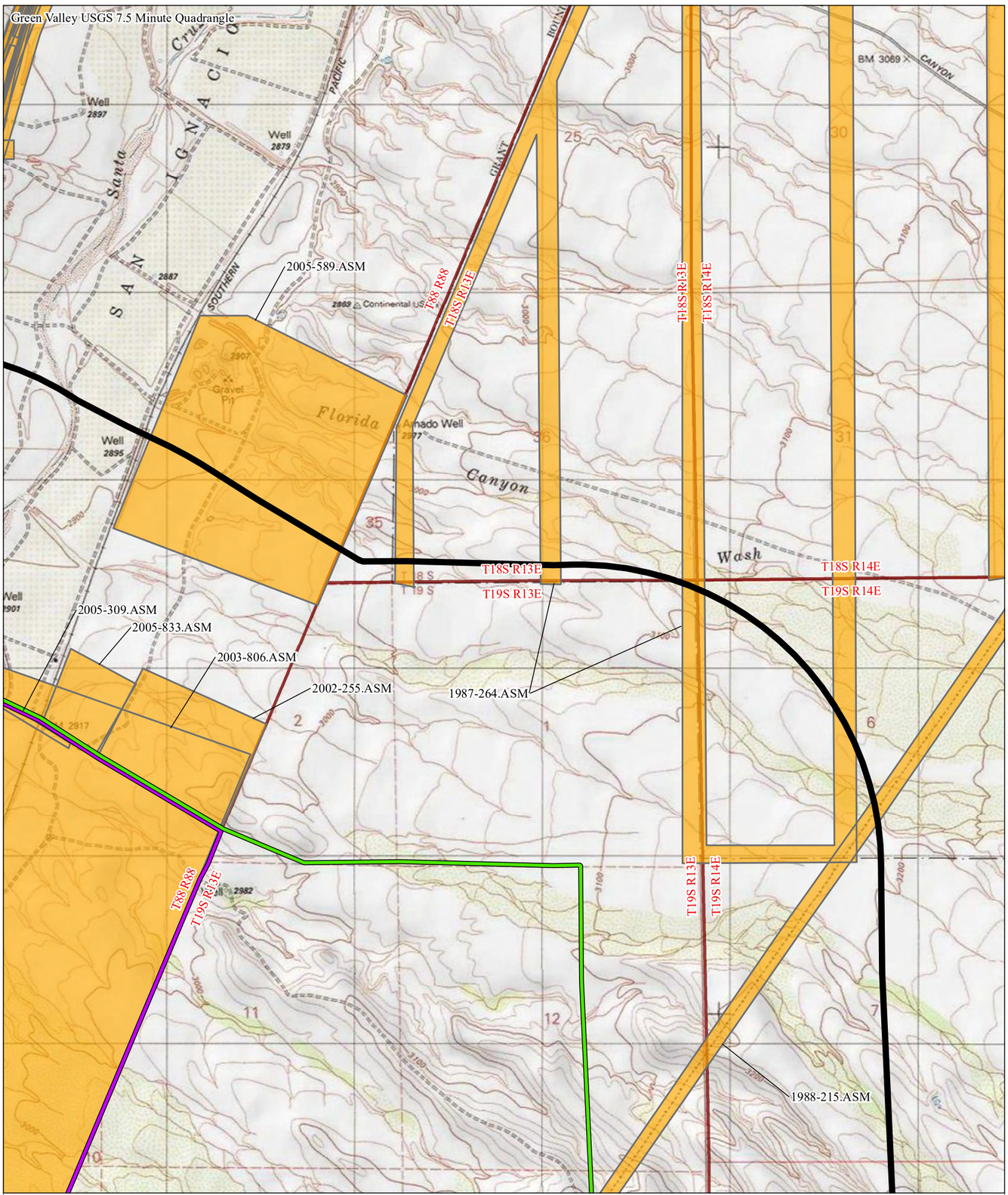
Previous Projects Map

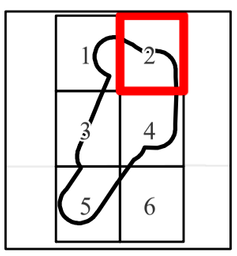
UniSource Energy Services
Santa Cruz Reliability
Project North

Panel 1 of 6

Date: 9/4/2025
Projection: NAD_1983_UTM_Zone_12N

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Legend

- Recent project from last 10 years
- Project older than 10 years
- Preferred Route
- Alternative Route
- Project Study Area

Previous Projects Map

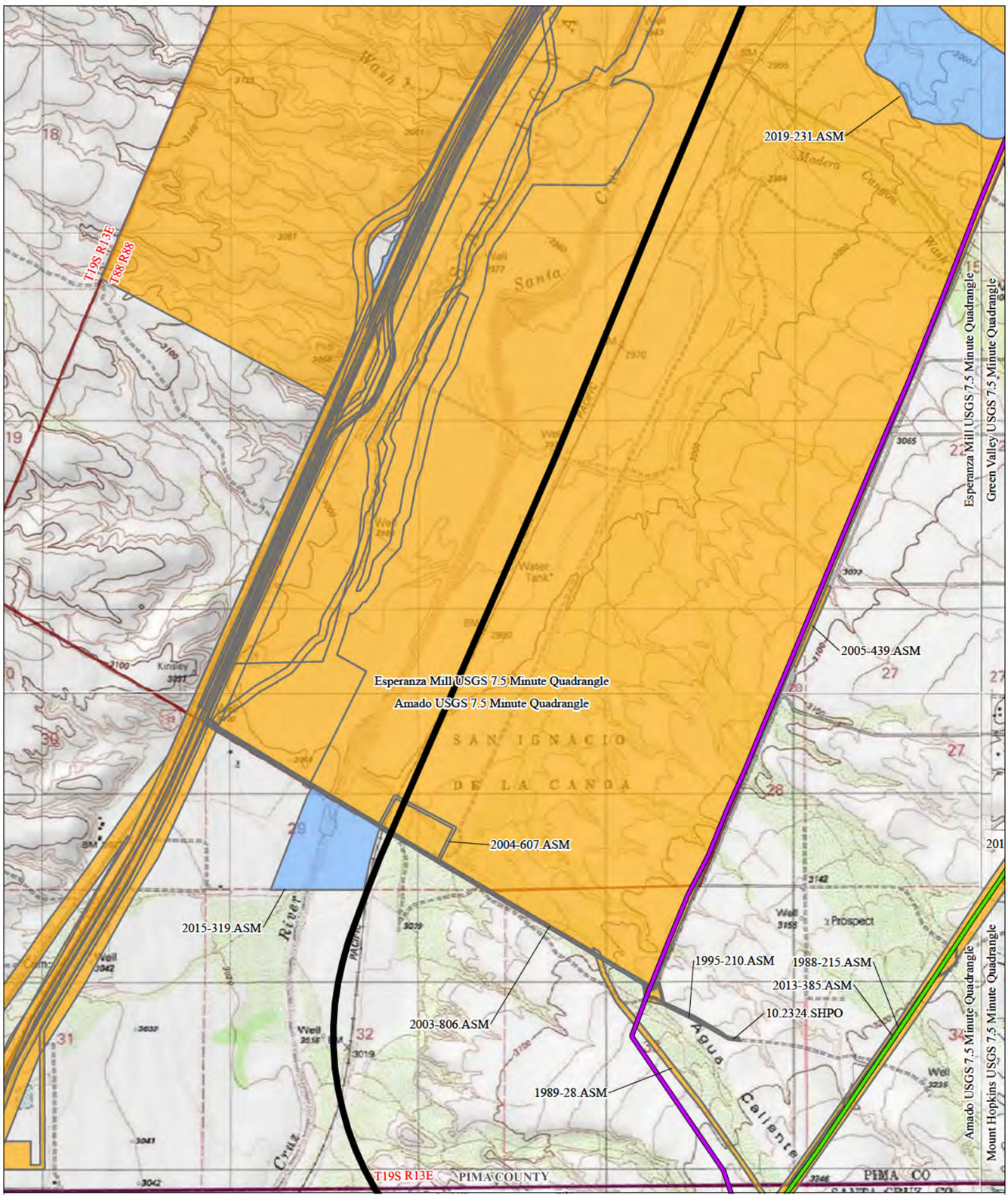
UniSource Energy Services
Santa Cruz Reliability
Project North

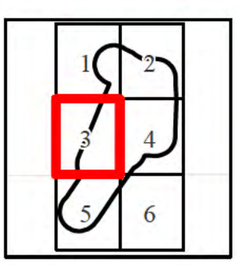
Panel 2 of 6

Date: 9/11/2025
Projection: NAD_1983_UTM_Zone_12N

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Feet

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Legend

- Recent project from last 10 years
- Project older than 10 years
- Preferred Route
- Alternate Route
- Project Study Area

Previous Projects Map

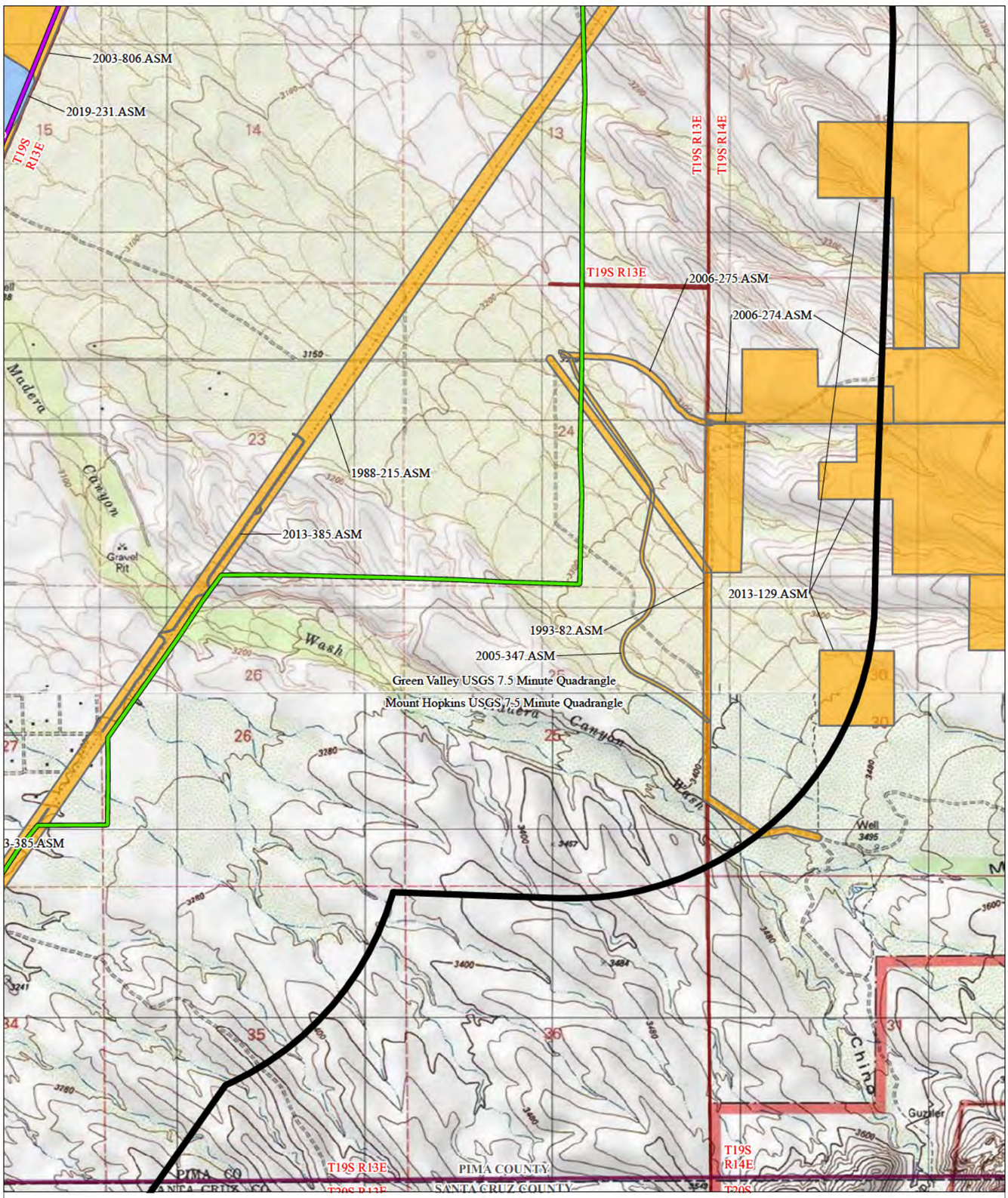
UniSource Energy Services
Santa Cruz Reliability
Project North

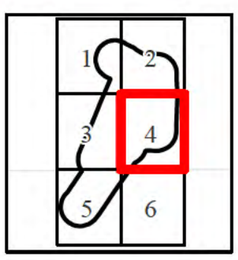
Panel 3 of 6

Date: 9/4/2025
Projection: NAD_1983_UTM_Zone_12N

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Feet

Eocene Environmental Group





Legend

- Recent project from last 10 years
- Project older than 10 years
- Preferred Route
- Alternate Route
- Project Study Area

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Feet

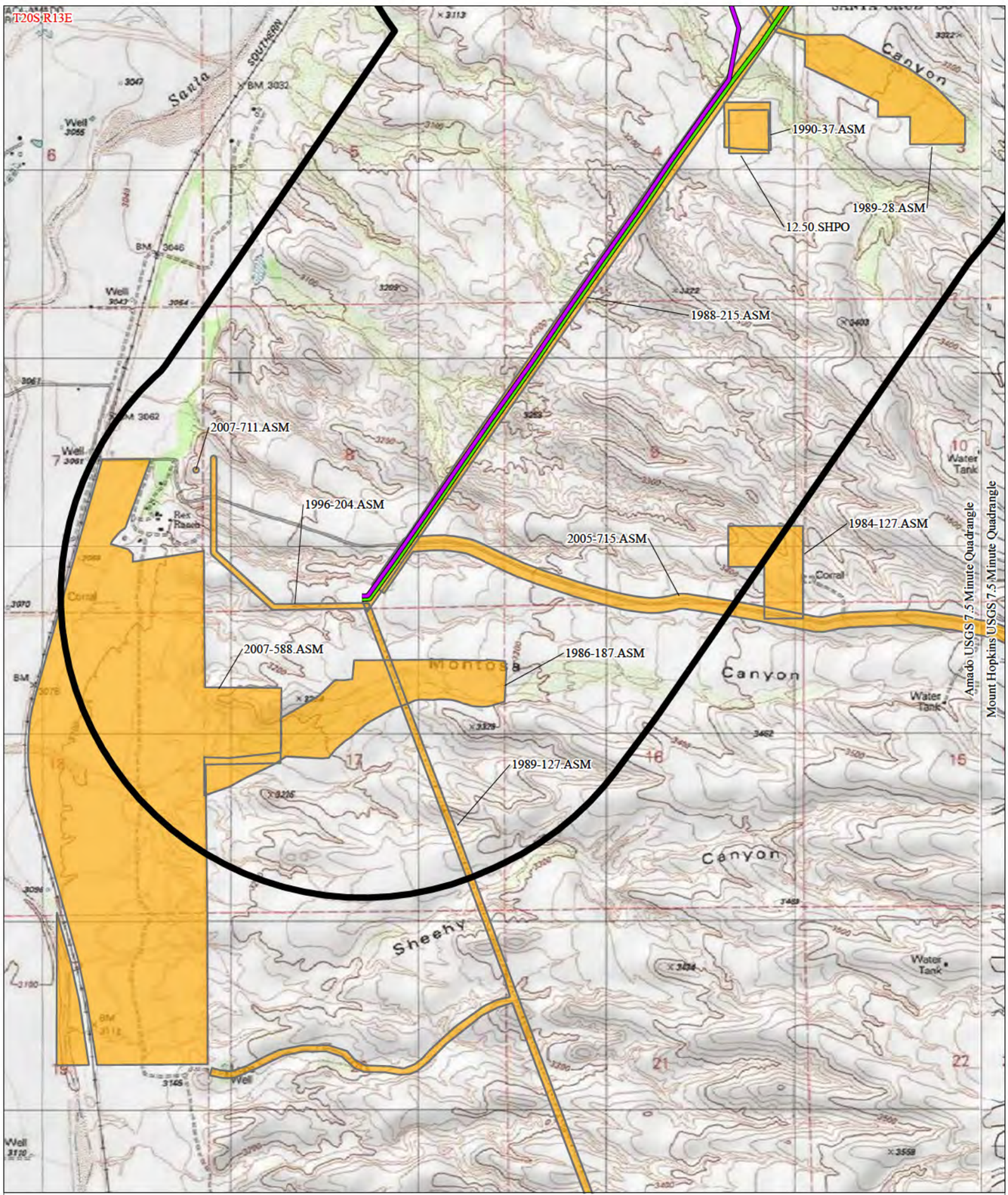
Previous Projects Map

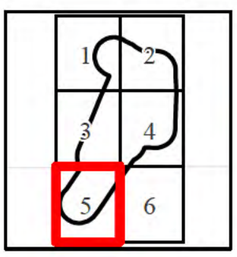
UniSource Energy Services
Santa Cruz Reliability
Project North

Panel 4 of 6

Date: 9/4/2025
Projection: NAD_1983_UTM_Zone_12N

Eocene Environmental Group





Legend

- Project older than 10 years
- Preferred Route
- Alternate Route
- Project Study Area

Previous Projects Map

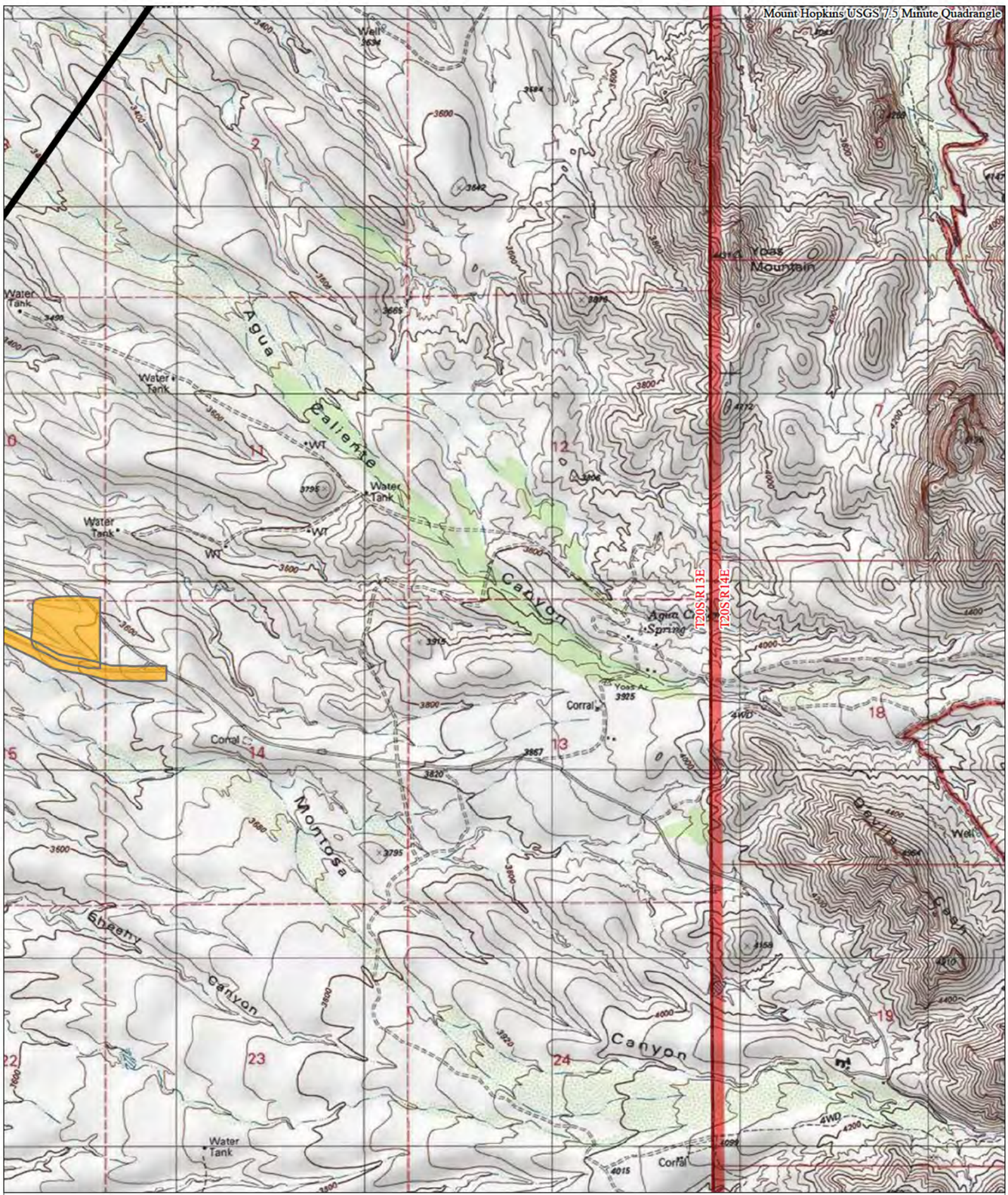
UniSource Energy Services
Santa Cruz Reliability
Project North

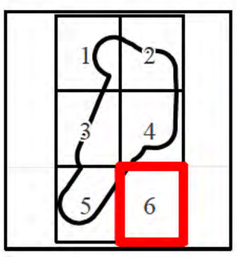
Panel 5 of 6

Date: 9/4/2025
Projection: NAD_1983_UTM_Zone_12N

0 2,900
Feet

Eocene Environmental Group







0 2,900
Feet

Legend

- Project older than 10 years
- Project Study Area

Previous Projects Map

UniSource Energy Services
Santa Cruz Reliability
Project North

Panel 6 of 6

Date: 9/4/2025
Projection: NAD_1983_UTM_Zone_12N

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EXHIBIT F

RECREATION PURPOSES AND ASPECTS

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EXHIBIT F. RECREATIONAL PURPOSES AND ASPECTS

As stated in Arizona Administrative Code, Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, Exhibits to Application, Exhibit F:

> *"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."*

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Table F-1. Recreation Facilities within the Study Area 332

List of Figures

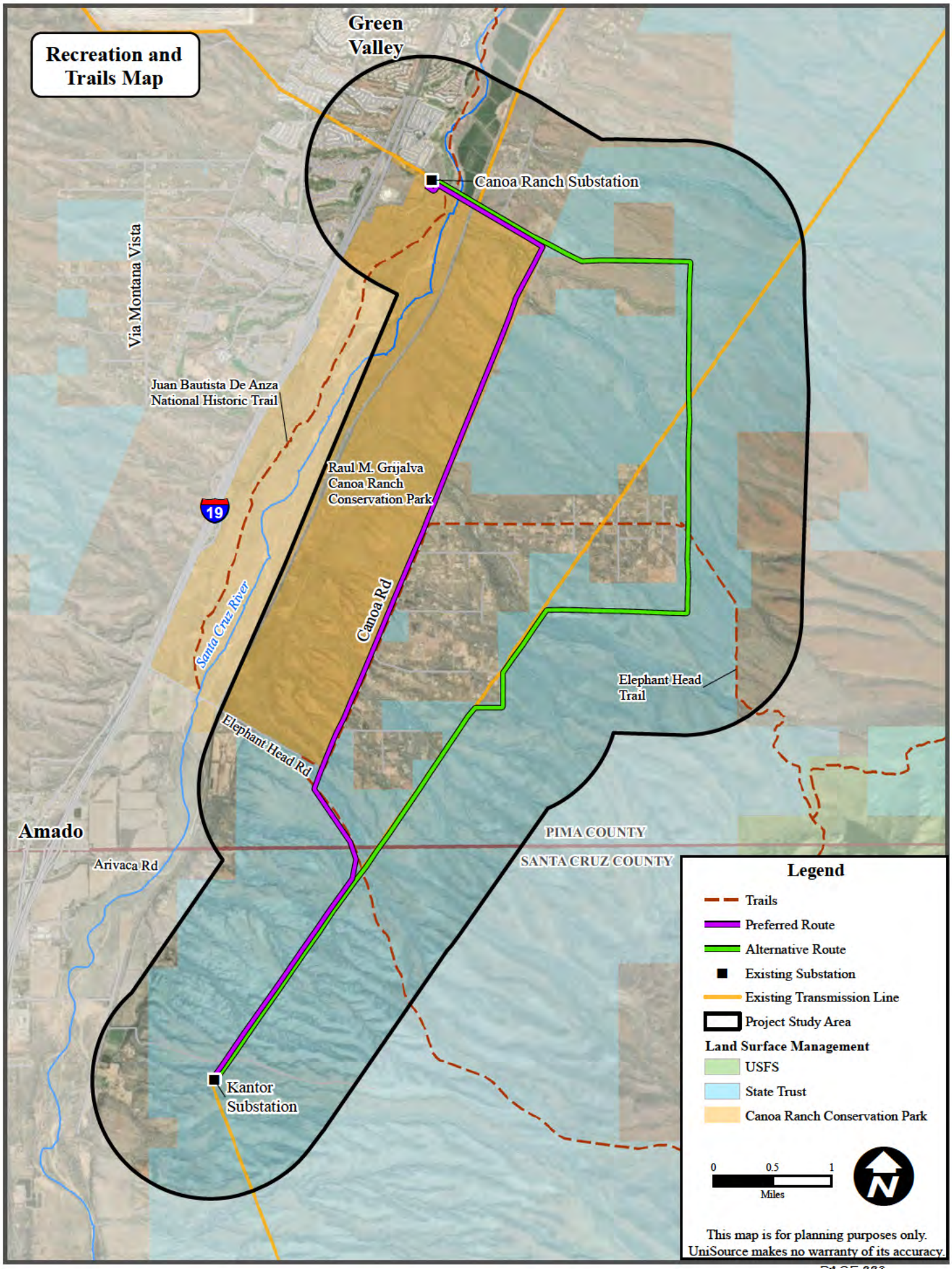
Figure F-1. Recreational facilities located within the vicinity of the Project Study Area 331

Introduction

UNS Electric, Inc. (UNSE) evaluated the potential impacts of the Santa Cruz Reliability North Transmission Project (SCR North or Project) on existing recreation with the broader Project Siting Area. The following analysis outlines the recreational settings and features located within the Project Study Area, defined as the 1-mile buffer surrounding the Preferred and Alternative Routes, and assess potential impact from the Project. The entire Project Study Area is located within Pima and Santa Cruz Counties.

Affected Environment

Recreational opportunities in the Project Study Area are primarily linked to natural landscapes, trails, and historic sites located within or near the Project Study Area. This includes the Juan Bautista de Anza National Historic Trail, a multi-use path suitable for walking, running, and biking. As well as the Elephant Head Trail, which leads to a unique rock formation in the foothills of the Santa Rita Mountains with access to unique terrain and recreational opportunities. These facilities are referenced in **Table F-1** and displayed in **Figure F-1** below.


Recreation and Trails Map
Green Valley
Canoa Ranch Substation
Via Montana Vista
Juan Bautista De Anza National Historic Trail
Raul M. Grijalva Canoa Ranch Conservation Park
19
Santa Cruz River
Canoa Rd
Elephant Head Trail
Elephant Head Rd
Amado
PIMA COUNTY
SANTA CRUZ COUNTY
Arivaca Rd
Kantor Substation
Legend
Trails
Preferred Route
Alternative Route
Existing Substation
Existing Transmission Line
Project Study Area
Land Surface Management
USFS
State Trust
Canoa Ranch Conservation Park
0
0.5
1
Miles
N
This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

In Green Valley, the Raul M. Grijalva Canoa Ranch Conservation Park (Canoa Ranch Conservation Park) provides opportunities for walking, nature study, and wildlife viewing, especially around its restored riparian habitat. The Abrego South and West Trails and West Desert Trails offer scenic desert walking and mountain biking routes. Other dispersed recreational opportunities in the area include off-highway vehicle use and hunting which is primarily focused east of Green Valley and Amado on publicly available Arizona State Land Department (ASLD) lands within and adjacent to the Project Study Area. Dispersed camping is also occasionally enjoyed in this area.

Table F-1. Recreation Facilities within the Study Area

Recreational Facility	Jurisdiction	Location
Canoa Ranch Conservation Park	Pima County	5375 S. Interstate 19 (I-19) Frontage Road, Green Valley, Arizona 85614
Juan Bautista de Anza National Historic Trail	National Park Service	East of I-19 running in a general north-south orientation through Pima and Santa Cruz Counties; bisects the Canoa Ranch Conservation Park
Elephant Head Trail	Pima County	26705 South Monarch Way, Amado, Arizona 85645

Canoa Ranch Conservation Park

Canoa Ranch Conservation Park is located within the Project Study Area, near Camino de la Canoa Road, and bisected by the Santa Cruz River. The Preferred and Alternative routes both cross along the northern edge of the Conservation Park.

Both routes are designed to minimize environmental and recreational impacts, and are generally collocated with existing infrastructure.

Despite the Conservation Park's proximity to the proposed transmission corridor, the Project's construction, operation, and maintenance activities will have no impact on public access or on the Conservation Park. The Project respects the Canoa Ranch Conservation Park's designation on the National Register of Historic Places and its role as a protected open space.

As part of the planning process for the Project, the Conservation Park was identified as a constraint due to an overlying restrictive covenant that limits certain types of development, including utilities, to preserve its conservation values. The Conservation Park surrounds Tucson Electric Power Company's (TEP) existing Canoa Ranch Substation and in order for a new transmission line to cross through the park and interconnect at the substation, the restrictive covenant must be modified to allow new facilities. This process requires an in-lieu fee payment and/or additional conservation lands to be set aside, with approval of any agreement by the Pima County Board of Supervisors. Both the Preferred and Alternative routes would require UNSE to work with Pima County to modify the restrictive covenant on the northern edge of the Conservation Park.

Juan Bautista de Anza National Historic Trail

In Arizona, the Juan Bautista de Anza National Historic Trail follows the Santa Cruz River corridor, passing through communities such as Tubac, Tumacácori, Amado, and Green Valley. Within the Project Study Area, the trail runs near the Santa Cruz River through the Conservation Park.

The Elephant Head Road Trailhead, located near the intersection of the Santa Cruz River and Elephant Head Road is a primary access point to the trail, located within the Project Study Area. The trail offers opportunities for hiking, biking, and horseback riding, and includes interpretive sites that highlight the region's Spanish colonial and indigenous heritage.

Both the Preferred and Alternative routes intersect the trail at the same location just east of TEP's existing Canoa Ranch Substation and within the same corridor as existing transmission lines. Beyond the crossing point, the Preferred Route parallels the trail approximately 1 mile to the east, with the Alternative Route maintaining an even greater separation from the trail than the Preferred Route.

Although the trail and the Project are located within the same general region, apart from a single crossing, the Project has been designed to avoid direct impacts to the trail itself. There will be no interference with trail access, recreational use, or interpretive features.

By maintaining appropriate setbacks and aligning the transmission route with existing utility corridors, the Project ensures that the recreational, educational, and cultural values of the trail are preserved.

Elephant Head Trailhead

The Elephant Head Trailhead, located within the eastern portion of the Project Study Area, serves as a gateway to outdoor recreation in the scenic Santa Cruz Valley. Positioned within the corridor of the Alternative Route, the trailhead provides direct access to the rugged terrain and panoramic vistas of the Santa Rita Mountains. It is a popular starting point for hikers, mountain bikers, and nature enthusiasts seeking solitude, wildlife encounters, and challenging trails such as the Elephant Head Trail itself. Its location within the Project Study Area underscores the importance of careful planning to preserve recreational access and scenic integrity while accommodating infrastructure development.

Potential Effects

Construction

Construction of the Project may result in minor, temporary impacts to recreational users in areas where the Project crosses or is adjacent to recreational sites.

Project construction would not result in permanent loss of any recreational opportunities or prevent continued use of existing facilities. However, during construction, short-term disruptions to access to recreational areas may occur. Dispersed recreational activities such as hiking, biking, and birdwatching could experience temporary disturbances due to noise, construction equipment, or the presence of work crews. For safety, brief closures of road shoulders, sidewalks, or travel lanes may be required, but detours or alternate routes would be provided to ensure continued access.

Overall, impacts to recreational areas and users within and near to the Proposed and Alternative routes are expected to be negligible due to the temporary and short-term nature of construction and the ability of UNSE to maintain access. Any potential indirect impacts to the natural, cultural, historic, or visual character of recreation areas are addressed in **Exhibits B**, **C**, **D**, **E**, and **G**.

Much of the Project lies on private property and ASLD lands, and UNSE will obtain easements for construction and operation of the transmission line, as applicable. Currently, UNSE does not plan to make the right-of-way (ROW) available for public recreational use. While compatible recreation within the ROW may be considered in the future, such use is not included in the current Project scope and would require agreements with landowners.

Operations and Maintenance

Operation and maintenance activities would be infrequent, short-term, and temporary in nature. Any closures needed to perform maintenance would be brief and limited to the duration of the work. Recreational opportunities and activities would generally continue unchanged following construction, with only occasional minor disruptions during maintenance, such as temporary noise or brief traffic detours.

Conclusion

The Project's Preferred and Alternative routes are guided by UNSE's design principle to prioritize the use of existing infrastructure corridors that align with the Project's goals. This strategy emphasizes placing routes within public road ROW or along established linear corridors wherever feasible, thereby preserving public access and maintaining consistency with current land uses. This approach helps reduce potential impacts on recreational areas and parks while supporting continued or enhanced recreational use along existing corridors. During and after construction, all existing recreational facilities will remain accessible. Where the Project intersects existing roads, long-term access to these areas for recreational purposes will not be affected. UNSE will coordinate and cooperate with the appropriate planning authorities and communities, as needed, about recreational uses within the Project Study Area, with consideration for the operation, maintenance, and safety requirements of the Project and local recreation facilities.

EXHIBIT G

CONCEPTUAL DRAWINGS

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EXHIBIT G. CONCEPTUAL DRAWINGS

As stated in Arizona Administrative Code, Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, Exhibits to Application, **Exhibit G**:

> *"Attach any artist's or architect's conception of the proposed plant or transmission line structures and switchyard, which applicant believes may be informative to the Committee."*

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Exhibit G-4. Double Circuit 138-kV Double Dead-end Framing Typical Configuration …….....351

Exhibit G-5. Visual Simulations …….....355

Introduction

UNS Electric, Inc. evaluated the potential impacts of the Santa Cruz Reliability North Transmission Project (SCR North or Project) on concepts of proposed facility. The Project will use a range of structure types, including the example conceptual drawings provided in this exhibit. This exhibit provides typical configurations for single and double circuit 138-kilovolt (kV) tangents and dead-end structures, example pole schematics, and representative pole images. Additionally, photo-realistic simulations of the Project from the key observation points (KOPs) identified in **Exhibit E** are included in **Exhibit G-5**.

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EXHIBIT G-1

SINGLE CIRCUIT 138-KV TANGENT FRAMING TYPICAL CONFIGURATION

Tucson Electric Power

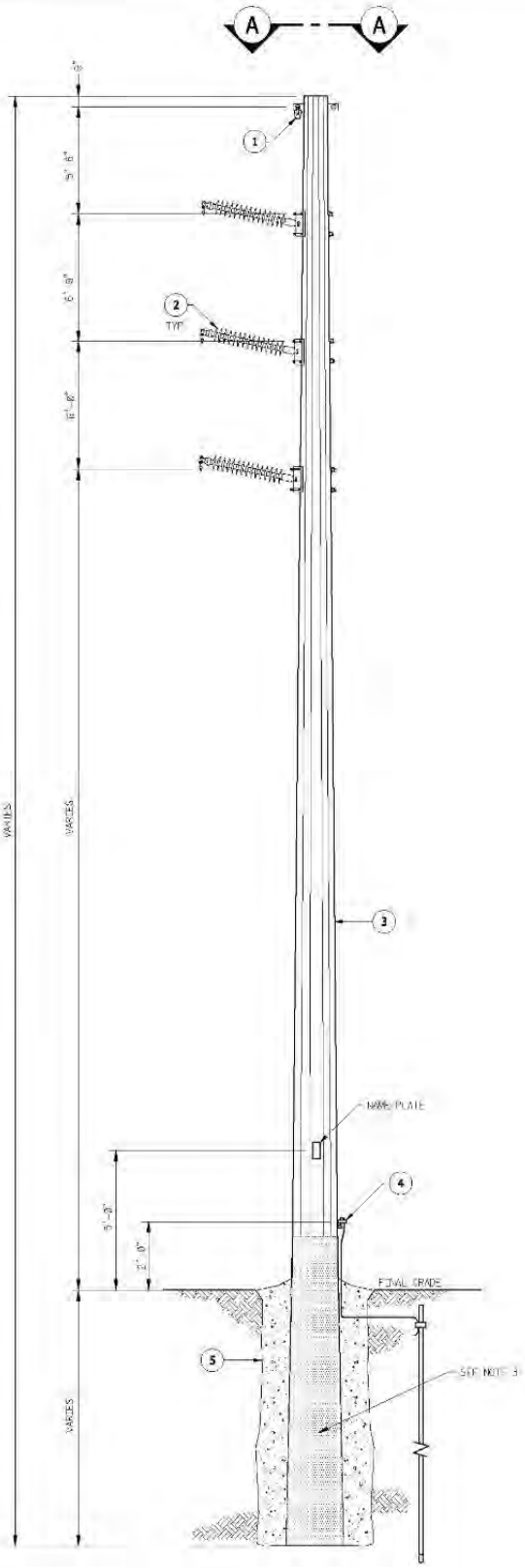
UniSource Energy Services

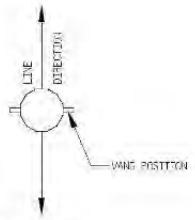
FRAMING, SINGLE CIRCUIT VERTICAL

TANGENT (0-3 DEGREES), 46/69/138kV
TRANSMISSION STANDARD

	INITIATED
EFFECTIVE DATE	12/31/11
	MF

TL0305.005-R00





VIEW A-A

TANGENT 0-3°, SINGLE CIRCUIT VERTICAL 46/69/138kV

GENERAL NOTES:

1. CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL, (OR THAT OF IT'S SUBCONTRACTOR(S) PERFORMING THE WORK).
2. EMBEDDED PORTION OF POLE PLUS 1'-6" COATED W/ CORROCOTE II CLASSIC PNT 219A & 219B, 40MILS THICK.

BILL OF MATERIAL

ITEM	DESCRIPTION	QTY.	DRAWING ASSEMBLY
1	CROW/STATIC SUSP. ASSEMBLY	1	T.2594.001 T.2596.001
2	POST INSULATOR ASSEMBLY	3	T.2592.002 T.2592.004
3	STEEL POLE	1	SEE DTE
4	GROUNDING ASSEMBLY	1	T.0592.001
5	FOUNDATION DETAIL	1	TL0702.005



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EXHIBIT G-2

SINGLE CIRCUIT 138-KV DOUBLE DEAD-END FRAMING TYPICAL CONFIGURATION

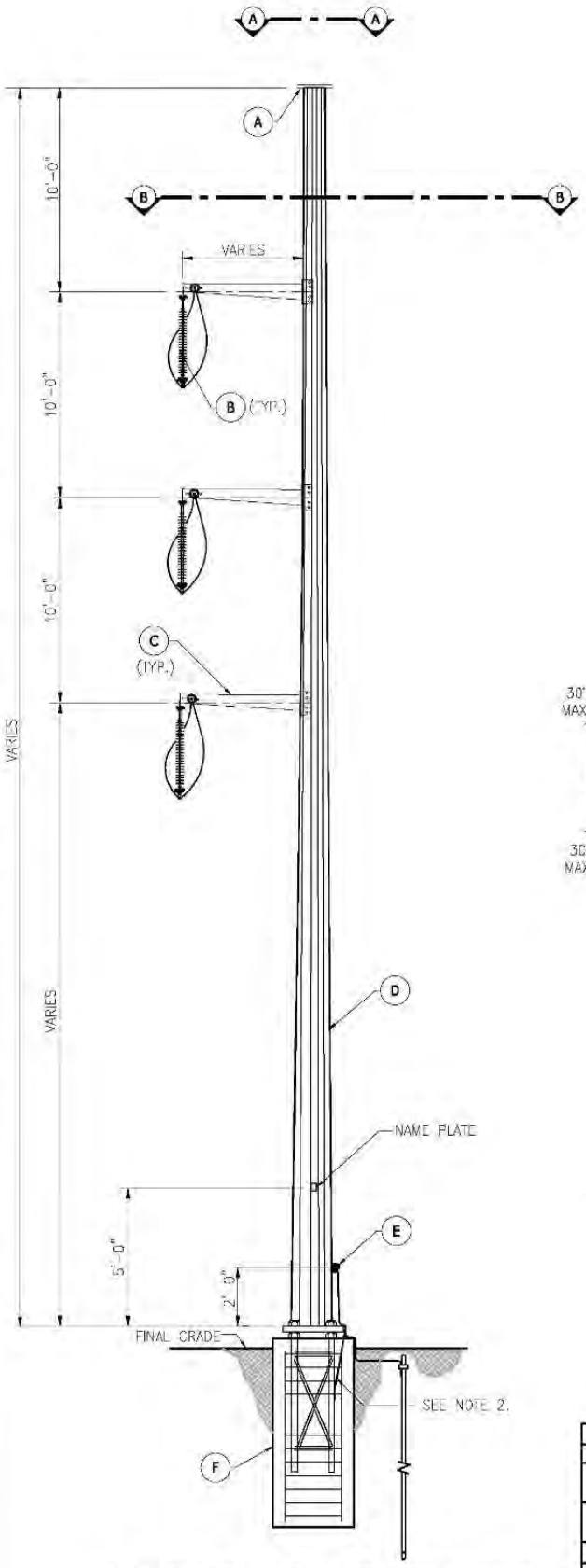
TEP UniSourceEnergy Services

FRAMING, SINGLE CIRCUIT VERTICAL

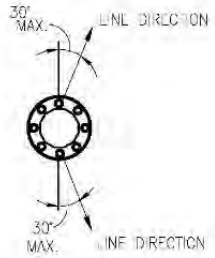
DEADEND OR DOUBLE DEADEND (0-60 DEGREES), 46/69/138kV TRANSMISSION STANDARD

INITIATED	KV
EFFECTIVE DATE	6/15/2021

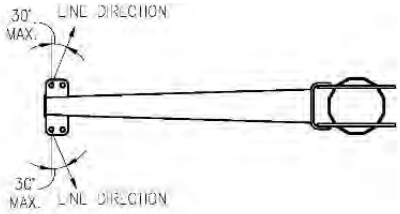
TL0315.002-R01



DE OR DDE 0-60°, SINGLE CIRCUIT VERTICAL 46/69/138kV W/OUT DIST.



SECTION A-A



SECTION B-B

GENERAL NOTES:

1. CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF IT'S SUBCONTRACTOR(S) PERFORMING THE WORK).
2. TIE GROUNDING ASSEMBLY TO REINFORCING REBAR CAGE OF FOUNDATION.

BILL OF MATERIAL

ITEM	DESCRIPTION	QTY.	ASSEMBLY DRAWINGS
A	OPGW /STATIC DDE ASSEMBLY	1	TL0504.004 (OPGW 96) TL0504.005 (STATIC)
B	DE ON ARMS W/JUMPER	3	TL0501.005 TL0501.006
C	TUBULAR DAVIT ARM	3	SEE CTE
D	STEEL POLE	1	SEE CTE
E	GROUND ASSEMBLY	1	TL0500.001
F	FOUNDATION	1	TL0700.003 TL0700.004


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EXHIBIT G-3

DOUBLE CIRCUIT 138-KV TANGENT FRAMING TYPICAL CONFIGURATION

TEP

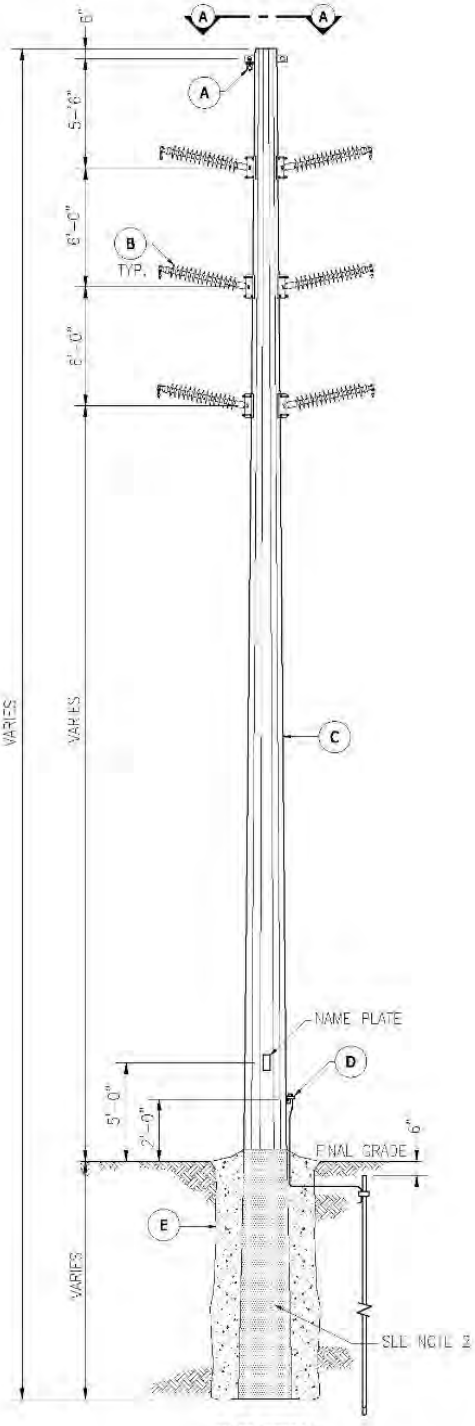
UniSourceEnergy Services

FRAMING, DOUBLE CIRCUIT W/OUT DISTRIBUTION

TANGENT (0-3 DEGREES), 46/69/138kV
TRANSMISSION STANDARD

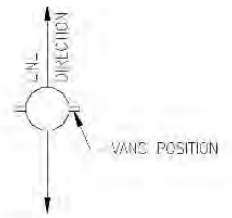
INITIATED		
EFFECTIVE DATE	08/25/20	KV

TL0310.005-R01



ELEVATION

TANGENT 0-3°, DOUBLE CIRCUIT 46/69/138kV W/OUT DIST.



VIEW A-A

GENERAL NOTES:

1. CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF IT'S SUBCONTRACTOR(S) PERFORMING THE WORK).
2. EMBEDDED PORTION OF POLE PLUS 1'-6" COATED W/ CORROCOTE II CLASSIC PNT 218A & 218B OR VLYERCLAD PNT 218A & 218B, 40 MILS THICK.

REFERENCE DRAWINGS

ITEM	DESCRIPTION	QTY.	ASSEMBLY DRAWINGS
A	OPGW/STATIC SUSP.ASSEMBLY	1	TL0500.009 (96 OPGW) TL0506.001 (3/8" EHS)
B	POST INSULATOR ASSEMBLY	6	TL0502.003 TL0502.004
C	STEEL POLE	1	SEE DTE
D	GROUNDING ASSEMBLY	1	TL0500.001
E	FOUNDATION DETAIL	1	TL0700.005


L&L

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EXHIBIT G-4

DOUBLE CIRCUIT 138-KV DOUBLE DEAD-END FRAMING TYPICAL CONFIGURATION

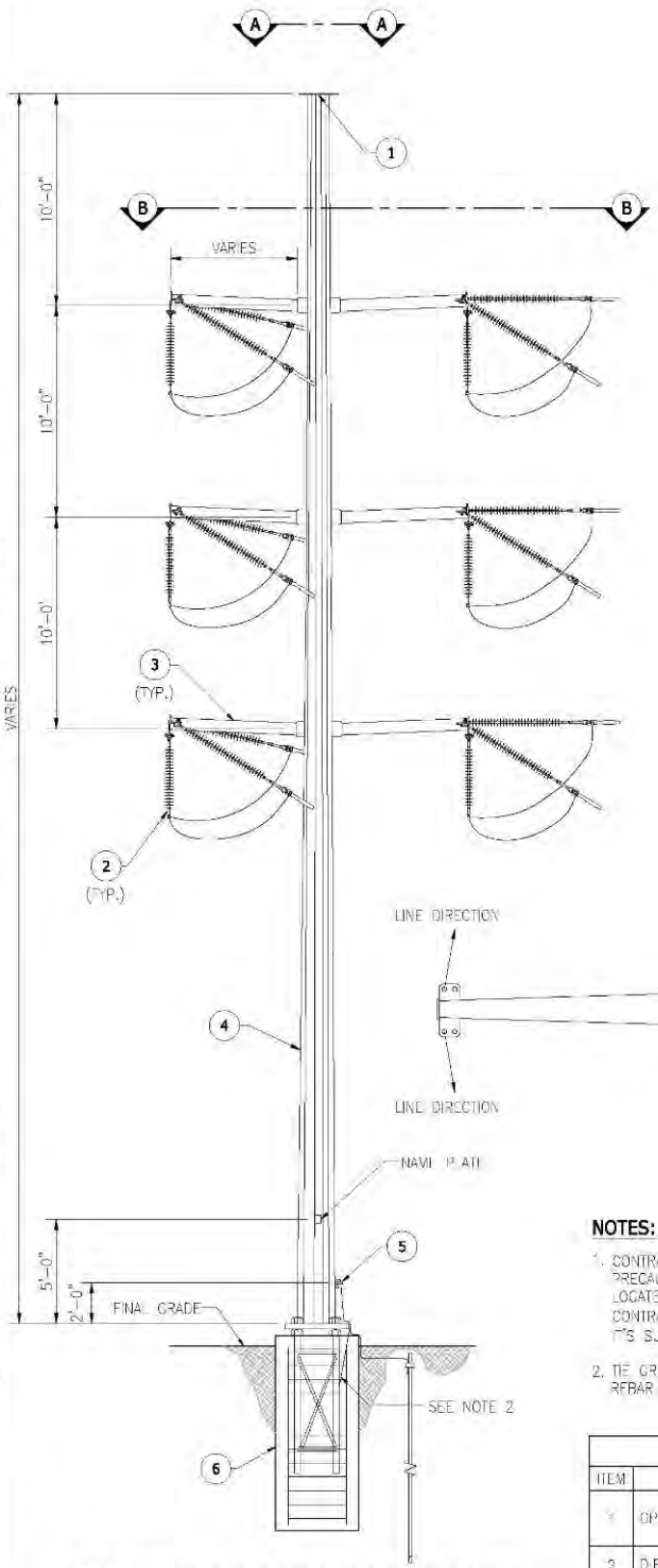
TEP UniSourceEnergy Services

FRAMING, DOUBLE CIRCUIT

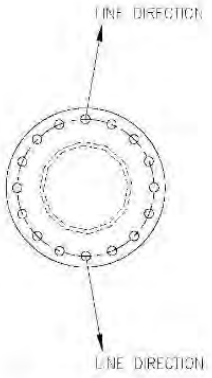
DEADEND OR DOUBLE DEADEND ON ARMS, 46/69/138kV TRANSMISSION STANDARD

INITIATED	EFFECTIVE DATE
KV	6/16/21

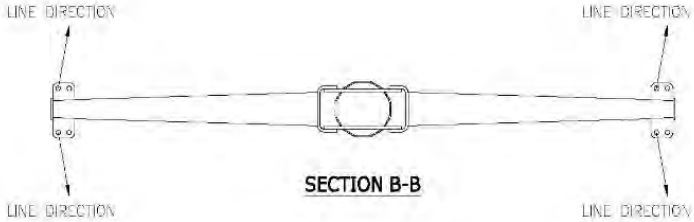
TL0325.001-R01



DE OR DDE ON ARMS, DOUBLE CIRCUIT 46/69/138kV W/OUT DIST.



SECTION A-A



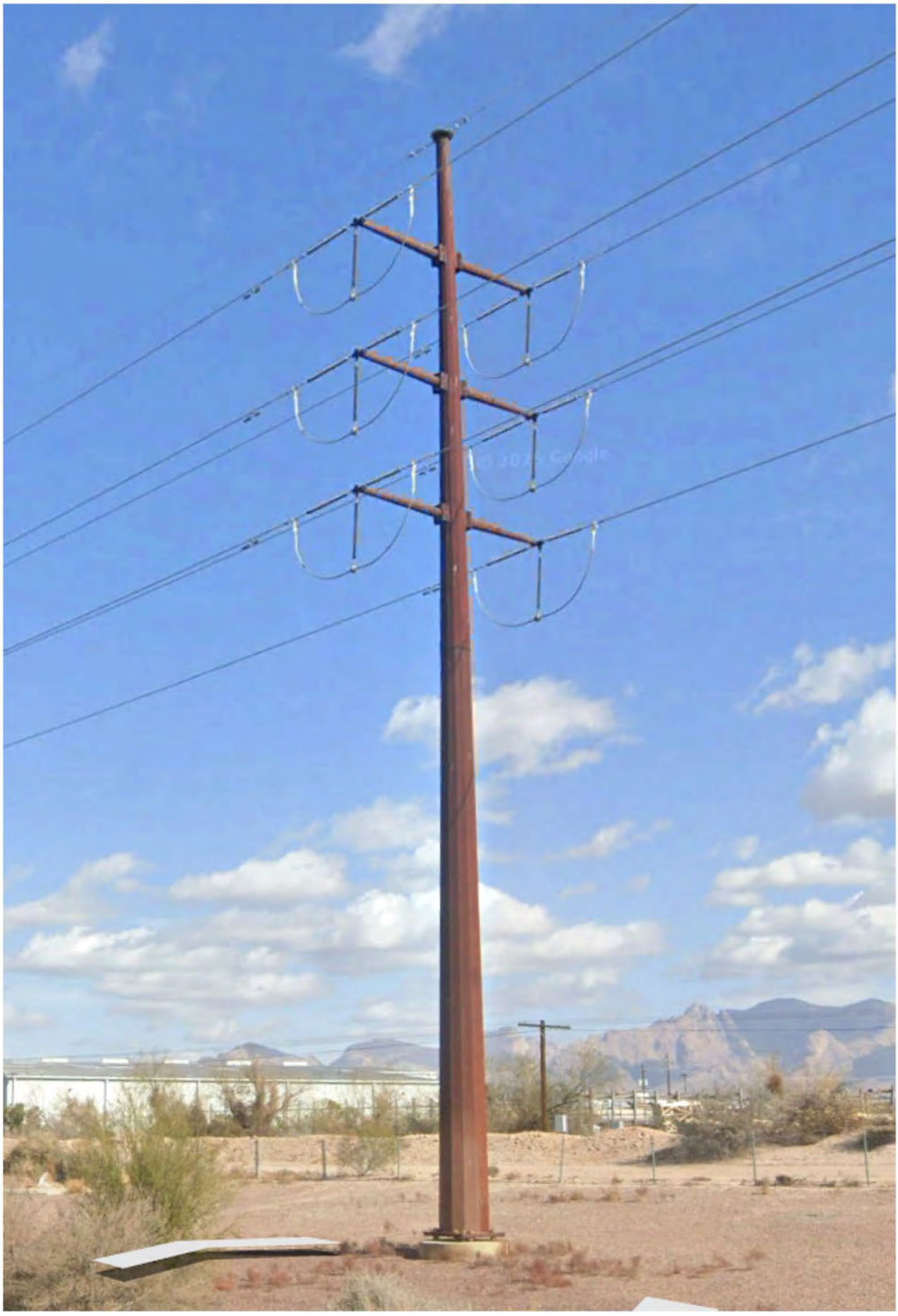
SECTION B-B

NOTES:

1. CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF IT'S SUBCONTRACTOR(S) PERFORMING THE WORK).
2. TIE GROUNDING ASSEMBLY TO REINFORCING REBAR CAGE OF FOUNDATION.

REFERENCE DRAWINGS

ITEM	DESCRIPTION	QTY.	ASSEMBLY DRAWINGS
1	OPGW/STATIC DDE ASSEMBLY	1	TL0504.004 (96 OPGW) TL0504.006 (3/8" EHS)
2	D.E. INSULATOR ASSEMBLY	6	TL05C1.005 TL05D1.006
3	TUBULAR DAVIT ARM	6	SEE CTE
4	STEEL POLE	1	SEE CTE
5	GROUND ASSEMBLY	1	TL0530.001
6	FOUNDATION	1	TL0700.003 TL0700.004



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EXHIBIT G-5

VISUAL SIMULATIONS

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SANTA CRUZ

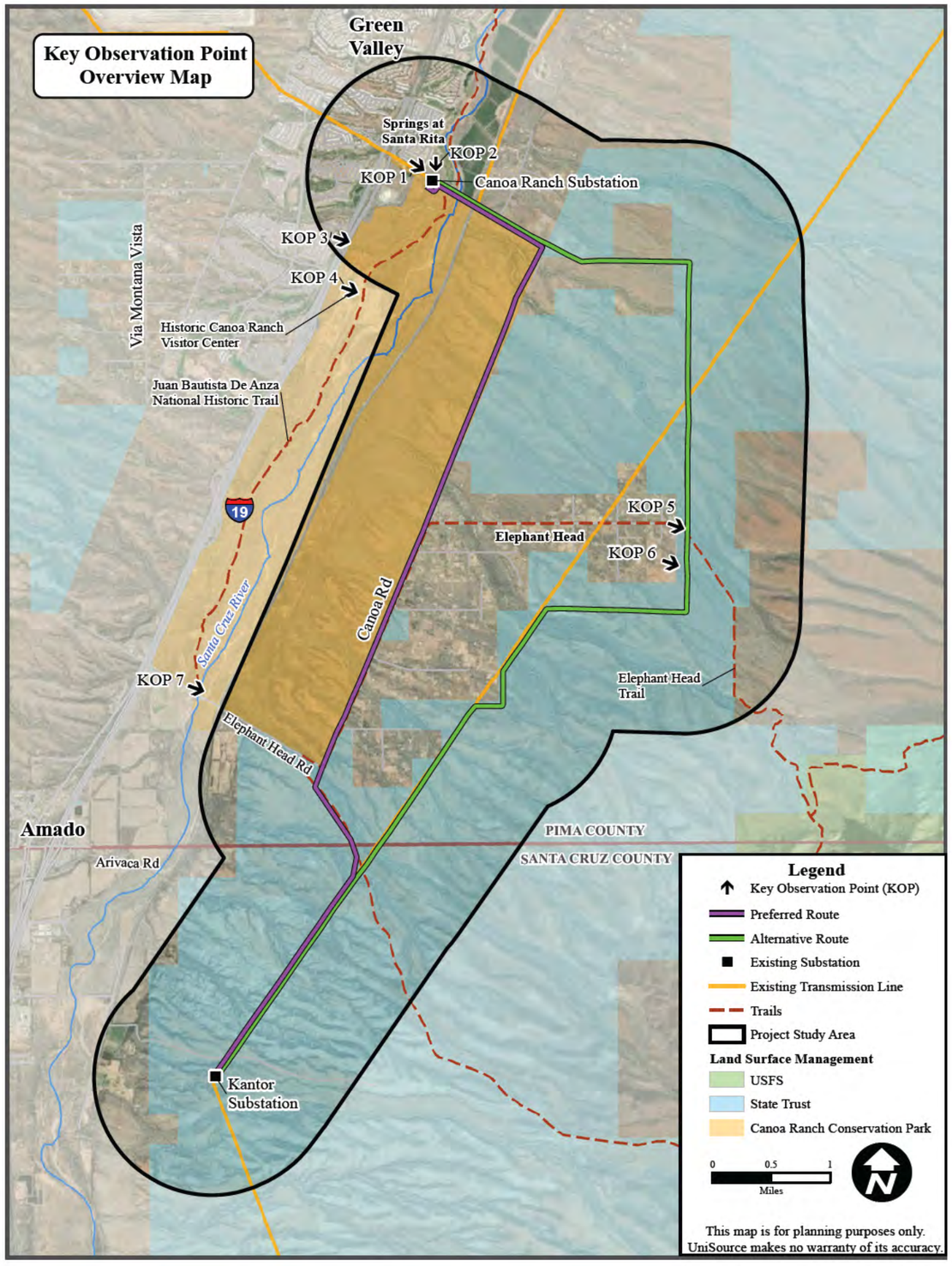
RELIABILITY PROJECT NORTH

OVERVIEW

Camera
- Camera: Canon t5i Rebel
- Sensor: APS-C, 22.3 mm x 14.9 mm
- Lens: Canon 18-55 mm

KOPs
- KOPs selected to represent key views for residents and recreational visitors

Simulation Notes
- Preferred and alternative routes simulated
- Project details are based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- The images should be held approximately 11 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and multiply by 0.7 to determine viewing distance.



SANTA CRUZ

RELIABILITY PROJECT NORTH

KEY OBSERVATION POINT 01

Camera

- Camera: Canon t5i 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: 52 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100
- Photo taken 3/20/2025, 3:22 PM

KOP

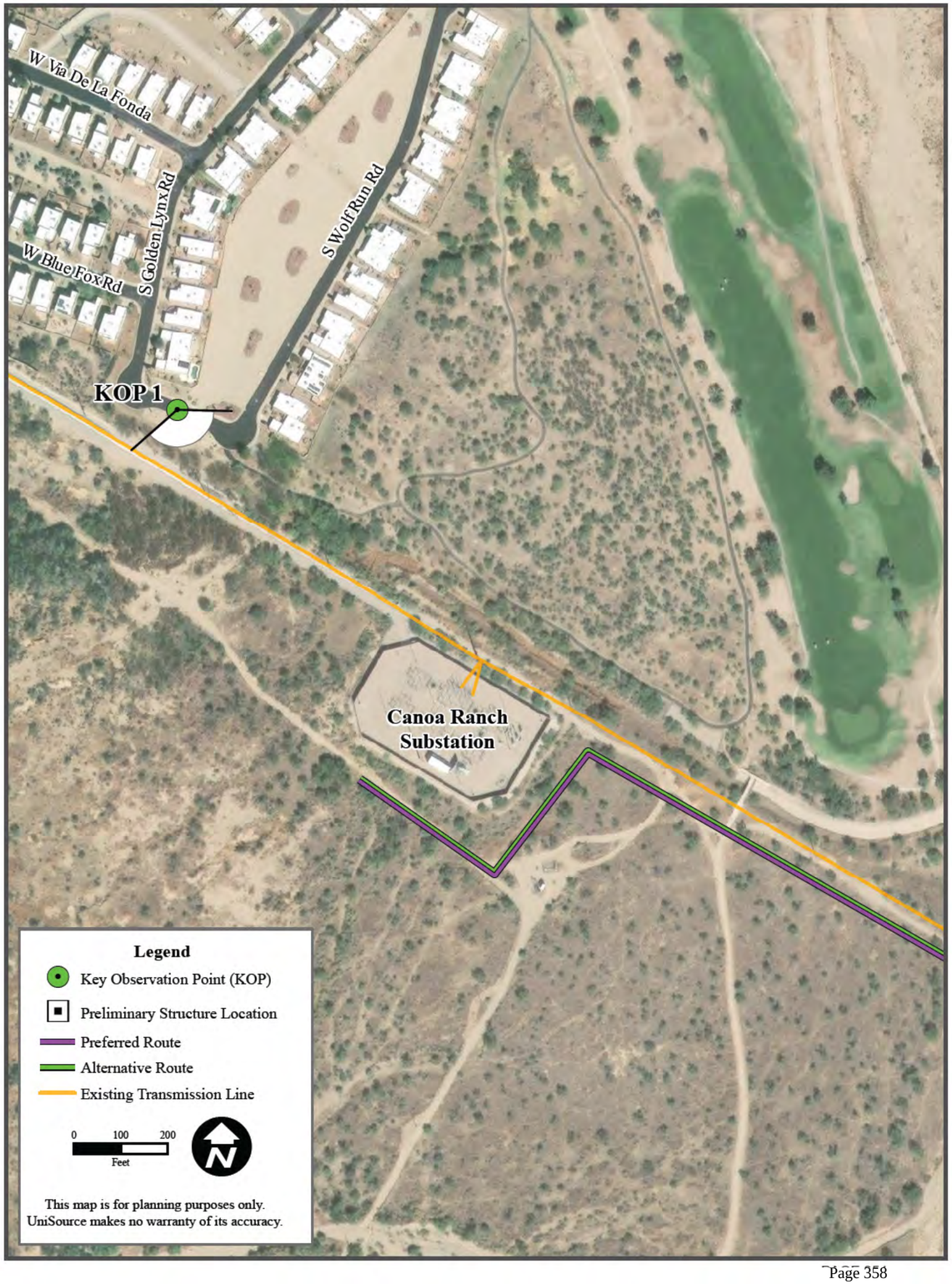
- Representative of view for: Residents
- Location: Southeast side of The Springs development
- Looking: Southeast

Simulation Notes

- The base image is multiple stitched images intended to represent an approximately 124 degree horizonal field of view.
- Common Portion of Preferred and Alternative Routes Simulated
- Project details are based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- This view is approximately 880 feet northwest of the nearest structure
- Tops of 3-10 Poles Potentially Visible
- The images should be held approximately 11 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and multiply by 0.7 to determine viewing distance.



Recommended Viewing Configuration



Current Condition



Proposed Project Changes



SANTA CRUZ

RELIABILITY PROJECT NORTH

KEY OBSERVATION POINT 02

Camera

- Camera: Canon t5i 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: 52 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100
- Photo taken 5/20/2025, 3:43 PM

KOP

- Representative of view for: Trail Users
- Location: Nature trail southeast of The Springs community
- Looking: South

Simulation Notes

- The base image is multiple stitched images intended to represent an approximately 124 degree horizonal field of view.
- Common Portion of Preferred and Alternative Routes Simulated
- Project details are based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- This view is approximately 660 feet northwest of the nearest structure
- 3-10 Poles Potentially Visible
- The images should be held approximately 11 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and multiply by 0.7 to determine viewing distance.



Recommended Viewing Configuration



Current Condition



Proposed Project Changes



SANTA CRUZ

RELIABILITY PROJECT NORTH

KEY OBSERVATION POINT 03

Camera

- Camera: Canon t5i 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: 52 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100
- Photo taken 5/21/2025, 1:23 PM

KOP

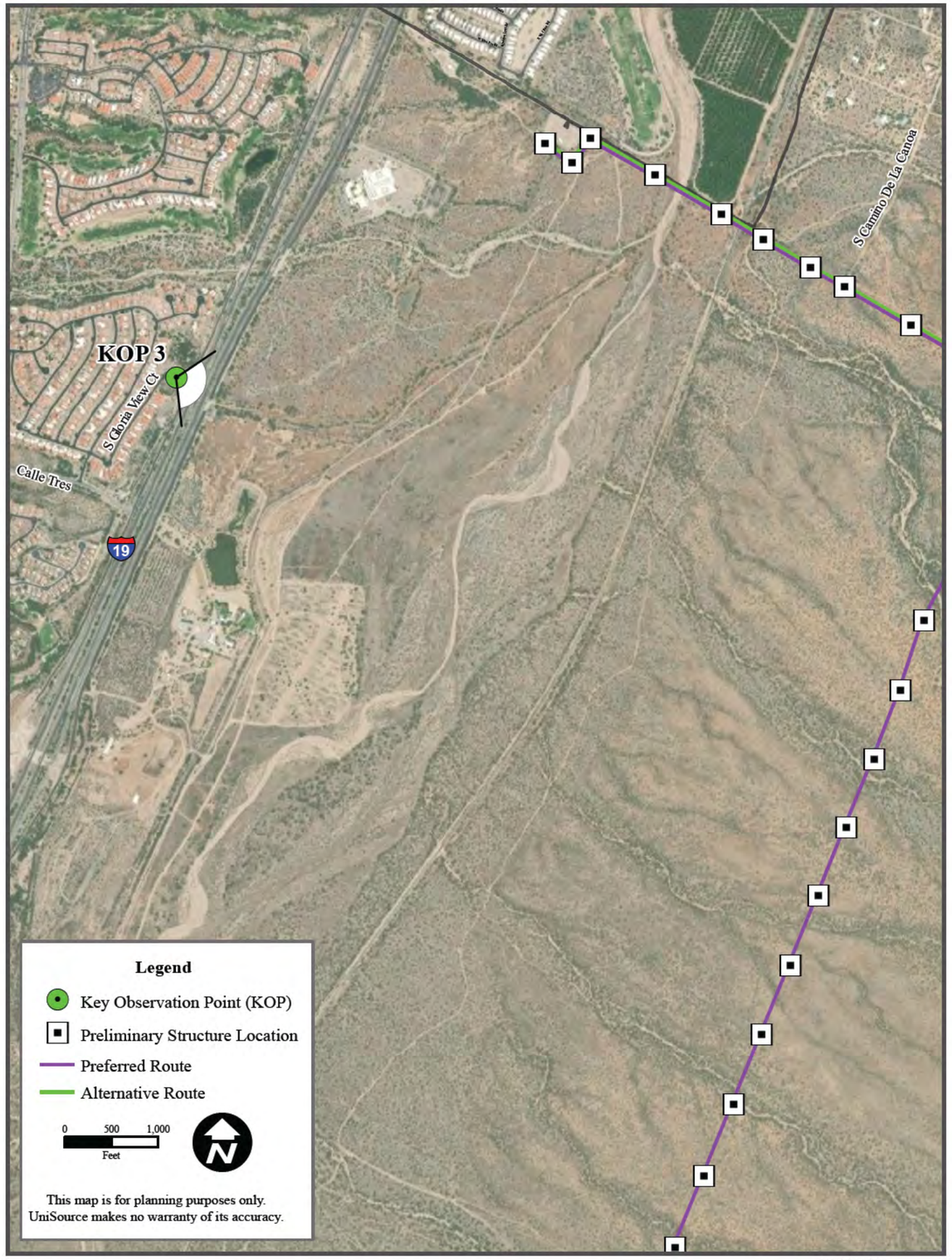
- Representative of view for: Residents
- Location: Circle at the End of S Gloria View Ct within San Ignacio Vistas Community
- Looking: Southeast

Simulation Notes

- The base image is multiple stitched images intended to represent an approximately 124 degree horizonal field of view.
- Preferred Route Simulated
- Project details are based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- This view is approximately 4,625 feet southwest of the nearest structure
- 20+ Poles Potentially Visible
- The images should be held approximately 11 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and multiply by 0.7 to determine viewing distance.



Recommended Viewing Configuration



Current Condition



Proposed Project Changes



SANTA CRUZ

RELIABILITY PROJECT NORTH

KEY OBSERVATION POINT 04

Camera

- Camera: Canon t5i 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: 52 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100
- Photo taken 5/20/2025, 3:09 PM

KOP

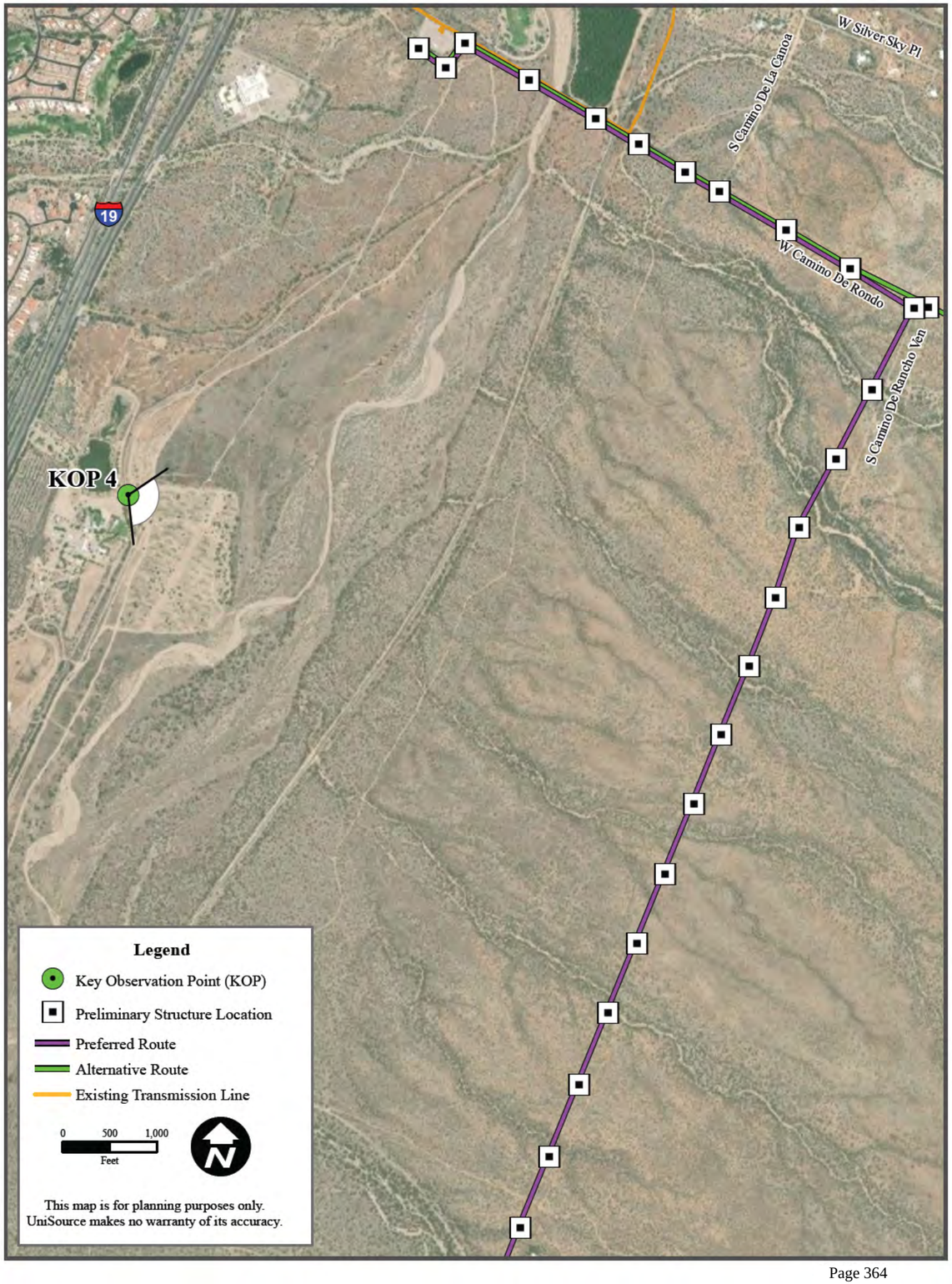
- Representative of view for: Recreational Visitors to the Canoa Ranch and Visitors to the Juan Bautista de Anza Trail
- Location: East of the Canoa Ranch Visitor Center on the Juan Bautista de Anza Trail
- Looking: East, Southeast

Simulation Notes

- The base image is multiple stitched images intended to represent an approximately 124 degree horizonal field of view.
- Preferred Route Simulated
- Project details are based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- This view is approximately 6,800 feet west of the nearest structure
- 15+ Poles Potentially Visible
- The images should be held approximately 11 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and multiply by 0.7 to determine viewing distance.



Recommended Viewing Configuration



Current Condition



Proposed Project Changes



SANTA CRUZ

RELIABILITY PROJECT NORTH

KEY OBSERVATION POINT 05

Camera

- Camera: Canon t5i 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: 52 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100
- Photo taken 5/21/2025, 10:22AM

KOP

- Representative of view for: Residents and Recreational Visitors
- Location: East of Elephant Head Community at Elephant Head Trail Parking Area
- Looking: Southeast

Simulation Notes

- The base image is multiple stitched images intended to represent an approximately 124 degree horizonal field of view.
- Alternative Route Simulated
- Project details are based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- This view is approximately 255 feet southwest of the nearest structure
- 3-10 Poles Potentially Visible
- The images should be held approximately 11 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and multiply by 0.7 to determine viewing distance.



Recommended Viewing Configuration




Current Condition
Proposed Project Changes

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SANTA CRUZ

RELIABILITY PROJECT NORTH

KEY OBSERVATION POINT 06

Camera

- Camera: Canon t5i 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: 52 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100
- Photo taken 5/21/2025, 11:06 AM

KOP

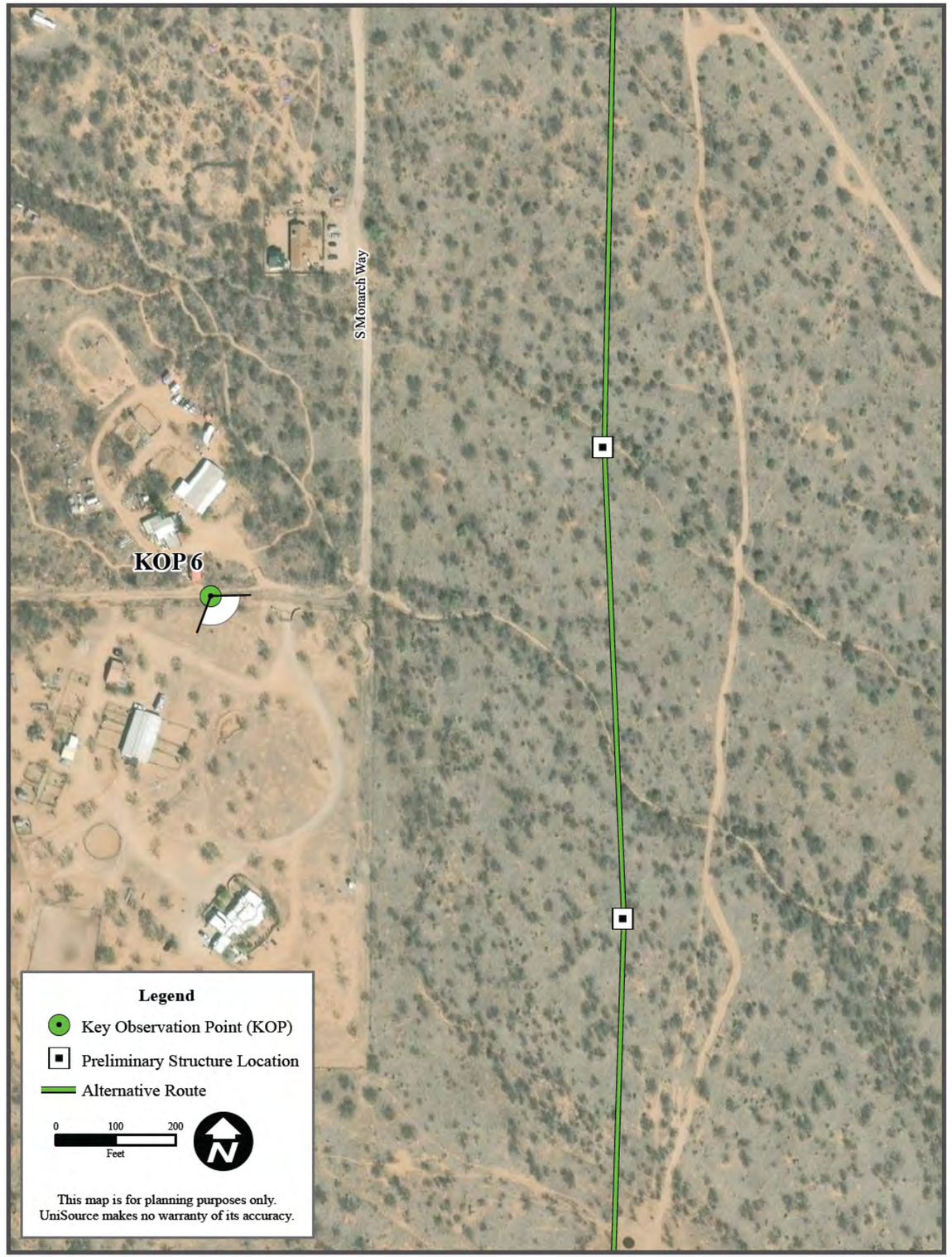
- Representative of view for: Residents
- Location: At the south end of Monarch Way on the east side of the Elephant Head community
- Looking: Southeast and East

Simulation Notes

- The base image is multiple stitched images intended to represent an approximately 124 degree horizonal field of view.
- Alternative Route Simulated
- Project details are based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- This view is approximately 850 feet northwest of the nearest pole in the first image and 685 feet southwest of the nearest pole in the second image
- 6 Poles Potentially Visible in both images combined
- The images should be held approximately 11 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and multiply by 0.7 to determine viewing distance.



Recommended Viewing Configuration




Current Condition


Proposed Project Changes

Current Condition



Proposed Project Changes



SANTA CRUZ

RELIABILITY PROJECT NORTH

KEY OBSERVATION POINT 07

Camera

- Camera: Canon t5i 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: 52 mm
- Camera height: 5.5 ft
- F-stop: 8
- ISO: 100
- Photo taken 4/26/2024, 8:32AM

KOP

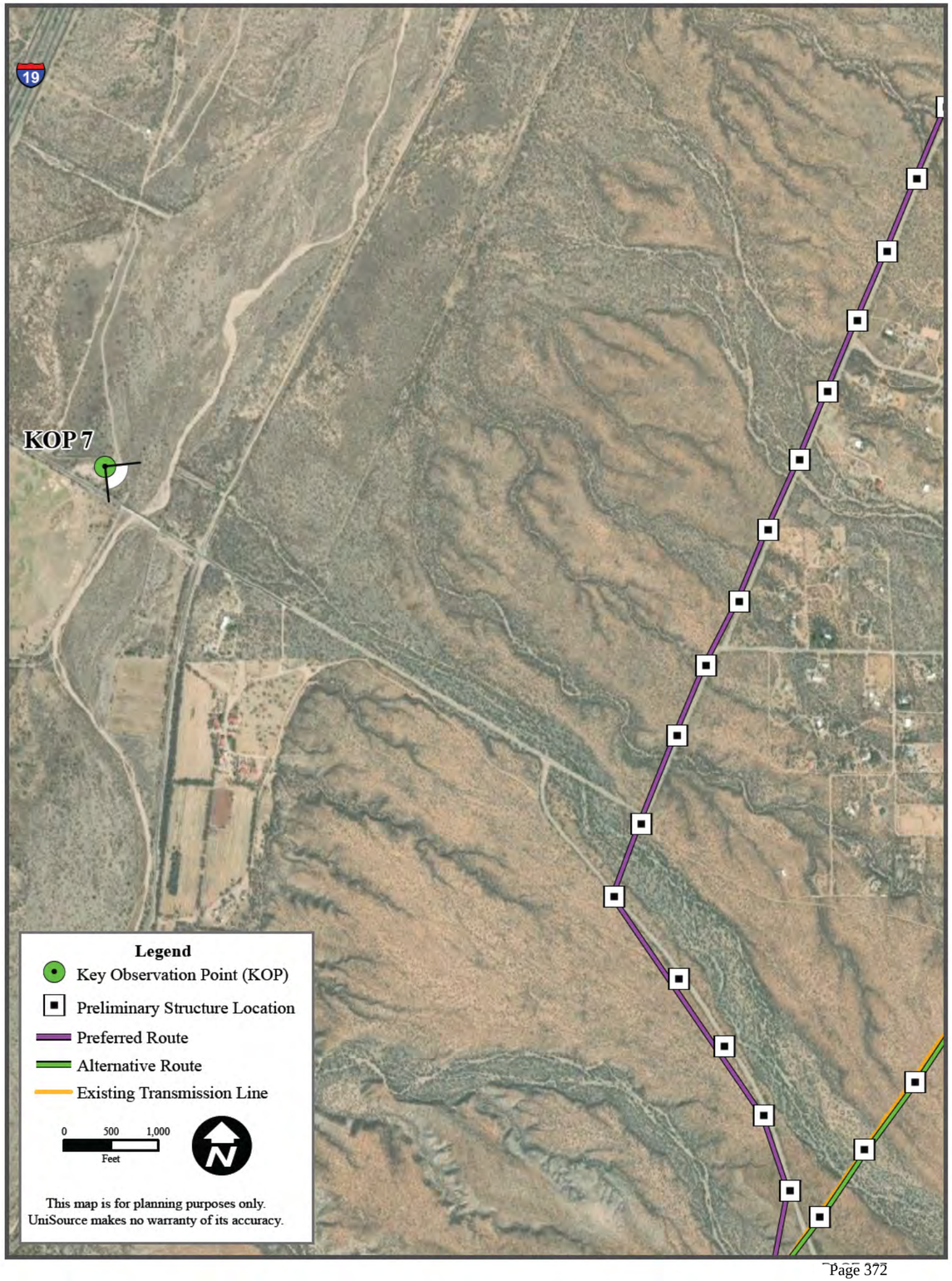
- Representative of view for: Recreational Visitors
- Location: Juan Bautista de Anza Trailhead Parking in Canoa Ranch Conservation Area
- Looking: Southeast

Simulation Notes

- The base image is multiple stitched images intended to represent an approximately 124 degree horizonal field of view.
- Preferred Route Simulated
- Project details are based on the best information available. Preliminary and subject to change based on final engineering and other factors.
- This view is approximately 6,800 feet northwest of the nearest structure
- 3-10 Poles Potentially Visible
- The images should be held approximately 11 inches from face when printed on 11x17 paper. If viewed digitally, measure the width of the image in inches and multiply by 0.7 to determine viewing distance.



Recommended Viewing Configuration



Current Condition



Proposed Project Changes



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EXHIBIT H

EXISTING PLANS

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EXHIBIT H. EXISTING PLANS

As stated in Arizona Administrative, Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, Exhibits to Application, Exhibit H

> *"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."*

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Introduction

UNS Electric, Inc. (UNSE) evaluated the potential impacts of the Santa Cruz Reliability North Transmission Project (SCR North or Project) on existing land use plans within the broader Project Siting Area. This exhibit provides a summary and analysis of the potential impacts of the SCR North on current land uses, adopted land use plans, and any identified development proposals within the Project Study Area, defined as the area encompassing a one-mile buffer around the Preferred and Alternative routes evaluated for the Project. General land use plan designations for the Project are illustrated in **Exhibit A-3**. The entire Project Study Area is located within unincorporated Pima and Santa Cruz Counties, Arizona.

Existing Plan Review

The following review outlines the present landscape conditions along with the existing land uses and the goals and policies of applicable land use plans within the Project Study Area.

Land Ownership and Jurisdiction

The entire Project is located within Pima and Santa Cruz Counties, Arizona, and therefore falls under each County's jurisdiction. Accordingly, land use plans and policies specific to Pima and Santa Cruz Counties are applicable to Project-related activities. Portions of the Preferred route are situated along Pima and Santa Cruz County public road rights-of-way (ROW), and, if approved, these segments would be constructed in accordance with ROW permits.

Segments of both the Preferred and Alternative routes are also located on land managed by the Arizona State Land Department (ASLD), which subjects them to state jurisdiction and necessitates compliance with applicable state regulations.

In addition, segments of both the Preferred and Alternatives routes traverse privately owned properties and will require the acquisition of new easements from individual landowners.

As part of the planning process, UNSE engaged in consultations with local, state, and federal agencies, elected officials, the public, and other stakeholders within the Project Study Area. Details regarding these outreach and public participation efforts are provided in **Exhibit J**.

Land Use Plans and Development Plans

Local and state agencies have established land use plans and regulations that govern the type, timing, and intensity of land use activities. UNSE reviewed these applicable land use plans to identify those that may be relevant to the Project. Pima and Santa Cruz County have adopted land use plans and regulatory frameworks that apply within the Project Study Area.

Local Government Plans

Pima County Comprehensive Plan

The Pima County Comprehensive Plan is a long-range policy document that guides land use, growth, and development across unincorporated areas of Pima County, Arizona. Originally adopted in 1992 and updated through the "Pima Prospers" initiative in 2015, the Pima County Comprehensive Plan outlines strategies to support sustainable development while preserving Pima County's natural, cultural, and scenic resources. It promotes compact and efficient development patterns, discourages urban sprawl, and emphasizes the importance of protecting open space and environmentally sensitive lands through integration with the Sonoran Desert Conservation Plan (Pima County 2015). The Pima County Comprehensive Plan also coordinates infrastructure planning, such as transportation, water, and public services, with land use policies to ensure orderly and resource-conscious growth. In addition, it identifies Community Character Areas to tailor land use strategies to the distinct needs of different regions within the county. While the Pima County Comprehensive Plan does not directly regulate the development of utility-scale transmission infrastructure (Pima County 2015), it provides a framework for evaluating such projects to ensure compatibility with land use designations, visual quality, and environmental priorities.

The Pima County Comprehensive Plan (Pima Prospers) includes regional goals, and infrastructure planning elements that are directly applicable to this Project. These components help guide development in a way that supports community values, environmental stewardship, and coordinated infrastructure growth. Below is a breakdown of how these elements relate to transmission line development and whether such a project would be considered in conformance with the plan (Pima County 2015).

Special Area Policy (SAP), S-18A, is within the Pima Prospers 2015 Comprehensive Plan, focused on protecting the Upper Santa Cruz River floodplain from inappropriate development. It spans from the Santa Cruz County line downstream to the Tohono O'odham Nation and prohibits channelization, encroachment, development, or rezoning within the 100-year floodplain or erosion hazard area west of the Southern Pacific Railroad until a river management study is completed. If a landowner wants to alter the floodplain before the study is finalized, they must submit a comparable study approved by the Regional Flood Control District. The policy is designed to preserve the ecological integrity of the floodplain and ensure that any development is based on sound environmental analysis (Pima County 2015).

S-11 is a SAP within Pima County's Comprehensive Plan that aims to preserve the unique character of the community it covers. It sets clear design and development standards to maintain the area's aesthetic and cultural identity. This includes using colors and materials that harmonize with the desert landscape and existing structures, reinforcing a cohesive and regionally appropriate visual environment (Pima County 2015).

Although both Special Area Policies fall within the Project Study Area, the Project does not conflict with them, one policy pertains to floodplain modifications, while the other addresses architectural design standards.

The Pima County Comprehensive Plan also outlines several overarching goals and policies that are relevant to transmission infrastructure. These include land use compatibility, which requires projects to align with designated land use intensity categories and zoning districts. Environmental stewardship is another key goal, mandating that infrastructure projects avoid or mitigate impacts to sensitive habitats, floodplains, and cultural resources. Additionally, transmission lines that support regional growth and reliability are encouraged, provided they do not conflict with community values or environmental objectives.

To be considered in conformance with the Pima County Comprehensive Plan, a transmission line project must meet several criteria. It must align with the land use maps and intensity categories defined in the plan, demonstrate compatibility with regional infrastructure and economic development goals, and undergo review through the rezoning or specific plan process if there is a change in land use (Pima County 2015). This review includes public participation and environmental analysis to ensure transparency and accountability. **Exhibit A-3** illustrates the Pima County General Plan in relation to the Preferred and Alternative routes.

UNSE will acquire appropriate permits and adhere to the Pima County Zoning and Development Code, therefore, the Project would comply with the Pima County Comprehensive Plan.

Sonoran Desert Conservation Plan

The Pima County Sonoran Desert Conservation Plan (SDCP) is the County's plan for balancing conservation and protection of cultural and natural resource heritage with economic development (Pima County 2001) and was accepted by the County as an update to Pima County's Comprehensive Plan. The SDCP provides for a "Conservation Land System" (CLS), identifying lands necessary to achieve SDCP biological goals, while delineating areas suitable for development. The CLS designates different areas within the Project Study Area as "Important Riparian Areas", "Biological Core Management Areas", "Multiple Use Management Areas," and "Agriculture In-Holdings within the Conservation Lands Systems" as illustrated in **Exhibit H-1** (Pima County 2025). Each of these designations has its own set of associated land use policies and conservation guidelines.

Policies of the CLS are applicable when private developments apply for a rezoning or request other discretionary changes in land use. UNSE does not require a rezoning as part of the Project and is not requesting any discretionary land use changes. As a result, UNSE would comply with the SDCP.

As part of implementing the species of greatest conservation need, Pima County has acquired some of the best lands and set them aside as preserves. Two conservation preserves are located within the Project Study Area, including the Raul M. Grijalva Canoa Ranch Conservation Park (Conservation Park) and the Elephant Head Pima Pineapple Cactus Bank. These preserves are protected through conservation easements to ensure they are protected in perpetuity.

The Conservation Park surrounds TEP's existing Canoa Ranch Substation, so by necessity, any route would cross at least a portion of this preserve. Both the Preferred and Alternative routes cross the extreme northern boundary of the park for approximately 1 mile.

In order for a new transmission line to cross through the Conservation Park and interconnect at the substation, the restrictive covenant must be modified to allow new facilities. This process requires an in-lieu fee payment and/or additional conservation lands to be set aside, with approval of any agreement by

the Pima County Board of Supervisors. UNSE will work with Pima County for either the Preferred or Alternative route to modify the restrictive covenant on the northern edge of the Conservation Park in a manner that advances Pima County's conservation goals.

Pima County Zoning and Development Code

The Pima County Zoning and Development Code establishes regulations to guide land use and development within the County, with the primary purpose of protecting public health, safety, and general welfare. It serves as a tool for implementing the goals and objectives of the Pima County Comprehensive Plan by outlining zoning classifications, permitted land uses, development standards, and procedures for land use changes. The Pima County Zoning and Development Code designates a range of zoning categories including residential, commercial, industrial, and resource-based zones, each with specific regulations for density, setbacks, lot size, and permitted uses. It also addresses special use permits, variances, and performance criteria for sensitive areas such as floodplains, hillside development zones, and environmentally sensitive lands. Through these standards, the Pima County Zoning and Development Code aims to ensure orderly growth, preserve community character, and support sustainable development across unincorporated Pima County.

Within the portion of the Project Study Area located in Pima County, the land is zoned as Rural (RH, RH(GC)), Residential (CR-3, CR-4, CR-5, TR, CMH-2), Commercial (CB-2), and Specific Plan (SP). The underlying zoning along the Preferred and Alternative routes is Rural (RH). Electric transmission facilities are a permitted use within all zones, including RH; therefore, the Project would comply with Pima County Zoning. For a detailed view of the zoning that is contained within the Project Study Area, please refer to **Exhibit H-2**.

Santa Cruz County Comprehensive Plan

The Santa Cruz County Comprehensive Plan, originally adopted in 2004 and updated in 2016, serves as the County's current land use and development guide. The purpose of the Plan is to guide future actions of the Planning and Zoning Commission and the Board of Supervisors. The Santa Cruz County land use is illustrated in **Exhibit A-4**.

The Santa Cruz County Comprehensive Plan designates Character Areas that reflect distinct land use patterns and development principles tailored to different parts of the County. These Character Areas are supported by coordinated policies related to Environmental/Open Space, Land Use, and Growth Areas to help shape future development in unincorporated areas. The Project Study Area is located within the Northwest Santa Cruz County Character Area.

The Northwest Santa Cruz County Character Area of the Santa Cruz County Comprehensive Plan outlines five key goals. These goals are intended to guide the creation of specific policies to implement the goals. In summary, the goals of the Northwest Santa Cruz County Character Area are to: 1) preserve the historic, cultural, ranch and agricultural heritage of the area, 2) ensure open space and natural terrain remain the dominant features of the landscape, 3) design new development enhance the character of the surrounding area, 4) conserve the Santa Cruz River, and 5) promote tourism of natural and cultural resources.

As part of the planning and siting study conducted, and more fully described as part of **Exhibit B-1**, UNSE considered the effect of the Project on each of the applicable goals outlined in the Santa Cruz County Comprehensive Plan.

UNSE will acquire appropriate permits and adhere to the Santa Cruz Zoning and Development Code, therefore, the Project would comply with Santa Cruz County Comprehensive Plan.

Santa Cruz County Zoning and Development Code

The purpose of the Santa Cruz County Zoning and Development Code is to safeguard public health, safety, peace, comfort, convenience, and overall welfare for residents of Santa Cruz County. More specifically, the Santa Cruz County Zoning and Development Code serves as a tool for implementing the goals and policies outlined in the County's Comprehensive Plan. Within the Plan's Land Use Element, there is an emphasis on supporting opportunities for new development while maintaining the County's traditional development patterns and densities. This objective is primarily achieved through the Santa Cruz County Zoning and Development Code, which establishes two broad land use categories, suburban and rural, each with corresponding density and intensity standards.

Within the portion of the Project Study Area located in Santa Cruz County, the land is zoned as General Rural (GR) and Light Industrial (M1). There is no underlying zoning along the Preferred and Alternative routes because it is all state trust land and is not subject to local zoning; therefore, the Project would comply with Pima County Zoning. For a detailed view of the zoning that is contained within the Project Study Area, please refer to **Exhibit H-2**.

State Government

Arizona State Land Department

In Pima and Santa Cruz Counties, ASLD manages state trust lands guided by their land use and development plans that aim to support long-term value for public beneficiaries (ASLD 2021). These plans consider regional growth, infrastructure needs, and environmental factors. In both counties, ASLD coordinates with local and state agencies to facilitate compatible development, including transportation and utility projects. Infrastructure projects crossing state trust lands require right-of-way applications, and ASLD evaluates these for environmental, cultural, and land use compatibility. ASLD's planning supports managed urban growth, renewable energy, and resource conservation in southern Arizona.

The Preferred and Alternative routes on ASLD lands are considered to be in alignment with ASLD's land use policies, provided they adhere to a comprehensive set of planning and regulatory requirements (ASLD 2021). These requirements are designed to ensure that infrastructure development on state trust lands supports ASLD's core mission of generating long-term revenue for public beneficiaries, while also preserving the environmental, cultural, and economic value of the land.

Ultimately, the approved route is subject to rigorous review and must clearly demonstrate conformance with ASLD's land use framework as well as broader regulatory standards before receiving approval for construction. This ensures that development is both responsible and beneficial to the long-term interests of the State Trust and its beneficiaries.

UNSE will acquire appropriate permits and adhere to all applicable requirements imposed conditioned by ASLD, therefore, the Project would comply with ASLD land use policies.

Tribal

No tribal lands are located along either the Preferred or Alternative routes proposed for this Project. However, several tribal nations have identified a historical or cultural affiliation with the land within the Project Study Area and were therefore included in Project outreach efforts. A comprehensive summary of outreach can be found in **Exhibit J**.

Private

No private entity land use plans were identified on private lands in the Project Study Area.

Existing Land Use

There are a mix of existing land uses within the Project Study Area. Both the Preferred and Alternative routes follow lands with similar designations with the majority consisting of Low Intensity Rural (LIR). Other uses include Resource Conservation (RC) and Resource Sensitive (RS) where both routes traverse the Pima County Conservation Park and Santa Cruz River. However, these sensitive land use areas consist of a small minority of the overall land use types in the direct alignment of either route. The land use designations were considered as part of the siting process; thus, the Preferred and Alternative Routes will not be affected by the designations.

One alternative way to look at existing land use and the underlying plans regulating such use is through land use intensity. Land use intensity can be a good indicator of how the land is actually being used and managed in relation to its planned use. Existing land use intensity within the Project Study Area is depicted in **Exhibit H-3**. This analysis confirms the generally very low intensity of current use of the Project Study Area, particularly where both the Preferred and Alternative route alignments are proposed.

Residential

The Project Study Area features a diverse range of residential land uses, including rural residential zones, single-family homes on both small and large lots, and multi-family housing developments. Several well-established neighborhoods are located within the northern portion of the Project Study Area, contributing to its residential character and sense of place.

Residential development is most heavily concentrated in the northern portion of the Study Area, particularly in the vicinity of the Canoa Ranch Substation. This area exhibits a relatively dense pattern of housing compared to other parts of the Study Area. Additional residential clusters are located east of the Historic Canoa Ranch and west along the corridor between the Vail and Kantor transmission line. As the SCR North transmission line extends southward, residential areas become increasingly sparse and scattered, especially as the line connects to the Kantor Substation. Despite these concentrations, residential development is generally dispersed throughout the Study Area, reflecting a blend of planned communities and more rural, low-density housing patterns.

Parks, Recreation, and Preservation

In the Project Study Area, parks, recreation, and preservation uses include a range of public and community facilities that support outdoor activities and natural resource conservation. Within the Project Study Area, recreational spaces include the Canoa Ranch Conservation Park, located along the Santa Cruz River, which is a notable preservation area managed by Pima County, offering trails, wildlife viewing, and cultural history exhibits.

Undeveloped Land

Undeveloped land in the Project Study Area primarily consists of open desert landscapes, agricultural fields, and State Trust or privately held parcels that have not been converted to residential, commercial, or industrial use.

In the eastern and southern portions of the Project Study Area, undeveloped land is even more prominent, with vast tracts of open rangeland, former agricultural parcels, and low-density rural holdings. Some of this land is under the jurisdiction of Pima County or held as state trust land, with designated uses depending on long-range planning and zoning designations.

Transportation

Ground transportation features within the Project Study Area include Arivaca Road and Elephant Head Road, which provide local east-west access. Numerous Pima County-maintained roads support regional and local traffic circulation. Interstate 19 is just west of the Project Study Area.

Utilities

Utilities within the Project Study Area include electrical transmission and distribution lines, and two substations. These lines are supported by a range of structures including steel monopoles and wood poles. Local distribution lines are common along residential and commercial roads.

Proposed Land Uses and Developments

There are currently no formally designated or active planned developments within the immediate vicinity of the Preferred and Alternative routes. This absence of planned development simplifies the land use compatibility analysis, as the Project does not conflict with any approved or pending development proposals.

Potential Effects

Land use impacts are typically characterized in two ways: (1) as incompatible with existing or proposed land use plans or developments, and (2) as restrictions on land use resulting from the construction or operation of a project. For this Project, potential effects on future or planned land uses are primarily associated with the construction phase, as no ongoing land use changes are expected once construction is complete. Based on the analysis provided in this application, the Project aligns with applicable local and state land use plans within the Project Study Area, and no conflicts with these plans are anticipated.

Land use restrictions may result from the need to acquire rights-of-way (ROW) or easements across privately or publicly owned land.

Where the Project crosses residential or ASLD-managed land, restrictions may be imposed within the acquired ROW, limiting certain land uses during and after construction. These effects, however, are not expected to significantly alter land use patterns or prevent planned use outside the immediate ROW.

The Canoa Ranch Conservation Park is intersected by both the Preferred and Alternative routes. This area is protected by a restrictive covenant that limits development to preserve its environmental and cultural values. The restrictive covenant must be modified to allow new facilities proposed as part of the Project. UNSE will work with Pima County to modify the restrictive covenant on the northern edge of the Conservation Park in a manner that advances Pima County’s conservation goals.

Conclusion

The Project would be consistent with local planned land use and zoning codes, with appropriate design and permitting where applicable. Most portions of the Preferred and Alternative routes would traverse across ASLD owned land, which is largely vacant and undeveloped. As a result, anticipated land use impacts are expected to be minor to low, varying slightly based on the selected route.

A single conflict, or land use restriction exists where the Preferred and Alternative routes cross the Canoa Ranch Conservation Park. UNSE will work with Pima County to modify the restrictive covenant on the northern edge of the Conservation Park in a manner that advances Pima County's conservation goals and allows the construction of either of these routes.

Ultimately, land use impacts are anticipated to be minimal. The Project is consistent with local and regional land use plans, including those for Pima County, Santa Cruz County, and the State of Arizona.

References

Pima County. 2015. *Pima County zoning code and land use planning documents*. Pima County Development Services. Accessed May 25, 2025. Available at: https://webcms.pima.gov

Pima County. 2025. *The Sonoran Desert Conservation Plan*. Pima County Public Works. Accessed August 3, 2025. Available at: https://www.pima.gov/787/The-Sonoran-Desert-Conservation-Plan

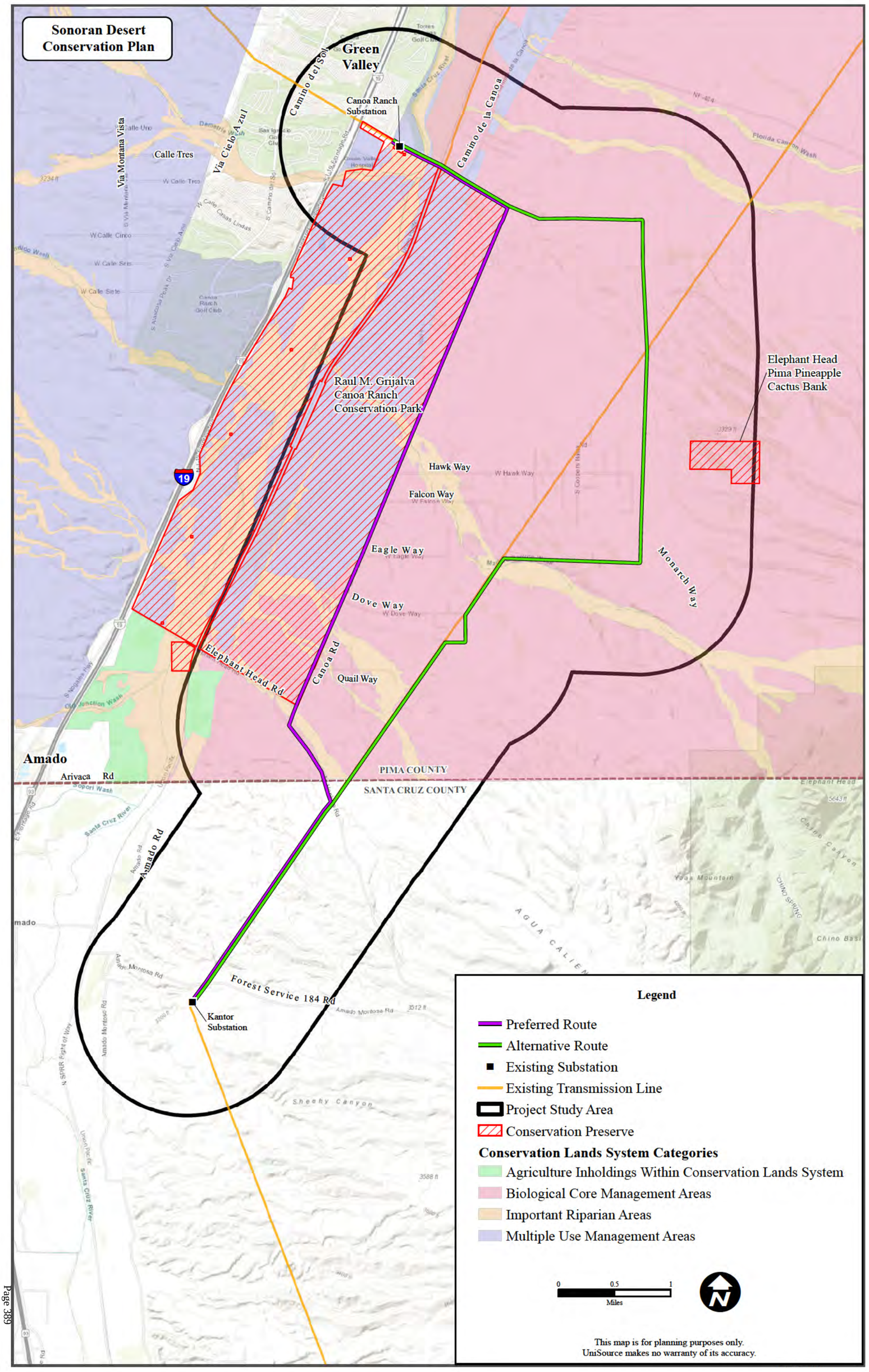
Santa Cruz County. 2016. *Santa Cruz County comprehensive plan: Envision Santa Cruz 2035*. Santa Cruz County Community Development Department. Accessed May 25, 2025. Available at: https://www.santacruzcountyaz.gov

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EXHIBIT H-1

SONORAN DESERT CONSERVATION PLAN

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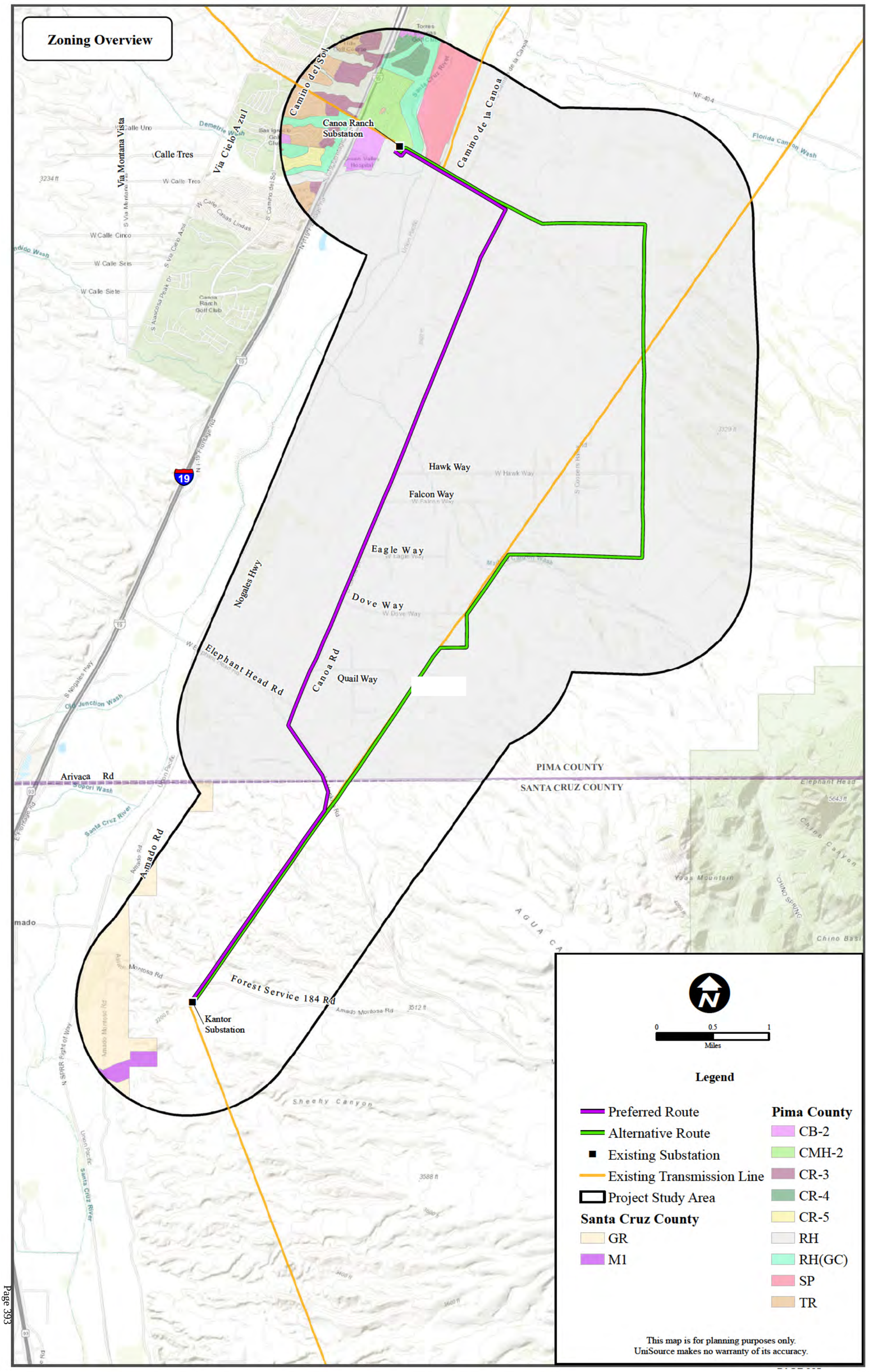

Sonoran Desert Conservation Plan
Green Valley
Canoa Ranch Substation
Camino del Sol
Camino de la Canoa
Via Cielo Azul
Via Montana Vista
Calle Tres
Calle Uno
W Calle Tres
W Calle Cinco
W Calle Seis
W Calle Siete
W Calle Casas Lindas
Raul M. Grijalva Canoa Ranch Conservation Park
Elephant Head
Pima Pineapple Cactus Bank
Hawk Way
W Hawk Way
Falcon Way
W Falcon Way
Eagle Way
W Eagle Way
Dove Way
W Dove Way
Monarch Way
Elephant Head Rd
Canoa Rd
Quail Way
Amado
Arivaca Rd
PIMA COUNTY
SANTA CRUZ COUNTY
Amado Rd
Forest Service 184 Rd
Kantor Substation
Amado Montosa Rd
Sheehy Canyon
Yaqui Mountain
Chino Canyon
Chino Basi
AGUA CALIE
Santa Cruz River
Sopori Wash
Old Nogales Hwy
Florida Canyon Wash
Legend
Preferred Route
Alternative Route
Existing Substation
Existing Transmission Line
Project Study Area
Conservation Preserve
Conservation Lands System Categories
Agriculture Inholdings Within Conservation Lands System
Biological Core Management Areas
Important Riparian Areas
Multiple Use Management Areas
0
0.5
1
Miles
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EXHIBIT H-2

ZONING OVERVIEW MAP OF STUDY AREA

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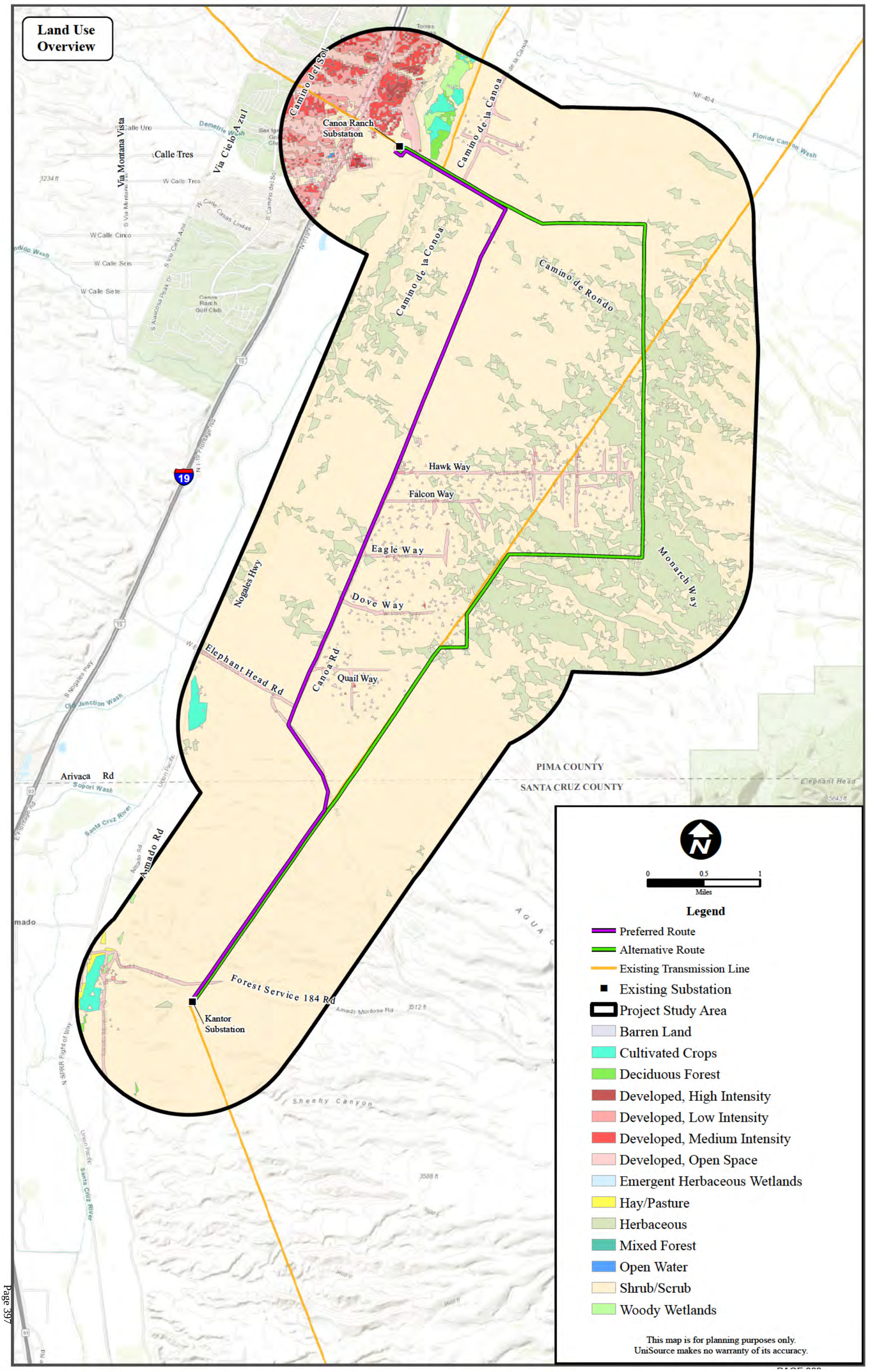

Zoning Overview
Canoa Ranch Substation
Kantor Substation
Camino del Sol
Camino de la Canoa
Via Cielo Azul
Via Montana Vista
Calle Uno
Calle Tres
W Calle Tres
W Calle Cinco
W Calle Seis
W Calle Siete
Hawk Way
Falcon Way
Eagle Way
Dove Way
Quail Way
Nogales Hwy
Elephant Head Rd
Canoa Rd
Arivaca Rd
Amado Rd
Forest Service 184 Rd
Amado Montosa Rd
PIMA COUNTY
SANTA CRUZ COUNTY
Santa Cruz River
Sheehy Canyon
Yaas Mountain
Chino Canyon
Florida Canyon Wash
Demetrie Wash
Old Junction Wash
Canoa Ranch Golf Club
Union Pacific
N SPRR Right of Way
0
0.5
1
Miles
Legend
Preferred Route
Alternative Route
Existing Substation
Existing Transmission Line
Project Study Area
Santa Cruz County
GR
M1
Pima County
CB-2
CMH-2
CR-3
CR-4
CR-5
RH
RH(GC)
SP
TR
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EXHIBIT H-3

LAND USE INTENSITY MAP OF STUDY AREA

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Land Use Overview
Canoa Ranch Substation
Kantor Substation
Camino del Sol
Camino de la Canoa
Camino de Rondo
Hawk Way
Falcon Way
Eagle Way
Dove Way
Quail Way
Monarch Way
Nogales Hwy
Elephant Head Rd
Canoa Rd
Forest Service 184 Rd
Amado Rd
Arivaca Rd
Via Montana Vista
Via Cielo Azul
Calle Tres
Calle Uno
W Calle Cinco
W Calle Seis
W Calle Siete
Canoa Ranch Golf Club
Florida Canyon Wash
Sopori Wash
Old Junction Wash
Santa Cruz River
Sheehy Canyon
PIMA COUNTY
SANTA CRUZ COUNTY
0
0.5
1
Miles
Legend
Preferred Route
Alternative Route
Existing Transmission Line
Existing Substation
Project Study Area
Barren Land
Cultivated Crops
Deciduous Forest
Developed, High Intensity
Developed, Low Intensity
Developed, Medium Intensity
Developed, Open Space
Emergent Herbaceous Wetlands
Hay/Pasture
Herbaceous
Mixed Forest
Open Water
Shrub/Scrub
Woody Wetlands
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EXHIBIT I

NOISE AND INTERFERENCE

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EXHIBIT I. NOISE AND INTERFERENCE

As stated in Arizona Administrative Code, Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, Exhibits to Application, **Exhibit I**:

> *"Describe the anticipated noise emission levels and any interference with communication signals which will emanate from the proposed facilities."*

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Introduction

UNS Electric, Inc. (UNSE) evaluated the potential impacts of the Santa Cruz Reliability North Transmission Project (SCR North or Project) on existing noise and interference within the broader Project Siting Area. The following analysis outlines the expected noise impacts and potential interference with communication signals within the Project Study Area, which is entirely located in Pima and Santa Cruz Counties, Arizona.

Audible Noise

Construction Noise

Ambient noise in the vicinity of the Project primarily comes from public road traffic, aircraft, and agricultural operations.

Construction activities associated with the Project may be audible to nearby residents and passersby. However, this noise is expected to be temporary and primarily limited to daytime hours when ambient noise levels are higher and tolerance is generally greater. The short-term nature of construction noise impacts are not anticipated to be significant. **Table I-1** presents several types of construction equipment that may be used to construct the Preferred and Alternative Routes along with their corresponding peak noise levels.

Table I-1. Construction Noise Level Estimates

Equipment Type	Peak Noise Level (dBA)
Backhoe	74–92
Front Loader	77–94
Dump Truck	76–84
Concrete Mixer Truck	79–85
Excavator	81–90
Grader	85
Paver	89
Roller	80–90
Crane	70–94
Air Compressor	78–85

*Source: FHWA 2017

Corona Noise

Noise generated by a transmission line is primarily caused by corona, which is the electrical ionization of air that occurs near the surface of energized conductors and suspension hardware when the electric field strength is sufficiently high. Overhead high-voltage power transmission inherently produces certain electromagnetic effects, including electric and magnetic fields (EMF), with corona discharge being a key effect. Corona can result in audible noise (AN), as well as radio and television interference. These impacts can be mitigated through careful transmission line siting, design, and construction practices. The information in this exhibit considers a range of construction configurations along the alternative routes.

Corona-related noise is typically observed at levels of 40 to 50 A-weighted decibels (dBA) at the edge of the right-of-way (ROW) for transmission lines, which is quieter than common household appliances such as vacuum cleaners, which typically produce 60 to 80 dBA. The extent of corona discharge is influenced by several factors, including line voltage, conductor diameter, spacing between conductors, elevation, hardware condition, and local weather. While corona is more prevalent at 345 kilovolts (kV) and higher, it is less of a concern at lower voltages such as the proposed 138-kV transmission line.

Corona occurs where the electric field gradient is greatest--at the conductor's surface. Using large-diameter conductors helps reduce this gradient, thereby minimizing corona effects. The Project will utilize larger conductors, which will help reduce AN potential. Surface irregularities, such as nicks, scrapes, or sharp hardware edges, can intensify the electric field locally and increase corona discharge. Similarly, dust, debris, or other foreign materials on the conductor can contribute to these effects.

Corona levels also rise at higher elevations due to the lower atmospheric density. AN from corona is affected by elevation following the formula A/300, where A is elevation in meters (EPRI 2005). At 600 meters (1,968.5 feet), the noise could be twice that at 300 meters (984.25 feet), assuming all other factors remain constant. The elevation along the Project is 3,100 feet, and therefore elevation will influence potential corona noise levels.

For both alternatives, corona noise is expected to be inaudible or indistinguishable from ambient background levels, depending on the final alignment. Under both fair and foul weather conditions, corona noise from the 138-kV line is projected to attenuate to below ambient background levels at the edge of the Project Study Area. Consequently, at the nearest noise-sensitive receptors corona noise would remain inaudible or acoustically masked by existing environmental sounds.

Weather conditions also play a significant role. Moisture sources such as rain, fog, snow, hoarfrost, and condensation introduce additional surface irregularities that can increase corona during wet or foul weather. Although corona noise increases during such conditions, it is often masked by the louder ambient noise of heavy rainfall striking the ground.

To minimize corona, the Project design incorporates several strategies. Hardware will feature rounded surfaces and recessed bolts to avoid sharp edges, and conductors will be installed under tension to maintain a smooth surface and prevent damage such as nicks or burrs. Overall, the Project will be engineered to reduce corona generation to the extent practicable.

Radio Interference

Corona-induced radio interference primarily affects the amplitude modulation (AM) radio band (535 to 1,605 kilohertz), while frequency modulation (FM) radio is rarely impacted. Interference typically occurs only when AM receivers are located very close to a transmission line and are tuned to a weak signal. A common example is the humming sound heard on an AM radio when near a power line, which fades as the radio is moved farther away. FM receivers are generally unaffected due to two factors: corona-generated radio frequency noise diminishes with increasing frequency, and the FM broadcast band (88 to 108 megahertz) lies well above the range most impacted. Additionally, FM radio systems have strong interference rejection capabilities, making them highly resistant to amplitude-related disturbances.

Additionally, transmission lines can generate electromagnetic interference (EMI) that may affect ham radio operations, particularly in the high-frequency (HF) bands between 3 and 30 megahertz. This interference is most often caused by corona discharge or arcing from high-voltage equipment, especially if conductors or hardware are damaged or poorly maintained. However, interference typically decreases with increasing frequency and distance from the line, making impacts less likely for VHF/UHF bands or for stations located farther away. Proper transmission line design, including the use of smooth, large-diameter conductors and well-maintained hardware, can significantly reduce the potential for EMI. While impacts to amateur radio from the Project are unlikely, any issues identified after final design will be assessed and mitigated as needed in accordance with Federal Communications Commission regulations.

In areas near residential development, the Preferred route does not coincide with existing transmission corridors and is located away from other transmission lines for a majority of the route. The Alternative

Route, however, does in part parallel the existing Vail to Kantor 138-kV transmission line east of the Elephant Head residential community. Specifically, the Alternative route parallels the existing line near areas of residential developments between the eastern end of West Eagle Way south to the eastern end of Dove Way. From here it circumvents an existing residential property before again paralleling the existing Vail to Kantor line near residential developments surrounding West Quail Way and continuing south to the Kantor Substation.

The inherent design specifications, combined with the Project's adherence to construction best practices, will ensure minimal disruptions to nearby communication systems.

Television Interference

Interference with traditional television reception is limited to over-the-air broadcasts from local stations and does not affect cable or satellite services. Any potential interference from corona effects associated with the transmission line would typically occur during inclement weather and is generally only a concern for lines operating at 345 kV or higher, and for receivers located within 500 feet of the line. Since the proposed line will operate at a nominal voltage no greater than 138 kV, television interference is not anticipated.

With respect to commercial communications systems, including cellular and microwave frequency transmissions, interference from 138-kV lines is also highly unlikely. These systems operate at frequencies well above those affected by corona discharge or electromagnetic fields generated by lower-voltage transmission lines. Additionally, modern communication infrastructure is designed to be resilient to ambient electromagnetic noise, and any potential impacts would be negligible at the distances involved in this project.

UNSE will make every reasonable effort to promptly investigate, identify, and correct, on a case-specific basis, any complaint of interference with radio or television signals from operation of the Project, and where such interference is caused by the Project take reasonable measures to mitigate such interference.

Electric and Magnetic Field Effects

Electric and Magnetic Fields Background

EMFs are a natural part of the environment and are present in all matter. The Earth itself has a natural electric field, created by electrical charges in the upper atmosphere, as well as a magnetic field generated by electric currents within the Earth’s molten core, this magnetic field is what makes compass navigation possible. EMFs are also produced by man-made sources such as power lines, which can induce voltages and currents on nearby conductive objects. Electric fields are generated whenever a conductor is connected to a voltage source, for example, when a lamp is plugged into a wall outlet, a voltage is present in the cord, creating an electric field. When the lamp is turned on and current flows, a magnetic field is also produced. These electric and magnetic fields are found around all types of electrical systems and devices, including overhead and underground power lines, home wiring, computers, appliances, and power tools. EMF strength is typically measured in milligauss (mG). **Table I-2** summarizes magnetic field strengths associated with various common electrical sources (NIEHS 2002). In transmission line evaluations, it is standard practice to consider both electric and magnetic fields together when assessing potential effects at the edge of the ROW.

Table I-2. EMF Strength of Various Electrical Sources at Various Distances

EMF Source	Distance	Strength (mG)	Distance	Strength (mG)	Distance	Strength (mG)
Microwave Oven	0.5 feet	200 mG	1.0 feet	4 mG	4.0 feet	2 mG
Vacuum Cleaner	0.5 feet	300 mG	1.0 feet	60 mG	4.0 feet	1 mG
Hair Dryer	0.5 feet	300 mG	1.0 feet	1 mG	4.0 feet	0 mG
Electric Shaver	0.5 feet	100 mG	1.0 feet	20 mG	4.0 feet	0 mG
138-kV Transmission Line	0 feet	16.4 mG	50 feet	6.9 mG	500 feet	<0.14 mG

Since the 1970s, researchers and scientists have extensively studied the potential health effects of low-level EMFs, but no conclusive evidence has confirmed that such exposure causes adverse health outcomes. A recent review of scientific literature by the World Health Organization recommended continued research but concluded that "...current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields." Similarly, a 1997 report from a National Research Council committee found no conclusive or consistent evidence linking residential EMF exposure to cancer, neurobehavioral issues, or reproductive and developmental effects. In 1999, the National Institute of Environmental Health Sciences reported to Congress that laboratory studies in animals and cells had not revealed a consistent pattern of biological effects from EMF exposure. The National Cancer Institute also states that, despite numerous epidemiological studies and extensive literature reviews, no consistent evidence has been found linking non-ionizing EMF exposure to cancer (NCI 2025). These findings are based on a wide range of studies, including epidemiological, animal, biological, and clinical research. EMFs from power lines and electrical devices are significantly weaker than those from higher-energy sources like microwaves or radio waves. Positioned at the low-frequency end of the electromagnetic spectrum, these fields are classified as "non-ionizing," meaning they are not known to directly damage DNA or cells (WHO, 2021).

Previous studies of 138-kV transmission lines have shown that the maximum calculated magnetic fields were less than or comparable to the median magnetic field produced by a food processor at a distance of six inches (30 mG). In fact, devices such as hair dryers and microwave ovens measured at ½-foot away typically produce higher magnetic field levels than those recorded along similar transmission line routes. EMF decreases in strength with increased distance from the source. In addition, electric fields are further weakened by obstacles such as walls, roofs, trees, and vegetation. However, magnetic fields are not easily shielded by most materials and are primarily reduced in strength by distance alone.

The EMF values associated with this Project are expected to be comparable to other 138-kV transmission lines in the state and are expected to have EMF values at the edge of the ROW that are less than or equal to that of common household appliances.

Conclusion

The Project will generate AN during the construction phase and minor corona noise during operation. Based on prior studies for 138-kV transmission lines, corona noise and communication signal interference, including EMF levels associated with the Preferred and Alternative Routes, are expected to be comparable to other 138-kV transmission lines with similar properties. The EMF levels at the edge of the Project's ROW are expected to be less than or equal to common household appliances.

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EXHIBIT J

SPECIAL FACTORS: PUBLIC INVOLVEMENT

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EXHIBIT J. SPECIAL FACTORS: PUBLIC INVOLVEMENT

As stated in Arizona Administrative Code, Rules of Practice and Procedure Before Power Plant and Transmission Line Siting Committee, Exhibits to Application, **Exhibit J**:

> *"Describe any special factors not previously covered herein, which Applicant believes to be relevant to an informed decision on its application."*

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Introduction

The following analysis describes potential impacts to special factors not covered in the other exhibits of the Certificate of Environmental Compatibility (CEC) application, namely stakeholder outreach and engagement.

Public and Stakeholder Engagement Program Summary

Public participation is an important part of UNS Electric, Inc.'s (UNSE's) environmental planning and siting process. Public involvement and communication activities were conducted to inform the public of the need and benefits of the Santa Cruz Reliability North Project (SCR North or Project) and to solicit public input. The public planning process was intended to ensure effective and timely communication among UNSE staff, the public, agencies, and other interested parties. UNSE used several different public outreach strategies to inform members of the community in the Project Siting Area. The Project Siting Area is the original area of analysis utilized during the siting study to assist UNSE in determining alternative routes; the Project Study Area refers to the more refined study area focused on the Preferred and Alternative Routes.

Summary of Stakeholder Identification Methodology

Public engagement for the Project was initiated in March 2024 and continued through September 2025. The outreach efforts were designed to notify, inform, and seek input about the Project from the public, government agencies, elected officials, tribal communities, community leaders, and other interested parties. UNSE used publicly available online parcel data gathered from the Pima and Santa Cruz Counties' assessors' websites to identify all landowners, residents, and businesses located within 1 mile of the Project Siting Area. To confirm the results of our contact list, a third-party title company was also used to verify recipients within the Project Siting Area and a 1-mile buffer, or Notification Area. The resulting list included both primary and secondary contacts for parcels, reaching renters and landowners alike. Additionally, recognizing the importance of community engagement, the Project team developed a detailed list of Homeowner Associations (HOAs) and community groups. This was achieved by using parcel data, GIS mapping, and consulting the Green Valley Council (GVC) (formerly known as the Green Valley Coordinating Council), a volunteer advocacy group that represents Green Valley residents. UNSE's collaboration with GVC ensured that community leaders were engaged alongside their residents, including distributing their own flier advertising the public meetings that were held at their facilities.

Further enhancing our stakeholder identification process, GIS tools (such as ArcGIS and Google Earth Pro) were employed to pinpoint relevant governing agencies, and Non-Government Organizations (NGOs) within and around the Project Siting Area. This method proved useful in identifying stakeholders concerned with regulatory compliance, environmental conservation, and further areas of interest. In addition, the Project team included surrounding tribal lands to involve Native American Groups with potential historical or cultural ties to the Siting Area. The list of potentially impacted Native American Groups was developed utilizing the Arizona Government to Government Consultation Toolkit (Arizona State Historical Preservation Office 2025) in consultation with cultural resource specialists and project team experts who are familiar with the region, cultural resources, and native communities. UNSE identified federal, state, and local public officials with jurisdiction within the Siting Area by researching government agency websites and consulting with UNSE's government relations team.

UNSE's analysis also extended to areas containing protected resources, species, trails, and landmarks which identified organizations dedicated to the conservation of these resources.

Summary of Stakeholder Engagement Efforts

Throughout the planning and siting process, stakeholders were given several opportunities to review the Project and provide feedback that informed the siting process. Public outreach was organized into four campaigns titled *Round 1 - Public Outreach and Engagement, Round 2 -Public Outreach and Engagement, Round 3 - Public Outreach and Engagement, and Round 4 -Public Outreach and Engagement.* These rounds

of outreach coincided with agency outreach and tribal outreach as well. The following infographic (**Figure J-1**) provides an overview of the methods of stakeholder outreach employed and the resulting engagement metrics. The communication methods and public engagement activities for the Project are further detailed in the comprehensive External Engagement Plan (**Exhibit J-1**) and the Line Siting Study (**Exhibit B-1**).

OUTREACH & ENGAGEMENT



PUBLIC MEETINGS

9 Open Houses

- **April 24, 2024** (in person) about 42 attendees (36 morning I 6 evening)
- **March 20, 2025** (in person) about 64 attendees (47 morning |17 evening)
- **May 20, 2025** (in person) about 70 attendees (64 morning I 6 evening)
- **August 5, 2025** (in person) about 145 attendees (130 morning |15 evening)
- **August 7, 2025** (virtual) about 15 attendees

Neighborhood Contact



- Canoa Canyon Estates
- The Springs at Santa Rita
- Coordination with the Green Valley Council

4 Virtual Agency Briefings

- 15 agency departments participating
- 5 Briefings with Public Officials

25 Miscellaneous Meetings with Community Partners

WAYS TO COMMENT

110 **Online Comment Form**
110 comments submitted

154 **Project Email Account**
154 emails submitted

41 **Written Comment Form**
41 submitted

29 **Project Phone Line**
29 voicemail messages

6 **Project Mailbox**
6 written letters

EXTERNAL COMMUNICATIONS

5 Newsletters
- **4,500-17,000+ recipients**

Informational Consultation Letters
- Sent to 11 tribal communities
- Included Class 1 Cultural Resources Report

4 Regular Email Updates
- Sent to residents, businesses, agencies, tribal communities, public officials and those who requested updates at outreach events

Radio Advertisements
- 4 Spanish radio advertisement campaigns for each round of outreach

Project Webpage
- **Views:** 9,827 English | 1,056 Spanish
- **Individual Users:** 2,484 English | 322 Spanish

Public Notices
- **6 Green Valley News Advertisements** More than 5,500 Sunday readers
- **1 Sahuarita Sun Advertisement** More than 12,000 Wednesday readers
- **4 Nogales International Advertisements** More than 4,700 Thursday readers
- **2 Arizona Bilingual Advertisements** More than 150,000 monthly readers

Flyers
Posted at 7 locations including:
- Green Valley Chamber of Commerce
- Joyner - Green Valley Library
- Posada Java Coffee Shop
- Mogah Coffee Shop
- Sopori Elementary School (venue for the open house)
- Dollar General (Arivaca Road)
- The Longhorn Grill (Amado)

Street Signage
- Posted bilingual signs at 8 high traffic locations in Pima and Santa Cruz Counties

SOCIAL MEDIA: FACEBOOK & INSTAGRAM ADS

	April 9 - 25, 2024		July 7-19, 2024		March 5 - 20, 2025		May 14 - 20, 2025		July 22 - August 7, 2025	
	English	Spanish	English	Spanish	English	Spanish	English	Spanish	English	Spanish
Impressions	85,501	21,741	49,066	22,682	93,266	22,172	15,220	14,858	75,271	26,157
Reach	51,303	13,755	39,562	14,047	59,346	14,371	13,284	13,727	48,777	18,852
Clicks	119	42	90	28	145	39	76	19	241	57
CTR	0.14%	0.19%	0.18%	0.12%	0.16%	0.18%	0.50%	0.13%	0.32%	0.22%

Furthermore, **Exhibit J-2** presents a table summarizing in chronological order all public meetings, agency briefings, individual stakeholder meetings and various outreach methods used throughout the course of the Project.

Meetings and Briefings

Public Outreach and Engagement

This section describes the various details of each of the four rounds of public meetings conducted by UNSE for the Project. **Table J-1** provides a summary detailing the number of attendees at each open house as well as a guide to where each of their respective presentation materials are available in this application.

Table J-1. Overview of Public Outreach and Engagement

Outreach Round	Date	Meeting Location	Method	Number Attended*	Meeting Summary
#1	April 25, 2024	GVC	In-person (Morning)	20	Exhibit J-4
		Sopori Elementary School	In-person (Evening)	18	
#2	March 20, 2025	GVC	In-person (Morning)	47	Exhibit J-6
		Sopori Elementary School	In-person (Evening)	17	
#3	May 20, 2025	GVC	In-person (Morning)	64	Exhibit J-8
		Sopori Elementary School	In-person (Evening)	6	
#4	August 5, 2025	GVC Recreation Center	In-person (Morning)	130	Exhibit J-10 & J-11
		Sopori Elementary School	In-person (Evening)	15	
	August 7, 2025	Virtual	Virtual	15	

Round 1 - Public Outreach and Engagement (April 2024)

For the first round of public outreach and engagement, UNSE initiated a comprehensive bilingual outreach campaign to inform and engage the community about the Project. On April 11, 2024, 14 days prior to the meeting, UNSE mailed a bilingual newsletter providing an overview of the Project to residents, property owners, and businesses within a one-mile radius of the Project Siting Area using U.S. Postal Service addresses and verified by a third party. A total of approximately 4,500 newsletters were mailed to stakeholders during Round 1.

To further broaden awareness, bilingual project flyers were distributed at various locations across Green Valley, Amado, and Sahuarita. Additionally, UNSE launched geotargeted Facebook and Instagram ads in both English and Spanish within the Project Siting Area for two weeks leading up to the meeting. Eight bilingual notice signs were installed on April 11, 2024, strategically placed in and around the Project Siting Area, and bilingual meeting notices were published in the *Green Valley News* and *Nogales International*. Furthermore, UNSE placed a Spanish radio ad with the radio station KOFH notifying listeners of the upcoming morning and evening public open houses meetings. Meeting information was also made available on the Project webpage.

Two open house meetings took place on Thursday, April 25, 2024, at the following locations:

Morning Presentation and Open House:
Green Valley Recreation East Center (Hosted by GVC)
7 South Abrego Drive
Green Valley, AZ 85645

Evening Open House:
Sopori Elementary School
5000 West Arivaca Road
Amado, AZ 85645

The morning meeting at Green Valley Recreation Center East in Green Valley, AZ was held in collaboration with the GVC) which included a presentation led by the UNSE Project team. Both events followed an open house format and featured various stations, including a sign-in and comment table, refreshment area, GIS table, Project maps, and seven information boards, included in **Exhibit J-4**. UNSE staff, including engineers, planners, customer service representatives, and project consultants, were present to welcome attendees and answer questions. Several members of the UNSE team were bilingual.

A total of 38 individuals attended the two meetings. A detailed summary of the meetings is available in **Exhibit J-4**.

Round 2 – Public Outreach and Engagement (March 2025)

For the second round of public outreach and engagement, a bilingual newsletter containing an overview of the Project, along with the meeting's date, time, and location, was mailed to residents, property owners, and businesses within the Notification Area on March 6, 2025, 14 days before the meeting. Following the first round of public and stakeholder outreach in April 2024, UNSE learned about a siting constraint on the Canoa Ranch Conservation Park that might limit the ability to interconnect to the regional electric grid at Canoa Ranch. As a result, the study area was expanded to the north in early 2025. Round 1 meeting attendees not already on the mailing list and those who provided comments who wished to be added to future mailings. A total of approximately 17,000 newsletters were mailed to stakeholders during Round 2 outreach.

To further publicize the Project and upcoming open houses, UNSE posted bilingual flyers at various locations across Green Valley, Amado, and Sahuarita, launched Facebook and Instagram ads, in both English and Spanish, within the Project Siting Area for two weeks prior to the meeting, and installed eight bilingual notice signs in and around the study area on March 6, 2025. Bilingual meeting notices were also published in the *Green Valley News* and *Nogales International*. Furthermore, UNSE placed a Spanish radio ad with the radio station KOFH notifying listeners of the upcoming public open houses for both the morning and evening meetings. Up-to-date information about the meetings was also made available on the Project webpage.

Two open house meetings took place on Thursday, March 20, 2025. Similar to Round 1, the morning meeting was hosted at the Green Valley Recreation East Center in Green Valley, while the evening meeting was held at Sopori Elementary School in Amado. The morning open house included a presentation led by the Project team. Both events followed an open house format and featured a sign-in and comment table, refreshment station, GIS table, Project maps, and 15 information boards, included in **Exhibit J-6**. UNSE staff, including engineers, planners, customer service representatives, and contracted consultants, were present to welcome attendees and answer questions in English or Spanish.

Approximately 64 individuals attended the two meetings. A detailed summary of the meetings is available in **Exhibit J-6**.

Round 3 – Public Outreach and Engagement (May 2025)

For the third round of public outreach and engagement, UNSE mailed a bilingual newsletter to residents, property owners, and businesses within the Notification Area. Prior to mailings, UNSE revised the mailing list to include Round 2 meeting attendees not already on the mailing list and those who provided comments who wished to be added to future mailings. The newsletter was mailed on May 6, 2025, two weeks prior to the event, and provided an overview of the project along with details about the meeting's date, time, and location. A total of approximately 17,000 newsletters were mailed to stakeholders during Round 3 outreach.

To further promote the event, UNSE distributed bilingual flyers throughout Green Valley, Amado, and Sahuarita; launched geotargeted English and Spanish Facebook and Instagram ads within the Project Siting Area for two weeks leading up to the meeting; and installed eight bilingual notice signs in and around the Project Siting Area on March 6, 2025. Additionally, bilingual meeting notices were published in the *Green Valley News* and *Nogales International*. Furthermore, UNSE placed a Spanish radio ad with the radio station KOFH notifying listeners of the upcoming public open houses for both the morning and evening meetings. Up-to-date information about the meetings was also made available on the Project webpage.

Two meetings were held on Thursday, May 20, 2025. The morning meeting was held at:

Green Valley Recreation Las Campanas Center
565 West Bell Tower Drive
Green Valley, AZ 85645

The evening meeting was held at Sopori Elementary School in Amado, AZ, like all other rounds of outreach. The morning meeting included a presentation of the Project, while the evening meeting did not. The meetings followed an open house format and featured a sign-in and comment table, refreshment station, GIS table, Project maps, and 12 information boards. UNSE staff, including engineers, planners, customer service representatives, and contracted consultants, were present to greet attendees and respond to questions in English or Spanish.

Approximately 70 individuals attended the two meetings. A full summary of the meetings is available in **Exhibit J-8**.

Round 4 – Public Outreach and Engagement (July/August 2025)

For the fourth round of public outreach and engagement, UNSE mailed a bilingual newsletter to residents, property owners, and businesses within the designated notification area. Prior to mailings, UNSE revised the mailing list to include Round 3 meeting attendees not already on the mailing list and those who provided comments who wished to be added to future mailings. The newsletter was mailed on July 22, 2025, two weeks prior to the meetings, and included a project overview and details about the meeting's date, time, and location. A total of approximately 17,000 newsletters were mailed to stakeholders during Round 4 outreach.

To further publicize the meetings, UNSE posted bilingual flyers throughout Green Valley, Amado, and Sahuarita; ran English and Spanish Facebook and Instagram ads within the Project Siting Area for two weeks prior to the meeting; and installed eight bilingual notice signs in and around the study area on July 22. Additionally, bilingual meeting notices were published in the *Green Valley News*, *Nogales International* and *AZ Bilingual*. Furthermore, UNSE placed a Spanish radio ad with the radio station KOFH notifying

listeners of the upcoming public open houses for both the morning and evening meetings. Up-to-date information about the meetings was added to the Project webpage.

Two open house sessions were held on Tuesday, August 5, 2025. Like Rounds 1, 2, and 3, the morning session was hosted in collaboration with GVC while the evening session was held at Sopori Elementary School in Amado, AZ. The morning meeting included a presentation of the project, while the evening meeting did not. The meetings followed an open house format and included a sign-in and comment table, refreshment station, GIS table, Project maps, and ten information boards. UNSE staff, including engineers, planners, customer service representatives, and contracted consultants were available to welcome attendees and answer questions in English or Spanish.

Approximately 145 individuals attended the two meetings. A detailed summary of the meetings is provided in **Exhibit J-10**.

As part of the fourth round of public outreach and engagement a virtual meeting was also offered via Microsoft Teams on August 7, 2025, to accommodate members of the Project area who may have been unable to attend an in-person meeting. Participants were guided through a detailed overview of the Project Siting Area, the rationale behind the proposed route alternatives, and the criteria used to evaluate their suitability. The meeting also included opportunities for attendees to ask questions, share feedback, and gain clarity on the next steps in the project timeline.

A total of 15 individuals joined the virtual meeting. A detailed summary of the meetings is provided in **Exhibit J-11**.

Public Meetings Information

At each in-person public open house, staffed information stations, maps, and presentation boards were available where attendees could view Project information and ask questions. UNSE personnel and subject matter experts were available to ensure that all participants had the opportunity to engage directly and receive answers to their inquiries. Copies of meeting boards, and other presentation materials for each round of outreach and engagement are included in **Exhibits J-4, J-6, J-8, J-10** and **J-11**. An overview of information presented at the open houses is summarized in **Table J-2**.

Table J-2. Open House Stations

Station	Available Information or Activity
Greeting Desk	Sign-in sheet, copies of the latest newsletter, project maps, comment cards, comment forms
Need and Benefits	Exhibit illustrating the project's necessity, detailing how the proposed transmission line would fulfill the requested service and integrate effectively within the existing UNSE system
Geographic Information System Station	A staffed GIS station was available for attendees to explore proposed project activities in relation to their residences or other areas of personal interest
Line Siting Process	Exhibits provided an overview of UNSE's line siting process, identified the resources assessed during the CEC review, and outlined the steps taken to evaluate potential route links and determine the final line alignment
Environmental Review	Exhibits provided detailed information on the resources and other factors that evaluated for the proposed transmission line
Visual Simulations	An interactive station displaying existing and proposed viewshed conditions from various Key Observation Points within the Project Siting Area, was made available for the public during Open Houses #7 & 8
Structure and Facility Details	Exhibits displaying renderings of the proposed transmission line structures (weathering, steel monopoles)

Station	Available Information or Activity
Large Format Maps	Large-format maps, representing the Study Area and siting study status were placed on a table at each open house for attendees to mark up and provide input.

Agency Briefings

Agency Briefing #1 (April 23, 2024)

To prepare for Agency Briefing #1, UNSE compiled a comprehensive stakeholder list based on the boundaries of the identified Project Siting Area and an additional one-mile notification buffer. This list also included regional stakeholders who might have an interest in the Project. Notification of the virtual agency meeting was sent on April 1, 2024, via email from UNSE. The virtual meeting took place on April 23, 2024, and featured a detailed PowerPoint presentation covering the Project's purpose and need, environmental permitting requirements, line siting process, study area overview, routing criteria, project schedule, and a Q&A session. A summary of the meeting is provided in **Exhibit J-3**.

Agency Briefing #2 (March 19, 2025)

UNSE expanded the Project Siting Area between the first and second Agency Briefings as a result of potential complications with access to the Canoa Ranch Substation. To prepare for Agency Briefing #2, UNSE revised and expanded the Project stakeholder list based on the expanded Project Siting Area. Additional stakeholders consisted primarily of residents and businesses that now were included in the expanded outreach area. Notification of the virtual meeting was sent on February 26, 2025, via email from UNSE.

The virtual agency meeting was held on Wednesday, March 19, 2025. It featured a PowerPoint presentation that covered key Project updates, including an updated, expanded Project Siting Area, environmental permitting requirements, the planning and siting process, preliminary segments selected, project schedule and next steps, instructions for submitting comments, and a question-and-answer session. A full summary of the meeting is provided in **Exhibit J-5**.

Agency Briefing #3 (May 19, 2025)

To prepare for Agency Briefing #3, notification of the virtual meeting was distributed via email on April 28, 2025. The meeting was held virtually on Monday, May 19, 2025, and included a comprehensive PowerPoint presentation outlining key Project updates. Topics covered included environmental permitting requirements, the planning and siting process, findings from the suitability assessment, the project timeline and upcoming milestones, guidance for submitting comments, and a question-and-answer session. A detailed summary of the meeting is available in **Exhibit J-7**.

Agency Briefing #4 (August 4, 2025)

To prepare for Agency Briefing #4, UNSE distributed email notifications for the virtual meeting on July 15, 2025. The meeting was held online on Monday, August 4, 2025, and featured a detailed PowerPoint presentation highlighting key Project updates. Topics included environmental permitting requirements, the planning and siting process, findings from the compatibility analysis and the resulting alternative routes, the overall project timeline with upcoming milestones, instructions for submitting comments, and a question-and-answer session. A comprehensive summary of the meeting is provided in **Exhibit J-9**.

Stakeholder Briefings

In addition to public and agency briefings, UNSE engaged in targeted discussions and correspondence with various stakeholders throughout the planning and siting process. A list of these meetings is provided below.

Arizona State Historic Preservation Office (SHPO)

UNSE held a virtual meeting with SHPO's Compliance Specialist on May 22, 2024, following their desire to meet individually with the Project team at the April 23, 2024, agency briefing (Agency Briefing #1). UNSE provided an overview of the Project where it intersects with ASLD lands. SHPO highlighted the need for compliance with the State Historic Preservation Act, noting limited survey data in the area of the Project Siting Area. UNSE ensured SHPO that all required surveys, reporting, and consultations would be conducted prior to construction of the project. A record of this meeting with SHPO is included in **Exhibit J-13**.

Freeport-McMoRan Sierrita Mine (FMI)

Due to the complexity of the conservation park surrounding the Canoa Ranch Substation, UNSE explored other options to connect the Kantor Substation to the grid. One such option was to work with FMI to place a new switchyard on FMI property to bypass the Canoa Ranch Substation. UNSE held three meetings with FMI on September 12, 2024, January 27, 2025, and February 24, 2025, to explore this option. Routes 4 and 5 resulted from these conversations but were later removed during the compatibility analysis. Records of these meetings with FMI are included in **Exhibit J-15**.

Arizona Department of Transportation (ADOT)

UNSE held two virtual engagement meetings with ADOT on October 22, 2024, and July 25, 2025. During the first meeting, UNSE presented Project information and mapping to better understand the issues and process involved with building a transmission line in ADOT ROW along the Interstate 19 (I-19) corridor in the Project Siting Area. It was determined that further design information would need to be provided to ADOT in order for them to establish if the Project could be sited in this area. At the second meeting, UNSE reviewed five alternative routes and plans and followed up on clear area requirements for constructing adjacent to roadways. ADOT provided feedback on potential aerial encroachments and lighting conflicts, which appeared manageable. A summary of these meetings is included in **Exhibit J-13**.

Pima County

UNSE met with Pima County officials on eight occasions on May 13, 2024, June 19, 2024, July 23, 2024, December 4, 2024, December 18, 2024, January 23, 2025, February 13, 2025, and March 10, 2025. The meetings resulted after UNSE learned of Pima County's conservation easement restrictions that applied to the land surrounding the Canoa Ranch Substation. The focus of the meetings was to identify a path to allow Tucson Electric Power Company (TEP) to cross through the park and interconnect at the substation.

Records of these meetings with Pima County are included in **Exhibit J-13**.

Arizona State Land Department (ASLD**)**

UNSE met virtually with ASLD representatives on December 9, 2024. Discussions with ASLD focused on leasing a larger parcel for the Kantor Substation expansion. UNSE could lease larger parcels. A record of this meeting with ASLD is included in **Exhibit J-13**.

Santa Rita Experimental Range (SRER)

UNSE held two meetings with SRER representatives on December 18, 2024, and January 29, 2025. At the first meeting, UNSE discussed potential routes and the possibility of building a transmission line within the SRER. In the second meeting, UNSE shared its conceptual routes. These meetings resulted in the SRER being classified as a significant constraint. Records of these meetings are included in **Exhibit J-13**.

Farmers Investment Company (FICO)

UNSE held one virtual meeting with FICO on February 11, 2025. At this meeting UNSE discussed the possibility of crossing FICO land located north of the Canoa Ranch Substation. Two potential routes on FICO were discussed, a northern route and a southern route closer to the existing Duval Mine Waterline Road, and it was determined that if UNSE could avoid an existing well site here, FICO would give them verbal approval to pursue this alignment should it be needed. FICO noted that they would alert their land department of this decision and coordinate with UNSE when the time comes for detailed design. A record of this meeting with FICO is included in **Exhibit J-15**.

The Springs at Santa Rita Homeowner's Association

UNSE presented to residents at the Santa Rita HOA on the evening of March 12, 2025. UNSE presented the project's background, highlighting its necessity, anticipated benefits, the role of a conservation easement, and the potential impact on the Spring's land. During this meeting, UNSE fielded questions from residents covering topics such as pole type, undergrounding, siting, EMF issues, visual impacts, and construction methods. A record of UNSE's meeting with The Springs HOA is included in **Exhibit J-15**.

Canoa Canyon Estates

Following discussion at the April 25, 2024, open house, UNSE met with residents at the corner of West Via del Petirrojo and South Via de la Cruces. The residents expressed their objection to any new transmission lines on the west side of I-19, especially along Duval Waterline Rd. and in close proximity to existing homes. A record of this meeting is included in **Exhibit J-15**.

Elected Officials Coordination

UNSE also offered briefings to local, state, and federal elected officials with jurisdiction within the Project Siting Area. Emails were sent on April 10, 2024, July 8, 2024, February 26, 2025, April 25, 2025, July 14, 2025, and August 25, 2025, to offer project updates and individual briefings. Five virtual briefings resulted where UNSE presented an overview of the Project and Project timeline, and answered questions related to public feedback. Email notifications and summaries of these meetings are provided in **Table J-3**.

Table J-3. Summary of Elected Officials Briefing

Elected Official	Organization	Meeting Date	Summary
Nathalia Untiveros	Deputy Director Southern Arizona Governor's Office	August 21, 2024	UNSE provided an overview of the Project and Project timeline, and answered questions related to public feedback

Elected Official	Organization	Meeting Date	Summary
Representative Stahl Hamilton	Politician	September 11, 2024	UNSE provided an overview of the Project and Project timeline, and answered questions related to public feedback
Bruce Bracker	Santa Cruz County Supervisor	December 18, 2024	UNSE provided an overview of the Project and Project timeline, and answered questions related to public feedback
Beth Borozan	Chief of Staff, Sup. Christy	April 25, 2025	UNSE provided an overview of the Project and Project timeline, and answered questions related to public feedback
Jorge Maldonado	Mayor of Nogales	April 29, 2025	UNSE provided an overview of the Project and Project timeline, and answered questions related to public feedback

Tribal Coordination

Using the Arizona Government to Government Consultation Toolkit (Arizona State Historical Preservation Office, 2025), UNSE identified the following tribal communities for outreach efforts: Tohono O'odham Nation, Ak Chin Indian Community, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, Pascua Yaqui Tribe, Fort McDowell Yavapai Nation, San Carlos Apache Nation, Pueblo of Zuni, White Mountain Apache Tribe, Hopi Tribe, and Mescalero Apache Tribe. UNSE informed and engaged tribal representatives from each of these tribal communities throughout the siting process and outreach process. UNSE reached out to tribal representatives early and consistently to share project details and incorporate feedback. UNSE's outreach included phone calls to provide Project updates and offers for in-person briefings and field visits. Once completed, the Cultural Resources Class I Inventory Report prepared for the Project, which provided an inventory of known cultural and historical sites within the Project Siting Area, was distributed to each of the eleven tribal communities for review. Additionally, UNSE presented to the Four Southern Tribes – consisting of the Tohono O'odham Nation, Salt River Pima-Maricopa Indian Community, Gila River Indian Community, and Ak-Chin Indian Community – at their in-person meeting on June 20, 2025. **Table J-4** provides a summary of the outreach efforts and materials shared with tribal representatives for the Project. Meeting summaries and notifications shared with the Tribal communities are located in **Exhibit J-14**.

Table J-4. Overview of Tribal Outreach and Engagement

Outreach Method	Date	Summary
Mail	April 11, 2024	UNSE mailed Newsletter #1 providing basic Project information, including the study area, upcoming public open house meeting information, and public comment opportunities.
Mail	July 8, 2024	UNSE provided Newsletter #2 notifying tribal communities of the continued planning efforts of the Project and that UNSE would notify them of future meeting opportunities.
Email	March 3, 2025	UNSE emailed notification letters and notified tribal communities about the virtual informational tribal consultation meeting, comment period, and inviting them to take part in an informational tribal consultation field visit of the study area.

Outreach Method	Date	Summary
Mail	March 6, 2025	UNSE mailed notification letters inviting comment on the Project and offering each community a virtual meeting and field visit.
Phone	March 11, 2025	UNSE reached out directly to each tribal community to follow up on the notification email and mailers sent on March 3 and March 6, 2025, respectively.
Phone	March 17, 2025	UNSE reached out directly to each tribal community to follow up on the notification email and mailers sent on March 3 and March 6, 2025, respectively.
Phone	March 18, 2025	UNSE reached out directly to each tribal community to follow up on the notification email and mailers sent on March 3 and March 6, 2025, respectively.
Phone	March 21, 2025	UNSE reached out directly to each tribal community to follow up on the notification email and mailers sent on March 3 and March 6, 2025, respectively.
Virtual Meeting	March 19, 2025	UNSE presented an overview of the project to Orlando Moreno, Community and Economic Development Director for the Fort McDowell Yavapai Nation. Information shared included the purpose, benefits, and status of the Project, and if formal archaeological analysis had been performed to date.
Email	May 3, 2025	UNSE emailed tribal communities with project updates, notifying them of the comment period, and offering each an individual virtual meeting and field visit to discuss any concerns and answer any questions.
Phone	May 3, 2025	UNSE reached out directly to each tribal community to follow up on the notification email and mailers sent on May 3, 2025.
Mail	May 6, 2025	UNSE mailed notification letters inviting communities to provide comment on the Project or participate in a virtual briefing or field visit.
Email	July 22, 2025	UNSE emailed project updates, including a copy of the Class I Cultural Resource Inventory Report and comment period information. UNSE continued to offer a virtual meeting and field visit.
Mail	July 22, 2025	UNSE mailed notification letters inviting the communities to provide comment on the Project and to offered a virtual meeting and field visit.
Phone	August 30, 2025	UNSE contacted each of the tribal communities directly by phone to confirm they received all communications and answer questions about the project, and solicit any final comments they may have before UNSE's submittal of the CEC application to the ACC.

These efforts reflect UNSE's commitment to building trust, fostering transparency, and ensuring tribal voices were actively considered in the siting process.

External Communication

All stakeholders were kept informed of Project developments through a variety of communication channels.

Newsletters

To ensure broad awareness of the Project, UNSE compiled a mailing list that included residents, property owners, and businesses located within one mile of the Project Siting Area, referred to as the "Project Notification Area." All landowners, residents, and businesses located within 1 mile of the Project Siting Area received newsletters. The newsletter were also mailed to relevant agencies, public officials, tribal communities, NGOs, and HOAs. To identify these stakeholders, UNSE utilized various methods including publicly available online parcel data gathered from the Pima and Santa Cruz Counties' assessors' websites which was verified by a third party, government websites, including the Arizona Government to Government Consultation Toolkit, ArcGIS mapping, and coordination with the GVC. During the siting process, the original stakeholder outreach list, which was utilized for stakeholder engagement in April 2024, was updated in early 2025 with the expansion of the Project Siting Area. The stakeholder list was also continuously updated with new contact information (e.g. emails, updated addresses, etc.) and modified to

remove non-deliverables (e.g., returned mail, rejected emails, etc.). Copies of all mailings are included in **Exhibits J-3** through **J-10** and **J-14**.

Over the course of the Project, UNSE prepared and distributed five newsletters:

- **Newsletter #1**, distributed in April 2024, was mailed to approximately 4,500 recipients, including residents, business owners, landowners, and representatives from agencies and organizations within the Study Area. The newsletter served as an introduction to the Project, outlining key details such as the Study Area boundaries, project purpose and anticipated benefits, timeline, and planning process. It also provided information about an upcoming public open house and explained how individuals could submit comments and participate in the planning effort.
- **Newsletter #2**, distributed in July 2024, was mailed to approximately 4,500 individuals, including residents, business owners, landowners, and agency or organization representatives within the Study Area. This edition reaffirmed the Project's purpose and benefits, outlined public input methods, and featured a map of opportunities and constraints within the Project Siting Area.
- **Newsletter #3**, distributed in March 2025, was mailed to approximately 17,000 individuals, including residents, business owners, landowners, and agency or organization representatives within an expanded Study Area. This edition shared details about an upcoming public open house, reiterated the Project's purpose and benefits, and highlighted the numerous ways UNSE was gathering public input. It also included a map showing potential line route segments.
- **Newsletter #4**, distributed in May 2025, was mailed to approximately 17,000 recipients, including residents, business owners, landowners, and agency or organization representatives within the Study Area. This newsletter provided details about an upcoming public open house, reiterated the Project's purpose and benefits, and emphasized the various methods by which UNSE was eliminating line route links. It also featured an updated map showing a refined set of potential route segments.
- **Newsletter #5**, distributed in July 2025, was mailed to approximately 17,000 recipients, including residents, business owners, landowners, and agency or organization representatives within the Study Area. It provided details about an upcoming public open house, reaffirmed the Project's purpose and benefits, outlined the project timeline, and discussed the development of route alternatives. A map showing five alternative route options was also included, along with all route segments that had been eliminated from consideration.

Each newsletter provided information in both English and Spanish. Each newsletter also contained information to access the Project webpage, which was updated with the most up-to-date information on the Project.

Email Updates

Project comment forms and meeting sign-in sheets offered participants the opportunity to opt in to the Project's email distribution list to receive ongoing updates. Email updates were sent on April 1, 2024, July 8, 2024, March 8, 2025, May 5, 2025, and July 18, 2025, each providing stakeholders with information and updates on the Project status, a Project map, Project meeting times and locations, opportunities for comments, and links to the Project webpage. Copies of these emails are included in **Exhibits J-3** through **J-10** and **J-12**.

Signage

To promote the four public open house meetings, UNSE installed eight temporary bilingual signs at key intersections throughout the Project Siting Area approximately two weeks prior to each open house meeting.

These signs were strategically placed to maximize visibility and community awareness. A representative image of the signage and placement details can be found in **Exhibits J-4, J-6, J-8, and J-10.**

Bulletins

Bilingual flyers were posted at the following eight public locations:

- Green Valley Chamber of Commerce
- Joyner - Green Valley Library
- Posada Java Coffee Shop
- Moqah Coffee Shop
- Sahuarita Library
- Sopori Elementary School (venue for the open house)
- Dollar General on (Arivaca Road)
- The Longhorn Grill (Amado)

Flyers were posted approximately two weeks prior to each public open house meeting to help raise awareness and encourage attendance. The flyers and a list of their placement locations are included in **Exhibits J-4**, **J-6**, **J-8**, and **J-10**.

Project Webpage

Recognizing the importance of the Internet as a key source of public information, a webpage specific to this Project was launched by UNSE prior to the start of public engagement activities in April 2024 and was regularly updated throughout the planning and siting process.

The Project webpage is available in:

- **English**: uesaz.com/santa-cruz-reliability-north (**Exhibit J-16**)
- **Spanish**: uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte (**Exhibit J-16**)

The webpage provided detailed information about the Project, including meeting announcements, interactive project maps, and materials presented at public open houses. Following each meeting, informational exhibits were posted online. Viewers were also offered multiple ways to submit comments or contact the project team, including an online comment form, dedicated email address, phone line, and mailing address.

Between April 2024 and August 31, 2025, the Project's English webpage was viewed 9,827 times, and the Spanish webpage was viewed 1,056 times. There were 2,484 and 322 unique visitors on the English and Spanish webpages, respectively.

Social Media and Video

To broaden public awareness and engagement, UNSE used social media platforms and video content as part of its outreach strategy. Targeted advertisements reaching users within and near the Project Siting Area were placed on Facebook and Instagram in English and Spanish, running during the dates identified in **Figures J-1** and **J-2**.

UNSE produced and shared a Project overview video on YouTube, offering a visual and narrative summary of the Project. The video was posted to the Project webpage and shared during agency and public meetings.

It included information on the Project purpose and need, the planning and siting process, and how to provide comment.

These multimedia approaches, examples of which are included in **Exhibits J-4**, **J-6**, **J-8**, and **J-10**, helped ensure accessibility and engagement across a range of audiences and communication preferences.



	April 9 - 25, 2024		July 7-19, 2024		March 5 - 20, 2025		May 14 - 20, 2025		July 22 - August 7, 2025	
	English	Spanish	English	Spanish	English	Spanish	English	Spanish	English	Spanish
Impressions	85,501	21,741	49,066	22,682	93,266	22,172	15,220	14,858	75,271	26,157
Reach	51,303	13,755	39,562	14,047	59,346	14,371	13,284	13,727	48,777	18,852
Clicks	119	42	90	28	145	39	76	19	241	57
CTR	0.14%	0.19%	0.18%	0.12%	0.16%	0.18%	0.50%	0.13%	0.32%	0.22%

Figure J-2. Social Media Ads

Radio

Spanish language radio advertisements were also used as part of the public outreach strategy to reach the Spanish-speaking community and inform and engage the community about the Project and upcoming open house meetings. Advertisements aired on La Maxima Radio beginning ten days prior to each meeting.

Newspaper

A total of 6 bilingual advertisements ran in the Green Valley News, which was used for all four rounds of outreach. One bilingual notice ran in the Sahuarita Sun for the first round of outreach in April 2024, but this publication was not utilized for subsequent outreach as the Sahuarita Sun is the sister publication of the Green Valley News and is technically not adjudicated for legal postings on its own. Additionally, both the Green Valley News and Sahuarita Sun share the same distribution area, the only difference being in the topics each individual publication covers. In an effort to broaden geographic and demographic outreach, bilingual notices ran in both the Nogales International and the Green Valley News as of March 2025. In April of 2024 and July of 2025, fully bilingual public notices also ran in the Arizona Bilingual for the final round of outreach. Public notices are available in **Exhibits J-4**, **J-6**, **J-8**, and **J-10**. **Table J-5** provides a summary of the publications and dates utilized by UNSE for public notifications for the Project.

Table J-5. Summary of Newspaper Publications

Newspaper	Dates of Publication
Green Valley News (Sunday Publication)	• April 14, 2024 • March 9, 2025 • May 11, 2025 • July 20, 2025 • July 27, 2025 • August 3, 2025
Sahuarita Sun (Wednesday Publication)	• April 10, 2024

Newspaper	Dates of Publication
Nogales International (Thursday Publication)	• March 7, 2025 • May 16, 2025 • July 25, 2025 • August 1, 2025
Arizona Bilingual (Monthly)	• April 1, 2024 (April Edition) • July 28, 2025 (August Edition)

Ways to Comment

Public comments were collected through multiple channels via phone, mail, online comment forms and email.

UNSE provided multiple bilingual channels for the public to submit feedback. These included:

- Submitting a paper comment form at an in-person meeting
- Completing an online comment form
- Sending comments via email to scrnorth@uesaz.com
- Leaving a voicemail at (520) 917-6635
- Mailing written comments to:
  Attn: Santa Cruz Reliability Project North
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

As a result of these outreach efforts, the public submitted a total of 340 comments and questions. Redacted versions of these comments are available in **Exhibit J-17**.

Comment Tracking Database

All comments were entered into a centralized database, with specific areas of interest, concern, or route preferences, carefully noted and tracked. Key themes included health and safety, visual impact, location, undergrounding, and natural resources. This input helped UNSE better understand community concerns and informed project planning wherever feasible.

News Media

News media also provided Project coverage. Specifically, the following news articles were published regarding the Project:

Nogales International (March 25, 2025)
UniSource proposes new transmission line for SCC

KGUN 9 News (April 8, 2025)
Green Valley homeowners' association raises concerns over TEP-Unisource power line project
The Springs at Santa Rita says Santa Cruz County connection line will disrupt nature preserve and dog park while lowering property values
By Joel Foster

Nogales International (May 5, 2025)
Briefs: UniSource hosts open houses for transmission line project

KGUN 9 News (June 5, 2025)
Green Valley HOA wins battle to protect property from power line project
TEP/Unisource eliminates route taking place on Springs at Santa Rita HOA, saving trails, dog run
By Joel Foster

Green Valley News (August 5, 2025)
Decision time: GV residents want to know where the transmission line is going
By Jorge Encinas

KGUN 9 News (August 5, 2025)
Green Valley community concerned over power line project
Residents oppose routes that would cross residential areas due to health and safety issues
By Joel Foster
Copies of each of the above news articles are included as **Exhibit J-18**.

Telephone Line Information

A toll-free telephone information line was established to support public engagement for the Project. The automated message, available in both English and Spanish, invited callers to leave comments or questions via voicemail. The phone number was prominently featured in the newsletter, radio advertisements, flyers, road signage and on the Project webpage.

Voicemails were also monitored regularly throughout the course of the Project. A total of 29 messages had been received as of August 31, 2025. All call messages can be found in **Exhibit J-17.**

Comments Received

As of August 31, 2025, 340 comments had been received regarding the Project from various sources. Comments were received through a variety of methods including in writing, via voicemail, via email, or through the online submission form as shown in **Figure J-3**.

Public

As part of the Project public engagement process, a total of 340 public comments were received from members of the public. These comments reflect a range of perspectives and input from stakeholders and community members. Common themes included avoiding viewsheds and concerns over impacts to property values. This information was used to better understand the interests of the community regarding the Project and to incorporate those comments into UNSE's line siting process as appropriate and to the extent possible. **Figure J-4** provides a summary of the topics of concern by percentage.

Agencies

In addition to public input, UNSE received seven comments from local and state agencies regarding the application. These comments provided valuable technical, regulatory, and jurisdictional perspectives that are incorporated into the Project as appropriate and to the extent possible. Agency comments received as of August 31, 2025, are located in **Exhibit J-17**.

Elected Officials

UNSE received no written comments from elected officials concerning the application.

Tribal Communities

UNSE received two comments from tribal communities in response to the application. This comment was from the White Mountain Apache Tribe expressing that they determined the Project would have "No Adverse Effect" and that no further consultation with them was required.

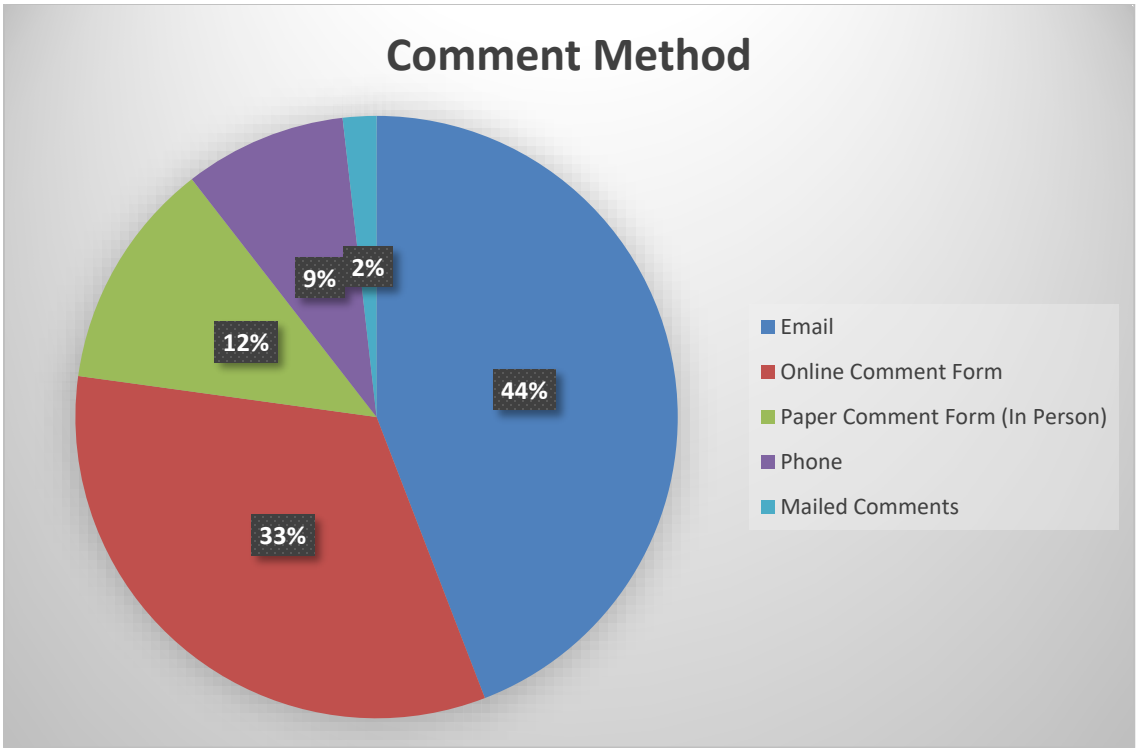


Figure J-3. Comment Methods

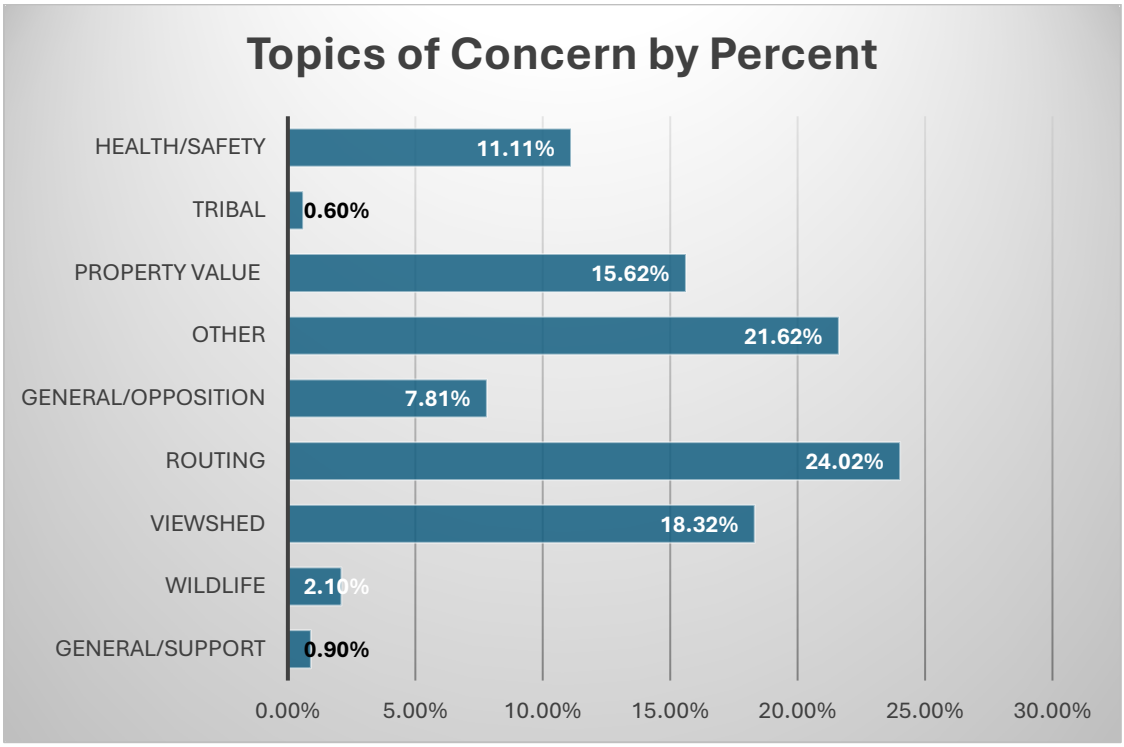


Figure J-4. Topics of Concern from Public Comment

Project Area Demographics

As part of its planning process, UNSE reviewed the demographics of the Project Siting Area to inform its public involvement strategy. Based on U.S. Census data, the Project Siting Area overlaps with the Census Designated Places of Green Valle and Amado, Arizona.

- **Green Valley** (pop. ~22,616) is predominantly White (92%) with a median household income of $58,268 and a poverty rate of 8.5%, which is below both state and regional averages.
- **Amado** (pop. ~198) has a more diverse racial composition (51% White, 49% Hispanic) and a significantly higher poverty rate of 48.8%, with 50% of seniors living below the poverty line.

As a result of this research, UNSE made the decision to provide all Project related materials in both English and Spanish and included targeted Spanish language outreach.

EXHIBIT J-1

EXTERNAL ENGAGEMENT PLAN

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EXTERNAL ENGAGEMENT PLAN

SANTA CRUZ RELIABILITY NORTH PROJECT

Prepared for:

UNS Electric, Inc.
P.O. Box 711
Tucson, Arizona 85702

Prepared by:

Eocene Environmental Group, Inc.
1745 South Alma School Road #220
Mesa, Arizona 85210

April 2024 (updated August 2025)

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PROJECT BACKGROUND AND PLAN INTRODUCTION

Project Background

The Santa Cruz Reliability Project North (SCR North or Project), led by UNS Electric, Inc. (UNSE), aims to enhance power reliability in Santa Cruz County by constructing a 138 kilovolt (kV) transmission line to connect its existing Kantor substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements. Construction of the Project would facilitate more stable and reliable energy for the region's residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage. A crucial step to this improvement in electric infrastructure improvement is the application for a Certificate of Environmental Compatibility (CEC). This External Engagement Plan (EEP) has been prepared to ensure robust public and stakeholder outreach and engagement in compliance with CEC public engagement requirements. It also incorporates guidance from the Arizona Corporation Commission (ACC).

External Engagement Plan Introduction

The EEP for SCR North focuses on comprehensive public and stakeholder engagement. It emphasizes the importance of strategic bilingual communication, low-income and diverse communities' involvement, Tribal consultation, public participation, and outreach to a variety of stakeholders including local, state, and federal elected officials, and various non-governmental organizations. The EEP includes strategies for social media, public meetings, direct mailings, radio advertisements, and newspaper publishing; aimed at ensuring inclusive community involvement and addressing diverse interests and concerns about the impact of the project.

ENGAGEMENT GOALS AND APPROACH

The goals of engagement for the Project are to keep the public and interested parties informed, encourage feedback and participation, and to incorporate that feedback into the siting process.

The Project team's approach to meaningful community engagement, fostering trust and project support, is characterized by the qualities listed below.

- *Respectful* - We will give due regard to the views, wishes, rights, and traditions of all interested parties.
- *Transparent* - We will share Project plans and details with the community and interested parties in a direct manner to promote understanding. Proactive - We will not wait for issues or problems to arise.
- *Inclusive* - We will seek to involve the community and interested parties in the process, especially those who have historically been excluded.
- *Accessible* - We will be reachable to the community and interested parties throughout the life of the Project.
- *Accountable* - We will take ownership of our relationships with the community and interested parties and when practicable seek to incorporate their views and input into planning and decision-making.

PUBLIC AND STAKEHOLDER ENGAGEMENT STRATEGIES

Local Interest

UNSE, in collaboration with Eocene Environmental Group, Inc. (Eocene), will connect with local homeowner's associations and communities to discuss the Project and answer questions as needed, ensuring engagement and feedback from residents. Signage will be strategically placed to inform residents about the Project and provide details regarding upcoming public meetings. Furthermore, the Project team will collaborate with the Green Valley Council, leveraging their communication channels and influence within the local community to enhance transparency and invite residents' feedback on the Project.

Bilingual Accommodation

Direct mailings will be produced in both English and Spanish, and care will be taken to ensure that translations are accurate and culturally appropriate. This strategy will involve engaging bilingual experts when developing outreach materials, to ensure that the direct mailings are accurately translated and culturally attuned to the preferences and sensitivities of both English and Spanish-speaking audiences in the region. Newspaper publications and social media posts will be made in English and Spanish and posted on UNSE's Project-dedicated webpage. Notices for public meetings will also be broadcast on a local Spanish-speaking radio station. Additionally, the Project webpage will feature a language toggle option, offering information in both English and Spanish.

Tribal Consultation

In terms of Tribal consultation, the outreach approach involves culturally sensitive and respectful content in all outreach methods. Public meeting details will be communicated with Tribal leaders, to invite engagement and a recognition of concerns from Tribal members. These methods will include individualized letters to each Tribe in the region inviting them to comment on the project and inviting them to field visits, as requested. Tribes will also be contacted directly by phone to ensure that they receive all relevant project and meeting invite information.

Low-Income / Diverse Community Engagement

For engaging low-income and diverse communities in the proposed Study Area, the focus will be on accessibility and sensitivity to the unique needs and circumstances of these communities. This outreach plan aims to ensure every community member, irrespective of their background, has equitable access to crucial Project information and an equal chance to contribute to the decision-making process. This plan includes organizing public meetings in two separate locations, with one in Green Valley and the other in Amado, Arizona. The Green Valley location is at the center of a retirement community and the meeting times will be during the time accommodating schedules of retirees. The Amado location is strategic for its proximity to communities facing disadvantages, thereby minimizing travel barriers, and making it more convenient for residents to attend. The Amado meetings will be scheduled in the early evening, specifically to accommodate those who work during daytime hours, ensuring they too can engage, understand, and influence Project outcomes. Providing a wide range of outreach methods that are clear and concise in their purpose of educating community members on the Project purpose, planning process, and Project events can help ensure equitable opportunities for public involvement.

Tribal Outreach

Tribal outreach efforts will include a multifaceted approach to ensure respectful, effective, and inclusive communication with Tribal Nations. Email correspondence will be used extensively to share timely updates, distribute Project materials, and maintain an ongoing dialogue in a format to allow Tribal representatives to respond at their convenience. Formal letters will also be sent to convey official notices, consultation invitations, and key Project milestones, reinforcing the relationship and providing a formal record of communication. Phone calls also will play a critical role in facilitating real-time conversations, clarifying information, and coordinating logistics, while also helping to build rapport and trust. Documentation of all outreach to Tribal communities will be saved. Together, these outreach methods are designed to honor Tribal sovereignty, accommodate communication preferences, and promote transparency throughout the planning process. Tribes that have expressed an ancestral affiliation to the Project Study Area and will be contacted are as follows:

- Ak Chin Indian Community
- Fort McDowell Yavapai Nation
- Gila River Indian Community
- Hopi Tribe
- Mescalero Apache Tribe
- Pascua Yaqui Tribe
- Salt River Pima-Maricopa Indian Community
- San Carlos Apache Nation
- Tohono O'odham Nation
- White Mountain Apache Tribe
- Pueblo of Zuni

Agency and Public Officials Outreach:

In addition to public and Tribal engagement, UNSE will conduct targeted outreach to key agencies and public officials to ensure alignment, transparency, and regulatory coordination throughout the project. Briefings will be held with local, state, and federal agencies to provide detailed project overviews, discuss permitting requirements, and address jurisdictional considerations. These sessions will allow agency staff to ask technical questions, offer early input, and identify potential areas of concern or collaboration. UNSE will also engage directly with elected officials and their staff through meetings, phone calls, and written updates. This outreach will ensure that decision-makers are kept informed of project developments and community feedback, and it will provide a channel for constituents' concerns to be elevated and addressed. By maintaining open lines of communication with both regulatory bodies and public officials, UNSE reinforces its commitment to a transparent and inclusive planning process.

OUTREACH METHODS

This section describes how members of the public, government agencies, Tribes, and non-governmental agencies (NGOs) will be notified about the project.

Direct Mailings

Managed by Eocene, in collaboration with UNSE, direct mailings will target identified stakeholders, including diverse community groups, Tribes, agencies, and NGOs. In addition to these stakeholders, all landowners, residents, and businesses within a 1-mile buffer of the

Project's Study Area will receive direct mailings regarding the Project. These mailings will provide essential information about the Project, including public meeting schedules and feedback mechanisms. Timelines for these mailings are strategically set to align with subsequent outreach methods, as the newsletters will be dispatched no later than 2 to 3 weeks prior to the scheduled public meetings. This approach ensures timely and effective external engagement and compliance with outreach requirements.

Public Meetings

Purpose

Public meetings will be held twice the same day for each round of stakeholder outreach. The first meetings will be held in the morning in Green Valley, Arizona, to accommodate residents in Pima County and will include a presentation followed by a more informal open house format. The second meeting will be held in the evening in Amado, Arizona, in the southern portion of the Study Area as aforementioned and will be solely an open house-style meeting. These meetings aim to provide the public with an overview of the project, educate attendees on the purpose and need of the project, and take note of concerns that the public may have regarding the impact of the project.

In addition to the public meetings, additional agency briefings and meetings with interested Tribal communities will be scheduled, as needed. It is anticipated that these meetings will approximately coincide with the timing of the scheduled public meetings.

Meeting Notices

Eocene, under guidance of UNSE, will coordinate with local newspapers; the Green Valley News/Sahuarita Sun, and Nogales International to publish details regarding the public meeting dates, times, and locations. These notices will be submitted and published no later than 2 weeks prior to the scheduled public meeting dates, allowing time for proper circulation and planning for residents. Additionally, notices will be posted via road signage, publicly posted flyers, and newsletters mailed directly to residents, businesses, and stakeholders located within 1 mile of the Project Study Area. Public meeting notice signage will be posted at the following locations:

- Green Valley Library
- La Canoa Baseball Fields
- Green Valley Post Office
- Green Valley Recreation Center Las Campanas
- Sopori Elementary School
- Quail Crossing
- Anza Trailhead on Elephant Head Road
- Green Valley Recreation - East Center

All newsletters, flyers, road signs, meeting boards and other printed materials will be printed by the third-party printer/sign maker, West Press. It is anticipated that West Press will also mail all newsletters. Newsletters, flyers, and road signs will present meeting information in both English and Spanish. Eocene staff will be responsible for posting all printed flyers at any identified public notice locations, including, but not limited to, post offices, libraries, community centers, and other places where notices may be legally posted.

Content

UNSE will present the following:

- Project Need and Purpose
- Proposed Project Location and Study Area, Goals, and Alternatives
- Resources to be studied or investigated
- Potential impact on sensitive resources
- Overview of the Planning Process and updates
- Mechanism for transmitting comments

Engagement

The meetings will invite comments and feedback from attendees, to be recorded on the meeting notes and administrative record, which Eocene will catalogue by issue presented.

Attendance

Representatives with varying expertise from UNSE and Eocene will attend and facilitate the open-house meeting.

Public Meeting Input Collection

Comments received from the online form (via QR code or project webpage), physical comment cards at public meetings, phone calls, emails, and direct mailed letters will be systematically catalogued and organized by topic. This approach facilitates filtering and sorting by specific issues, allowing for efficient identification of common themes and concerns. For attendees that wish to provide comments following the public meeting, take home fliers with Project information, contact phone number, and project-dedicated email will be provided. Subsequently, the Project team will address these categorized comments, ensuring that responses are targeted and relevant to the community's feedback.

Meeting Summary

Upon conclusion of any Project meeting, UNSE and Eocene will develop a meeting summary that will be included in the CEC application. The Meeting Summary will include a detailed summary of discussions, comments, and questions raised by attendees, categorized by topic for clarity. Additionally, the summary will discuss methods in which the meeting was advertised, organized, and conducted. This summary will also specify how the Project team intends to address each category of feedback, including, but not limited to, adjustments to the Project plan, further studies, or community engagement efforts.

Radio Advertisement

The use of radio advertisements is aimed at broadening the scope of public engagement for the project. Recognizing the linguistic diversity within the local communities, these advertisements will be broadcast in Spanish, ensuring that a wider audience is informed about the project's objectives, developments, and opportunities for public participation. This approach caters to the specific needs of Spanish-speaking residents, ensuring that all factions of the community receive timely and relevant information.

Project Support Email and Phone Number

UNSE will establish a dedicated Project support email and phone line to facilitate direct communication with stakeholders and the public. These resources will serve as accessible channels for inquiries, comments, and feedback. Managed with the aim of ensuring responsiveness and engagement, these tools will allow the project team to collect valuable input, address concerns, and provide updates, enhancing transparency and fostering a collaborative relationship with the community. UNSE will forward comments received through these channels to Eocene for cataloguing and further action, ensuring a systematic approach to stakeholder engagement and proper documentation within the CEC Application. The support email and phone number are as follows:

Email: scrnorth@uesaz.com

Phone: (520) 917-6635

Newspaper Publications

In alignment with the EEP's emphasis on compliance and inclusive community outreach, UNSE and Eocene will ensure that newspaper advertisements about SCR North are published in newspapers of general circulation in the Project area. To expand the reach, articles will be featured in several key publications, including the Green Valley News/Sahuarita Sun, Nogales International, and AZ Bilingual. These selections have been made to cater to diverse community segments, ensuring comprehensive coverage and engagement across different demographics and linguistic groups.

Social Media

The Project's social media strategy, managed and overseen by UNSE, will employ a multifaceted approach across various platforms. Key aspects include using diverse platforms like Facebook and Instagram, each tailored to their specific audience and content style. Accessibility and inclusivity are paramount, ensuring content is understandable and reachable to diverse audiences, including non-English speakers.

Project Webpage

Managed by UNSE, the Project webpage will be a key hub of information, designed for user-friendliness and accessibility. It will offer a comprehensive overview of the Project, including objectives, studies being carried out, timelines, and updates, ensuring the public is kept informed of the latest developments. The webpage will also include a community engagement form, offering mechanisms for public feedback and subscription to updates or public meeting notifications.

In terms of accessibility, the site will be tailored to be inclusive for all users, including those with disabilities, with features like screen reader compatibility and alternative text for images. It will also offer bilingual options.

An interactive online map will be developed and shared on the Project webpage, allowing stakeholders to explore the proposed Project area, view key features, and better understand potential impacts in a user-friendly, visual format. By maintaining open lines of communication with both regulatory bodies and public officials, UNSE reinforces its commitment to a transparent and inclusive planning process.

Project webpage (English Version): uesaz.com/santa-cruz-reliability-north

Project webpage (Spanish Version): uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

Comment Collection

A detailed strategy for cataloging public and agency comments received through the various outreach channels will be followed. This process involves the systematic collection of feedback from the project support email and phone number, public meetings, outreach letters, social media, and the project webpage, with UNSE responsible for forwarding comments from specific forums to Eocene. Once collected, comments will be organized, categorized by their source and topic to facilitate an efficient response process. The task of formulating responses is divided between UNSE and Eocene, ensuring that inquiries are addressed by the most knowledgeable party. These cataloged comments and their responses will be an integral part of the submission to the CEC application, serving as a testament to the project's commitment to stakeholder engagement and public involvement.

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EXHIBIT J-2

SUMMARY TABLE OF OUTREACH AND ENGAGEMENT

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SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
Public Webpage (Overall SCR Project)	March 26, 2024	UNSE created a bilingual webpage for the public to learn more about the overall Santa Cruz Reliability Project.
Email to Agencies/Stakeholders	April 1, 2024	UNSE emailed all agencies and stakeholders a digital copy of Newsletter #1 and included information on how to provide comments and attend the Agency Briefing and Public Open House (Round 1).
Social Media Campaign #1	April 9, 2024 – April 25, 2024	UNSE provided targeted ads of the Project on Facebook and Instagram providing notice of upcoming public open house meetings (Round 1).
Email to Elected Officials	April 10, 2024	UNSE provided information on the upcoming public meeting opportunities, updates on the project and included information on how to provide comments.
Newspaper Advertisement #1	(Sahuarita Sun) April 10, 2024 April 17, 2024 (Green Valley News) April 14, 2024 April 21, 2024	UNSE posted advertisements in the Sahuarita Sun and Green Valley News providing notice of upcoming public open house meetings (Round 1).
Newsletter #1	April 11, 2024	UNSE mailed newsletter to stakeholders providing basic project information, including the study area, and to inform stakeholders of the upcoming public open house meetings and public comment opportunities (Round 1).
Public Notification Street Signage	April 11, 2024 – April 26, 2024	UNSE posted physical signs notifying stakeholders of the upcoming public open house meetings (Round 1).
Public Notification Flyers	April 11, 2024 – April 26, 2025	UNSE posted flyers in various areas in the Study Area providing notice of upcoming public open house meetings (Round 1).
Radio Advertisement	April 11, 2024 – April 26, 2024	UNSE placed Spanish radio advertisements on KOFH providing notice of upcoming public open house meetings (Round 1).
Agency Briefing #1	April 23, 2024	UNSE presented an overview of the project scope, including its purpose, benefits, the initial Study Area, the initial opportunities and constraints identified, and addressed questions from agency representatives.

SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
Public Open House #1	April 25, 2024	The public open house was hosted in the morning at the Green Valley Recreation Center and another afternoon meeting at Sopori Elementary School in Amado to inform attendees on the Project status, present the project Study Area, and to identify potential opportunities and constraints to help inform UNSE's ongoing siting study (Round 1).
Canoa Ranch Estates Briefing	April 25, 2024	UNSE met with three residents from Canoa Ranch Estates who expressed concerns about a proposed transmission line along Duval Waterline Road.
Pima County Briefing	May 13, 2024	UNSE presented a project overview via PowerPoint, noting anticipated concerns from recreational groups due to a protected migratory bird pathway, as well as challenges related to a historic campground and the need for a new wastewater line.
SHPO Meeting	May 22, 2024	UNSE presented on the project opportunities and discussed the requirements for intersecting ASLD lands. SHPO emphasized the need to comply with the State Historic Preservation Act.
ADOT Meeting	May 23, 2024	UNSE presented an overview of the project study area and the possibility of siting the line within the I-19 right-of-way and/or adjacent Frontage Roads.
Pima County Briefing	June 19, 2024	UNSE identified key issues related to constructing a new 138 kV line within the Raúl M. Grijalva Canoa Ranch Conservation Park (Conservation Park) and proposed using an aerial easement to minimize ground disturbance and reduce the project's footprint.
Social Media Campaign #2	July 7, 2024 – July 19, 20240	UNSE provided targeted ads of the Project on Facebook and Instagram providing an update on the progress of the Project as UNSE continued to identify additional opportunities and constraints.
Newsletter #2	July 8, 2024	UNSE provided information notifying stakeholders of the continued planning efforts of the Project and that UNSE will

SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
		notify them again when the next public meeting opportunities are scheduled.
Email to Agencies/Stakeholders	July 8, 2024	UNSE provided information notifying stakeholders of the continued planning efforts of the Project and the UNSE will notify them again when the next public meeting opportunities are scheduled.
Email to Elected Officials	July 8, 2024	UNSE provided information notifying officials of the continued planning efforts of the Project and the UNSE will notify them again when the next public meeting opportunities are scheduled.
Pima County Briefing	July 23, 2024	UNSE provided an update on alternative route development, including the potential for options through the Conservation Park. The County will lead coordination with federal agencies and the PCBS.
Freeport McMoRan Briefing	September 12, 2024	UNSE discussed several route alternative opportunities and options that may require portions of the Project to cross Freeport McMoRan property.
PBS	September 13, 2024	Meeting with a private landowner representative to discuss potentially crossing their land (located east of Canoa Ranch Substation).
ADOT Meeting	October 22, 2024	This meeting was set up to discuss and clarify ADOT's clearance requirements for construction transmission lines in ADOT ROWs.
Pima County Briefing	December 4, 2024	This meeting was set up to discuss the possibility of running the transmission line through the Conservation Park and terms of the agreement.
Arizona State Lands Department (ASLD)	December 9, 2024	This meeting was to discuss multiple land leases, including 34 acres for the Kantor Substation rebuild and expansion.
Pima County Briefing	December 18, 2024	This meeting was set up to discuss the details of the draft agreement.
Santa Rita Experimental Range Meeting	December 18, 2024	The meeting was to discuss potential routes through the Santa Rita Experimental Range to assist UNSE refine their siting study opportunities and constraints.

SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
Public Webpage (SCR North)	January 14, 2025	UNSE created a bilingual webpage specifically for the Santa Cruz Reliability Project North project and provided a plane for the public to learn more about the Project. This webpage was periodically updated throughout the course of the Project.
Pima County Briefing	January 23, 2025	Meeting to go over the County's draft agreement.
Freeport McMoRan Briefing	January 27, 2025	Follow up meeting to continue Project discussions and opportunities to cross Freeport McMoRan property.
Santa Rita Experimental Range (SRER) Meeting	January 29, 2025	SRER review of conceptual route discussion.
Farmers Investment Company (FICO) Meeting	February 11, 2025	Preliminary discussion between FICO and UNSE to discuss the possibility of crossing FICO property to help inform the ongoing siting study for the Project.
Pima County Briefing	February 13, 2025	UNSE presented its plans for using the Cienega Creek line, emphasizing the need for a blanket easement to maintain and clear the area. Discussions also covered the PCBS process, contract drafting, and the need for GIS data on a western route not yet considered by the County
Freeport McMoRan Briefing	February 24, 2025	Review of UNSE's site review from the proposed FMI switchyard location.
Email to Elected Officials	February 26, 2025	UNSE provided information on the upcoming public meeting opportunities, updates on the project and included information on how to provide comments.
Notification to Tribal Communities	March 3, 2025	UNSE emailed notification letters and notified the tribal communities about the virtual informational tribal consultation meeting, comment period and inviting them to take part in an informational tribal consultation field visit of the study area.
Social Media Campaign #3	March 5, 2025 – March 20, 2025	UNSE posted bilingual ads for the Project public open house opportunity (Round 2) on Facebook and Instagram. Post included a link to a Project informational video prepared by UNSE on YouTube.

SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
Newsletter #3	March 6, 2025	UNSE mailed notification letters to stakeholders about the public open house meetings (Round 2) and to present the preliminary segments on the Project.
Public Notification Road Signage	March 6, 2025 – March 21, 2025	UNSE posted signs notifying stakeholders of the upcoming public open house meeting opportunities (Round 2).
Public Notification Flyers	March 6, 2025 – March 21, 2025	UNSE posted flyers in various areas in Green Valley and Amado advertising the upcoming meeting opportunities (Round 2).
Newspaper Advertisement #2	(Nogales International) March 7, 2025 March 14, 2025 (Green Valley News) March 9, 2025 March 16, 2025	UNSE posted advertisements in Nogales International and Green Valley News advertising the upcoming meeting opportunities (Round 2).
Public Webpage Update	March 6, 2025	UNSE updated the project webpage with additional information to inform the public on the Project status, and to present the preliminary segments from the siting study on the Project (Round 2).
Radio Advertisement	March 6, 2025 – March 21, 2025	UNSE placed Spanish radio advertisements on KOFH providing notice of upcoming public open house meetings (Round 2).
Email to Agencies/Stakeholders	March 8, 2025	UNSE emailed all agencies and stakeholders a digital copy of Newsletter #3 and included information on how to provide comments and attend the Agency Briefing and Public Open House (Round 2).
Pima County Briefing	March 10, 2025	UNSE provided an overview of the Cienega Creek line and to discuss land use coordination.
Pima County Briefing	March 13, 2025	UNSE provided an overview of the Cienega Creek line and UNSE's use of the line.

SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
Phone Outreach to Tribal Communities	March 11, 2025 March 17, 2025 March 18, 2025 March 21, 2025	UNSE contacted each of the tribal communities directly by phone to confirm they received all communications and answer questions about the project.
The Springs HOA Meeting	March 12, 2025	UNSE provided details on the project's purpose, benefits, conservation easement, and potential impacts to Spring's HOA land.
Tribal Outreach Meeting	March 19, 2025	UNSE presented an overview of the project to Orlando Moreno, Community and Economic Development Director for the Fort McDowell Yavapai Nation. Information shared included the purpose, benefits, and status of the Project, and if formal archaeological analysis had been performed to date.
Agency Briefing #2	March 19, 2025	UNSE presented an overview of the project to inform attendees on the Project status, and to present the refined segments and suitability assessment results from the siting study on the Project.
Public Open House #2	March 20, 2025	The public open house was hosted in the morning at the Green Valley Recreation Center and another afternoon meeting at Sopori Elementary school to inform attendees on the Project status, and to present the refined segments and suitability assessment results from the siting study on the Project (Round 2).
Email Notification to Agencies, Stakeholders, Tribal Communities and Elected Officials	April 16, 2025	UNSE emailed all stakeholders, agencies, tribal communities and elected officials on the Project status and gave them early notification of the upcoming May 20th meeting.
Santa Cruz Valley Citizens Council Presentation	April 21, 2025	UNSE gave a general presentation on the SCR North Project, covering its history, purpose, benefits, phases, siting process, and schedule.
Email Notification to Elected Officials	April 25, 2025	UNSE provided information on the upcoming public meeting opportunities, updates on the project and included information on how to provide comments.

SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
Email Notification to Agencies	April 28, 2025	UNSE provided information on the upcoming agency briefing, updates on the project and included information on how to provide comments.
Email Notification to Stakeholders	April 28, 2025	UNSE provided information on the upcoming public meeting opportunities, updates on the project and included information on how to provide comments.
Notification to Tribal Communities	May 3, 2025	UNSE emailed the tribal communities with project updates, notifying them of the comment period, and offering each an individual field visit to discuss any concerns and answer any questions. Additionally, each tribe was contacted directly by phone to confirm they received all communications and answer questions about the Project.
Email to Agencies/Stakeholders	May 5, 2025	UNSE emailed all agencies and stakeholders a digital copy of Newsletter #4 and included information on how to provide comments and attend the Agency Briefing and Public Open House (Round 3). This email also clarified the date on open house which was incorrect on the April 28, 2025 email notifications sent by UNSE.
Newsletter #4	May 6, 2025	UNSE mailed notification letters to update stakeholders on the Project, including information on the upcoming meeting opportunities, and the refined segments and compatibility analysis results from the siting study on the Project (Round 3).
Public Notification Road Signage	May 6, 2025 – May 21, 2025	UNSE posted signs notifying stakeholders of the upcoming public open house meetings (Round 3).
Public Notification Flyers	May 6, 2025 – May 21, 2025	UNSE posted flyers in various areas in the Study Area advertising the upcoming meeting opportunities (Round 3).
Newspaper Advertisement #3	(Nogales International) May 9, 2025 May 16, 2025 (Green Valley News) May 11, 2025 May 18, 2025	UNSE posted advertisements in Nogales International and Green Valley News advertising the upcoming meeting opportunities (Round 3).

SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
Social Media Campaign #4	May 14, 2025 – May 20,2025	UNSE posted bilingual ads for the Project public open house opportunity (Round 3) on Facebook and Instagram. Post included a link to a Project informational video prepared by UNSE on YouTube.
Public Website Update	May 6, 2025	UNSE updated the project website with additional information for the public to learn more about the Project, including the upcoming meeting opportunities, and the refined segments and compatibility analysis results from the siting study on the Project.
Radio Advertisement	May 6, 2025 -May 21, 2025	UNSE placed Spanish radio advertisements on KOFH providing notice of upcoming public open house meetings (Round 3).
Agency Briefing #3	May 19, 2025	UNSE presented an overview of the project updates, including the refined segments and compatibility analysis results from the siting study on the Project.
Public Open House #3	May 20, 2025	The public open house was hosted in the morning at the Green Valley Recreation Center and another afternoon meeting at Sopori Elementary school to present to the public the refined segments and compatibility analysis results from the siting study on the Project.
SHPO Meeting	May 22, 2025	Follow-up meeting on SCR North agency briefing. UNSE provided an overview of a project that intersects with ASLD land. SHPO representatives highlighted the need for compliance with the State Historic Preservation Act (SHPA), noting limited previous surveys in that area.
Email to Elected Officials	July 14, 2025	UNSE provided information on the upcoming public meeting opportunities, updates on the project and included information on how to provide comments.
Email to Stakeholders	July 14, 2025	UNSE emailed all stakeholders a digital copy of Newsletter #5 and included information on how to provide comments and attend Public Open House (Round 4).

SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
Email to Agencies	July 15, 2025	UNSE emailed all agencies and stakeholders a digital copy of Newsletter #5 and included information on how to provide comments and attend the Agency Briefing and Public Open House (Round 4).
Notification to Tribal Communities	July 22, 2025	UNSE emailed the tribal communities project updates, including a copy of the Class I Cultural Resource Inventory Report, notifying them of the comment period, and offering each an individual field visit to discuss any concerns and answer any questions.
Newsletter #5	July 22, 2025	UNSE mailed notification letters to stakeholders about the public open house meetings (Round 4) and the public comment period as well as to present a map of the route alternatives UNSE developed for consideration.
Public Notification Road Signage	July 22, 2025 – August 7, 2025	UNSE posted signs notifying stakeholders of the upcoming public open house meetings (Round 4).
Public Notification Flyers	July 22, 2025 – August 8, 2025	UNSE posted flyers in various areas in Green Valley and Amado advertising the upcoming public meeting opportunities (Round 4).
Newspaper Advertisement #4	(Nogales International) July 25, 2025 August 1, 2025 (Green Valley News) July 20, 2025 July 27, 2025 August 3, 2025 (Arizona Bilingual) July 28, 2025 (AZ Bilingual)	UNSE posted advertisements in Nogales International, Green Valley News and Arizona Bilingual advertising the upcoming public meeting opportunities (Round 4).
Social Media Campaign #5	July 22, 2025 – August 7, 2025	UNSE posted bilingual ads for the Project public open house opportunity (Round 4) on Facebook and Instagram. Post included a link to n Project informational video prepared by UNSE on YouTube.
Public Website Update	July 22, 2025	UNSE updated the project webpage with additional information for the public to learn more about the Project such as upcoming meeting opportunities and route alternatives.

SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
Radio Advertisement	July 22, 2025 – August 8, 2025	UNSE placed Spanish radio advertisements on KOFH providing notice of upcoming public open house meetings (Round 4).
Phone Calls to Tribal Communities	July 23, 2025	UNSE contacted each of the 11 tribal communities directly by phone to confirm they received all communications and to answer questions about the project.
ADOT Meeting	July 25, 2025	Meeting to discuss the alternatives routes to determine if siting the project in ADOT ROW is possible.
Agency Briefing #4	August 4, 2025	UNSE presented an overview of the project updates, including its purpose and the route alternatives, and fielded questions from agency representatives.
Public Open House #4	August 5, 2025	The public open house was hosted in the morning at the Green Valley Recreation Center and another afternoon meeting at Sopori Elementary school.
Virtual Public Open House Meeting	August 7, 2025	UNSE provided a virtual presentation and a Q&A session for the public.
Emails Notification to Stakeholders and Agencies	August 22, 2025	UNSE provided updates on the project, informed stakeholders and agencies on the chosen Preferred and Alternative Routes that will be presented to the committee, and UNSE's intent to file the CEC in mid-September and offered to field any question they may have questions.
Email Notification to Tribal Communities	August 25, 2025	UNSE provided updates on the project, informed tribal community representatives on the chosen Preferred and Alternative Routes that will be presented to the committee, UNSE's intent to file the CEC in mid-September, and offered to schedule a meeting should they have any questions.
Email to Elected Officials	August 25, 2025	UNSE provided updates on the project, informed elected officials on the chosen Preferred and Alternative Routes that will be presented to the committee, UNSE's intent to file the CEC in mid-September, and offered to schedule a meeting should they have any questions.
Phone Outreach to Tribal Communities	August 28, 2025	UNSE contacted each of the tribal communities directly by phone to confirm they received all

SUMMARY OF PUBLIC AND STAKEHOLDER OUTREACH		
Means of Contact	**Date Initiated**	**Summary**
		communications and answer questions about the project, and solicit any final comments they may have before UNSE's submittal of the CEC application to the ACC.

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EXHIBIT J-3

AGENCY BRIEFING 1 SUMMARY (APRIL 23, 2024)

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Agency Briefing #1 Summary Report
Tuesday, April 25, 2024

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, is working to enhance energy independence and security for its customers by reducing reliance on the increasingly constrained regional energy market. To help meet growing reliability demands, UniSource is developing a transmission line that connects the Canoa Ranch Substation in Pima County, AZ to the Kantor Substation in Santa Cruz County, AZ. The Kantor Substation will also be expanded to accommodate the new transmission line.

In accordance with state regulations, UniSource must obtain a Certificate of Environmental Compatibility (CEC) to construct the necessary transmission line. As part of its due diligence and to better understand local community values that could influence the siting process, UNSE hosted an Agency Briefing to gather public input.

MEETING NOTIFICATION

UNSE compiled a stakeholder list based on the defined Project Study Area boundary, extending an additional 3 miles beyond that boundary for notification purposes. Agencies and Tribes with land ownership, jurisdictional authority, ancestral ties, or resource management interests within this area were identified. Additionally, entities that had previously expressed interest in UNSE or similar projects were included.

Once stakeholders were identified, their contact information was gathered. Notification of the virtual agency meeting was sent via email on April 11, 2024, by the Project's Project Manager.

MEETING SUMMARY

The virtual agency meeting took place on Tuesday, April 25, 2024, from 2:00 PM to 3:00 PM. The meeting featured a PowerPoint presentation that covered key aspects of the project, including its purpose and need, environmental permitting requirements, the line siting process, the study area and preliminary route segments, routing criteria, project schedule, additional resources, and a question-and-answer session.

Eocene staff present at the meeting included:

Table 1
EOCENE ATTENDEES

Name	Title
Brian Parker	Project Manager

UniSource staff present at the meeting included:

Table 2
UNSE ATTENDEES

Name	Title
Clark Bryner	Manager, Transmission Line Siting

Table 2 UNSE ATTENDEES	
Name	**Title**
Teresa Bravo	Government Relations Representative
Adriana Marinez	Project Manager, Transmission Line Siting
Eli Ancharski	Attorney
Minerva Rivera Crill	Engineer
Nicholas Loper	State Affairs Representative
Todd Lichtas	Engineer
Anna Garcia	Telecommunications Project Manager
Gary Trent	Manager Transmission Planning
Robert Guevara	Director of Operations

All participants were requested to enter their name, agency affiliation, and role in the meeting via the chat function.

Table 3 Project Location	
Name	**Title/Organization**
Luis Ramiez	Ramirez Advisors
Carrie Olson	Pima County Regional Flood Control District
Ian Milliken	Pima County, Conservation Lands & Resources, Cultural Resources & Heritage Preservation Manage
Kurtis Miller	Cox Communications Manager, Construction and Planning
Joshua Rubin	Chairman of the Greater Nogales and Santa Cruz County Port Authority
Edwin Monin	Coronado NF
Jose Madrigal	Fiber Engineer, Crown Castle
Tracy Vivanco	Customs and Border Protection, Office of Field Operations, Office of the Director of Field Operations, Tucson Field Office
Martin Rodriguez Nunez	Ramirez Advisors
Ruben Ojeda	Assistant Division Director of Real Estate, Arizona State Land Department
Eric Wilson	Pima County Facilities Management

SUMMARY

UNSE began the meeting by presenting a comprehensive overview of the project, outlining the underlying need for its implementation, such as addressing environmental concerns, enhancing public access, or supporting regional planning goals. UNSE highlighted the anticipated benefits, which may include ecological preservation, recreational opportunities, or community development. A key component of the presentation was the explanation of the conservation easement, including its purpose, scope, and how it aligns with long-term stewardship and land use objectives. UNSE also touched on the project's alignment with agency priorities and broader policy frameworks.

Following the presentation, UNSE opened the floor to questions from agency representatives. The discussion included clarifications on technical aspects of the project, inquiries about funding sources and timelines, and concerns related to jurisdictional coordination or environmental impact. UNSE responded to each question thoroughly, providing additional context and, where necessary, committing to follow-up actions or further documentation. The Q&A session fostered a collaborative atmosphere and helped ensure that all stakeholders had a clear understanding of the project’s direction and implications.

During a stakeholder discussion, Pima County inquired whether Phase I of the project would utilize existing TEP rights-of-way (ROW) or identify new ones. Clark responded that the goal is to consolidate ROWs where feasible, potentially repurposing existing 46 kV sub-transmission lines. Adriana committed to sharing the PowerPoint presentation and related materials in the coming days.

EXAMPLE

Ritter, Matthew

Subject:	You're Invited: Santa Cruz County Reliability Project North Agency Briefing
Location:	Microsoft Teams Meeting
Start:	Tue 4/23/2024 2:00 PM
End:	Tue 4/23/2024 3:00 PM
Recurrence:	(none)
Meeting Status:	Not yet responded
Organizer:	Marinez, Adriana

Dear Stakeholder,

UniSource Energy Services (UniSource) is preparing plans for new transmission facilities to improve reliability and resiliency of the electrical transmission system serving Santa Cruz County.

You, or a designee, are invited to participate in a virtual agency briefing on Tuesday, April 23 at 2 p.m. to learn more about the project and provide feedback (meeting details below).

A public open house meeting will also be held on Thursday, April 25 at Sopari Elementary School in Amado, AZ, from 6 to 8 p.m. The attached project newsletter will be mailed to area residents, businesses, and stakeholders about two weeks prior to the meeting. Details about the project and open house are also available on the project website.

Please let me know if you have any questions leading up to or proceeding the briefing. I look forward to seeing you then.

Kind regards,

Adriana Mariñez
Transmission Line Siting Project Manager
Tucson Electric Power & UniSource Energy Services
520-528-1512 (c)

Microsoft Teams Need help?

Join the meeting now

Meeting ID: 213 183 176 235

Passcode: nFfAH2

Dial-in by phone

+1 520-363-4143,,61877333# United States, Phoenix

Master Stakeholder List for Agencies			
Name/Entity	**Title**	**First Name**	**Last Name**
Pima County Office of Sustainability & Conservation	Historic Preservation Officer	Ian	Milliken
Pima County Community Action Agency Board	Committee Coordinator (County Staff)	Manira	Cervantes
Pima County Regional Flood Control District	Allan Sanchez, Floodplain Coordinator	Eric	Shepp
Pima County Planning & Zoning Commission	Planning and Zoning Commission for Pima County	Thomas	Drzazgowski
Green Valley Community Coordinating Council Inc	Community Council for Green Valley		
Green Valley-Sahuarita Chamber of Commerce	President and CEO	Randy	Graf
Santa Cruz County Planning & Zoning Commission			
Santa Cruz County Community Development	Community Development Department for Santa Cruz County	Frank	Dillon
Santa Cruz County Floodplain Coordinator	Floodplain Coordinator	Allen	Sanchez
Tubac Chamber of Commerce	Executive Director	Antoinette	Frey
Arizona State Land Department	Assistant Director	Ruben	Ojeda
Arizona State Land Department	Assistant Director, Real Estate	Karen	Dada
Pima County Natural Resources, Parks, and Recreation	Program Manager	Jenny	Neeley
Pima County Natural Resources, Parks, and Recreation	Natural Resources Division Manager	Karen	Simms
Pima County Natural Resources, Parks, and Recreation	Park Superintendent	Julie	Parizek
Nogales-Santa Cruz County Chamber of Commerce	President and CEO	Olivia	Ainza-Kramer
Santa Cruz County Parks & Recreation			
Continental Elementary School District		Roxana	Rico
Sahuarita Unified School District	Communications Officer	Amber	Woods

Master Stakeholder List for Agencies			
Name/Entity	**Title**	**First Name**	**Last Name**
Arizona Department of Transportation	Director, Office of international and local affairs	Mark	Sanders
Arizona Department of Transportation	District Engineer	Jeremy	Moore
Arizona Department of Transportation		Michelle	Garza
Arizona Game and Fish Department	Government Relations		
Arizona State Historic Preservation Office	Cultural Resource Specialist	Mary-Ellen	Walsh
Arizona State Historic Preservation Office	Archaeology Compliance Specialist	Caroline	Klebacha
Southwest Gas	Sr. Legislative Policy Advisor	Walter	Richter
Regional Transportation Authority			
Union Pacific Railroad		Justin	Soriano
Arizona Electric Power Cooperative	Manager of Land Services	Teresa	Murphy
United States Border Patrol	Executive Officer	Michele	Morales
U.S. Customs and Border Protection	Asst. Director Trade and Cargo Security (Nogales Ports of Entry)	Armando	Goncalvez
National Park Service	Juan Bautista de Anaza Trail		
Arizona State Committee on Trails			
FICO	Green Valley Pecan Company	Brian	Driscoll
FICO	Green Valley Pecan Company	Rich	Walden
Fresh Produce Association	Executive Vice President	Allison	Moore
Greater Nogales Santa Cruz County Port Authority	Outgoing Chair (and President of Chamberlain Distributing, Inc.)	Jaime	Chamberlain
Greater Nogales Santa Cruz County Port Authority	Incoming Chair (VP Business Development for Javid Group)	Joshua	Rubin

Master Stakeholder List for Agencies			
Name/Entity	**Title**	**First Name**	**Last Name**
Pima County Facilities Management	Energy Program Manager	Eric	Wilson
Town of Sahuarita Planning	Planning and Zoning Manager	Orlanthia	Henderson
Santa Cruz Valley Unified School District #35	Assistant Superintendent	Melisa	Lunderville
Nogales Unified School District #1	Superintendent	Angelina	Canto
Southern Arizona Home Builders Association	Member	David	Godlewski
Kinder Morgan / El Paso Natural Gas	ROW Negotiator	Kelley	Sims
Kinder Morgan / El Paso Natural Gas		Kevin	Goudy

Santa Cruz Reliability Project North

ADRIANA MARIÑEZ, LINE SITING PROJECT MANAGER



UniSourceEnergy SERVICES

August 2016

1

Agenda

- Introductions
- How Power Gets to You
- Study Area
- Need and Benefits
- About the Project / Aesthetics
- Transmission Line Siting Process
- Evaluation Criteria
- Opportunities and Constraints
- Timeline
- Public Participation
- Questions

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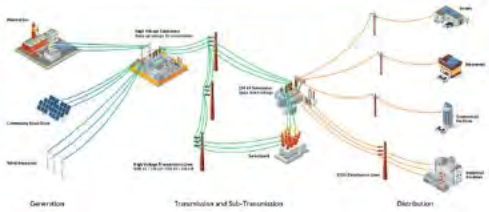
Agencies

- Federal Agencies
- State Agencies
- Pima County
- Santa Cruz County
- Chambers of Commerce
- Telecommunication Companies
- Port Authority
- School Districts
- Union Pacific Railroad
- Utilities

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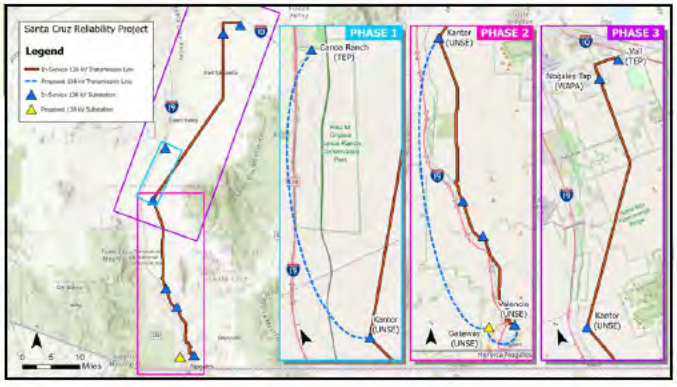
3

How We Deliver Energy Service to You



UniSourceEnergy SERVICES

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5



6

Need and Benefits

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Reduce the frequency and duration of outages affecting residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Expand energy capacity in the area to meet current and future energy needs without impacting service to existing customers.

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7

About the Project

- Construct a second 138 kilovolt (kV) transmission line to connect the Canoa Ranch Substation, located in Pima County, and the Kantor substation, located in Santa Cruz County.
- Expand the Kantor Substation, extending the property boundary by about 20 acres to accommodate setback, security, and operations and maintenance requirements. The substation improvements would also support reliability for customers.

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8

Pole Structure

Tubular
Weathering Steel
Monopoles



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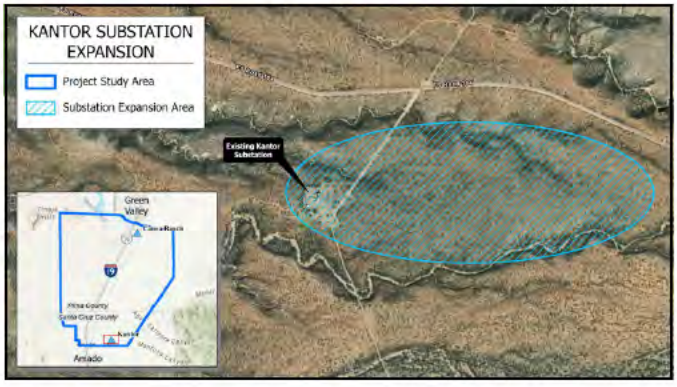
9

Kantor Substation



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10



11

Transmission Line Siting Process

- Under state law, UniSource must secure a Certificate of Environmental Compatibility (CEC) to build the transmission line.
- UniSource plans to file a CEC application in fall 2024 with the Arizona Power Plant and Transmission Line Siting Committee, which reviews CEC applications in a public process that allows neighbors and other stakeholders to provide comments.
- The Arizona Corporation Commission (ACC) must review and approve the CEC before UniSource can begin construction.

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Siting Process Flowchart



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Evaluation Criteria

Please share what values matter most to you.

- Wildlife & plant life
- Scenic areas, historic sites & archaeological sites and structures
- Environment
- Noise emission levels & interference with communication signals
- Potential public recreational uses
- Existing development plans
- Engineering feasibility and challenges
- Project costs & potential impacts on customer rates
- Public input

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Timeline

- Public Open House # 1 – April 2024
- Public Open House # 2 – June? 2024
- CEC Application Submittal – fall 2024
- Transmission Line Siting Committee Hearing – fall 2024
- ACC Open Meeting – early 2025
- Phase 1: Project in Service – 2028
- Phase 2: Project in Service – 2029
- Phase 3: Project in Service – 2030

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Public Participation

- Fill out an online comment form
- Send comments to santacruzreliability@uesaz.com
- Call 1-833-310-1669 and leave a voicemail message
- Mail a letter with comments to:
  ATTN: Santa Cruz Reliability
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

Public Open House

Thursday, April 25, 2024
6-8 p.m.
Sopari Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

UniSourceEnergy SERVICES

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EXHIBIT J-4

PUBLIC OPEN HOUSE 1 SUMMARY (APRIL 25, 2024)

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Public Open House #1 Summary Report
Thursday April 25, 2024

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, is working to enhance energy independence and security for its customers by reducing reliance on the increasingly constrained regional energy market. To help meet growing reliability demands, UniSource is developing a transmission line that connects the Canoa Ranch Substation in Pima County, AZ to the Kantor Substation in Santa Cruz County, AZ. The Kantor Substation will also be expanded to accommodate the new transmission line.

In accordance with state regulations, UniSource must obtain a Certificate of Environmental Compatibility (CEC) to construct the necessary transmission line. As part of its due diligence and to better understand local community values that could influence the siting process, UNSE hosted a Public Open House Meeting to gather public input.

MEETING NOTIFICATION

UNSE developed and mailed a newsletter providing an overview of the Santa Cruz Reliability Transmission Line Project North, including the date, time, and location of the public open house. On April 11, 2024, 14 days before the Public Open House Meeting, the newsletter was sent to approximately 5,000 property owners, residents, and small businesses with U.S. Postal Service addresses within a one-mile radius of the Project Study Area.

To further promote the meeting, geo-targeted Facebook and Instagram ads were run within an 11-mile radius of the study area during the week leading up to the event. Additionally, seven notice signs were posted in and around the Project Study Area on April 11, 2024, 14 days before the meeting. Attachment 3 includes a map of sign locations, sign text, and photos of the signs in place.

Six flyers were also distributed to local community centers and public outlets, where they were posted on public bulletin boards to help spread awareness.

UNSE also published meeting notices in the *Green Valley News* on April 14, 2024, and in *Sahuarita Sun* on April 17, 2024. Attachment 5 includes the newspaper ad, and Affidavit of Publication. Meeting notifications were sent out for both morning and evening meetings on March 20, 2025.

MEETING SUMMARY

Two Public Open Houses were held on Thursday, April 25, 2024, from 9:00 AM to 11:00 AM at Green Valley Recreation Center East, located at 7 South Abrego Drive, Green Valley Arizona. The second meeting was from 5:00 PM to 7:00 PM at Sopori Elementary School, located at 5000 West Arivaca Road, Amado, Arizona. The event followed an open house format and featured several informational stations, including a sign-in and comment table, refreshment area, GIS (Geographic Information Systems) table, and 15 project-related posters. These posters covered topics such as:

- Project overview
- Project location map
- Pole characteristics

- Planning and siting process and timeline
- Arizona Corporation Commission criteria for issuing a Certificate of Environmental Compatibility
- Environmental considerations for the transmission line
- Overview of the energy system

UNSE staff in attendance included the Project Manager, Government Liaison, Project Engineer, Environmental Engineer, and Environmental and Land Use Planner. Eocene supported the event with three Environmental and Land Use Planners and their GIS specialist. These representatives were available to answer questions and address community concerns.

All attendees were invited to sign in upon arrival. There were 47 individuals at the morning Open House and 17 at the evening Open House.

COMMENT

To date, the public outreach process has generated verbal feedback from individuals that attended the Open Houses. In addition, UNSE staff and consultants documented verbal comments received during the Open House meeting, which are included in this report.

Common themes in the written comments included concerns about the potential impact of the transmission line on adjacent properties, the effect a new transmission line might have on customer rates, viewsheds, concerns regarding public health and safety issues, and questions regarding how the project team will evaluate biological and environmental considerations during the preliminary transmission route analysis.

Santa Cruz Reliability
Project North

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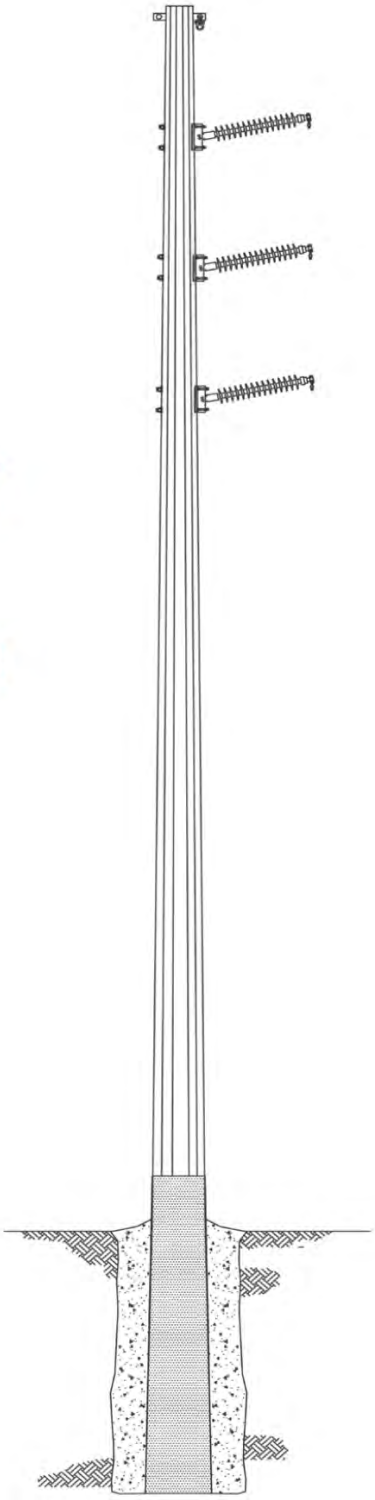
Public Open House

Please Join Us

April 25th, 2024 | 6 - 8 pm

Sopori Elementary Schoo
5000 W Arivaca Rd,
Amado, AZ 85645

Light refreshments will be served.



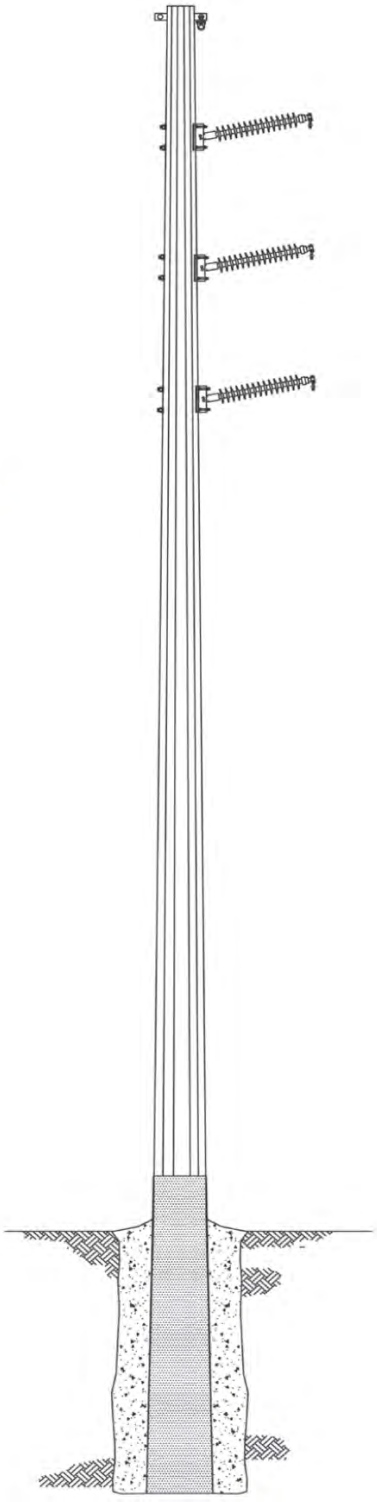
More Information

www.uesaz.com/santa-cruz-reliability

Proyecto de Confiabilidad
Santa Cruz Norte

UniSourceEnergy SERVICES

Aviso de Reunión Abierta Pública



Acompáñenos

Jueves 25 de abril de 2024
6-8 p.m.

Escuela Primaria Sopori
5000 W Arivaca Rd,
Amado, AZ 85645

Refrescos de cortesía será servido.

Más información

uesaz.com/proyecto-de-confiabilidad-de-santa-cruz

FLYER LOCATIONS ROUND 1 OUTREACH	
Place	**Location**
Joyner - Green Valley Library	601 N La Cañada Dr, Green Valley, AZ 85614
Dollar General	28890 S Nogales Hwy, Amado, AZ 85645
Green Valley Chamber of Commerce	275 W Continental Rd Ste 123, Green Valley, AZ 85622
Moquah Coffee Shop	101 S La Canada Dr. Ste 57, Green Valley, AZ 85614
Posada Java	350 E Morningside Rd, Green Valley, AZ 85614
Sopori Elementary	5000 W Arivaca Rd, Amado, AZ 85645
The Longhorn Grill	28851 S Nogales Hwy, Amado, AZ 85645

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Public Open House

Please Join Us

April 25th, 2024 | 6 - 8 pm

Sopori Elementary School
5000 W Arivaca Rd,
Amado, AZ 85645

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More Information

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Proyecto de Confiabilidad
Santa Cruz Norte

UniSourceEnergy SERVICES

Aviso de Reunión Abierta Pública

Acompáñenos

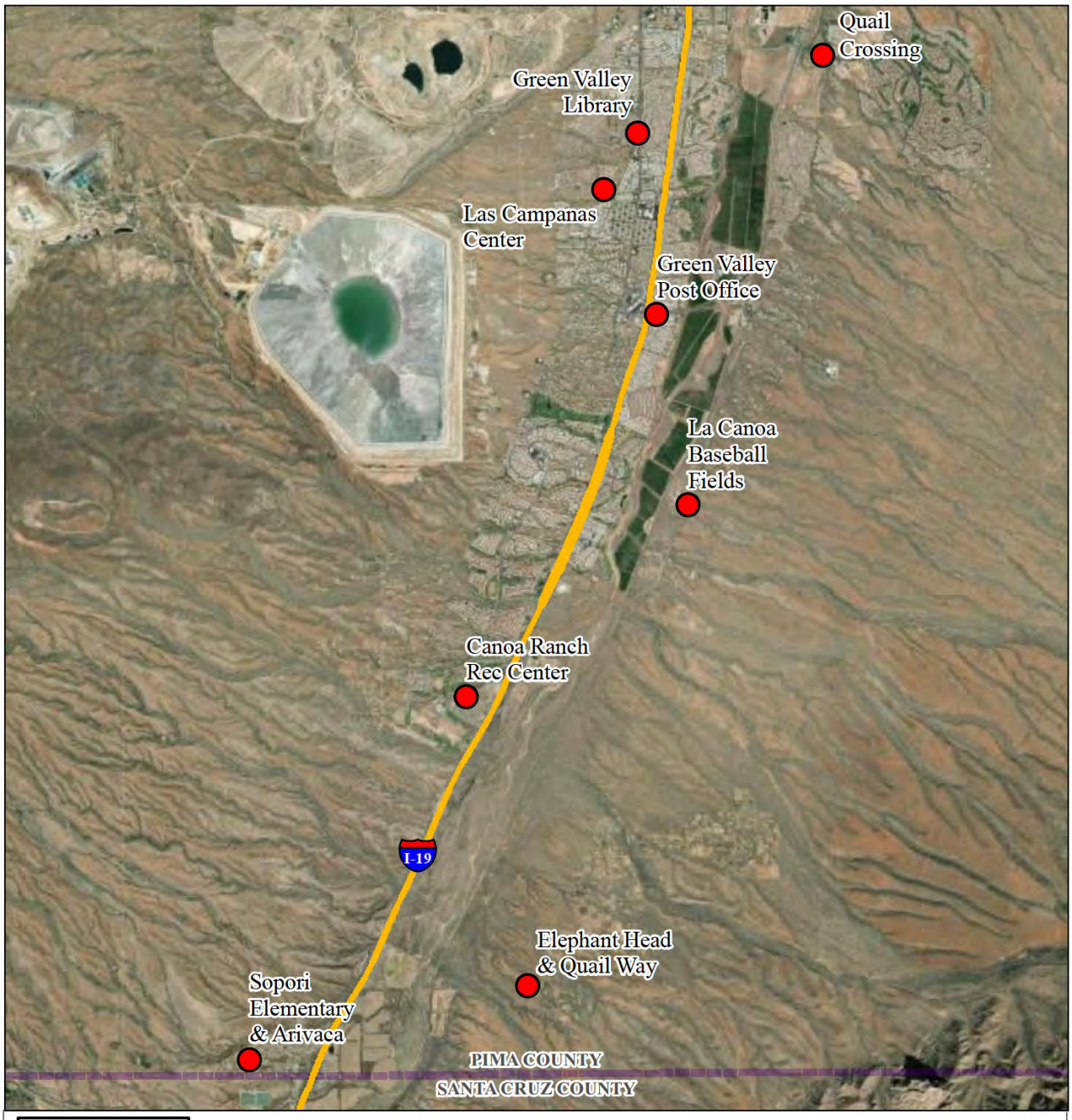
Jueves 25 de abril de 2024
6-8 p.m.

Escuela Primaria Sopori
5000 W Arivaca Rd,
Amado, AZ 85645

Refrescos de cortesía será servido.

Más información

uesaz.com/proyecto-de-confiabilidad-de-santa-cruz







0 9,750

Feet

1:117,544

Legend

Sign Location

Notification Sign Context

Santa Cruz
Reliability Project North

UniSourceEnergy SERVICES

Date: 4/18/2025
Projection: NAD_1983_UTM_Zone_12N

This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

Public Notice
Noticia Pública

Santa Cruz Reliability Project North
Proyecto de Confiabilidad de Santa Cruz Norte

UNS Electric, Inc., a subsidiary of UniSource Energy Services, is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

The Santa Cruz Reliability (SCR) Project North will strengthen the local energy grid by constructing a second 138 kilovolt (kV) transmission line to connect the Canoa Ranch Substation, located in Pima County, and the Kantor substation, located in Santa Cruz County. The project will help reduce the frequency and duration of outages affecting residents, businesses, and industries, including hospitals, schools, ports of entry and federal facilities. SCR North also will expand energy capacity in the area to meet current and future energy needs without impacting service to existing customers.

UniSource invites residents in the project study area and other stakeholders to attend an upcoming open house meeting to learn more about the project.

UNS Electric, Inc., una subsidiaria de UniSource Energy Services, está preparando planes para nuevas instalaciones de transmisión para mejorar la fiabilidad y resiliencia del sistema de transmisión eléctrica que provee servicio al condado de Santa Cruz.

El Proyecto de Confiabilidad de Santa Cruz (SCR) Norte fortalecerá la red energética local mediante la construcción de una segunda línea de transmisión de 138 kilovoltios (kV) para conectar la subestación de Canoa Ranch, ubicada en el condado de Pima, y la subestación Kantor, ubicada en el condado de Santa Cruz. El proyecto ayudará a reducir la frecuencia y duración de los cortes de energía que afectan a residentes, negocios e industrias, incluyendo hospitales, escuelas, puertos de entrada e instalaciones federales. SCR Norte también ampliará la capacidad energética en el área para satisfacer las necesidades energéticas actuales y futuras sin impactar el servicio a los clientes existentes.

UniSource invita a los residentes en el área de estudio del proyecto y otros interesados a asistira una reunión pública para aprender más sobre el proyecto. Participarán miembros del equipo bilingües.

Public Open House
Thursday, April 25, 2024 | 6–8 p.m.
Sopori Elementary School
5000 W Arivaca Rd, Amado, AZ 85645

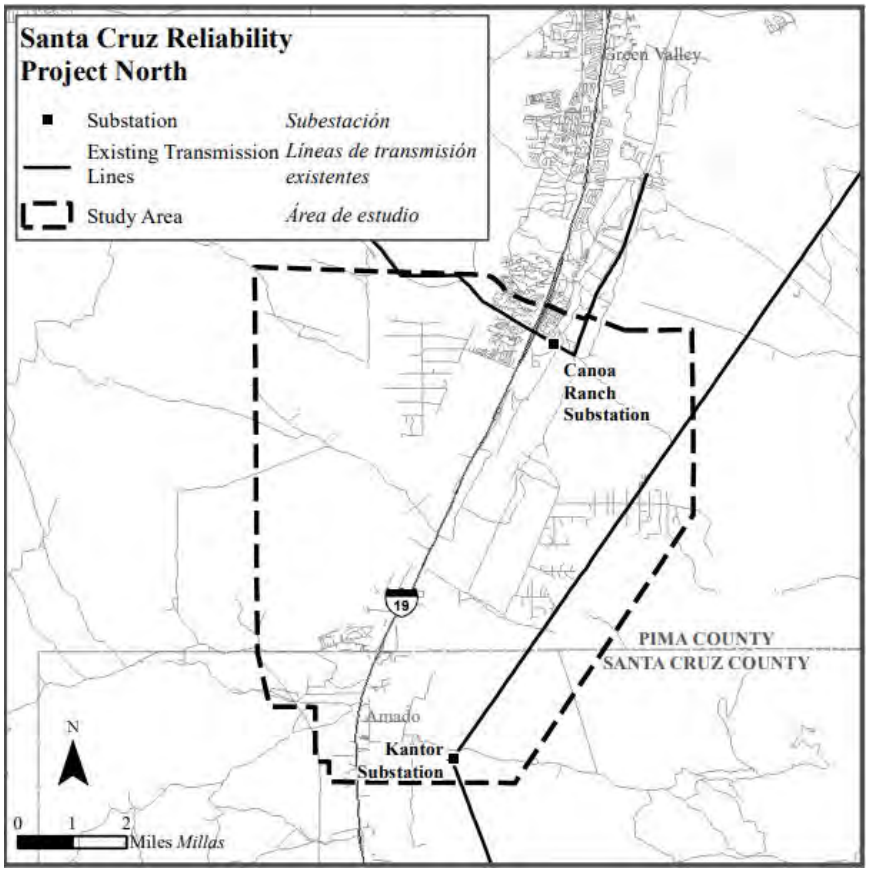
uesaz.com/santa-cruz-reliability

UniSourceEnergy SERVICES

Reunión Pública
25 de abril de 6 a 8 p.m.
Escuela Primaria Sopori
5000 W Arivaca Rd, Amado, AZ 85645

uesaz.com/santa-cruz-reliability

UniSourceEnergy SERVICES



Green Valley News
YOUR VOICE. YOUR NEWS. YOUR COMMUNITY.

See Proof on Next Page

AFFIDAVIT OF PUBLICATION

State of Pennsylvania, County of Lancaster, ss:

Laquansay Nickson Watkins, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Green Valley News, a newspaper printed and published in the City of Green Valley, County of Pima, State of Arizona, and that this affidavit is Page 1 of 3 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
Apr. 14, 2024

NOTICE ID: ywkH346rjwI15xGBUJm6
PUBLISHER ID: GVN000417
NOTICE NAME: Public Notice

Request of: Jacob Herrera

I declare under penalty of perjury that the foregoing is true and correct.

Laquansay Nickson Watkins
(Signed)

VERIFICATION

State of Pennsylvania
County of Lancaster

Commonwealth of Pennsylvania - Notary Seal
Nicole Burkholder, Notary Public
Lancaster County
My commission expires March 30, 2027
Commission Number 1342120

Subscribed in my presence and sworn to before me on this: 04/15/2024

Nicole Burkholder
Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice
Noticia Pública
Santa Cruz Reliability Project North
Proyecto de Confiabilidad de Santa Cruz Norte

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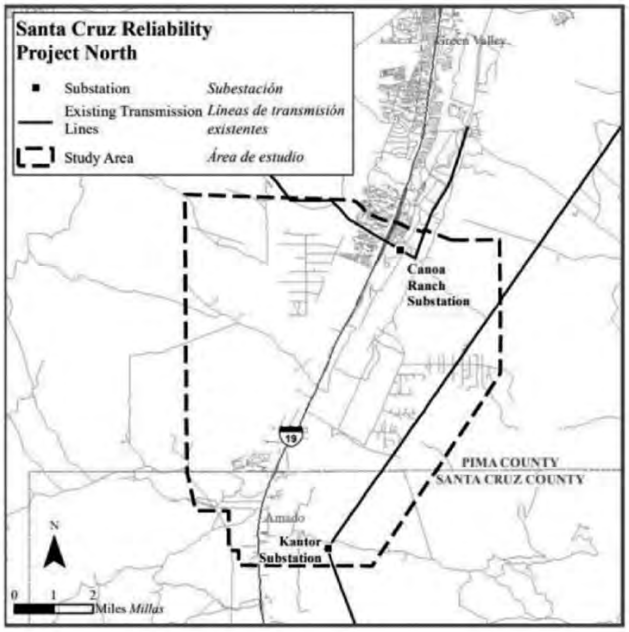
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uesaz.com/proyecto-de-confiabilidad-de-santa-cruz

UniSourceEnergy SERVICES



SAHUARITASUN.COM
sun
YOUR COMMUNITY. YOUR VOICE.

See Proof on Next Page

AFFIDAVIT OF PUBLICATION

State of Florida, County of Duval, ss:

Yuade Moore, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Sahuarita Sun, a newspaper printed and published in the City of Green Valley, County of Pima, State of Arizona, and that this affidavit is Page 1 of 3 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
Apr. 17, 2024

NOTICE ID: E8tEqSnAByZDYXpMEC2z
PUBLISHER ID: SSU000018
NOTICE NAME: Public Notice
Publication Fee: 316.62

Request of: Jacob Herrera

(Signed) Yuade Moore

DESTINY KESHAN JACKSON
Notary Public - State of Florida
Commission # HH47176
Expires on September 28, 2024

VERIFICATION

I declare under penalty of perjury that the foregoing is true and correct.

State of Florida
County of Duval

Subscribed in my presence and sworn to before me on this: 04/17/2024

Destiny K. Jackson

Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice
Noticia Pública
Santa Cruz Reliability Project North
Proyecto de Confiabilidad de Santa Cruz Norte

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UniSource invites residents in the project study area and other stakeholders to attend an upcoming open house meeting to learn more about the project.

UNS Electric, Inc., una subsidiaria de UniSource Energy Services, está preparando planes para nuevas instalaciones de transmisión para mejorar la fiabilidad y resiliencia del sistema de transmisión eléctrica que provee servicioal condado de Santa Cruz.

El Proyecto de Confiabilidad de Santa Cruz (SCR) Norte fortalecerá la red energética local mediante la construcción de una segunda línea de transmisión de 138 kilovoltios (kV) para conectar la subestación de Canoa Ranch, ubicada en el condado de Pima, y la subestación Kantor, ubicada en el condado de Santa Cruz. El proyecto ayudará a reducir la frecuencia y duración de los cortes de energía que afectan a residentes, negocios e industrias, incluyendo hospitales, escuelas, puertos de entrada e instalacionesfederales. SCR Norte también ampliará la capacidad energética en el área para satisfacer las necesidades energéticas actuales y futuras sin impactar el servicio a los clientes existentes.

UniSource invita a los residentes en el área de estudio del proyecto y otros interesados a asistira una reunión públicapara aprender más sobre el proyecto. Participarán miembros del equipo bilingües.

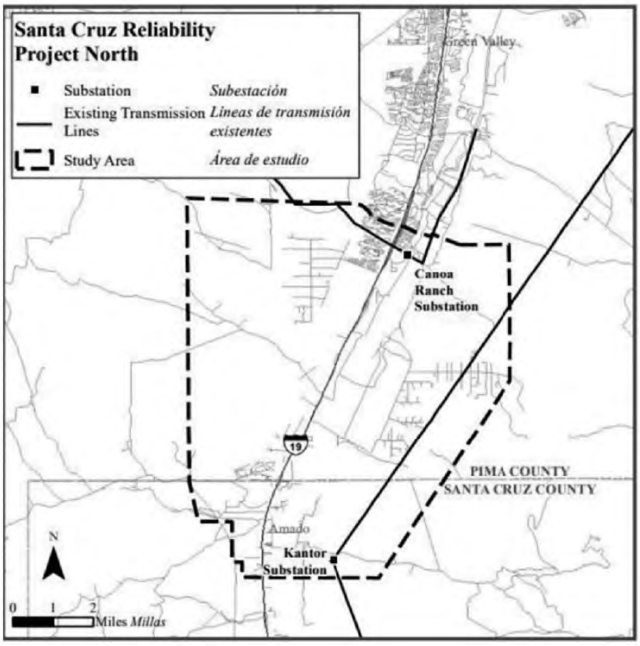
Public Open House
Thursday, April 25, 2024 | 6–8 p.m.
Sopori Elementary School
5000 W Arivaca Rd, Amado, AZ 85645

Reunión Pública
25 de abril de 6 a 8 p.m.
Escuela Primaria Sopori
5000 W Arivaca Rd, Amado, AZ 85645

uesaz.com/santa-cruz-reliability

uesaz.com/proyecto-de-confiabilidad-de-santa-cruz

UniSourceEnergy SERVICES



UniSource Energy SERVICES

Santa Cruz Reliability
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Santa Cruz Reliability Project North

UniSource Energy SERVICES

Please Join Us

Public Open House
Thursday, April 25th, 2024 | 6-8 p.m.

Complimentary refreshments will be provided

Sopori Elementary School
5000 W Arivaca Rd
Amado, AZ 85645

More Information
www.uesaz.com/santa-cruz-reliability

¡Acompáñenos!

Aviso de Reunión Abierta Pública
Jueves 25 de abril de 2024 | 6-8 p.m.

Refrescos de cortesía será servido

Escuela Primaria Sopori
5000 W Arivaca Rd
Amado, AZ 85645

Más información
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz

UniSource Energy SERVICES

UniSource Plans for New Transmission Facilities to Support Community Resiliency

UNS Electric, Inc., a subsidiary of UniSource Energy Services, is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

The Santa Cruz Reliability project is designed to reduce the potential for a major, sustained outage in Santa Cruz County. Power outages would be less frequent and shorter because UniSource could supply energy from more than one direction to the substations that support service to residents, businesses, service providers and other customers in the area.

The Santa Cruz Reliability (SCR) Project North will strengthen the local energy grid by constructing a second 138 kilovolt (kV) transmission line to connect the Canoa Ranch Substation, located in Pima County, and the Kantor substation, located in Santa Cruz County. This project would improve service reliability for customers by beginning the process of converting the current radial line configuration to a looped transmission system.

The new single-circuit transmission line would be installed in rights-of-way on weathering steel monopoles. UniSource also would expand the Kantor Substation, extending the property boundary by about 20 acres to accommodate setback, security, and operations and maintenance requirements. The substation improvements would support reliability for customers, allowing UniSource to perform maintenance without interrupting circuit operations.

Public input is an important part of UniSource's planning process. We encourage area residents and other stakeholders to share their comments using one of the methods listed in this newsletter.

SCR North is the first of three phases UniSource is planning to improve the high-voltage transmission system serving Santa Cruz County.

Project Benefits

SCR North would provide several benefits to customers in the area. The project would:

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Reduce the frequency and duration of outages affecting residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Expand energy capacity in the area to meet current and future energy needs without impacting service to existing customers.

Identifying a suitable location for new transmission facilities involves several phases, each informed by public input. Area residents and other stakeholders can provide insight to help UniSource identify opportunities and constraints, areas to avoid and specific route segments.

Residents and other stakeholders can also help UniSource to evaluate and prioritize the importance of the criteria used to assess potential routes. Alternative route segments will be identified using multiple criteria, including some required by law and others deemed important by area residents and other stakeholders. These criteria will support the development of a preferred transmission line route.

UniSource welcomes your comments about additional criteria we should consider throughout the route selection process.

1. Cost and potential impact on customer rates
2. Impact on existing and planned land uses by state, local and private entities
3. Impact on fish, wildlife, and plants, including special status species and their habitat
4. Proximity to sensitive receptors (schools, hospitals, assisted living and daycare facilities)
5. Proximity to licensed communication sites
6. Impact on designated scenic areas
7. Impact on historic and archaeological sites
8. Overall environmental impact
9. Ability to construct, and operate and maintain facilities
10. Compliance with state, county or city ordinances

Santa Cruz Reliability Project North

Required Approvals and Timeline

Under state law, UniSource must secure a Certificate of Environmental Compatibility (CEC) to construct the transmission line. UniSource plans to file a CEC application in fall 2024 with the Arizona Power Plant and Transmission Line Siting Committee, which reviews CEC applications in a public process that allows neighbors and other stakeholders to provide comments. The Arizona Corporation Commission must review and approve the CEC before UniSource can begin construction.

Public Participation

UniSource invites the public to attend the open house meeting listed on the front of this newsletter to ask questions and submit comments about the project. You can also share your input using one of the methods listed here.

Fill out an online comment form at:
www.uesaz.com/santa-cruz-reliability

Email comments to:
santacruzreliability@uesaz.com

Call:
1-833-310-1669 and leave a voicemail message

Mail a letter with comments to:
ATTN: Santa Cruz Reliability
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

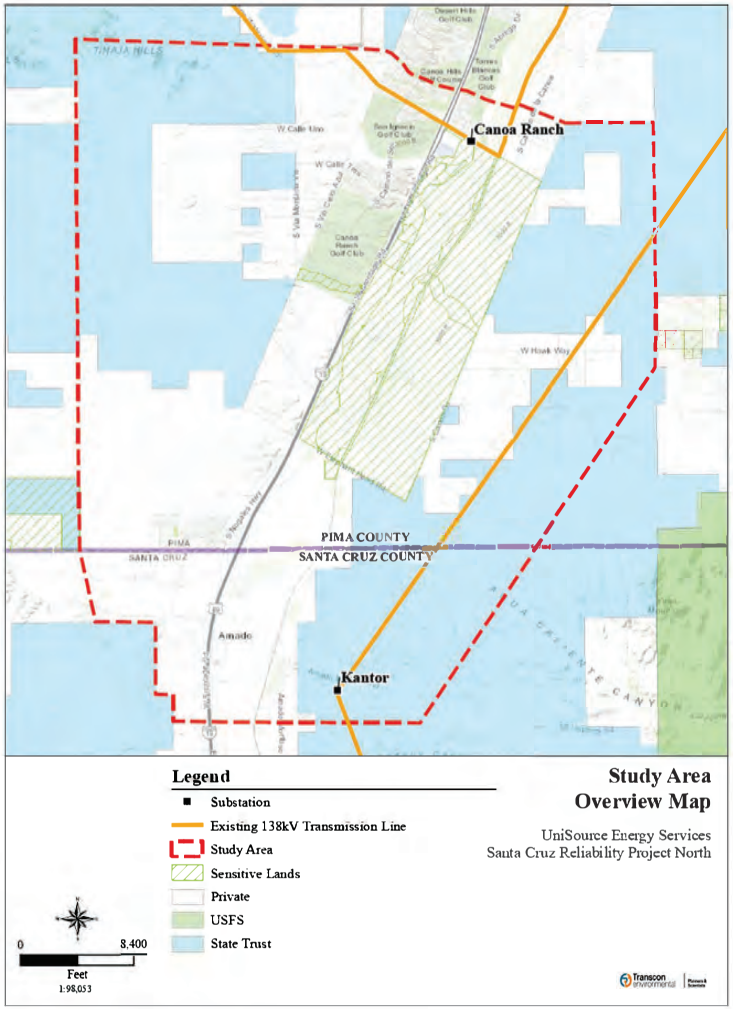
An interactive map is posted on our website.

UniSource Planea Nuevas Instalaciones de Transmisión para Apoyar la Resiliencia Comunitaria

UniSource Energy Services está desarrollando el Proyecto de Confiabilidad de Santa Cruz (SCR) Norte para mejorar la confiabilidad y resiliencia del suministro eléctrico en el condado de Santa Cruz, mediante la conexión de las subestaciones Canoa Ranch y Kantor con una línea de transmisión de 138 kilovoltios. Este proyecto reducirá la duración y frecuencia de los cortes de energía, facilitando el suministro desde múltiples direcciones y preparando el sistema para las demandas futuras sin afectar a los clientes existentes.

Se valora enormemente la participación pública para la selección de la ruta de la línea de transmisión, teniendo en cuenta el impacto ambiental, los costos y la proximidad a áreas sensibles. Animamos a la comunidad a compartir sus opiniones y comentarios a través de varias vías: asistiendo a la reunión pública abierta, cuyos detalles se encuentran en este boletín; enviando comentarios al correo electrónico santacruzreliability@uesaz.com; llamando al 1-833-310-1669; o enviando comentarios por correo postal. Este esfuerzo marca el inicio de un plan de tres fases para mejorar el sistema de transmisión de alta tensión en el área, pendiente de aprobación regulatoria.

Santa Cruz Reliability Project North



UniSource Energy SERVICES

Fiabilidad de Santa Cruz
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Proyecto de Confiabilidad Santa Cruz Norte

UniSource Energy SERVICES

¡Acompáñenos!

Aviso de Reunión Abierta Pública
Jueves 25 de abril de 2024 | 6-8 p.m.

Refrescos de cortesía será servido

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Amado, AZ 85645

Más información
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz

UniSource planea nuevas instalaciones de transmisión para apoyar la resiliencia comunitaria

UNS Electric, Inc., una subsidiaria de UniSource Energy Services, está preparando planes para nuevas instalaciones de transmisión para mejorar la fiabilidad y resiliencia del sistema de transmisión eléctrica que sirve al Condado de Santa Cruz.

El Proyecto de Coniabilidad de Santa Cruz está diseñado para reducir la posibilidad de un apagón mayor y prolongado en el Condado de Santa Cruz. Los cortes de energía serían menos frecuentes y más cortos porque UniSource podría suministrar energía desde más de una dirección a las subestaciones que apoyan el servicio a residentes, negocios, proveedores de servicios y otros clientes en el área.

El Proyecto de Confiabilidad de Santa Cruz (SCR) Norte fortalecerá la red energética local mediante la construcción de una segunda línea de transmisión de 138 kilovoltios (kV) para conectar la subestación de Canoa Ranch, ubicada en el Condado de Pima, y la subestación Kantor, ubicada en el Condado de Santa Cruz. Este proyecto mejoraría la fiabilidad del servicio para los clientes al comenzar el proceso de convertir la actual configuración de línea radial a un sistema de transmisión en bucle.

La nueva línea de transmisión de circuito único sería instalada en un derecho de paso de hasta 100 pies de ancho en monopostes de acero resistente a la intemperie, la mayoría de aproximadamente 75 pies de altura. UniSource también ampliaría la subestación Kantor, extendiendo el límite de la propiedad por aproximadamente 20 acres para acomodar el retroceso, la seguridad, y los requisitos de operaciones y mantenimiento. Las mejoras en la subestación apoyarían la fiabilidad para los clientes, permitiendo a UniSource realizar mantenimiento sin interrumpir las operaciones del circuito.

La entrada del público es una parte importante del proceso de planificación de UniSource. Animamos a los residentes del área y otros interesados a compartir sus comentarios utilizando uno de los métodos de participación pública enumerados en este boletín.

SCR Norte es la primera de tres fases que UniSource está planeando para mejorar el sistema de transmisión de alta tensión que sirve a los clientes en el Condado de Santa Cruz.

UniSource da la bienvenida a sus comentarios sobre criterios adicionales que deberíamos considerar a lo largo del proceso de selección de ruta.

1. Costo e impacto potencial en las tarifas de los clientes
2. Impacto en los usos del suelo existentes y planeados por entidades estatales, locales y privadas
3. Impacto en peces, fauna y flora, incluyendo especies de estatus especial y su hábitat
4. Proximidad a receptores sensibles (escuelas, hospitales, residencias de asistencia y guarderías)
5. Proximidad a sitios de comunicaciones licenciados
6. Impacto en áreas escénicas designadas
7. Impacto en sitios históricos y arqueológicos
8. Impacto ambiental general
9. Capacidad para construir, y operar y mantener las instalaciones
10. Cumplimiento con ordenanzas estatales, del condado o de la ciudad

Beneficios del Proyecto

SCR Norte proporcionaría varios beneficios a los clientes en el área. El proyecto:

- Mejorar la fiabilidad y resiliencia del sistema de transmisión eléctrica que sirve al Condado de Santa Cruz.
- Reducir la frecuencia y duración de los cortes que afectan a residentes, negocios e industrias, incluyendo hospitales, escuelas, puertos de entrada y facilidades federales.
- Expandir la capacidad energética en el área para satisfacer las necesidades energéticas actuales y futuras sin impactar el servicio a los clientes existentes.

Identificar una ubicación adecuada para nuevas instalaciones de transmisión implica varias fases, cada una informada por la entrada del público. Los residentes del área y otros interesados pueden proporcionar percepciones para ayudar a UniSource a identificar oportunidades y limitaciones, áreas a evitar y segmentos de ruta específicos.

Los residentes y otros interesados también pueden ayudar a UniSource a evaluar y priorizar la importancia de los criterios utilizados para evaluar las rutas potenciales. Los segmentos de ruta alternativos serán identificados utilizando múltiples criterios, incluyendo algunos requeridos por ley y otros considerados importantes por los residentes del área y otros interesados. Estos criterios apoyarán el desarrollo de una ruta de línea de transmisión preferida.

Aprobaciones Requeridas y Cronograma

Bajo la ley estatal, UniSource debe obtener un Certificado de Compatibilidad Ambiental (CEC) para construir la línea de transmisión. UniSource planea presentar una solicitud de CEC en otoño de 2024 ante el Comité de Ubicación de Plantas de Energía y Líneas de Transmisión de Arizona, que revisa las solicitudes de CEC en un proceso público que permite a los vecinos y otros interesados proporcionar comentarios. La Comisión de Corporaciones de Arizona debe revisar y aprobar la CEC antes de que UniSource pueda comenzar la construcción.

Participación Pública

UniSource invita a los residentes y otros interesados a asistir a la reunión de casa abierta mencionada en este boletín para hacer preguntas y enviar comentarios sobre el proyecto. También puede compartir su opinión utilizando uno de los métodos enumerados aquí.

Llenando un formulario de comentarios en línea:
www.uesaz.com/santa-cruz-reliability

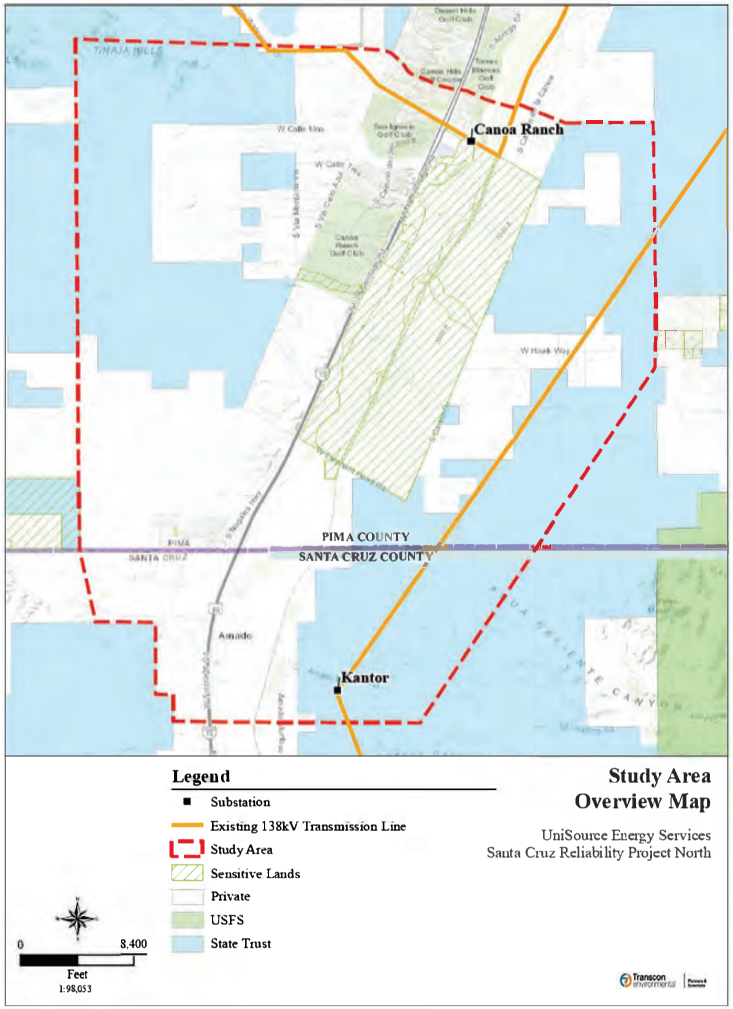
Enviando comentarios por correo electrónico a:
santacruzreliability@uesaz.com

Llamando al:
1-833-310-1669 y dejando un mensaje de voz

Enviando una carta con comentarios a:
ATTN: Fiabilidad de Santa Cruz
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Para ver un mapa interactivo, visite la página web del proyecto.

Proyecto de Confiabilidad
Santa Cruz Norte



Santa Cruz Reliability Project North

ADRIANA MARIÑEZ, LINE SITING PROJECT MANAGER



UniSourceEnergy SERVICES

April 2024

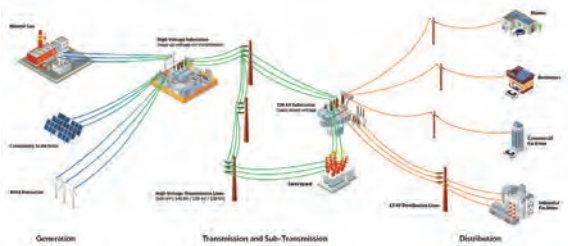
Agenda

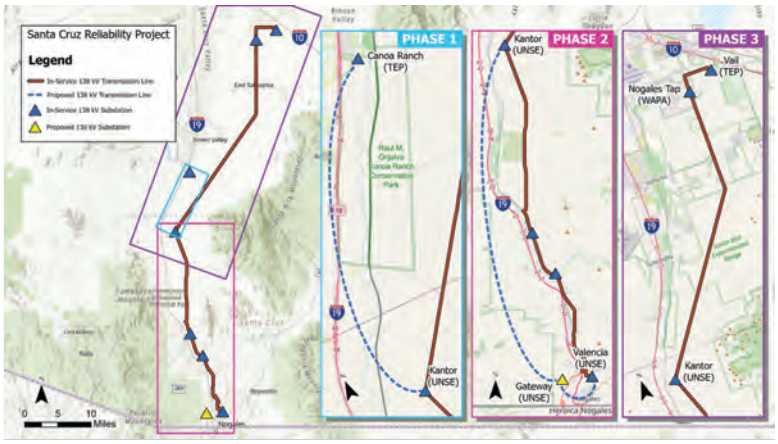
- Introductions
- How Power Gets to You
- Study Area
- Need and Benefits
- About the Project / Aesthetics
- Transmission Line Siting Process
- Evaluation Criteria
- Opportunities and Constraints
- Timeline
- Public Participation
- Questions

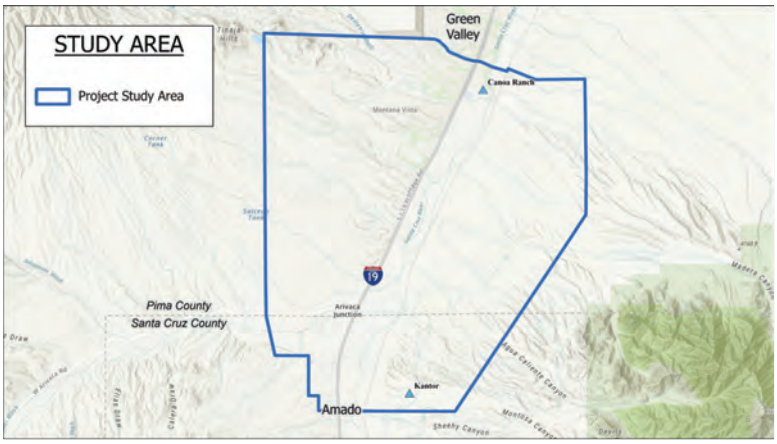
Agencies

- Federal Agencies
- State Agencies
- Pima County
- Santa Cruz County
- Chambers of Commerce
- Telecommunication Companies
- Port Authority
- School Districts
- Union Pacific Railroad
- Utilities

How We Deliver Energy Service to You







Need and Benefits

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Reduce the frequency and duration of outages affecting residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Expand energy capacity in the area to meet current and future energy needs without impacting service to existing customers.

About the Project

- Construct a second 138 kilovolt (kV) transmission line to connect the Canoa Ranch Substation, located in Pima County, and the Kantor substation, located in Santa Cruz County.
- Expand the Kantor Substation, extending the property boundary by about 20 acres to accommodate setback, security, and operations and maintenance requirements. The substation improvements would also support reliability for customers.

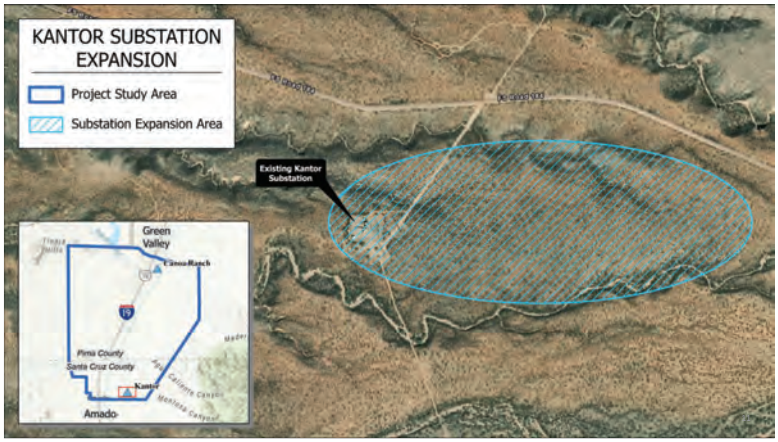
Pole Structure

Tubular
Weathering Steel
Monopoles



Kantor Substation





Transmission Line Siting Process

- Under state law, UniSource must secure a Certificate of Environmental Compatibility (CEC) to build the transmission line.
- UniSource plans to file a CEC application in fall 2024 with the Arizona Power Plant and Transmission Line Siting Committee, which reviews CEC applications in a public process that allows neighbors and other stakeholders to provide comments.
- The Arizona Corporation Commission (ACC) must review and approve the CEC before UniSource can begin construction.

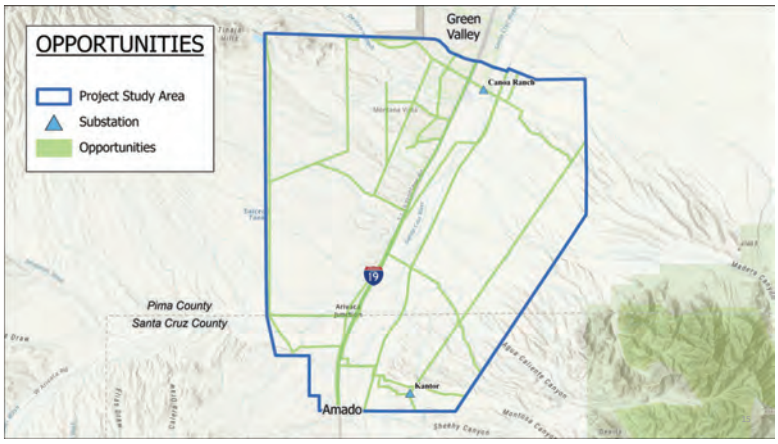
Siting Process Flowchart

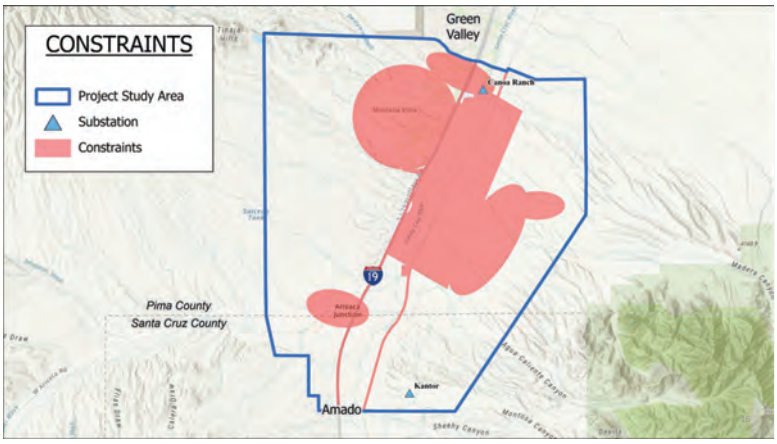


Evaluation Criteria

Please share what values matter most to you.

- Wildlife & plant life
- Scenic areas, historic sites & archaeological sites and structures
- Environment
- Noise emission levels & interference with communication signals
- Potential public recreational uses
- Existing development plans
- Engineering feasibility and challenges
- Project costs & potential impacts on customer rates
- Public input





Timeline

- Public Open House # 1 – April 2024
- Public Open House # 2 – June 2024
- CEC Application Submittal – fall 2024
- Transmission Line Siting Committee Hearing – fall 2024
- ACC Open Meeting – early 2025
- Phase 1: Project in Service – 2028
- Phase 2: Project in Service – 2029
- Phase 3: Project in Service – 2030

Public Participation

- Fill out an online comment form
- Send comments to santacruzreliability@uesaz.com
- Call 1-833-310-1669 and leave a voicemail message
- Mail a letter with comments to:
  ATTN: Santa Cruz Reliability
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

Public Open House

Thursday, April 25, 2024
6-8 p.m.
Sopori Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

Questions?



UniSource Energy SERVICES

19

UniSourceEnergy SERVICES

Santa Cruz Reliability Project North

Welcome

Bienvenidos, hablamos español

Please Sign In

Favor de registrarse

Purpose & Need

Purpose

Improve the reliability and resiliency of the electrical transmission system servicing Santa Cruz County



Need

Maintain and strengthen reliability for Santa Cruz County and its residents and business, and industries including hospitals, schools, ports of entry, and federal facilities

Meet current and future energy needs without impacting service to existing customers

Convert the current radial line configuration servicing Santa Cruz County to a looped transmission system

Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County

Santa Cruz Reliability
Project North

UniSourceEnergy
SERVICES

Pole Structure: Tubular, Weathering Steel Monopoles



Santa Cruz Reliability Project North

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Siting Process Flowchart

Phase 1: Pre-Analysis

- Conduct Filed Visits
- Develop Study Area
- Identify Opportunities and Constraints
- Conduct Public and Stakeholder Outreach
- Develop Preliminary Segments

Phase 2: Data Inventory

- Conduct Research and Collect Data

Phase 3: Suitability Assessment

- Develop Suitability Models
- Conduct Suitability Assessment
- Field Review
- Refine Segments

Phase 4: Compatibility Analysis

- Conduct Compatibility Analysis
- Develop Route Alternatives
- Conduct Public and Stakeholder Outreach
- Identify Preferred Route

Phase 5: Concept Evaluation

- Field Review
- Submit CEC Application
- Public Notification and Hearing

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

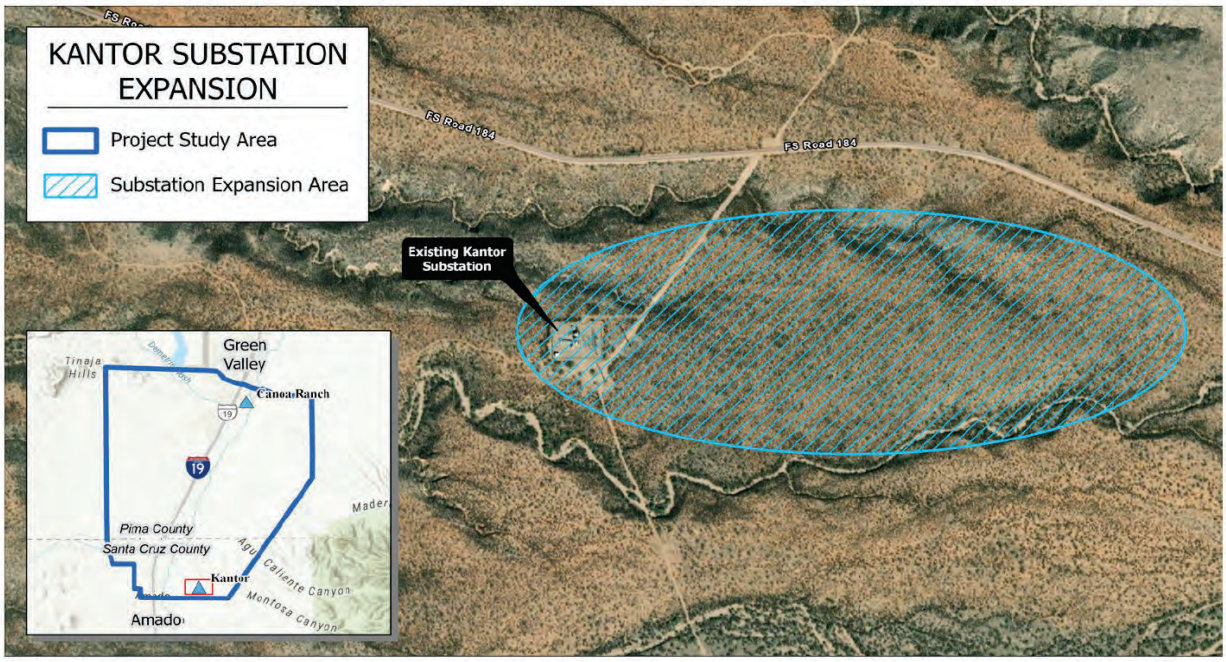
ACC Considerations

The Arizona Corporation Commission will consider several factors before approving a Certificate of Envrionmental Compatibility. These factors, used by UniSource to analyze potential line routes, include:

- Wildlife & plant life
- Scenic areas, historic sites & archaeological sites and structures
- Environment
- Noise emission levels & interference with communication signals
- Potential public recreational uses
- Existing development plans
- Engineering feasibility and challenges
- Project costs & potential impacts on customer rates
- Public input

Interested in shaping the evaluation of transmission line routes? Scan the QR code or complete a comment form to share your perspective on the values that matter most to you in this assessment.

Kantor Substation Upgrades





Santa Cruz Reliability
Project North

UniSourceEnergy SERVICES

We Want To Hear From You

How to Provide Official Public Comment:

Fill out an online comment form at:
www.uesaz.com/santa-cruz-reliability

Email comments to:
santacruzreliability@uesaz.com

Call:
1-833-310-1669 and leave a voicemail message

Mail a letter with comments to:
ATTN: Santa Cruz Reliability
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

An interactive map is posted on our website.

Cómo proporcionar un comentario público oficial:

Llenando un formulario de comentarios en línea:
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Enviando comentarios por correo electrónico a:
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More Information
www.uesaz.com/santa-cruz-reliability

Más información
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz

SOCIAL MEDIA COMPLETION REPORT

Social Media Completion Report			
	English	Spanish	Total
Reach	51303	13755	65,058
Impressions	85501	21741	107,242
Click	119	42	161

EXHIBIT J-5

AGENCY BRIEFING 2 SUMMARY (MARCH 19, 2025)

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Agency Briefing #2 Summary Report
Wednesday March 19, 2025

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, is working to enhance energy independence and security for its customers by reducing reliance on the increasingly constrained regional energy market. To help meet growing reliability demands, UniSource is developing a transmission line that connects the Canoa Ranch Substation in Pima County, AZ to the Kantor Substation in Santa Cruz County, AZ. The Kantor Substation will also be expanded to accommodate the new transmission line.

In accordance with state regulations, UniSource must obtain a Certificate of Environmental Compatibility (CEC) to construct the necessary transmission line. As part of its due diligence and to better understand local community values that could influence the siting process, UNSE hosted an Agency Briefing to gather public input.

MEETING NOTIFICATION

UNSE compiled a stakeholder list based on the defined Project Study Area boundary, extending an additional 3 miles beyond that boundary for notification purposes. Agencies and Tribes with land ownership, jurisdictional authority, ancestral ties, or resource management interests within this area were identified. Additionally, entities that had previously expressed interest in UNSE or similar projects were included.

Once stakeholders were identified, their contact information was gathered. Notification of the virtual agency meeting was sent via email on March 6, 2024, by the Project's Project Manager.

MEETING SUMMARY

The virtual agency meeting took place on Wednesday, March 19, 2025, from 9:00 AM to 10:00 AM. The meeting featured a PowerPoint presentation that covered key aspects of the project, including its purpose and need, environmental permitting requirements, the line siting process, the study area and preliminary route segments, routing criteria, project schedule, additional resources, and a question-and-answer session.

Eocene staff present at the meeting included:

Table 1
EOCENE ATTENDEES

Name	Title
Brian Parker	Project Manager
Matt Ritter	Environmental Planner
Kelli Cummings	Regional Supervisor
Osmer Beck	Vice President

UniSource staff present at the meeting included:

Table 2 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Manager, Transmission Line Siting
Robert Messenger	Engineering Project Manager
Teresa Bravo	Government Relations Representative
Adriana Marinez	Project Manager, Transmission Line Siting
Eli Ancharski	Attorney
Minerva Rivera Crill	Engineer
Todd Lichtas	Engineer
Deborah Vining	ROW Specialist
Chris Ortiz Y Pino	Project Manager, Transmission Line Siting
Joe Barrios	Communications

All participants were requested to enter their name, agency affiliation, and role in the meeting via the chat function.

Table 3 Project Location	
Name	**Title/Organization**
John Fanning	Santa Cruz County Supervisor, District 3
Patrick Brennan	Freeport McMoran (FMI)
Bruce Vaughan	Santa Rita Experimental Range
Anna Casadei	Community Development Director, Town of Sahuarta
Mark Sanders	ADOT
Ruben Ojeda	Assistant Director, Real Estate Division, State Land Department
Rich Walden	Farm Manager - FICO
John Stitzer	Freeport McMoran (FMI)
Luis Ramiez	Ramirez Advisors
Georgina Felix	Fresh Produce Association
David Barnes	Freeport McMoran (FMI)
Jenny Neeley	Program Manager, Pima County Conservation Lands and Resources
Caroline Klebacha	SHPO
Teresa Murphy	Manager of Land Services, AEPCO

Table 3 Project Location	
Name	**Title/Organization**
Eric Wilson	Pima County
Karen Simms	Division Manager, Pima County Department of Lands and Resources
Angelina Canto	Superintendent, Nogales Unified School District #1
Brett Blum	Santa Rita Experimental Range
Randy Graf	Green Valley-Sahuarita Chamber of Commerce

SUMMARY

UNSE began the meeting by presenting a comprehensive overview of the project, outlining the underlying need for its implementation, such as addressing environmental concerns, enhancing public access, or supporting regional planning goals. UNSE highlighted the anticipated benefits, which may include ecological preservation, recreational opportunities, or community development. A key component of the presentation was the explanation of the conservation easement, including its purpose, scope, and how it aligns with long-term stewardship and land use objectives. UNSE also touched on the project's alignment with agency priorities and broader policy frameworks.

Following the presentation, UNSE opened the floor to questions from agency representatives. The discussion included clarifications on technical aspects of the project, inquiries about funding sources and timelines, and concerns related to jurisdictional coordination or environmental impact. UNSE responded to each question thoroughly, providing additional context and, where necessary, committing to follow-up actions or further documentation. The Q&A session fostered a collaborative atmosphere and helped ensure that all stakeholders had a clear understanding of the project's direction and implications.

Pima County asked whether service in Santa Cruz County would be disrupted during the project, and was assured it would not, as maintaining service is a priority and alternate paths would be used if needed. There was raised concerns about archaeological impacts and was informed that SHPO consultation occurred in 2018, with further environmental studies underway for the Kantor substation expansion. Class I data is being incorporated into the suitability analysis, and a full report will be included in the CEC.

ACTION ITEMS

- Reach out to Caroline Klebacha to confirm if consultation with SHPO has occurred regarding historic properties.
- Double check if the SHPO consultation has occurred regarding phase two of the project.
- Confirm with archaeologists that Pima County's archaeological site records are being consulted for the suitability analysis.
- Take note of the discussed points and ensure they are covered.
- Conduct a view shed analysis as part of the CEC requirements, considering cultural and architectural factors.
- Provide a map showing land ownership and impacts to trust private and federal.

Outlook EXAMPLE

UniSource – Santa Cruz Reliability Project North Update

From Bryner, Clark <CBryner@tep.com>
Date Fri 2025-08-15 8:41 AM
Cc Santa Cruz Reliability North <SantaCruzReliabilityNorth@tep.com>

1 attachment (2 MB)
SCR North - Refined Segments.pdf;

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County. The Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

Since presenting 177 "Preliminary Segments" representing possible locations for a future line in March, UniSource conducted an evaluation of each of these segments based on criteria informed by your comments. This evaluation resulted in the elimination of more than 100 of the Preliminary Segments, found to be less compatible with community values, from further consideration. Please see the attached map to view the route segments still under consideration.

You, or a designee, are invited to participate in a virtual agency briefing on Monday, May 19th at 11 a.m. to learn more about the project and provide feedback. A separate calendar invitation will follow.

Should you have any questions or comments, please contact me directly at cbryner@uesaz.com.

We appreciate your engagement in this important energy project.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

4350 E. Irvington Rd.
Mailstop CB200
P.O. Box 711 Tucson, AZ 85702
Phone: 520-917-6635
E-mail: scnorth@uesaz.com
Webpage: www.uesaz.com/santa-cruz-reliability-north

Santa Cruz Reliability Project North

AGENCY BRIEFING



UniSourceEnergy SERVICES

March 2025

1

Agencies

- Federal Agencies
- State Agencies
- Pima County
- Santa Cruz County
- Town of Sahuarita
- Green Valley Coordinating Council
- Chambers of Commerce
- Telecommunication Companies
- Greater Nogales Santa Cruz County Port Authority
- School Districts
- Union Pacific Railroad
- Utilities
- Large private landowners

Please type into the chat:
- **Name**
- **Organization**
- **Title/Role**

UniSourceEnergy SERVICES

2

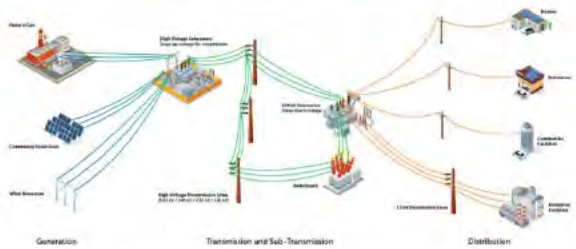
Agenda

- How Power Gets to You
- Santa Cruz Reliability Project – Three Phases
- Need and Benefits
- Phase 1 – Santa Cruz Reliability Project North
- Revised Study Area
- Kantor Substation
- Proposed Transmission Line
- What is Siting?
- Planning and Siting Process
- Project Schedule
- Public Participation
- Q&A Session

UniSourceEnergy SERVICES

3

How We Deliver Energy Service to You



4



5

Need and Benefits

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Maintain and strengthen reliability for Santa Cruz County and its residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Meet current and future energy needs without impacting service to existing customer.
- Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County.
- Support maintenance and other upgrades, allowing work to be performed without interrupting system operations.

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6

Santa Cruz Reliability Project North (Phase 1)

- First phase of a three phase project.
- Construct a second 138 kilovolt (kV) transmission line to connect UniSource's Kantor Substation, in Santa Cruz County, to the regional electric grid in Pima County.
- Upgrade and expand the Kantor Substation to accommodate operations and maintenance requirements.

UniSourceEnergy SERVICES

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8

Kantor Substation



UniSourceEnergy SERVICES

9



10

Example Pole Structure

Tubular, Weathering Steel Monopoles



UniSourceEnergy SERVICES

11

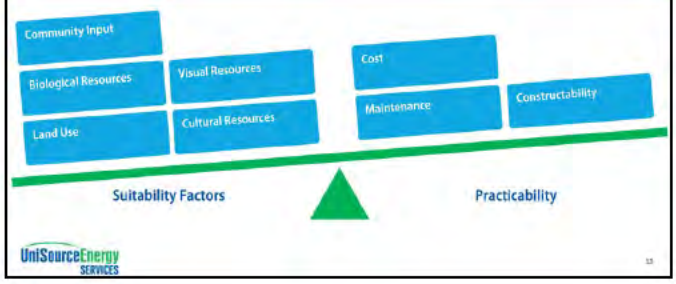
What is Siting?



UniSourceEnergy SERVICES

12

Project Route Development and Evaluation

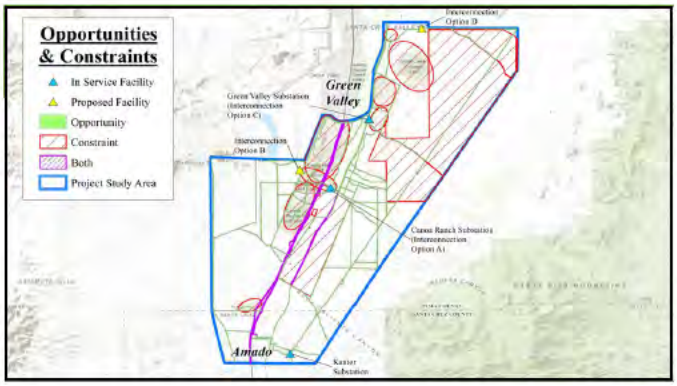


13

Planning and Siting Process Flowchart



14



15



16

Project Schedule*

Under Arizona law, certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

- Q3 '23-Q2 '24 – Transmission Line Planning and Siting
- Fall 2025 – CEC Application Submittal
- Fall 2025 – Arizona Power Plant and Transmission Line Siting Committee Hearing
- Q1 2026 – Arizona Corporation Commission (ACC) Open Meeting
- 2028 – Phase 1: Project in Service
- 2029 – Phase 2: Project in Service
- 2030 – Phase 3: Project in Service

* Target schedule, subject to change

17

Public Participation

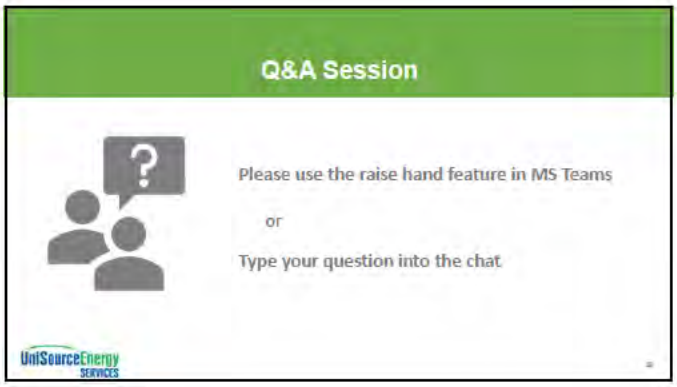
- Fill out an online comment form at: ueasz.com/santa-cruz-reliability-north
- Send comments to: scrnorth@uesaz.com
- Call (520) 917-6635 and leave a voicemail message
- Mail a letter with comments to:
  ATTN: Santa Cruz Reliability North
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

Public Open House Opportunities

Thursday, March 20, 2025. 9-11 a.m.
Hosted by the Green Valley Coordinating Council
Green Valley Recreation East Center
7 S Abrego Drive
Green Valley, AZ 85614

Thursday, March 20, 2025. 5-7 p.m.
Sopori Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

18


Q&A Session
Please use the raise hand feature in MS Teams
or
Type your question into the chat
UniSourceEnergy SERVICES

19

EXHIBIT J-6

PUBLIC OPEN HOUSE 2 SUMMARY (MARCH 20, 2025)

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Public Open House #2 Summary Report
Thursday March 20, 2025

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, is working to enhance energy independence and security for its customers by reducing reliance on the increasingly constrained regional energy market. To help meet growing reliability demands, UniSource is developing a transmission line that connects the Canoa Ranch Substation in Pima County, AZ to the Kantor Substation in Santa Cruz County, AZ. The Kantor Substation will also be expanded to accommodate the new transmission line.

In accordance with state regulations, UniSource must obtain a Certificate of Environmental Compatibility (CEC) to construct the necessary transmission line. As part of its due diligence and to better understand local community values that could influence the siting process, UNSE hosted a Public Open House Meeting to gather public input.

MEETING NOTIFICATION

UNSE developed and mailed a newsletter providing an overview of the Santa Cruz Reliability Transmission Line Project North, including the date, time, and location of the public open house. On March 6, 2025, 14 days before the Public Open House Meeting, the newsletter was sent to approximately 17,000 property owners, residents, and small businesses with U.S. Postal Service addresses within a one-mile radius of the Project Study Area.

To further promote the meeting, geo-targeted Facebook and Instagram ads were run within an 11-mile radius of the study area during the week leading up to the event. Additionally, seven notice signs were posted in and around the Project Study Area on March 6, 2025, 14 days before the meeting. Attachment 3 includes a map of sign locations, sign text, and photos of the signs in place.

Six flyers were also distributed to local community centers and public outlets, where they were posted on public bulletin boards to help spread awareness.

UNSE also published meeting notices in the *Green Valley News* on March 9, 2025, and in *Nogales International* on March 7, 2025. Attachment 5 includes the newspaper ad, and Affidavit of Publication. Meeting notifications were sent out for both morning and evening meetings on March 20, 2025.

MEETING SUMMARY

Two Public Open Houses were held on Thursday, March 20, 2025, from 9:00 AM to 11:00 AM at Green Valley Recreation Center East, located at 7 South Abrego Drive, Green Valley Arizona. The second meeting was from 5:00 PM to 7:00 PM at Sopori Elementary School, located at 5000 West Arivaca Road, Amado, Arizona. The event followed an open house format and featured several informational stations, including a sign-in and comment table, refreshment area, GIS (Geographic Information Systems) table, and 15 project-related posters. These posters covered topics such as:

- Project overview
- Project location map with opportunities and constraints
- Pole characteristics

- Planning and siting process and timeline
- Arizona Corporation Commission criteria for issuing a Certificate of Environmental Compatibility
- Environmental considerations for the transmission line
- Overview of the energy system

UNSE staff in attendance included the Project Manager, Government Liaison, Project Engineer, Environmental Engineer, and Environmental and Land Use Planner. Eocene supported the event with three Environmental and Land Use Planners and their GIS specialist. These representatives were available to answer questions and address community concerns.

All attendees were invited to sign in upon arrival. There were 47 individuals at the morning Open House and 17 at the evening Open House.

To date, the public outreach process has generated verbal feedback from individuals that attended the Open Houses, as well as, written feedback. In addition, UNSE staff and consultants documented verbal comments received during the Open House meeting, which are included in this report.

Common themes in the written comments included concerns about the potential impact of the transmission line on adjacent properties, the effect a new transmission line might have on customer rates, viewsheds, concerns regarding public health and safety issues, and questions regarding how the project team will evaluate biological and environmental considerations during the preliminary transmission route analysis.

Each question/comment was responded to in an email from the Project Manager.

Outlook EXAMPLE

UniSource – Santa Cruz Reliability Project North Update

From Santa Cruz Reliability North <SantaCruzReliabilityNorth@tep.com>

1 attachment (2 MB)
SCR North Newsletter - March 2025.pdf;

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

This upgrade, the Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

UniSource initiated a comprehensive planning and siting study in early 2024 to evaluate potential transmission line routes for this phase of the project. Since that time, we expanded the initial study area and identified draft preliminary segments. See the map in the attached project newsletter or visit the project webpage to find a detailed interactive map.

You are invited to two open house meetings on March 20th where you can ask questions about the project and provide feedback.

Thursday, March 20, 2025 9-11 a.m.
Hosted by the Green Valley Coordinating Council
Green Valley Recreation East Center
7 S Abrego Dr
Green Valley, AZ 85614

Thursday, March 20, 2025 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd.
Amado, AZ 85645

Should you have any questions or comments, please send an email to scrnorth@uesaz.com or call our project information line at 1-520-917-6635.

We appreciate your engagement in this important energy project.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

4350 E. Irvington Rd.
Mailstop CB200
P.O. Box 711 Tucson, AZ 85702
Phone: 520-917-6635
E-mail: scrnorth@uesaz.com

Santa Cruz Reliability Project North

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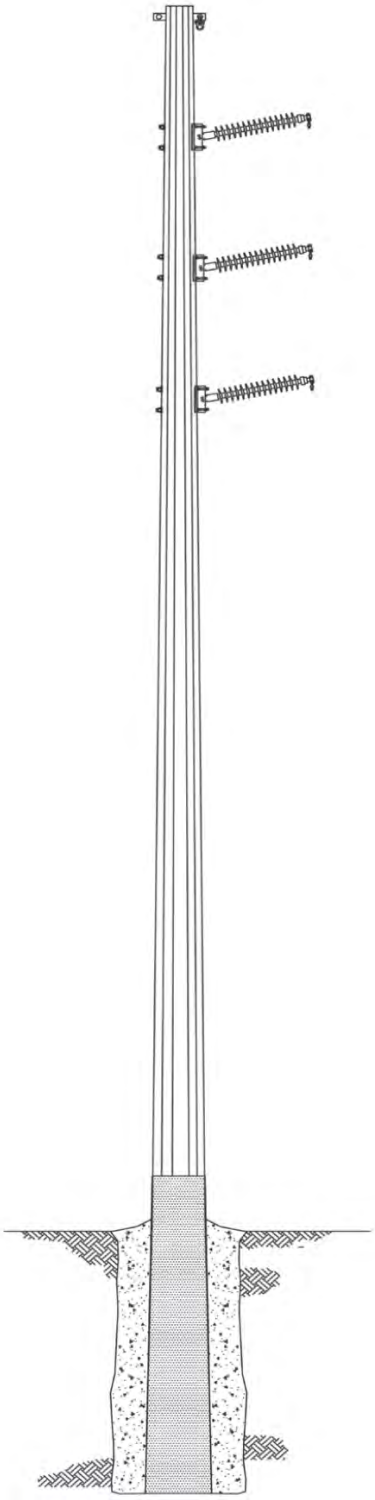
Public Open House

Please Join Us

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Thursday, March 20, 2025 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd
Amado, AZ 85645

Complimentary refreshments will be provided



More Information

uesaz.com/santa-cruz-reliability-north

Proyecto de Confiabilidad Santa Cruz Norte

UniSourceEnergy SERVICES

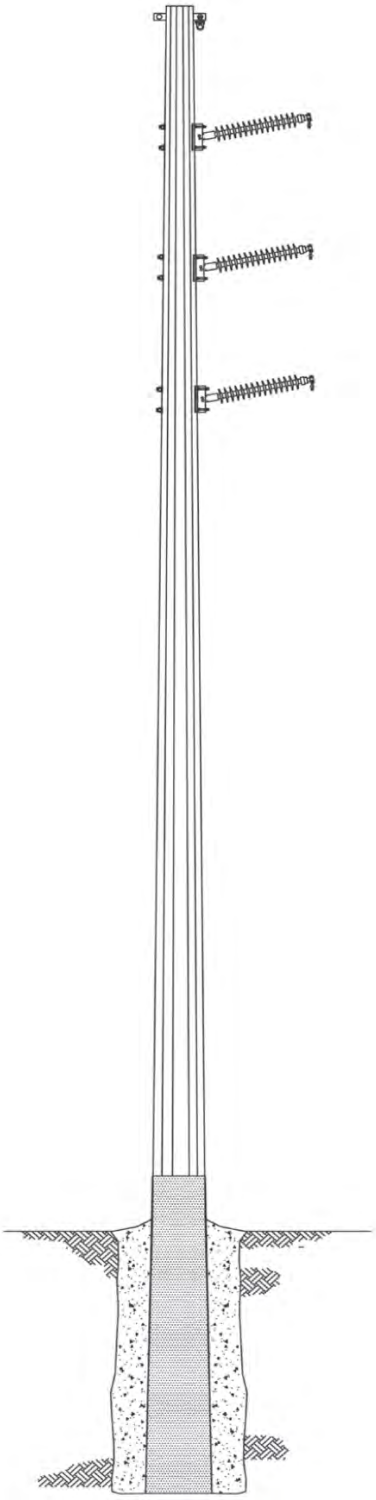
Aviso de Reunión Abierta Pública

¡Acompáñenos!

Jueves 20 de Marzo de 2025 9-11 a.m.
Alojado por el Consejo Coordinador de Green Valley
Green Valley Recreation East Center
7 S Abrego Drive
Green Valley, AZ 85614

Jueves 20 de Marzo de 2025 5-7 p.m.
Escuela Primaria Sopori
5000 W Arivaca Rd
Amado, AZ 85645

Refrescos de cortesía será servido



Más información

uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

FLYER LOCATIONS ROUND 2 OUTREACH	
Place	**Location**
Joyner - Green Valley Library	601 N La Cañada Dr, Green Valley, AZ 85614
Dollar General	28890 S Nogales Hwy, Amado, AZ 85645
Green Valley Chamber of Commerce	275 W Continental Rd Ste 123, Green Valley, AZ 85622
Sahuarita Library	670 W Sahuarita Rd, Sahuarita, AZ 85629
Posada Java	350 E Morningside Rd, Green Valley, AZ 85614
Sopori Elementary	5000 W Arivaca Rd, Amado, AZ 85645
The Longhorn Grill	28851 S Nogales Hwy, Amado, AZ 85645

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Public Open House

Please Join Us

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Green Valley Recreation East Center
7 S Abrego Drive
Green Valley, AZ 85614

Thursday, March 20, 2025 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd
Amado, AZ 85645

Complimentary refreshments will be provided

More Information

uesaz.com/santa-cruz-reliability-north

Aviso de Reunión Abierta Pública

¡Acompáñenos!

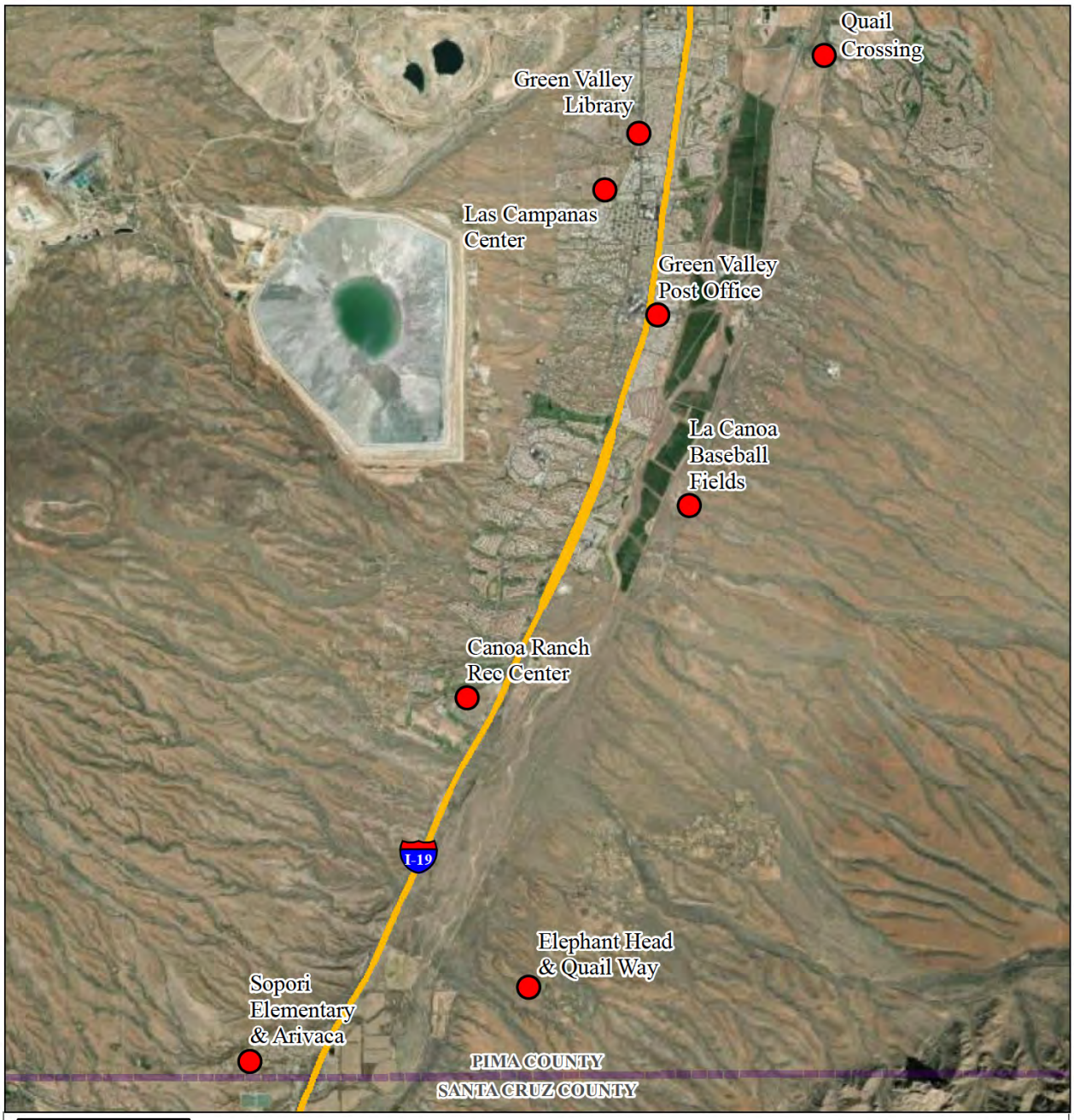
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Refrescos de cortesía será servido

Más información

uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte







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Feet

1:117,544

Legend

Sign Location

Notification Sign Context

Santa Cruz
Reliability Project North

UniSource Energy SERVICES

Date: 4/18/2025
Projection: NAD_1983_UTM_Zone_12N

This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

Nogales International

See Proof on Next Page

AFFIDAVIT OF PUBLICATION

State of Florida, County of Orange, ss:

Hannah Ward, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Nogales International, a newspaper printed and published two days a week in the City of Nogales, County of Santa Cruz, State of Arizona, and that this affidavit is Page 1 of 3 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
Mar. 7, 2025

Notice ID: E8MBuT9FXrsvHMPjfJQi
Publisher ID: NIN000860
Notice Name: SANTA CRUZ RELIABILITY PROJECT NORTH

Request of:
Nogales International
268 W View Point Dr
by: Matthew Ritter

Hannah Ward

Legal Advertising Representative

JESSICA GORDON-THOMPSON
Notary Public - State of Florida
Commission # HH301656
Expires on August 17, 2026

VERIFICATION

Notarized online using audio-video communication

State of Florida
County of Orange

Signed or attested before me on this: 03/10/2025

Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice
Aviso Público
Santa Cruz Reliability Project North
Proyecto de Confiabilidad de Santa Cruz Norte

UniSource Energy Services is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements. The Santa Cruz Reliability Project North will be the first of three phases in a project designed to improve transmission service in the area.

The project will help reduce the frequency and duration of outages affecting residents, businesses, and industries, including hospitals, schools, ports of entry and federal facilities. The project also will expand energy capacity in the area to meet current and future energy needs without impacting service to existing customers.

UniSource is conducting a comprehensive planning and siting study to evaluate potential transmission line routes within a defined study area. UniSource encourages customers and others in the project study area to attend the upcoming open houses and provide comment on the process and draft preliminary route segments that could be considered for use to accommodate the proposed transmission line.

UniSource Energy Services propone construir una nueva línea de transmisión de 138 kilovoltios para conectar su subestación Kantor en el condado de Santa Cruz con la red eléctrica regional en el condado de Pima. Además, se llevarán a cabo mejoras para ampliar la capacidad de la subestación y cumplir con los requisitos de operación y mantenimiento. El Proyecto de Confiabilidad de Santa Cruz Norte será la primera de tres fases en un plan diseñado para mejorar el servicio de transmisión en la zona.

El proyecto ayudará a reducir la frecuencia y duración de los cortes de energía que afectan a residentes, negocios e industrias, incluidos hospitales, escuelas, puertos de entrada e instalaciones federales. Además, ampliará la capacidad energética en la zona para satisfacer las necesidades actuales y futuras sin afectar el servicio a los clientes existentes.

UniSource está llevando a cabo un estudio integral de planificación y ubicación para evaluar posibles rutas para la línea de transmisión dentro de un área de estudio definida. UniSource invita a los clientes y a otras personas en el área de estudio del proyecto a asistir a las próximas sesiones informativas y a brindar sus comentarios sobre el proceso y los segmentos preliminares de ruta que podrían considerarse para la instalación de la línea de transmisión propuesta.

UniSourceEnergy SERVICES

Public Open House Options

Thursday, March 20, 2025l 9–11 a.m.
Hosted by
the Green Valley Coordinating Council
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7 South Abrego Dr.
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Thursday, March 20, 2025l 5–7 p.m.
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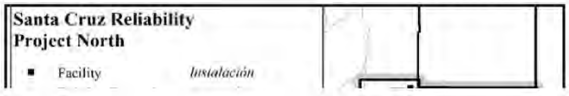
uesaz.com/santa-cruz-reliability-north

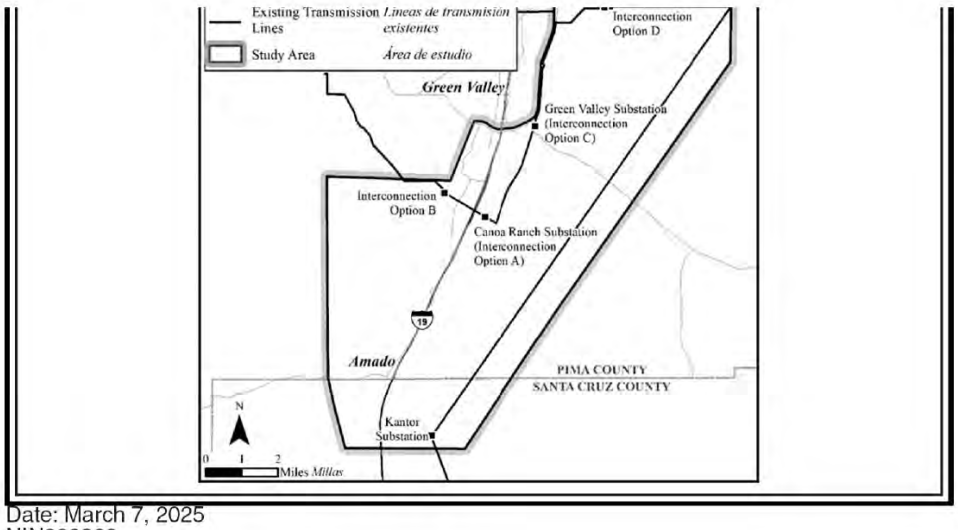
Opciones de sesiones informativas abiertas al público

Jueves 20 de marzo de 2025 l 9-11 a.m.
Organizado por el Consejo de
Coordinación de Green Valley
Centro Recreativo East de Green Valley
7 South Abrego Dr.
Green Valley, AZ 85614

Jueves 20 de marzo de 2025 l 5-7 p.m.
Escuela Primaria Sopori
5000 W Arivaca Rd.
Amado, AZ 8564

uesaz.com/proyecto-de-confiabilidad-de-santacruz- norte





Date: March 7, 2025
NIN000860

Green Valley News sun

See Proof on Next Page

AFFIDAVIT OF PUBLICATION

State of Florida, County of Broward, ss:

Jesse Sassaman, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Green Valley News, a newspaper printed and published in the City of Green Valley, County of Pima, State of Arizona, and that this affidavit is Page 1 of 3 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
Mar. 9, 2025

NOTICE ID: S2E4n8TUf993TixaxSEK
PUBLISHER ID: GVN000698
NOTICE NAME: SANTA CRUZ RELIABILITY PROJECT NORTH

Request of: Matthew Ritter

I declare under penalty of perjury that the foregoing is true and correct.

(Signed) Jesse Sassaman

SHERI SMITH
Notary Public - State of Florida
Commission # HH269383
Expires on May 31, 2026

VERIFICATION

State of Florida
County of Broward

Subscribed in my presence and sworn to before me on this: 03/19/2025

S Smith
Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice
Aviso Público
Santa Cruz Reliability Project North
Proyecto de Confiabilidad de Santa Cruz Norte

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UniSourceEnergy SERVICES

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Amado, AZ 85645

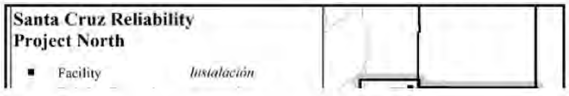
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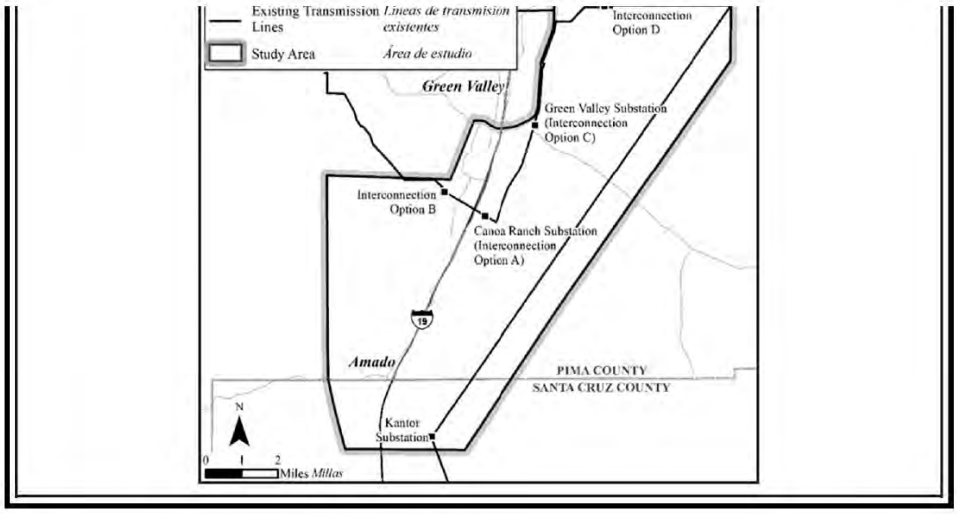
Opciones de sesiones informativas abiertas al público

Jueves 20 de marzo de 2025 l 9-11 a.m.
Organizado por el Consejo de
Coordinación de Green Valley
Centro Recreativo East de Green Valley
7 South Abrego Dr.
Green Valley, AZ 85614

Jueves 20 de marzo de 2025 l 5-7 p.m.
Escuela Primaria Sopori
5000 W Arivaca Rd.
Amado, AZ 8564

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Existing Transmission Lines
Líneas de transmisión existentes
Study Area
Área de estudio
Green Valley
Interconnection Option D
Green Valley Substation (Interconnection Option C)
Interconnection Option B
Canoa Ranch Substation (Interconnection Option A)
19
Amado
PIMA COUNTY
SANTA CRUZ COUNTY
N
Kantor Substation
0
2
Miles Millas

UniSourceEnergy SERVICES

Santa Cruz Reliability
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Please Join Us

Public Open House

Thursday, March 20, 2025 9-11 a.m.
Hosted by the Green Valley Coordinating Council
Green Valley Recreation East Center
725 Abrego Drive
Green Valley, AZ 85614

Thursday, March 20, 2025 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd
Amado, AZ 85645

Complimentary refreshments will be provided

More Information
uesaz.com/santa-cruz-reliability-north

¡Acompáñenos!

Aviso de Reunión Abierta Pública

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Alojado por el Consejo Coordinador de Green Valley
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Refrescos de cortesía será servido

Más información
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UniSourceEnergy SERVICES

UniSource Continues Work on Plans for New Transmission Facilities to Support Community Resiliency

UniSource Energy Services has expanded its study area and has identified draft preliminary route segments for a project designed to help strengthen the reliability and resiliency of the electric transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

This upgrade, the Santa Cruz Reliability Project North, is the first of three phases in a project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

UniSource will continue to seek public input and will consider multiple options before recommending transmission line routes for this phase of the project. Any final route is subject to approval by the Arizona Power Plant and Transmission Line Siting Committee and the Arizona Corporation Commission (ACC) before it can be constructed.

Project Benefits

The project would provide several benefits to customers in the area. The project is designed to:

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Reduce the frequency and duration of outages affecting residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Expand energy capacity in the area to meet current and future energy needs without impacting service to existing customers.
- Support maintenance and other upgrades by allowing UniSource to perform work without interrupting system operations.

Project Updates

UniSource initiated a comprehensive planning and siting study in early 2024 to evaluate potential transmission line routes for this phase of the project. Public input, as well as environmental resources and land uses, are incorporated to help guide this effort.

UniSource originally considered a transmission line connecting the Kantor Substation to Tucson Electric Power's Canoa Ranch Substation in Pima County. After discussions with interested parties, we have identified several additional potential points of interconnection as shown on the map included in this newsletter.

"We'll continue to examine this area in detail to identify opportunities where a new line might be constructed, as well as areas of constraint where challenges to construct a new line exist," said Clark Bryner, Manager of Siting, Outreach and Engagement.

The draft preliminary segments, shown on the map, correspond with opportunities that were identified and determined to be areas feasible for the construction of a transmission line. These segments are subject to further review. Public input is an important part of our planning process. Please review the project study area and the draft preliminary segments and provide your comments on:

- Areas we should avoid and why they are not compatible with a new power transmission line.
- Areas we should consider, and the reasons why they would be suitable for a new transmission line.
- Additional evaluation criteria representing your values or those of your community that we should consider. See the graphic titled "Evaluation Criteria" on the cover for more details.

Using your feedback and through further study, UniSource will work to identify potential routes that are most suitable for this project. You will have additional opportunities to comment on a refined list of segments later this year.

We encourage area residents and other interested parties to share their comments using one of the public participation methods listed in this newsletter.

Evaluation Criteria

We welcome your comments about evaluation criteria we'll consider throughout the route selection process. Are there additional criteria we should consider? Current criteria include:

- Cost and potential impact on customer rates
- Impact on existing and planned land uses
- Impact on fish, wildlife, and plants, including special status species and their habitat
- Proximity to sensitive noise receptors (schools, hospitals, assisted living and daycare facilities)
- Proximity to licensed communication sites
- Impact on designated scenic areas
- Impact on historic and archaeological sites
- Overall environmental impact
- Ability to construct, and operate and maintain facilities
- Compliance with state, county or city ordinances

Santa Cruz Reliability Project North

Required Approvals and Timeline

Under state law, the ACC must approve a Certificate of Environmental Compatibility (CEC) before we can build the proposed transmission line along an approved route. We plan to file a CEC application in fall 2025 with the ACC. The application will then be reviewed by the Arizona Power Plant and Transmission Line Siting Committee in a formal hearing that allows neighbors and others to provide comments.

Public Participation

UniSource invites the public to attend one of two open house meetings listed on the front of this newsletter to learn more about the project, ask questions and submit comments. You can also share your input by using the methods listed here:

Fill out an online comment form at:
uesaz.com/santa-cruz-reliability-north

Email comments to:
scrnorth@uesaz.com

Call:
(520) 917-6635 and leave a voicemail message

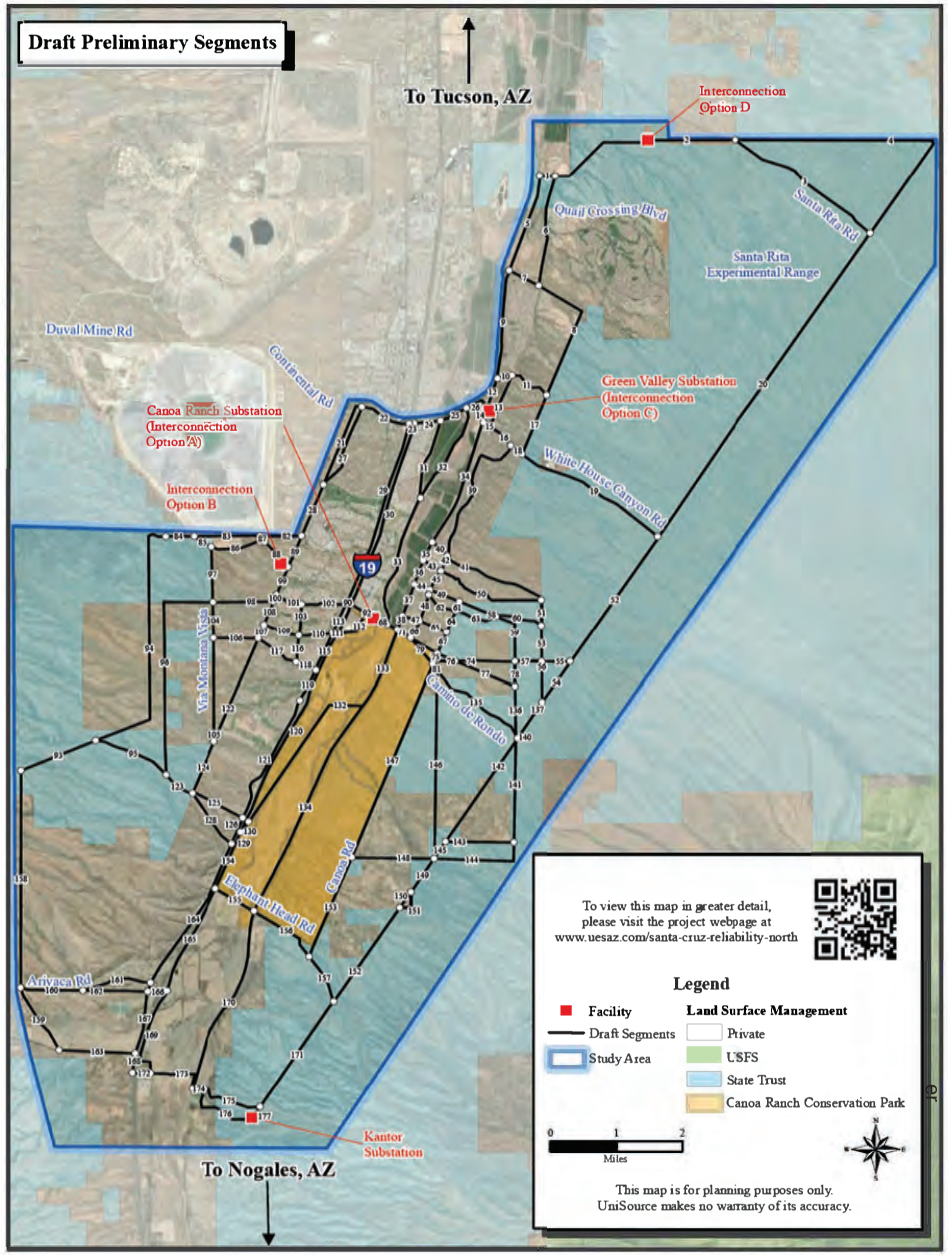
Mail a letter with comments to:
ATTN: Santa Cruz Reliability
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

An interactive map is posted on our website.

UniSource Planea Nuevas Instalaciones de Transmisión para Apoyar la Resiliencia Comunitaria

UniSource Energy Services está desarrollando el Proyecto de Confiabilidad de Santa Cruz (SCR) Norte para mejorar la confiabilidad y resiliencia del suministro eléctrico en el condado de Santa Cruz, mediante una conexión nueva en la red eléctrica regional y la subestacion Kantor con una línea de transmisión de 138 kilovoltios. Este Proyecto reducirá la duración y frecuencia de los cortes de energía, facilitando el suministro desde multiples direcciones y preparando el sistema para las demandas futuras sin afectar a los clientes existentes.

Se valora enormemente la participación pública para la selección de la ruta de la línea de transmisión, teniendo en cuenta el impacto ambiental, los costos y la proximidad a áreas sensibles. Animamos a la comunidad a compartir sus opiniones y comentarios a través de varias vías: asistiendo a la reunión pública abierta, cuyos detalles se encuentran en este boletín; enviando comentarios al correo electrónico scrnorth@uesaz.com; llamando al (520) 917-6635; o enviando comentarios porcorreo postal. Este esfuerzo marca el inicio de un plan de tres fases para mejorar el sistema de transmisión de alta tensión en el área, pendiente de aprobación regulatoria.



UniSource Energy SERVICES

Santa Cruz Reliability
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Santa Cruz Reliability Project North

UniSource Energy SERVICES

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Más información
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UniSource Energy SERVICES

UniSource continúa trabajando en planes de nuevas instalaciones de transmisión para fortalecer la resiliencia de la comunidad

UniSource Energy Services ha ampliado su área de estudio e identificado segmentos preliminares de ruta de un proyecto diseñado para fortalecer la confiabilidad y resiliencia del sistema de transmisión eléctrica que abastece al condado de Santa Cruz.

UniSource propone construir una nueva línea de transmisión de 138 kilovoltios para conectar su subestación Kantor en el condado de Santa Cruz con la red eléctrica regional en el condado de Pima, además de realizar mejoras para ampliar la capacidad de la subestación y adaptarla a los requisitos de operación y mantenimiento.

Esta mejora, denominada Proyecto de Confiabilidad de Santa Cruz Norte, es la primera de tres fases de un plan destinado a optimizar el servicio de transmisión en la región. El proyecto permitiría a UniSource contar con una nueva vía para suministrar energía a las subestaciones que abastecen a residentes, negocios, proveedores de servicios y otros clientes en el condado de Santa Cruz, reduciendo el riesgo de cortes de energía prolongados y generalizados.

UniSource continuará recabando comentarios del público y considerará múltiples opciones antes de recomendar las rutas definitivas para esta fase del proyecto. Cualquier ruta final estará sujeta a la aprobación del Comité de Ubicación de Líneas de Transmisión y Plantas de Energía de Arizona y la Comisión de Corporaciones de Arizona (ACC) antes de su construcción.

Beneficios del Proyecto

El proyecto proporcionará varios beneficios a los clientes de la región, entre ellos:

- Mejorar la confiabilidad y resiliencia del sistema de transmisión eléctrica que abastece al condado de Santa Cruz.
- Reducir la frecuencia y duración de los cortes de energía que afectan a residentes, negocios e industrias, incluyendo hospitales, escuelas, puertos de entrada y dependencias federales.
- Expandir la capacidad energética de la zona para satisfacer las necesidades actuales y futuras sin afectar el servicio a los clientes existentes.
- Facilitar el mantenimiento y otras mejoras permitiendo a UniSource realizar trabajos sin interrumpir las operaciones del sistema.

Actualizaciones del Proyecto

UniSource inició en el 2024 un estudio de planificación y ubicación para evaluar posibles rutas de la línea de transmisión en

Criterios de Evaluación

Agradecemos sus comentarios sobre los criterios de evaluación que consideraremos a lo largo del proceso de selección de la ruta. ¿Hay criterios adicionales que deberíamos considerar? Los criterios actuales incluyen:

- Costo e impacto potencial en las tarifas de los clientes.
- Impacto en el uso actual y planificado del suelo.
- Impacto en la fauna, flora y especies con estatus especial de protección.
- Proximidad a zonas sensibles al ruido (escuelas, hospitales, centros de asistencia y guarderías).
- Proximidad a sitios de comunicación con licencia.
- Impacto en áreas paisajísticas designadas.
- Impacto en sitios históricos y arqueológicos.
- Impacto ambiental general.
- Factibilidad de construcción, operación y mantenimiento de las instalaciones.
- Cumplimiento con ordenanzas estatales, del condado o municipales.

Proyecto de Confiabilidad de Santa Cruz Norte

esta fase del proyecto. La opinión pública, así como los recursos ambientales y el uso del suelo, se incorporan para guiar este esfuerzo.

Inicialmente, UniSource consideró una línea de transmisión que conectaría la subestación Kantor con la subestación Canoa Ranch de Tucson Electric Power en el condado de Pima. Tras consultas con partes interesadas, se han identificado varios puntos adicionales de interconexión, los cuales se muestran en el mapa incluido en este boletín.

"Seguiremos examinando esta área en detalle para identificar oportunidades donde se pueda construir una nueva línea, así como zonas de restricción donde existan desafíos para la construcción de la línea", indicó Clark Bryner, Gerente de Ubicación, Participación y Divulgación (Siting, Outreach and Engagement) de UniSource.

Los segmentos preliminares identificados en el mapa corresponden a áreas consideradas viables para la construcción de la línea de transmisión y están sujetos a revisión adicional. La participación pública es una parte fundamental de nuestro proceso de planificación. Le invitamos a revisar el área de estudio del proyecto y los segmentos preliminares para compartir sus comentarios sobre:

- Zonas que deberíamos evitar y por qué no son compatibles con una nueva línea de transmisión eléctrica.
- Zonas que deberíamos considerar y las razones por las que serían adecuadas para una nueva línea de transmisión.
- Criterios adicionales de evaluación que representen sus valores o los de su comunidad.

Con base en sus comentarios y en estudios adicionales, UniSource identificará las rutas potenciales más adecuadas para este proyecto. Usted tendrá más oportunidades de aportar comentarios sobre una lista refinada de segmentos a lo largo del año.

Animamos a los residentes del área y a otras partes interesadas a compartir sus comentarios utilizando uno de los métodos de participación pública mencionados en este boletín.

Cronograma y Aprobaciones Requerida

Según la ley estatal, la ACC debe aprobar un Certificado de Compatibilidad Ambiental (CEC, por sus siglas in ingles) antes de que podamos construir la línea de transmisión propuesta a lo largo de una ruta aprobada. Planeamos presentar una solicitud de CEC en el otoño de 2025 ante la ACC. Luego, la solicitud será revisada por el Comité de Ubicación de Plantas de Energía y Líneas de Transmisión de Arizona en una audiencia formal que permitirá a los vecinos y otras partes interesadas proporcionar comentarios.

Participación Pública

UniSource invita al público a asistir a una de las dos reuniones informativas mencionadas en la portada de este boletín para obtener más información sobre el proyecto, hacer preguntas y enviar comentarios. También puede compartir su opinión utilizando los métodos indicados aquí:

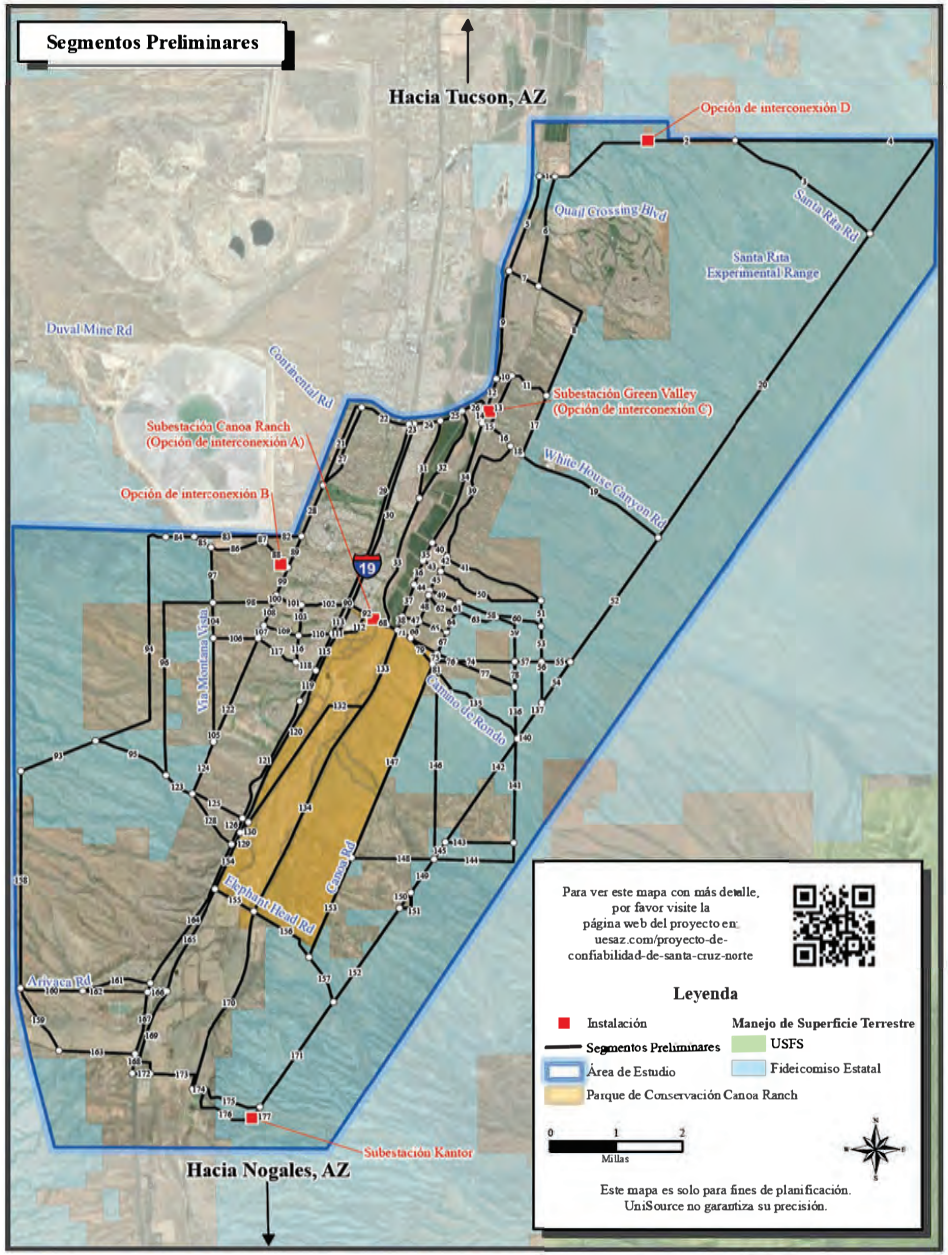
Complete un formulario de comentarios en línea en:
uesaz.com/santa-cruz-reliability-north

Enviando un correo electrónico a:
scrnorth@uesaz.com

Llamando:
(520) 917-6635 y dejando un mensaje de voz

Enviando comentarios por correo postal a:
A/A: Confiabilidad de Santa Cruz Norte
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Un mapa interactivo está disponible en nuestro sitio web.



Santa Cruz Reliability Project North

AGENCY BRIEFING

CLARK BRYNER – MANAGER, SITING, OUTREACH AND ENGAGEMENT



UniSourceEnergy SERVICES

March 2025

1

Agencies

- Federal Agencies
- State Agencies
- Pima County
- Santa Cruz County
- Town of Sahuarita
- Green Valley Coordinating Council
- Chambers of Commerce
- Telecommunication Companies
- Greater Nogales Santa Cruz County Port Authority
- School Districts
- Union Pacific Railroad
- Utilities
- Large private landowners

Please type into the chat:
- **Name**
- **Organization**
- **Title/Role**

UniSourceEnergy SERVICES

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Agenda

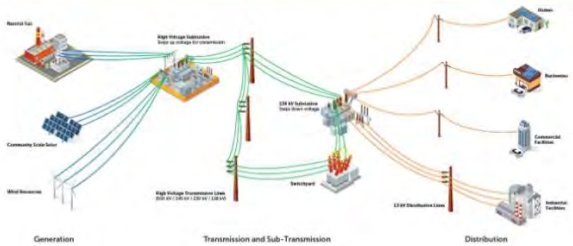
- How Power Gets to You
- Santa Cruz Reliability Project – Three Phases
- Need and Benefits
- Phase 1 – Santa Cruz Reliability Project North
- Revised Study Area
- Kantor Substation
- Proposed Transmission Line
- What is Siting?
- Planning and Siting Process
- Project Schedule
- Public Participation
- Q&A Session

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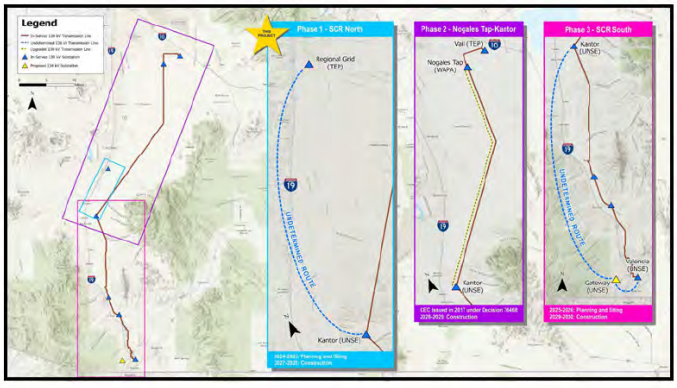
3

How We Deliver Energy Service to You



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5

Need and Benefits

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Maintain and strengthen reliability for Santa Cruz County and its residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Meet current and future energy needs without impacting service to existing customer.
- Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County.
- Support maintenance and other upgrades, allowing work to be performed without interrupting system operations.

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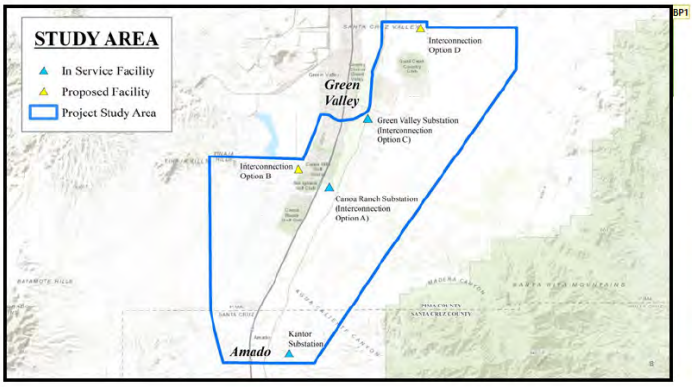
Santa Cruz Reliability Project North (Phase 1)

- First phase of a three phase project.
- Construct a second 138 kilovolt (kV) transmission line to connect UniSource's Kantor Substation, in Santa Cruz County, to the regional electric grid in Pima County.
- Upgrade and expand the Kantor Substation to accommodate operations and maintenance requirements.

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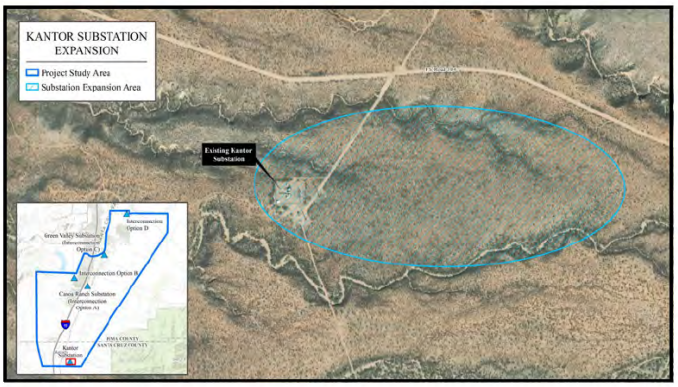
Kantor Substation



UniSourceEnergy SERVICES

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Example Pole Structure

Tubular, Weathering Steel Monopoles

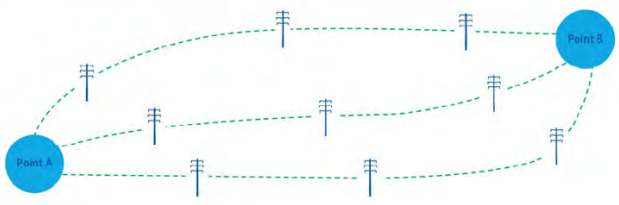


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What is Siting?

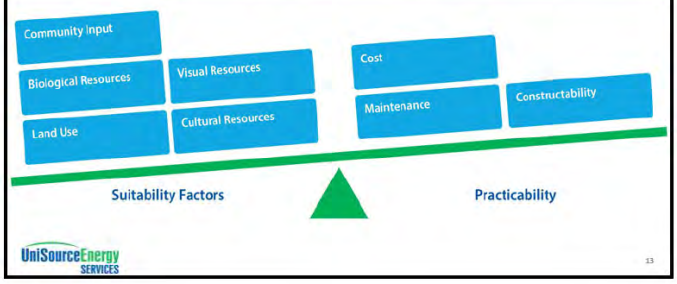


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Project Route Development and Evaluation



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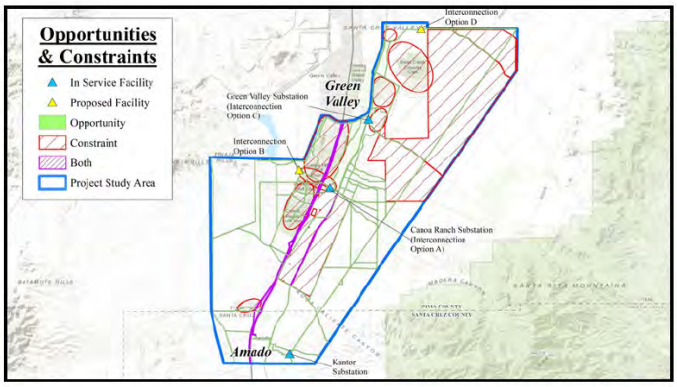
Planning and Siting Process Flowchart



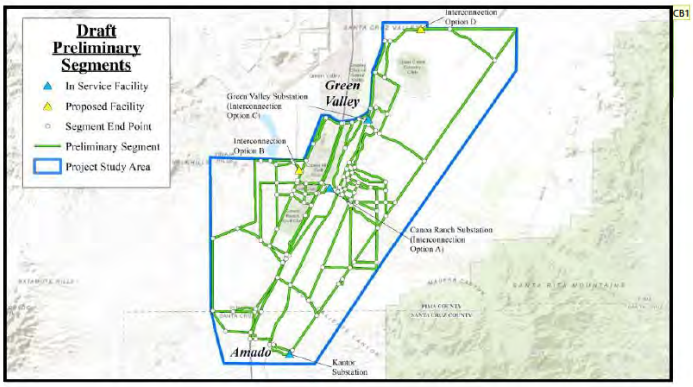
UniSourceEnergy SERVICES

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15



16

Project Schedule*

Under Arizona law, certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

- Q3 '23-Q2 '24 – Transmission Line Planning and Siting
- Fall 2025 – CEC Application Submittal
- Fall 2025 – Arizona Power Plant and Transmission Line Siting Committee Hearing
- Q1 2026 – Arizona Corporation Commission (ACC) Open Meeting
- 2028 – Phase 1: Project in Service
- 2029 – Phase 2: Project in Service
- 2030 – Phase 3: Project in Service

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* Target schedule, subject to change

17

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Public Participation

- Fill out an online comment form at: ueasz.com/santa-cruz-reliability-north
- Send comments to: scrnorth@uesaz.com
- Call (520) 917-6635 and leave a voicemail message
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  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

Public Open House Opportunities

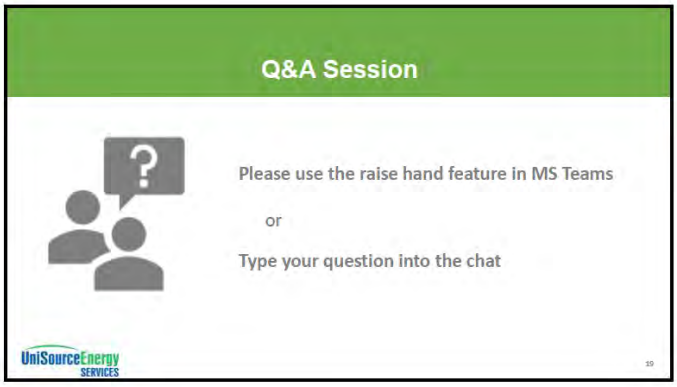
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Sopori Elementary School
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Amado, AZ 85645

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18

18


Q&A Session
Please use the raise hand feature in MS Teams
or
Type your question into the chat
UniSourceEnergy SERVICES
19

19

UniSourceEnergy SERVICES

Santa Cruz Reliability Project North

Welcome

Bienvenidos, hablamos español

Please Sign In

Favor de registrarse

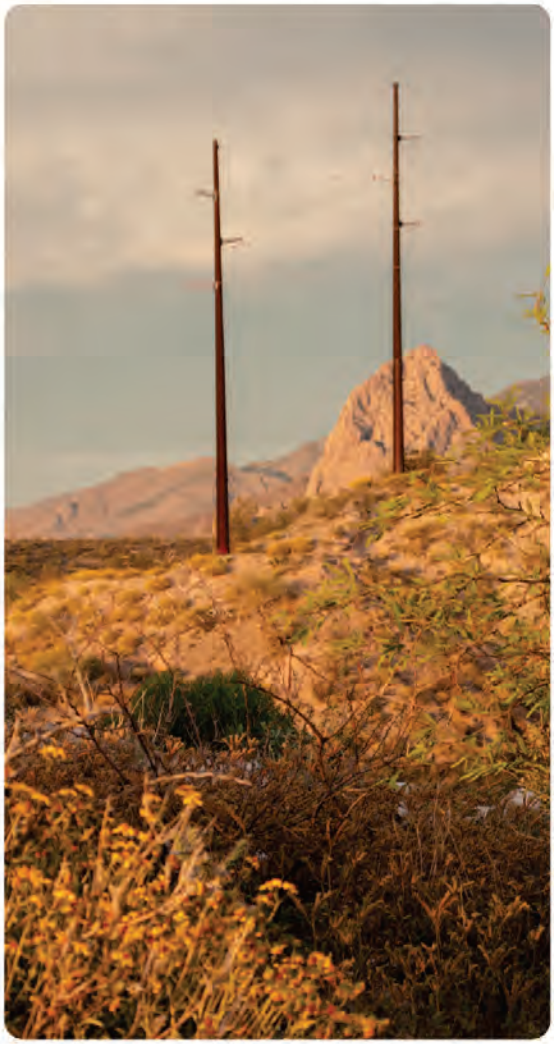
For More Information

Para Más Información

Purpose & Need

Purpose

Improve the reliability and resiliency of the electrical transmission system servicing Santa Cruz County



Need

Maintain and strengthen reliability for Santa Cruz County and its residents, businesses, and industries including hospitals, schools, ports of entry, and federal facilities

Meet current and future energy needs without impacting service to existing customers

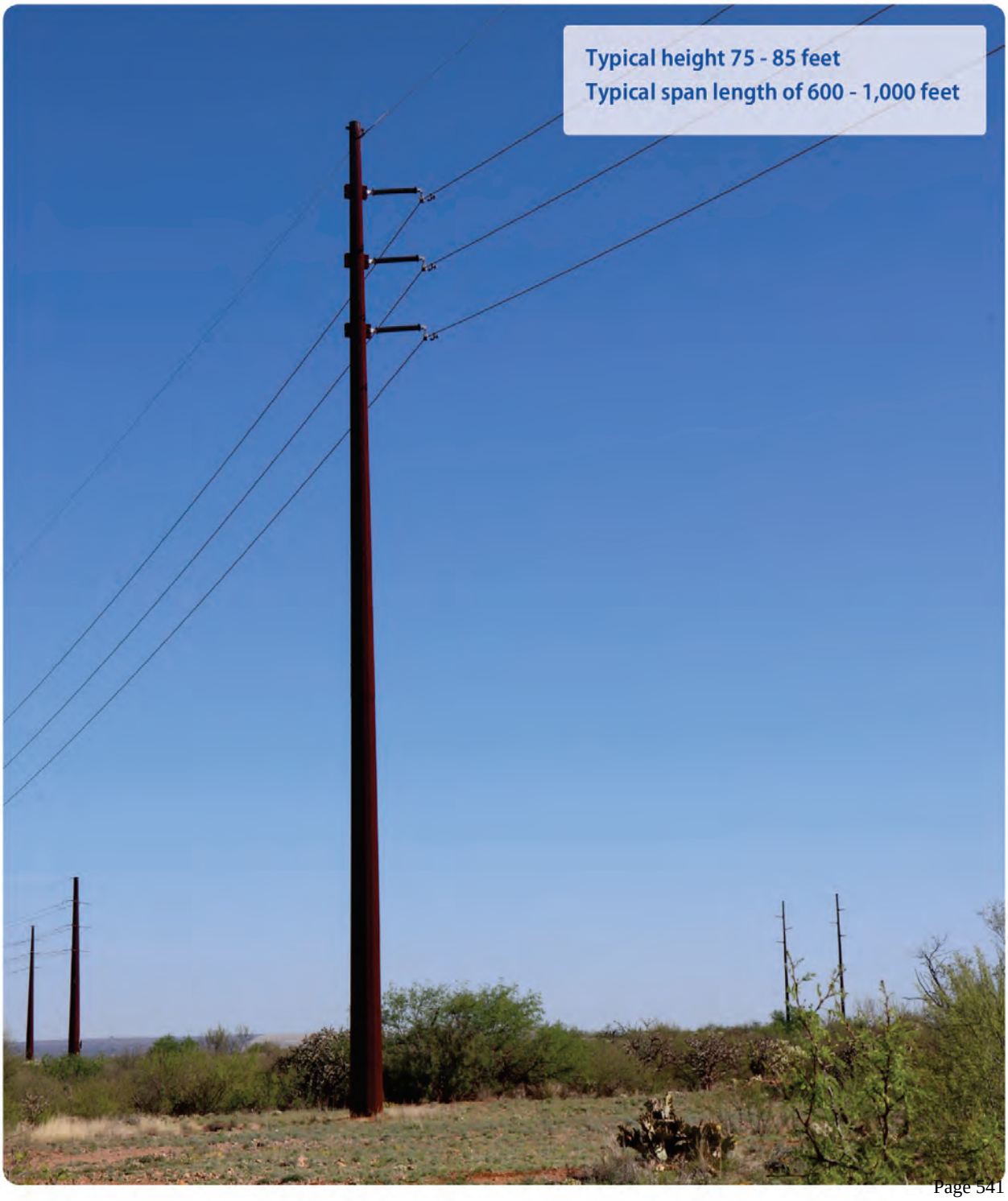
Convert the current radial line configuration servicing Santa Cruz County to a looped transmission system

Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County

Support maintenance and other upgrades, allowing work to be performed without interrupting system operations

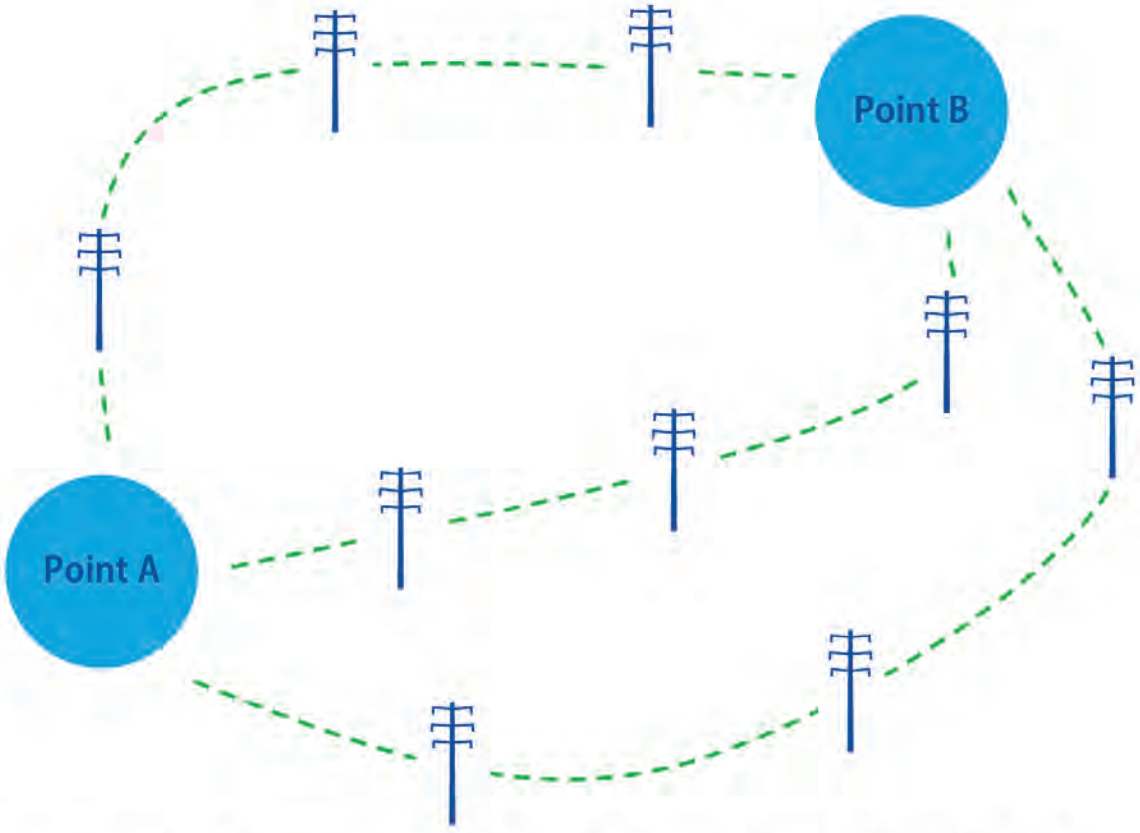
Example Pole Structure

Tubular, Weathering Steel Monopoles



What is Siting?

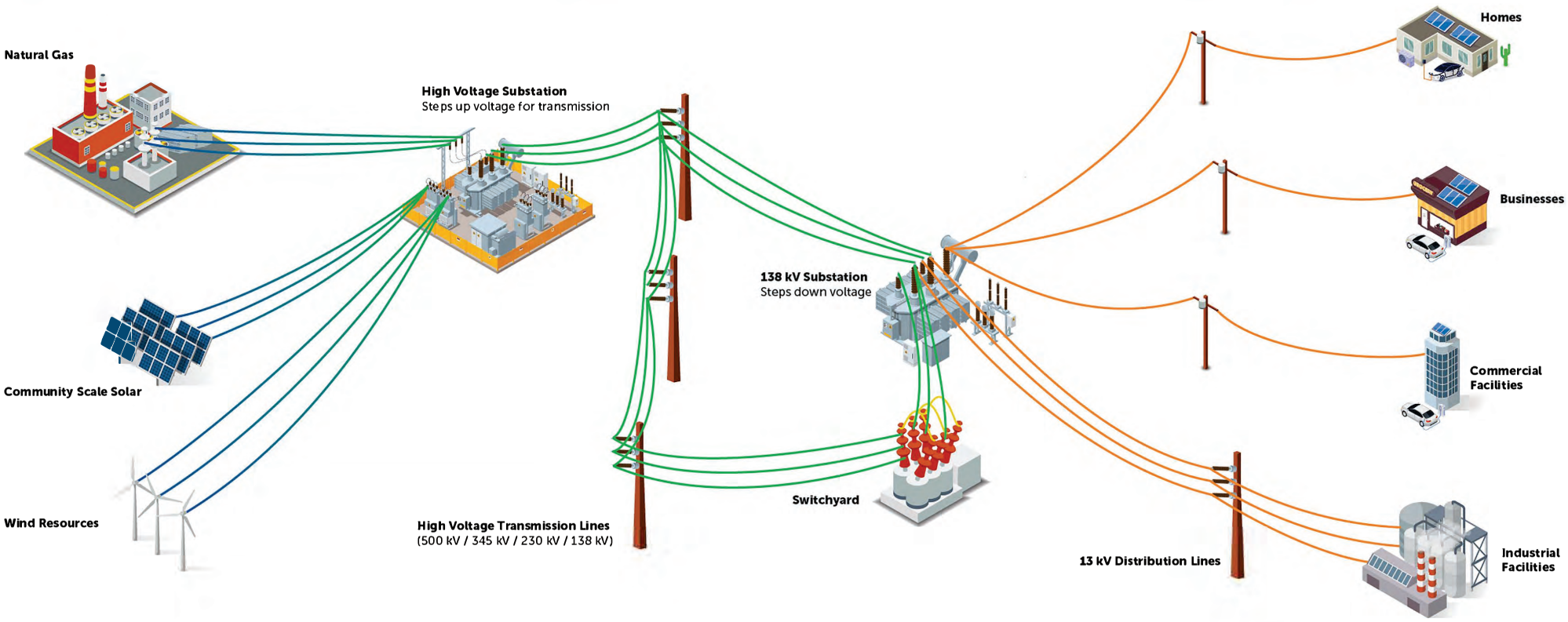
The process of determining the exact route or location where a high-voltage transmission line will be built between two or more points. These points could be new or existing substations, switchyards or energy resources.



A component of siting is permitting. Under Arizona law (A.R.S. § 40-360 et seq.), certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

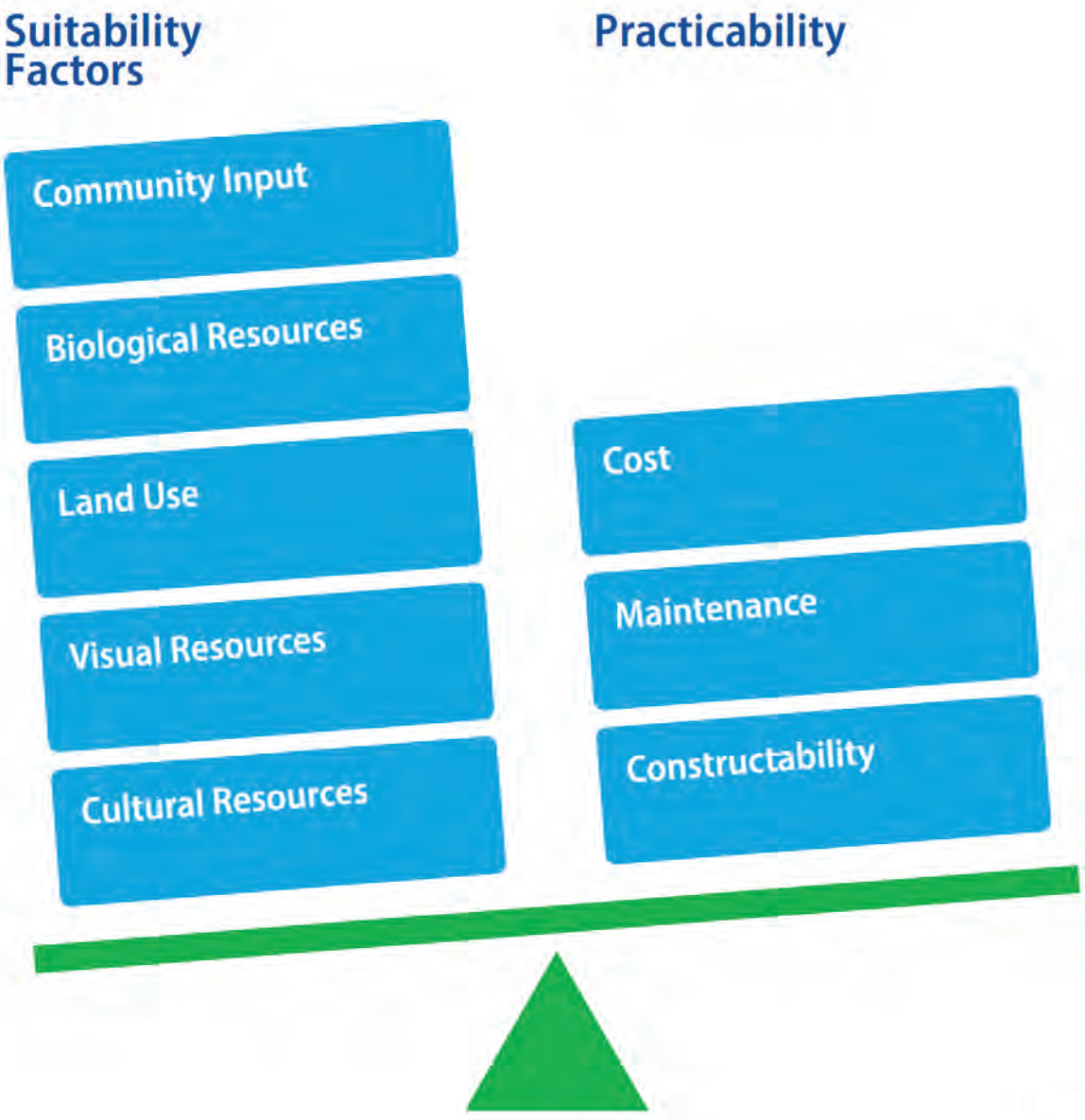
Our Energy Grid
How we deliver electric service to you

UniSourceEnergy SERVICES



Project Route Development and Evaluation

UniSource considers factors important to the community and environment, and balances them with constructability, maintenance, and cost to find the most suitable path for the transmission line that satisfies the need for the project.



Siting Process Flowchart

Phase 1: Pre-Analysis

- Conduct Field Visits
- Develop Study Area
- Identify Opportunities and Constraints
- Conduct Public and Stakeholder Outreach
- Develop Preliminary Segments

Phase 2: Data Inventory

- Conduct Research and Collect Data

We Are Here

Phase 3: Suitability Assessment

- Develop Suitability Models
- Conduct Suitability Assessment
- Field Review
- Refine Segments

Phase 4: Compatibility Analysis

- Conduct Compatibility Analysis
- Develop Route Alternatives
- Conduct Public and Stakeholder Outreach
- Identify Preferred Route

Phase 5: Concept Evaluation

- Field Review
- Submit CEC Application
- Public Notification and Hearing

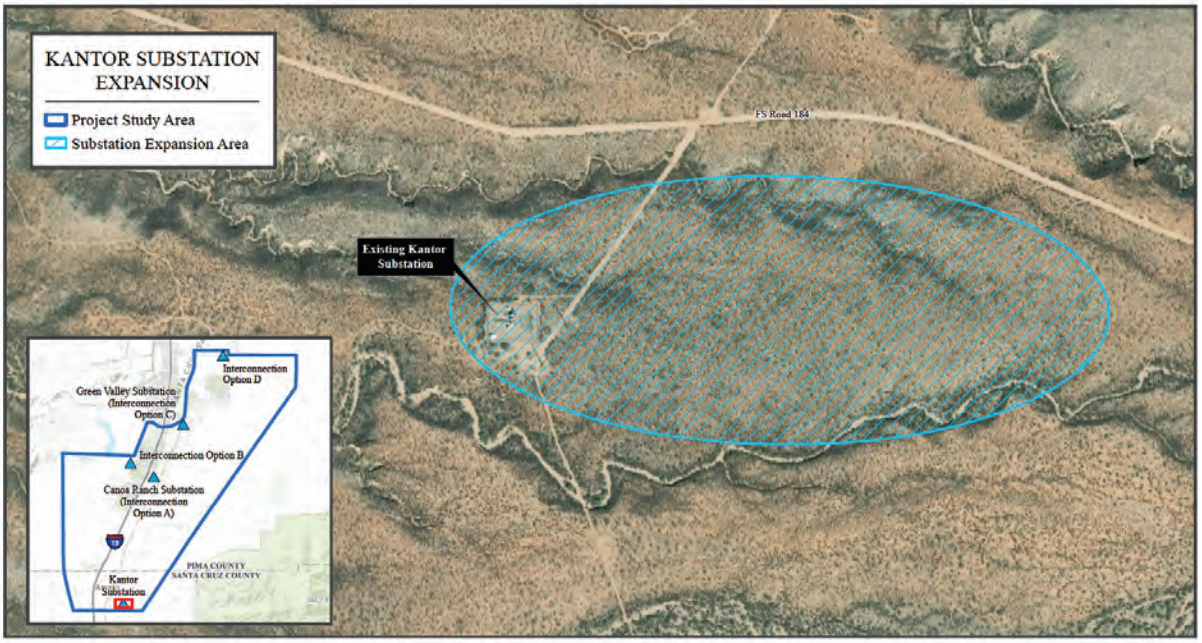
Siting Considerations

The Arizona Corporation Commission will consider several factors before approving a Certificate of Environmental Compatibility. These factors, used by UniSource to analyze potential line routes, include:

- Wildlife & plant life
- Scenic areas, historic sites & archaeological sites and structures
- Environment
- Noise emission levels & interference with communication signals
- Potential public recreational uses
- Existing development plans
- Engineering feasibility and challenges
- Project costs & potential impacts on customer rates
- Public input

Interested in shaping the evaluation of transmission line routes? Scan the QR code or complete a comment form to share your perspective on the values that matter most to you in this assessment.

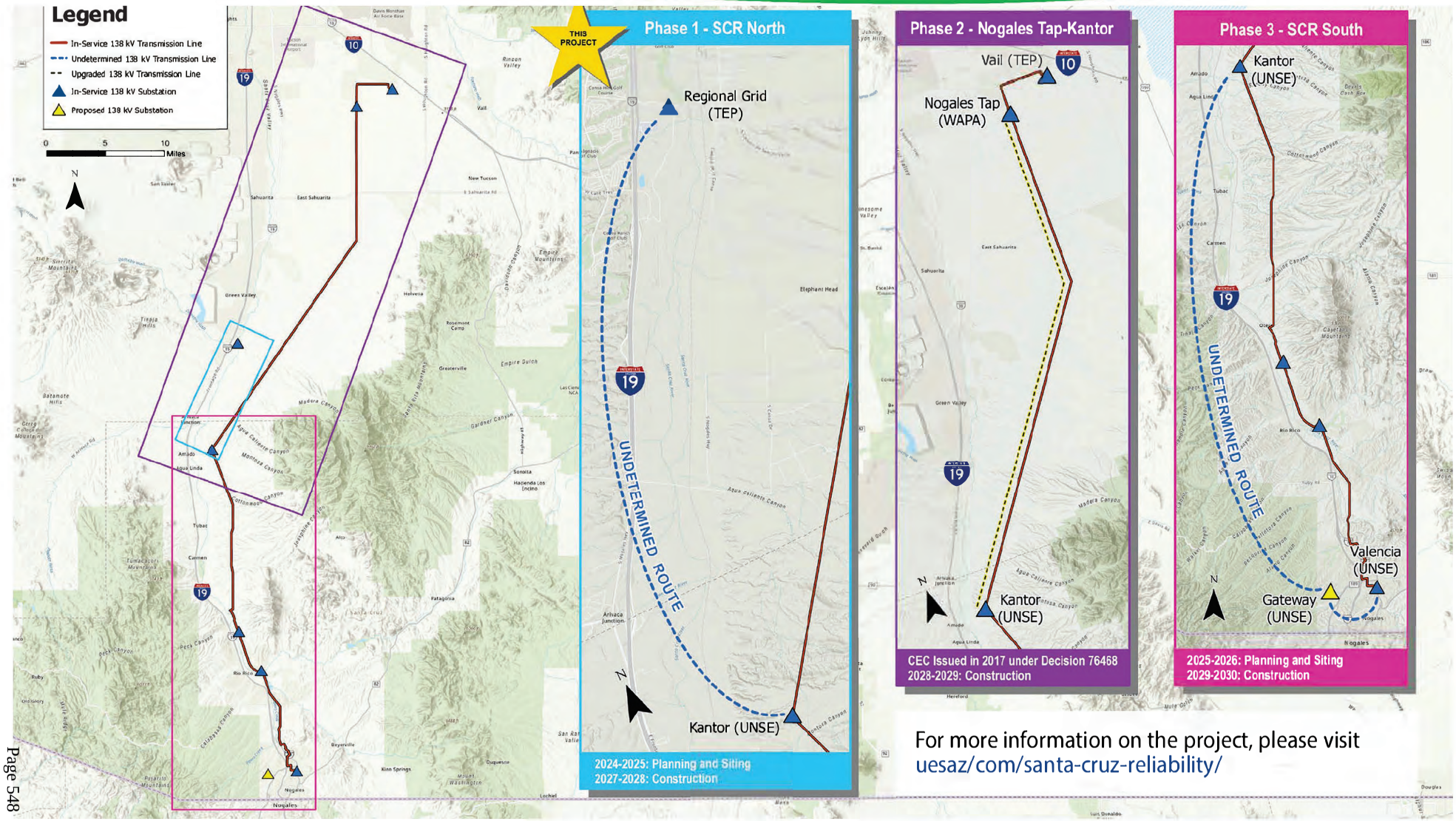
Kantor Substation Upgrades





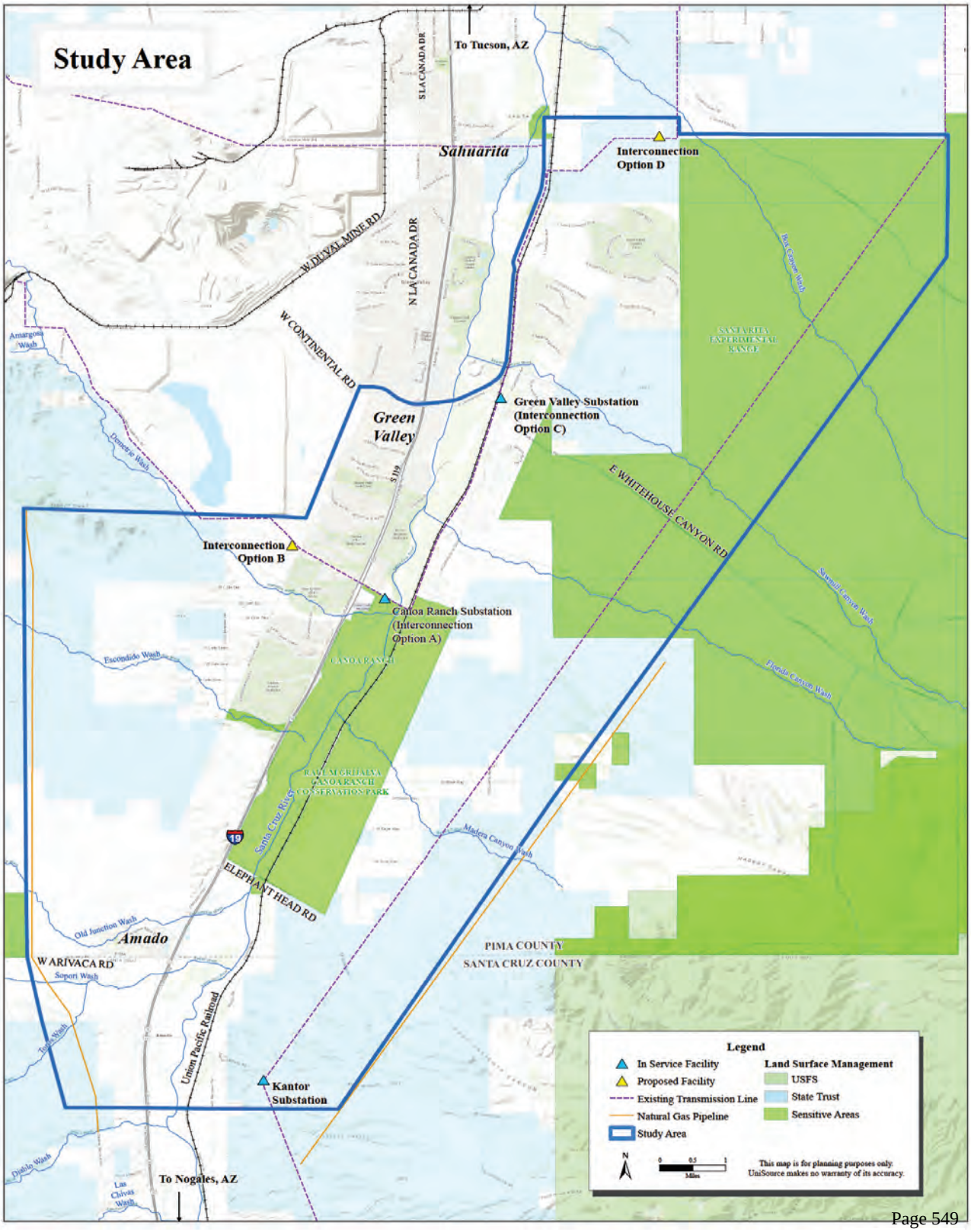
Santa Cruz Reliability Project

UniSourceEnergy SERVICES

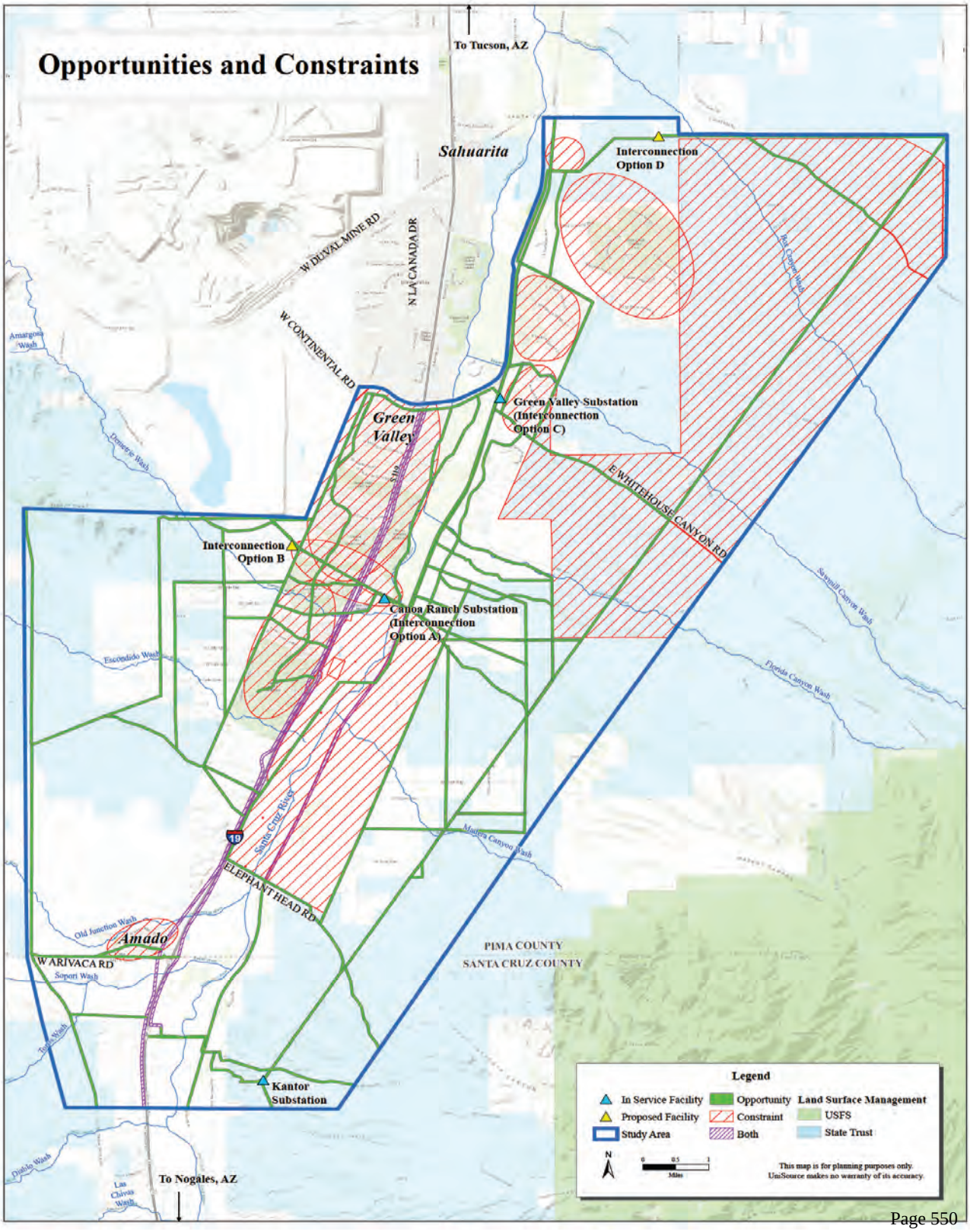


For more information on the project, please visit uesaz/com/santa-cruz-reliability/

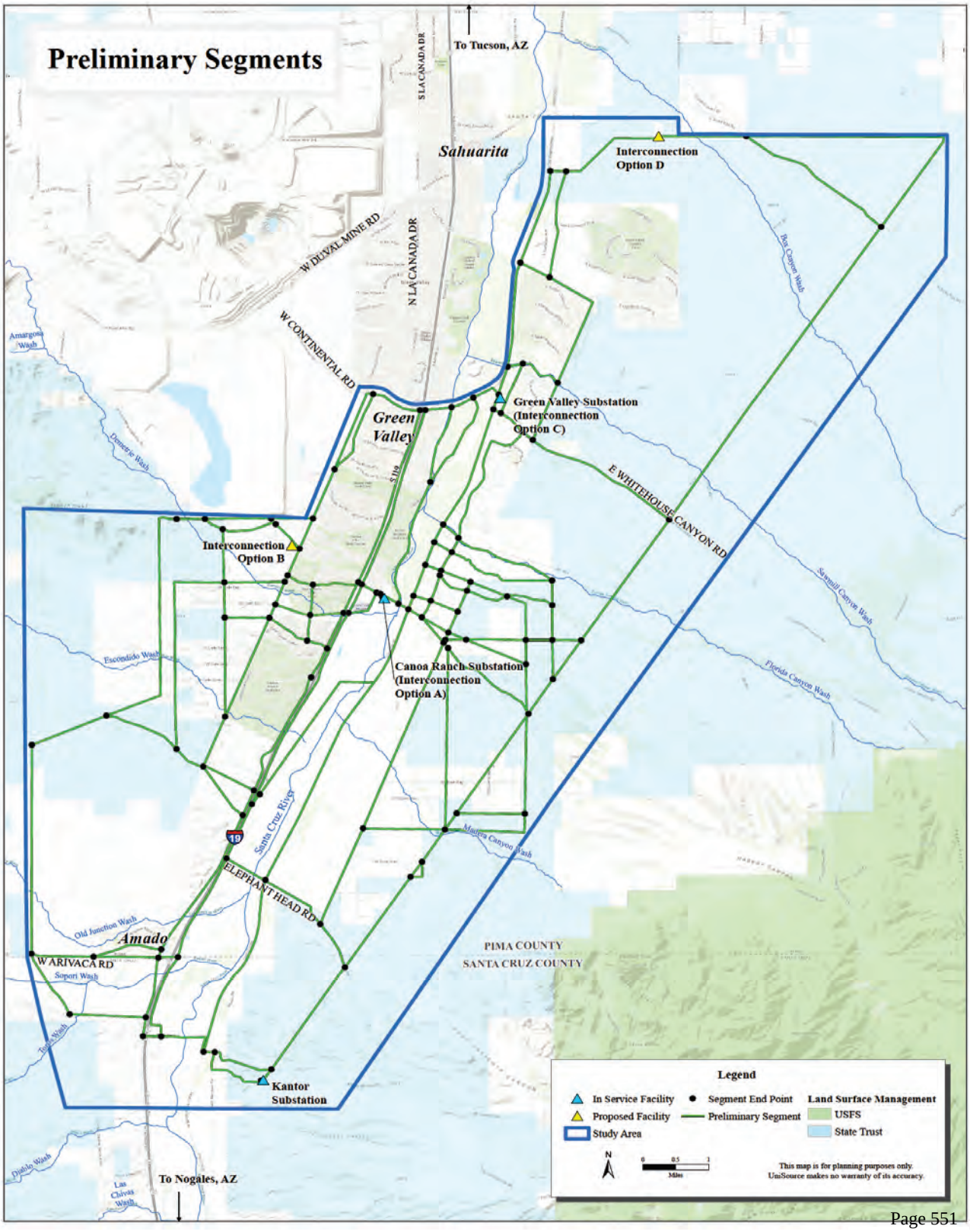
Study Area


Study Area
To Tucson, AZ
S LA CANADA DR
Sahuarita
Interconnection Option D
W DUVAL MINE RD
N LA CANADA DR
W CONTINENTAL RD
Amargosa Wash
Green Valley
Green Valley Substation (Interconnection Option C)
SANTA RITA EXPERIMENTAL RANGE
Box Canyon Wash
Demetrie Wash
S 19
E WHITEHOUSE CANYON RD
Interconnection Option B
Canoa Ranch Substation (Interconnection Option A)
Escondido Wash
CANOA RANCH
Sonoita Canyon Wash
Florida Canyon Wash
RAUL M GRIJALVA CANOA RANCH CONSERVATION PARK
Santa Cruz River
19
Madera Canyon Wash
ELEPHANT HEAD RD
Old Junction Wash
Amado
PIMA COUNTY
SANTA CRUZ COUNTY
W ARIVACA RD
Sopori Wash
Union Pacific Railroad
Kantor Substation
Diablo Wash
Las Chivas Wash
To Nogales, AZ
Legend
In Service Facility
Proposed Facility
Existing Transmission Line
Natural Gas Pipeline
Study Area
Land Surface Management
USFS
State Trust
Sensitive Areas
N
0 0.5 1
Miles
This map is for planning purposes only. UniSource makes no warranty of its accuracy.

Opportunities and Constraints



Draft Preliminary Segments



Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Interactive Map Station

Provide Your Spatial Comments



Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

We Want To Hear From You

How to Provide Official Public Comment:

Fill out an online comment form at:
ueasz.com/santa-cruz-reliability-north

Email comments to:
scrnorth@uesaz.com

Call:
(520) 917-6635 and leave a voicemail message

Mail a letter with comments to:
ATTN: Santa Cruz Reliability North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

An interactive map is posted on our website.

Cómo proporcionar un comentario público oficial:

Llenando un formulario de comentarios en línea:
ueasz.com/santa-cruz-reliability-north

Enviando comentarios por correo electrónico a:
scrnorth@uesaz.com

Llamando al:
(520) 917-6635 y dejando un mensaje de voz

Enviando una carta con comentarios a:
A/A: Confiabilidad de Santa Cruz Norte
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Para ver un mapa interactivo, visite la página web del proyecto.

More Information
uesaz.com/santa-cruz-reliability-north/

Más información
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

SOCIAL MEDIA COMPLETION REPORT

Social Media Completion Report			
	English	Spanish	Total
Reach	59,346	14,371	73,717
Impressions	93,266	22,172	115,438
Click	145	39	184

EXHIBIT J-7

AGENCY BRIEFING 3 SUMMARY (MAY 19, 2025)

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Agency Briefing #3 Summary Report
Monday, May 19, 2025

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, is working to enhance energy independence and security for its customers by reducing reliance on the increasingly constrained regional energy market. To help meet growing reliability demands, UniSource is developing a transmission line that connects the Canoa Ranch Substation in Pima County, AZ to the Kantor Substation in Santa Cruz County, AZ. The Kantor Substation will also be expanded to accommodate the new transmission line.

In accordance with state regulations, UniSource must obtain a Certificate of Environmental Compatibility (CEC) to construct the necessary transmission line. As part of its due diligence and to better understand local community values that could influence the siting process, UNSE hosted an Agency Briefing to gather public input.

MEETING NOTIFICATION

UNSE compiled a stakeholder list based on the defined Project Study Area boundary, extending an additional 3 miles beyond that boundary for notification purposes. Agencies and Tribes with land ownership, jurisdictional authority, ancestral ties, or resource management interests within this area were identified. Additionally, entities that had previously expressed interest in UNSE or similar projects were included.

Once stakeholders were identified, their contact information was gathered. Notification of the virtual agency meeting was sent via email on May 6, 2025, by the Project's Project Manager.

MEETING SUMMARY

The virtual agency meeting took place on Monday, May 19, 2025, from 11:00 AM to 12:00 AM. The meeting featured a PowerPoint presentation that covered key aspects of the project, including its purpose and need, environmental permitting requirements, the line siting process, the study area and preliminary route segments, routing criteria, project schedule, additional resources, and a question-and-answer session.

Eocene staff present at the meeting included:

Table 1
EOCENE ATTENDEES

Name	Title
Brian Parker	Project Manager
Matt Ritter	Environmental Planner
Kelli Cummings	Regional Supervisor
Osmer Beck	Vice President

UniSource staff present at the meeting included:

Table 2 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Manager, Transmission Line Siting
Robert Messenger	Engineering Project Manager
Teresa Bravo	Government Relations Representative
Adriana Marinez	Project Manager, Transmission Line Siting
Minerva Rivera Crill	Engineer
Todd Lichtas	Engineer
Deborah Vining	ROW Specialist
Chris Ortiz Y Pino	Project Manager, Transmission Line Siting
Joe Barrios	Communications

All participants were requested to enter their name, agency affiliation, and role in the meeting via the chat function.

TABLE 3 AGENCY ATTENDEES	
Name	**Title/Organization**
Caroline klebacha	SHPO
Kelley Sims	Kinder Morgan / El Paso Natural Gas
Brian Driscoll	FICO
Matt Smogor	Freeport McMoran (FMI)
Greg Schubert	Continental Elementary School District
Orlanthia Henderson	Town of Sauharita, Planning and Zoning Manger
Amber Troidl	ROW Section Manager, ASLD
Jenny Neeley	Program Manager, Pima County Conservation Lands and Resources
Kara Dada	Assistant Real Estate Division Director, ASLD
Justin Soriano	Union Pacific Real Estate Utilities
Rich Walden	FICO
John Stitzer	Freeport McMoran (FMI)
Randy Graf	President & CEO, Green Valley Sauhuarita Chamber of Commerce & Visitor Center
Allision Moore	Fresh Produce Association
David Barnes	Freeport McMoran (FMI)

TABLE 3 AGENCY ATTENDEES	
Name	**Title/Organization**
Jamie Chamberlain	Greater Nogales Santa Cruz County Port Authority
Patrick Brennan	Freeport McMoran (FMI)
Olivia Ainza-Kramer	Nogales-Santa Cruz County Chamber of Commerce
Connie Yazzie	Santa Rita Experimental Range
Eric Wilson	Pima County Facilities Management
Luis Ramirez	Ramirez Advisors
Mayor Maldonado	City of Nogales

SUMMARY

UNSE initiated the meeting with a detailed presentation outlining the project's purpose and justification. This included addressing key drivers such as environmental protection, improved public access, and alignment with regional planning initiatives. UNSE emphasized the expected benefits, which range from ecological conservation and recreational enhancements to broader community development. A central focus of the presentation was the conservation easement—its intent, scope, and how it supports long-term land stewardship and sustainable land use. Additionally, UNSE highlighted how the project aligns with agency goals and relevant policy frameworks.

Following the presentation, UNSE facilitated a question-and-answer session with agency representatives. The dialogue covered technical clarifications, funding mechanisms, project timelines, and interagency coordination, as well as potential environmental impacts. UNSE addressed each inquiry thoroughly, offering additional context and committing to follow-up actions or supplemental documentation where needed. The Q&A fostered a collaborative environment and ensured that all stakeholders left with a clear understanding of the project's objectives and next steps.

ASLD asked whether the project involves new transmission lines, and UNSE confirmed it does, with proposed connections still under study and efforts to avoid the Santa Rita Experimental Range. The Port Authority in Nogales raised concerns about route transparency and landowner identification, and UNSE responded that refined route options will be presented publicly by August. SHPO asked about tribal engagement, and UNSE noted outreach efforts, including a follow-up with Fort McDowell. Kara Dada requested that final routes be shared with state lands before public release, which UNSE acknowledged. Question asked about underground line options, but UNSE explained overhead lines are preferred for reliability and faster repairs.

ACTION ITEMS

- UniSource will conduct further evaluations of the refined route segments and present options to stakeholders in August.
- UniSource will send a follow-up email regarding CECs to a participant.

- UniSource will provide preliminary feedback to state land representatives on potential alignments before public presentations.
- Follow up with stakeholders for one-on-one meetings to address concerns and incorporate feedback into the project.

Outlook EXAMPLE

UniSource – Santa Cruz Reliability Project North Update

From Bryner, Clark <CBryner@tep.com>
Date Fri 2025-08-15 8:41 AM
Cc Santa Cruz Reliability North <SantaCruzReliabilityNorth@tep.com>

1 attachment (2 MB)
SCR North - Refined Segments.pdf;

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County. The Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

Since presenting 177 "Preliminary Segments" representing possible locations for a future line in March, UniSource conducted an evaluation of each of these segments based on criteria informed by your comments. This evaluation resulted in the elimination of more than 100 of the Preliminary Segments, found to be less compatible with community values, from further consideration. Please see the attached map to view the route segments still under consideration.

You, or a designee, are invited to participate in a virtual agency briefing on Monday, May 19th at 11 a.m. to learn more about the project and provide feedback. A separate calendar invitation will follow.

Should you have any questions or comments, please contact me directly at cbryner@uesaz.com.

We appreciate your engagement in this important energy project.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

4350 E. Irvington Rd.
Mailstop CB200
P.O. Box 711 Tucson, AZ 85702
Phone: 520-917-6635
E-mail: scnorth@uesaz.com
Webpage: www.uesaz.com/santa-cruz-reliability-north

Santa Cruz Reliability Project North

AGENCY BRIEFING

CLARK BRYNER – MANAGER, SITING, OUTREACH AND ENGAGEMENT



UniSourceEnergy SERVICES

May 2025

1

Agencies

- Federal Agencies
- State Agencies
- Pima County
- Santa Cruz County
- Town of Sahuarita
- Green Valley Coordinating Council
- Chambers of Commerce
- Telecommunication Companies
- Greater Nogales Santa Cruz County Port Authority
- School Districts
- Union Pacific Railroad
- Utilities
- Large private landowners

Please type into the chat:
- **Name**
- **Organization**
- **Title/Role**

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2

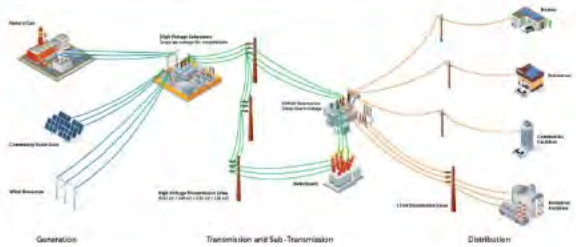
Agenda

- How Power Gets to You
- Santa Cruz Reliability Project – Three Phases
- Need and Benefits
- Phase 1 – Santa Cruz Reliability Project North
- Revised Study Area
- Kantor Substation
- Proposed Transmission Line
- What is Siting?
- Planning and Siting Process
- Project Schedule
- Public Participation
- Q&A Session

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3

How We Deliver Energy Service to You



4



5

Need and Benefits

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Maintain and strengthen reliability for Santa Cruz County and its residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Meet current and future energy needs without impacting service to existing customer.
- Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County.
- Support maintenance and other upgrades, allowing work to be performed without interrupting system operations.

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6

Santa Cruz Reliability Project North (Phase 1)

- First phase of a three-phase project.
- Construct a second 138 kilovolt (kV) transmission line to connect UniSource's Kantor Substation, in Santa Cruz County, to the regional electric grid in Pima County.
- Upgrade and expand the Kantor Substation to accommodate operations and maintenance requirements.

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8

Kantor Substation



UniSourceEnergy SERVICES

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Kantor Substation Planned Expansion



UniSourceEnergy SERVICES

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Kantor Substation Planned Expansion



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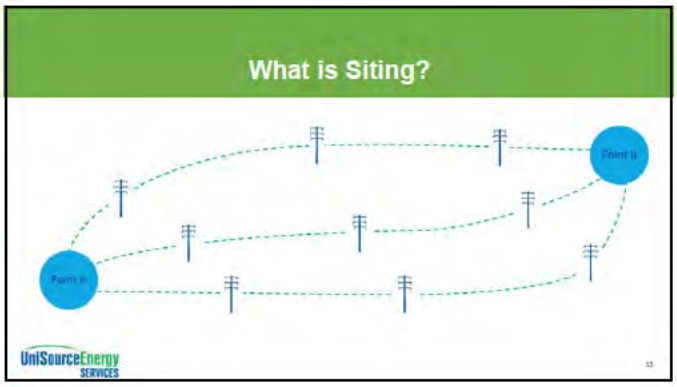
Example Pole Structure

Tubular, Weathering Steel Monopoles

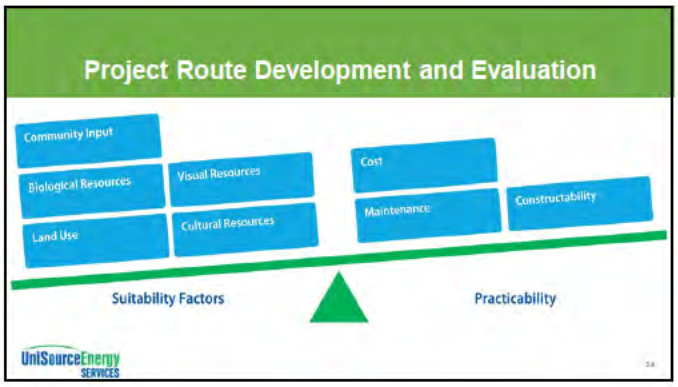


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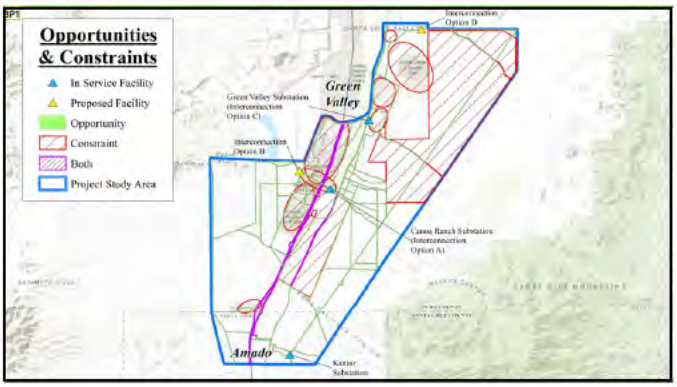
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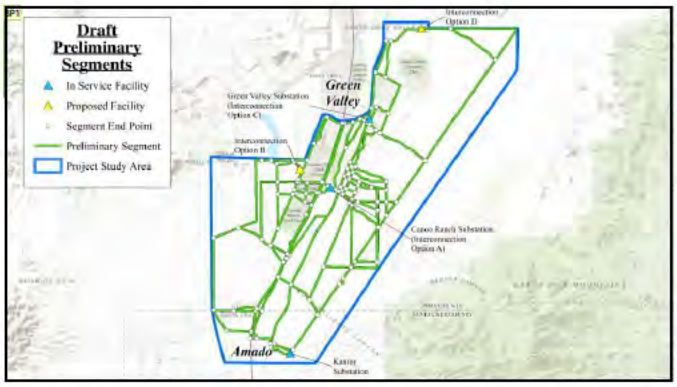
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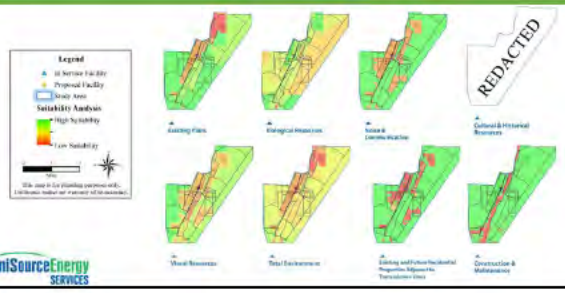


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Suitability Criteria

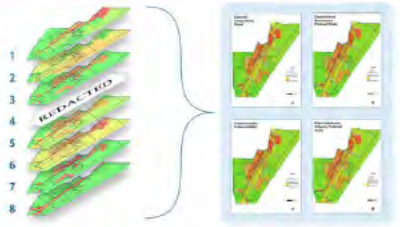


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Composite Suitability Methodology

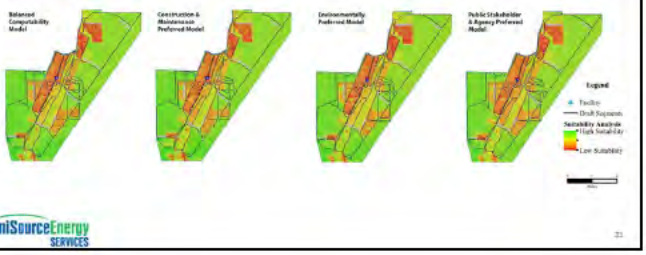
Criteria 1: Existing Plans
Criteria 2: Biological Resources
Criteria 3: Noise & Communication
Criteria 4: Cultural and Historical Resources
Criteria 5: Visual Resources
Criteria 6: Total Environment
Criteria 7: Existing and Future Residential Properties Adjacent to Transmission Lines
Criteria 8: Construction & Maintenance



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Composite Suitability Models



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Refined Segments



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Project Schedule*

Under Arizona law, certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

- Q3 '23-Q2 '24 – Transmission Line Planning and Siting
- Fall 2025 – CEC Application Submittal
- Fall 2025 – Arizona Power Plant and Transmission Line Siting Committee Hearing
- Q1 2026 – Arizona Corporation Commission (ACC) Open Meeting
- 2028 – Phase 1: Project in Service
- 2029 – Phase 2: Project in Service
- 2030 – Phase 3: Project in Service

UniSourceEnergy SERVICES

* Target schedule, subject to change

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Public Participation

- Fill out an online comment form at: ueasz.com/santa-cruz-reliability-north
- Send comments via email to: scrnorth@uesaz.com
- Call (520) 917-6635 and leave a voicemail message
- Mail a letter with comments to:
  ATTN: Santa Cruz Reliability North
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

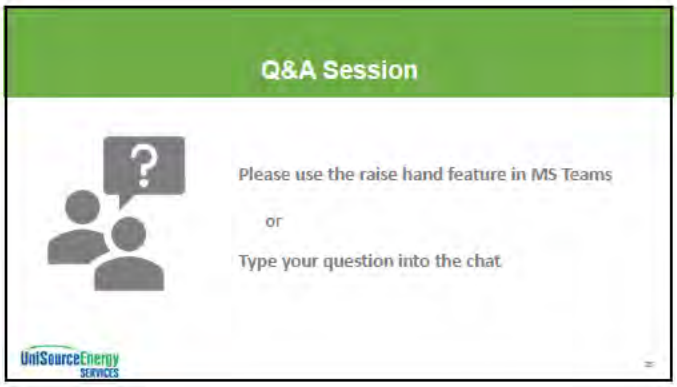
Public Open House Opportunities

Tuesday, May 20, 2025. 9-11 a.m.
Hosted by the Green Valley Coordinating Council
Green Valley Recreation Las Campanas Center
565 W Bell Tower Drive
Green Valley, AZ 85614

Tuesday, May 20, 2025. 5-7 p.m.
Sopori Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

UniSourceEnergy SERVICES

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Q&A Session
Please use the raise hand feature in MS Teams
or
Type your question into the chat
UniSourceEnergy SERVICES

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EXHIBIT J-8

PUBLIC OPEN HOUSE 3 SUMMARY (MAY 20, 2025)

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Public Open House #3 Summary Report
Tuesday May 20, 2025

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, is working to enhance energy independence and security for its customers by reducing reliance on the increasingly constrained regional energy market. To help meet growing reliability demands, UniSource is developing a transmission line that connects the Canoa Ranch Substation in Pima County, AZ to the Kantor Substation in Santa Cruz County, AZ. The Kantor Substation will also be expanded to accommodate the new transmission line.

In accordance with state regulations, UniSource must obtain a Certificate of Environmental Compatibility (CEC) to construct the necessary transmission line. As part of its due diligence and to better understand local community values that could influence the siting process, UNSE hosted a Public Open House Meeting to gather public input.

MEETING NOTIFICATION

UNSE developed and mailed a newsletter providing an overview of the Santa Cruz Reliability Transmission Line Project North, including the date, time, and location of the public open house. On May 6, 2025, 14 days before the Public Open House Meeting, the newsletter was sent to approximately 17,000 property owners, residents, and small businesses with U.S. Postal Service addresses within a one-mile radius of the Project Study Area.

To further promote the meeting, geo-targeted Facebook and Instagram ads were run within an 11-mile radius of the study area during the week leading up to the event. Additionally, six notice signs were posted in and around the Project Study Area on May 6, 2025, 14 days before the meeting. Attachment 3 includes a map of sign locations, sign text, and photos of the signs in place.

Six flyers were also distributed to local community centers and public outlets, where they were posted on public bulletin boards to help spread awareness.

UNSE also published meeting notices in the *Green Valley News* on May 11, 2025, and in *Nogales International* on May 16, 2025. Attachment 5 includes the newspaper ad, and Affidavit of Publication. Meeting notifications were sent out for both morning and evening meetings on May 20, 2025.

MEETING SUMMARY

Two Public Open Houses were held on Tuesday, May 20, 2025, from 9:00 AM to 11:00 AM at Green Valley Recreation Las Campanas Center, located at 565 West bell Tower Drive, Green Valley Arizona. The second meeting was from 5:00 PM to 7:00 PM at Sopori Elementary School, located at 5000 West Arivaca Road, Amado, Arizona. The event followed an open house format and featured several informational stations, including a sign-in and comment table, refreshment area, GIS (Geographic Information Systems) table, and 10 project-related posters. These posters covered topics such as:

- Project overview
- Project location map with refined segments
- Project map of suitability criteria

- Pole characteristics
- Planning and siting process and timeline
- Arizona Corporation Commission criteria for issuing a Certificate of Environmental Compatibility
- Environmental considerations for the transmission line
- Overview of the energy system

UNSE staff in attendance included the Project Manager, Government Liaison, Project Engineer, Environmental Engineer, and Environmental and Land Use Planner. Eocene supported the event with three Environmental and Land Use Planners and their GIS specialist. These representatives were available to answer questions and address community concerns.

All attendees were invited to sign in upon arrival. There were 64 individuals at the morning Open House and six at the evening Open House.

COMMENT

To date, the public outreach process has generated verbal feedback from individuals that attended the Open Houses and one written comment. In addition, UNSE staff and consultants documented verbal comments received during the Open House meeting, which are included in this report.

Common themes in the written comments included concerns about the potential impact of the transmission line on adjacent properties, the effect a new transmission line might have on customer rates, concerns regarding public health and safety issues, and questions regarding how the project team will evaluate biological and environmental considerations during the preliminary transmission route analysis.

EXAMPLE

From: Santa Cruz Reliability North
Subject: UniSource – Santa Cruz Reliability Project North Update *CORRECTION*

You are receiving this email because you requested receipt of updates about the Santa Cruz Reliability Project North. If you would like to be removed from the project email list, please let us know.

This email is being sent to correct an error to an earlier email. The upcoming open house meetings will be held on Tuesday, May 20th.

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County. The Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

Since presenting 177 "Preliminary Segments" representing possible locations for a future line in March, UniSource conducted an evaluation of each of these segments based on criteria informed by your comments. This evaluation resulted in the elimination of more than 100 of the Preliminary Segments, found to be less compatible with community values, from further consideration. Please visit the Interactive Map on the project webpage to view the route segments still under consideration.

Your input is valuable and continues to shape the design of this project. You are invited to two open house meetings on May 20th where you can ask questions about the project and provide feedback.

Tuesday, May 20, 2025 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation Las Campanas Center
565 W Bell Tower Drive
Green Valley, AZ 85614

Tuesday, May 20, 2025 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd.
Amado, AZ 85645

Should you have any questions or comments, please send an email to scrnorth@uesaz.com or call our project information line at 1-520-917-6635.

We appreciate your engagement in this important energy project.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

4350 E. Irvington Rd.
Mailstop CB200
P.O. Box 711 Tucson, AZ 85702
Phone: 520-917-6635
E-mail: scrnorth@uesaz.com

Webpage: www.uesaz.com/santa-cruz-reliability-north

Outlook

EXAMPLE

UniSource – Santa Cruz Reliability Project North Update

From Santa Cruz Reliability North <SantaCruzReliabilityNorth@tep.com>
Date Fri 2025-08-15 8:46 AM
Cc Santa Cruz Reliability North <SantaCruzReliabilityNorth@tep.com>

You are receiving this email because you requested receipt of updates about the Santa Cruz Reliability Project North. If you would like to be removed from the project email list, please let us know.

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County. The Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

Since presenting 177 "Preliminary Segments" representing possible locations for a future line in March, UniSource conducted an evaluation of each of these segments based on criteria informed by your comments. This evaluation resulted in the elimination of more than 100 of the Preliminary Segments, found to be less compatible with community values, from further consideration. Please visit the Interactive Map on the project webpage to view the route segments still under consideration.

Your input is valuable and continues to shape the design of this project. You are invited to two open house meetings on May 20th where you can ask questions about the project and provide feedback.

Thursday, May 20, 2025 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation Las Campanas Center
565 W Bell Tower Drive
Green Valley, AZ 85614

Thursday, May 20, 2025 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd.
Amado, AZ 85645

Should you have any questions or comments, please send an email to scrnorth@uesaz.com or call our project information line at 1-520-917-6635.

We appreciate your engagement in this important energy project.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

4350 E. Irvington Rd.
Mailstop CB200

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

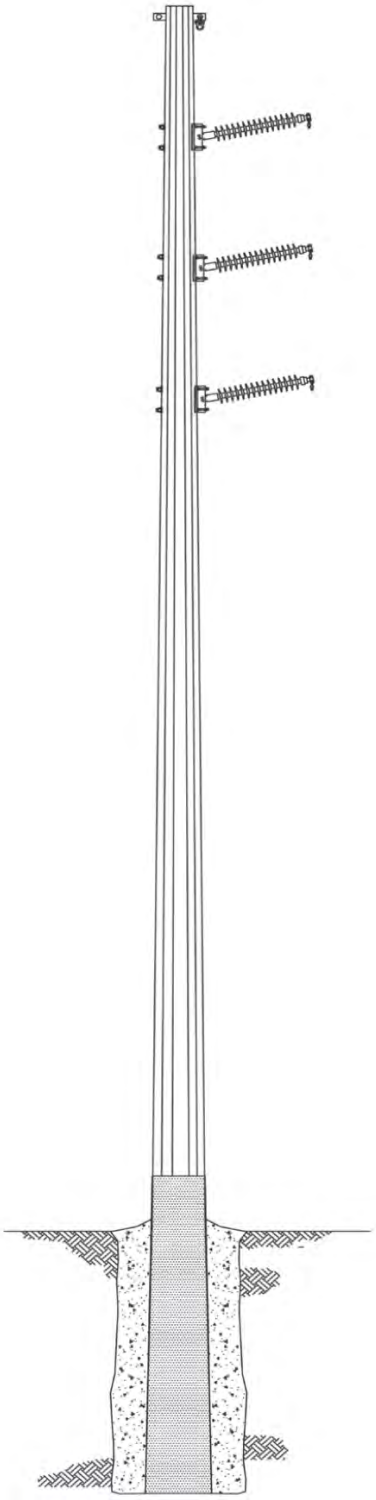
Public Open House

Please Join Us

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Green Valley, AZ 85614

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Sopori Elementary School
5000 W Arivaca Rd
Amado, AZ 8564

Complimentary refreshments will be provided



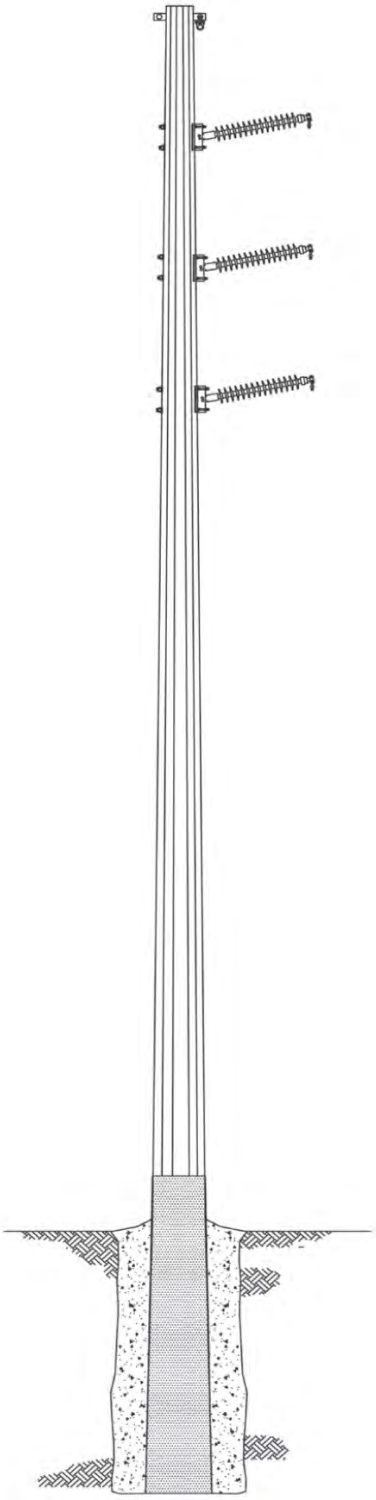
More Information

uesaz.com/santa-cruz-reliability-north

Proyecto de Confiabilidad Santa Cruz Norte

UniSourceEnergy SERVICES

Aviso de Reunión Abierta Pública



¡Acompáñenos!

Martes 20 de Mayo 9-11 a.m.
Alojado por el Consejo de Green Valley
Green Valley Recreation Las Campanas Center
565 West Bell Tower Drive
Green Valley, AZ 85614

Martes 20 de Mayo 5-7 p.m.
Escuela Primaria Sopori
5000 W Arivaca Rd
Amado, AZ 85645

Refrescos de cortesía será servido

Más información

uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

FLYER LOCATIONS ROUND 3 OUTREACH	
Place	**Location**
Joyner - Green Valley Library	601 N La Cañada Dr, Green Valley, AZ 85614
Dollar General	28890 S Nogales Hwy, Amado, AZ 85645
Green Valley Chamber of Commerce	275 W Continental Rd Ste 123, Green Valley, AZ 85622
Sahuarita Library	670 W Sahuarita Rd, Sahuarita, AZ 85629
Posada Java	350 E Morningside Rd, Green Valley, AZ 85614
Sopori Elementary	5000 W Arivaca Rd, Amado, AZ 85645
The Longhorn Grill	28851 S Nogales Hwy, Amado, AZ 85645

Santa Cruz Reliability Project North
Proposed 138 kV Transmission Line

UniSourceEnergy SERVICES

May
20

Public Open House

Please Join Us

9-11 a.m.

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5-7 p.m.

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5000 W Arivaca Rd
Amado, AZ 85645

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More Information

uesaz.com/santa-cruz-reliability-north

Proyecto de Confiabilidad de Santa Cruz Norte
Línea de transmisión propuesta de 138 kilovoltios

UniSourceEnergy SERVICES

Mayo

20

Aviso de Reunión Abierta Pública

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9-11 a.m.

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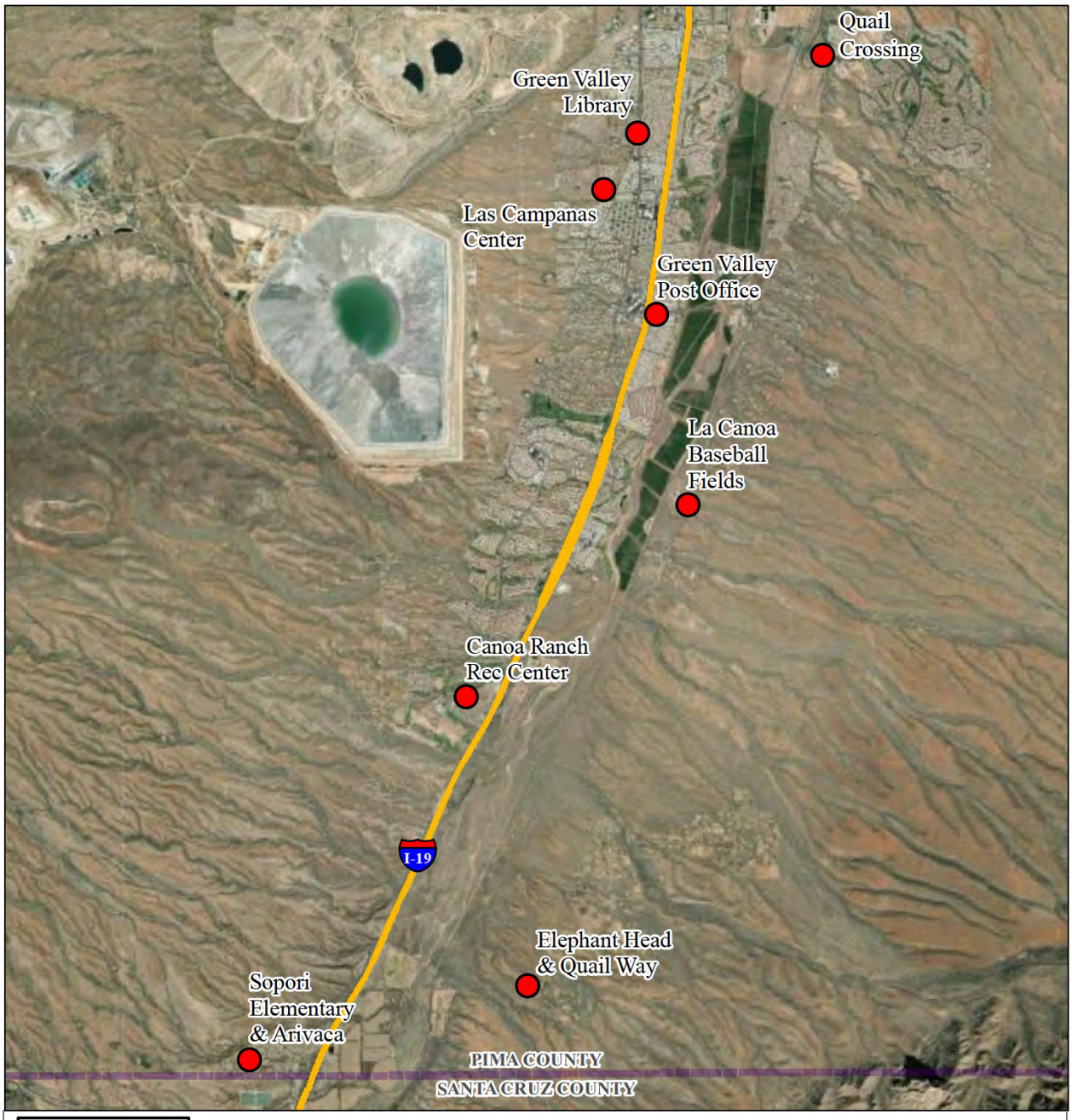
5-7 p.m.

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Amado, AZ 85645

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Más información

uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte







0 9,750

Feet

1:117,544

Legend

Sign Location

Notification Sign Context

Santa Cruz
Reliability Project North

UniSource Energy SERVICES

Date: 4/18/2025
Projection: NAD_1983_UTM_Zone_12N

This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

Green Valley News sun

See Proof on Next Page

AFFIDAVIT OF PUBLICATION

State of New Jersey, County of Burlington, ss:

India Johnston, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Green Valley News, a newspaper printed and published in the City of Green Valley, County of Pima, State of Arizona, and that this affidavit is Page 1 of 3 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
May. 11, 2025

NOTICE ID: gFcbsGXYexrrqT0hLb8h
PUBLISHER ID: GVN000769
NOTICE NAME: Transmission Line Project

Request of: Matthew Ritter

I declare under penalty of perjury that the foregoing is true and correct.

India Johnston
(Signed)_____

VERIFICATION

State of New Jersey
County of Burlington

LIZA ORTIZ
NOTARY PUBLIC
STATE OF NEW JERSEY
My Commission Expires November 27, 2028

Subscribed in my presence and sworn to before me on this: 05/14/2025

_____
Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice
Aviso Público
Santa Cruz Reliability Project North
Proyecto de Confiabilidad de Santa Cruz Norte

Guided by community input, UniSource Energy Services has eliminated some preliminary route segments under consideration for a new transmission line designed to help strengthen the reliability and resiliency of the electric transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

UniSource will continue to seek public input and will consider multiple options before recommending transmission line routes for this phase of the project.

Después de escuchar a la comunidad, UniSource Energy Services decidió descartar algunas de las rutas preliminares que estaban evaluando para una nueva línea de transmisión eléctrica, cuyo objetivo es reforzar la confiabilidad y resiliencia del sistema que abastece al condado de Santa Cruz.

UniSource propone construir una nueva línea de transmisión de 138 kilovoltios que conecte su subestación Kantor, ubicada en el condado de Santa Cruz, con la red eléctrica regional en el condado de Pima. Además, contempla mejoras para ampliar la capacidad de la subestación y atender las necesidades operativas y de mantenimiento.

UniSource continuará recabando opiniones del público y analizará varias alternativas antes de definir las rutas que propondrá en esta etapa del proyecto.

UniSourceEnergy SERVICES

Public Open House Options

Tuesday, May 20, 2025| 9–11 a.m.
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Amado, AZ 85645

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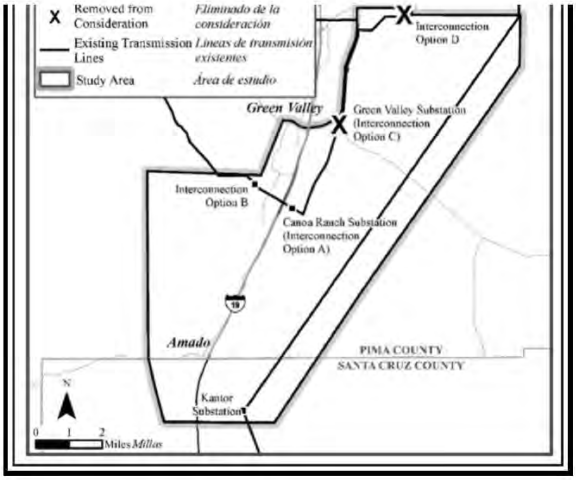
Opciones de sesiones informativas abiertas al público

Martes 20 de Mayo de 2025 | 9-11 a.m.
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Escuela Primaria Sopori
5000 W Arivaca Rd.
Amado, AZ 85645

uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

Santa Cruz Reliability Project North
- Facility *Instalación*


Removed from Consideration
Eliminado de la consideración
Existing Transmission Lines
Líneas de transmisión existentes
Study Area
Área de estudio
Interconnection Option D
Green Valley
Green Valley Substation (Interconnection Option C)
Interconnection Option B
Canoa Ranch Substation (Interconnection Option A)
19
Amado
PIMA COUNTY
SANTA CRUZ COUNTY
N
Kantor Substation
0 1 2
Miles Millas

Nogales International

See Proof on Next Page

AFFIDAVIT OF PUBLICATION

State of Florida, County of Broward, ss:

Ankit Sachdeva, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Nogales International, a newspaper printed and published two days a week in the City of Nogales, County of Santa Cruz, State of Arizona, and that this affidavit is Page 1 of 3 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
May. 16, 2025

Notice ID: WZ9WcdBY19kjrgEoNrpF
Publisher ID: NIN000976
Notice Name: Transmission Line Project

Request of:
Nogales International
268 W View Point Dr
by: Matthew Ritter

Ankit Sachdeva

Legal Advertising Representative

SHERI SMITH
Notary Public - State of Florida
Commission # HH260383
Expires on May 31, 2026

VERIFICATION

Notarized online using audio-video communication

State of Florida
County of Broward

Signed or attested before me on this: 05/20/2025

S Smith

Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice
Aviso Público
Santa Cruz Reliability Project North
Proyecto de Confiabilidad de Santa Cruz Norte

Guided by community input, UniSource Energy Services has eliminated some preliminary route segments under consideration for a new transmission line designed to help strengthen the reliability and resiliency of the electric transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

UniSource will continue to seek public input and will consider multiple options before recommending transmission line routes for this phase of the project.

Después de escuchar a la comunidad, UniSource Energy Services decidió descartar algunas de las rutas preliminares que estaban evaluando para una nueva línea de transmisión eléctrica, cuyo objetivo es reforzar la confiabilidad y resiliencia del sistema que abastece al condado de Santa Cruz.

UniSource propone construir una nueva línea de transmisión de 138 kilovoltios que conecte su subestación Kantor, ubicada en el condado de Santa Cruz, con la red eléctrica regional en el condado de Pima. Además, contempla mejoras para ampliar la capacidad de la subestación y atender las necesidades operativas y de mantenimiento.

UniSource continuará recabando opiniones del público y analizará varias alternativas antes de definir las rutas que propondrá en esta etapa del proyecto.

UniSourceEnergy SERVICES

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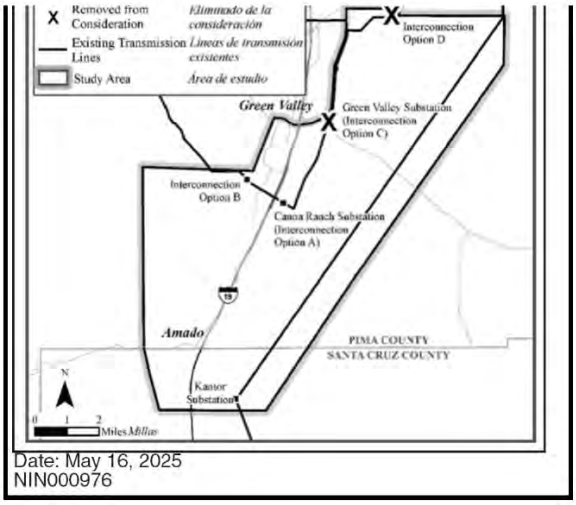
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Removed from Consideration
Eliminado de la consideración
Existing Transmission Lines
Líneas de transmisión existentes
Study Area
Área de estudio
Interconnection Option D
Green Valley
Green Valley Substation (Interconnection Option C)
Interconnection Option B
Canoa Ranch Substation (Interconnection Option A)
19
Amado
PIMA COUNTY
SANTA CRUZ COUNTY
N
Kansor Substation
0 1 2
Miles Millas
Date: May 16, 2025
NIN000976

UniSource Energy SERVICES

Santa Cruz Reliability Project North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Santa Cruz Reliability Project North

UniSource Energy SERVICES

Please Join Us

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Complimentary refreshments will be provided

More Information
uesaz.com/santa-cruz-reliability-north

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Amado, AZ 85645

Refrescos de cortesia será servido

Más información
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

UniSource Energy SERVICES

UniSource Eliminates More than 100 Route Segments From Consideration for New Transmission Facilities

Guided by community input, UniSource Energy Services has eliminated some preliminary route segments under consideration for a new transmission line designed to help strengthen the reliability and resiliency of the electric transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

This upgrade, the Santa Cruz Reliability Project North, is the first of three phases in a project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

UniSource will continue to seek public input and will consider multiple options before recommending transmission line routes for this phase of the project. Any final route is subject to approval by the Arizona Power Plant and Transmission Line Siting Committee and the Arizona Corporation Commission (ACC) before it can be constructed.

Project Benefits

The project would provide several benefits to customers in the area. The project is designed to:

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Strengthen the regional electric grid.
- Reduce the frequency and duration of outages affecting residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Expand energy capacity in the area to meet current and future energy needs without impacting service to existing customers.
- Support maintenance and other upgrades by allowing UniSource to perform work without interrupting system operations.

Project Updates

In 2024, UniSource initiated a comprehensive planning and siting study to evaluate potential transmission line routes for this phase of the project. Public input, as well as environmental resources and land uses, helped guide this effort. In March, UniSource presented 177 preliminary route segments in the study area to the public for review.

UniSource recently performed a comprehensive suitability assessment that considered additional input from the community, as well as environmental and land use considerations such as proximity to residential properties, impacts to mountain views, public health, welfare, and safety. As a result of the assessment, UniSource removed 106 segments from consideration. The included map shows eliminated segments and the 71 segments that remain under consideration. An interactive map is also available on the project webpage.

"In the coming months, UniSource will conduct further, more detailed analysis of each segment still under consideration. As we continue to receive and evaluate public input, we'll eliminate additional segments and work toward identifying alternative transmission line routes."

-Clark Bryner

Evaluation Criteria

We welcome your comments about evaluation criteria we'll consider throughout the route selection process. Are there additional criteria we should consider? Current criteria include:

- Cost and potential impact on customer rates
- Impact on existing and planned land uses
- Proximity to residential areas
- Impact on fish, wildlife, and plants, including special status species and their habitat
- Proximity to sensitive noise receptors (schools, hospitals, assisted living and daycare facilities)
- Proximity to licensed communication sites
- Impact on designated scenic areas
- Impact on mountain views from residential areas
- Impact on historic and archaeological sites
- Overall environmental impact
- Ability to construct, and operate and maintain facilities
- Compliance with state, county or city ordinances
- Public health, welfare, and safety

Santa Cruz Reliability Project North

Required Approvals and Timeline

Under state law, the ACC must approve a Certificate of Environmental Compatibility (CEC) before we can build the proposed transmission line along an approved route. We plan to file a CEC application in fall 2025 with the ACC. The application will then be reviewed by the Arizona Power Plant and Transmission Line Siting Committee in a formal hearing that allows neighbors and others to provide comments.

Public Participation

Your input is very important to this process. Public feedback on evaluation criteria and specific segments continues to influence the design of this project.

We invite you to participate in our public open houses on May 20 where you can learn more and share your comments. Find meeting details on the cover of this newsletter. We anticipate hosting more public meetings later this year.

Fill out an online comment form at:
uesaz.com/santa-cruz-reliability-north

Email comments to:
scrnorth@uesaz.com

Call:
(520) 917-6635 and leave a voicemail message

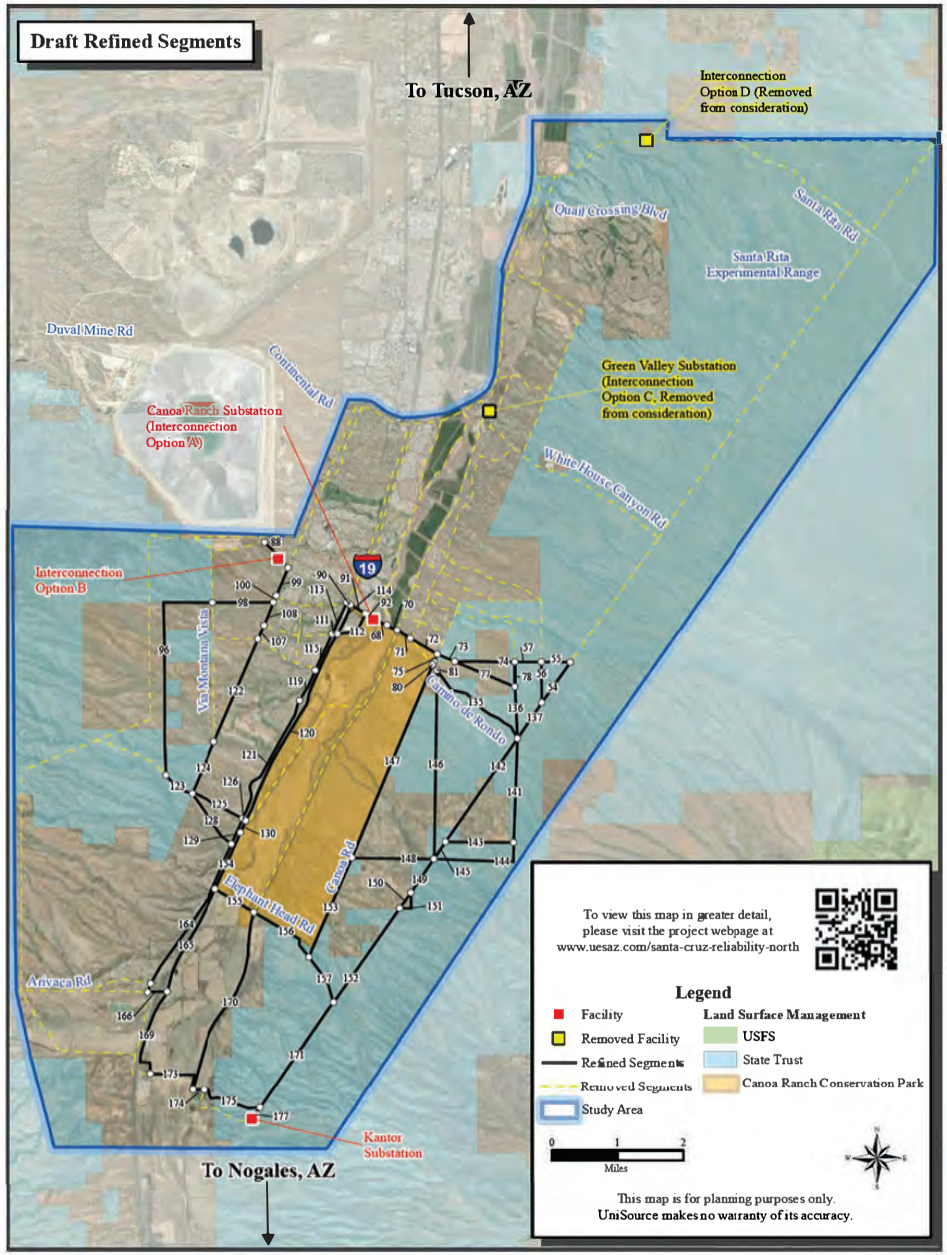
Mail a letter with comments to:
ATTN: Santa Cruz Reliability Project North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

An interactive map is posted on our webpage.

UniSource Planea Nuevas Instalaciones de Transmisión para Apoyar la Resiliencia Comunitaria

UniSource Energy Services está desarrollando el Proyecto de Confiabilidad de Santa Cruz (SCR) Norte para mejorar la confiabilidad y resiliencia del suministro eléctrico en el condado de Santa Cruz, mediante una conexión nueva en la red eléctrica regional y la subestacion Kantor con una línea de transmisión de 138 kilovoltios. Este Proyecto reducirá la duración y frecuencia de los cortes de energía, facilitando el suministro desde multiples direcciones y preparando el sistema para las demandas futuras sin afectar a los clientes existentes.

Se valora enormemente la participación pública para la selección de la ruta de la línea de transmisión, teniendo en cuenta el impacto ambiental, los costos y la proximidad a áreas sensibles. Animamos a la comunidad a compartir sus opiniones y comentarios a través de varias vías: asistiendo a la reunión pública abierta, cuyos detalles se encuentran en este boletín; enviando comentarios al correo electrónico scrnorth@uesaz.com; llamando al 1-833-310-1669; o enviando comentarios porcorreo postal. Este esfuerzo marca el inicio de un plan de tres fases para mejorar el sistema de transmisión de alta tensión en el área, pendiente de aprobación regulatoria.



UniSourceEnergy SERVICES

Santa Cruz Reliability North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Proyecto de Confiabilidad de Santa Cruz Norte

UniSourceEnergy SERVICES

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Se proporcionarán refrigerios livianos.

Más información
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

UniSourceEnergy SERVICES

UniSource elimina más de 100 tramos de ruta que se estaban considerando para nuevas instalaciones de transmisión

Tomando en cuenta las opiniones de la comunidad, UniSource Energy Services ha eliminado algunos tramos preliminares de la ruta que se estaban considerando para una nueva línea de transmisión diseñada para ayudar a reforzar la fiabilidad y la resiliencia del sistema de transmisión eléctrica que da servicio al condado de Santa Cruz.

UniSource propone construir una nueva línea de transmisión de 138 kilovoltios para conectar su subestación Kantor en el condado de Santa Cruz con la red eléctrica regional en el condado de Pima, al tiempo que realiza mejoras para ampliar la capacidad de la subestación y adaptarla a los requisitos de operación y mantenimiento.

El Proyecto de Confiabilidad de Santa Cruz Norte es la primera de tres fases de un proyecto diseñado para mejorar el servicio de transmisión en la zona. El proyecto proporcionaría a UniSource otra forma de suministrar energía a las subestaciones que dan servicio a los residentes, las empresas, los proveedores de servicios y otros clientes del condado de Santa Cruz, reduciendo la posibilidad de que se produzcan cortes de suministro generalizados y prolongados.

UniSource seguirá recabando la opinión del público y considerará múltiples opciones antes de recomendar los trazados de las líneas de transmisión para esta fase del proyecto. Cualquier trazado definitivo estará sujeto a la aprobación del Comité de Ubicación de Centrales Eléctricas y Líneas de Transmisión de Arizona y de la Comisión de Corporaciones de Arizona (Arizona Corporation Commission, ACC) antes de poder construirse.

Beneficios del Proyecto

El proyecto proporcionaría varios beneficios a los clientes de la zona. El proyecto está diseñado para:

- Mejorar la fiabilidad y la resiliencia del sistema de transmisión eléctrica que da servicio al condado de Santa Cruz. Reforzar la red eléctrica regional.
- Reducir la frecuencia y la duración de los cortes que afectan a los residentes, las empresas y las industrias, incluidos los hospitales, las escuelas, los puertos de entrada y las instalaciones federales.
- Ampliar la capacidad energética de la zona para satisfacer las necesidades energéticas actuales y futuras sin afectar al servicio de los clientes existentes.
- Apoyar el mantenimiento y otras mejoras al permitir a UniSource realizar el mantenimiento sin interrumpir el funcionamiento del sistema.

Criterios de Evaluación

Agradecemos sus comentarios sobre los criterios de evaluación que tendremos en cuenta durante el proceso de selección de la ruta. ¿Hay algún criterio adicional que debemos considerar? Los criterios actuales incluyen:

- Costo e impacto potencial en las tarifas de los clientes
- Impacto en los usos actuales y previstos del suelo
- Proximidad a zonas residenciales
- Impacto en la fauna, la flora y los peces, incluidas las especies con estatus especial y su hábitat
- Proximidad a zonas sensibles al ruido (escuelas, hospitales, residencias asistidas y guarderías).
- Proximidad a emplazamientos de comunicaciones con licencia
- Impacto en zonas paisajísticas designadas
- Impacto en las vistas de las montañas desde las zonas residenciales
- Impacto en yacimientos históricos y arqueológicos
- Impacto medioambiental global
- Capacidad para construir, operar y mantener las instalaciones
- Cumplimiento de las ordenanzas estatales, del condado o de la ciudad
- Prevención de incendios forestales

Proyecto de Confiabilidad de Santa Cruz Norte

Actualizaciones del Proyecto

En 2024, UniSource inició un estudio exhaustivo de planificación y ubicación para evaluar las posibles rutas de las líneas de transmisión para esta fase del proyecto. Los aportes públicos, así como los recursos medioambientales y los usos del suelo, ayudaron a orientar esta labor. En marzo, UniSource presentó al público 177 tramos preliminares de la ruta en la zona del estudio para su revisión.

UniSource ha realizado recientemente una evaluación exhaustiva de idoneidad que ha tenido en cuenta las opiniones adicionales de la comunidad, así como consideraciones medioambientales y de uso del suelo, como la proximidad a propiedades residenciales, el impacto en las vistas de las montañas y la prevención de incendios forestales. Como resultado de la evaluación, UniSource ha eliminado 106 segmentos en evaluación. El mapa incluido muestra los segmentos eliminados y los 71 segmentos que siguen siendo objeto de consideración. También hay un mapa interactivo disponible en el sitio web del proyecto.

"En los próximos meses, UniSource llevará a cabo un análisis más detallado de cada tramo que sigue en consideración. A medida que sigamos recibiendo y evaluando las opiniones del público, eliminaremos tramos adicionales y trabajaremos para identificar rutas alternativas para la línea de transmisión".

Aprobaciones Necesarias y Calendario

Según la legislación estatal, la ACC debe aprobar un Certificado de Compatibilidad Ambiental (Certificate of Environmental Compatibility, CEC) antes de que podamos construir la línea de transmisión propuesta a lo largo de una ruta aprobada. Tenemos previsto presentar una solicitud de CEC en otoño de 2025 ante la ACC. A continuación, la solicitud será revisada por el Comité de Ubicación de Centrales Eléctricas y Líneas de Transmisión de Arizona en una audiencia formal que permitirá a los vecinos y otras personas presentar sus comentarios.

Participación Pública

Su opinión es muy importante para este proceso. Los comentarios del público sobre los criterios de evaluación y los segmentos específicos siguen influyendo en el diseño de este proyecto.

Le invitamos a participar en nuestras jornadas de puertas abiertas el 20 de mayo, donde podrán obtener más información y compartir sus comentarios. Encontrarán los detalles de la reunión en la portada de este boletín. Tenemos previsto celebrar más reuniones públicas a lo largo de este año.

También le animamos a compartir sus comentarios utilizando uno de los métodos que se indican a continuación:

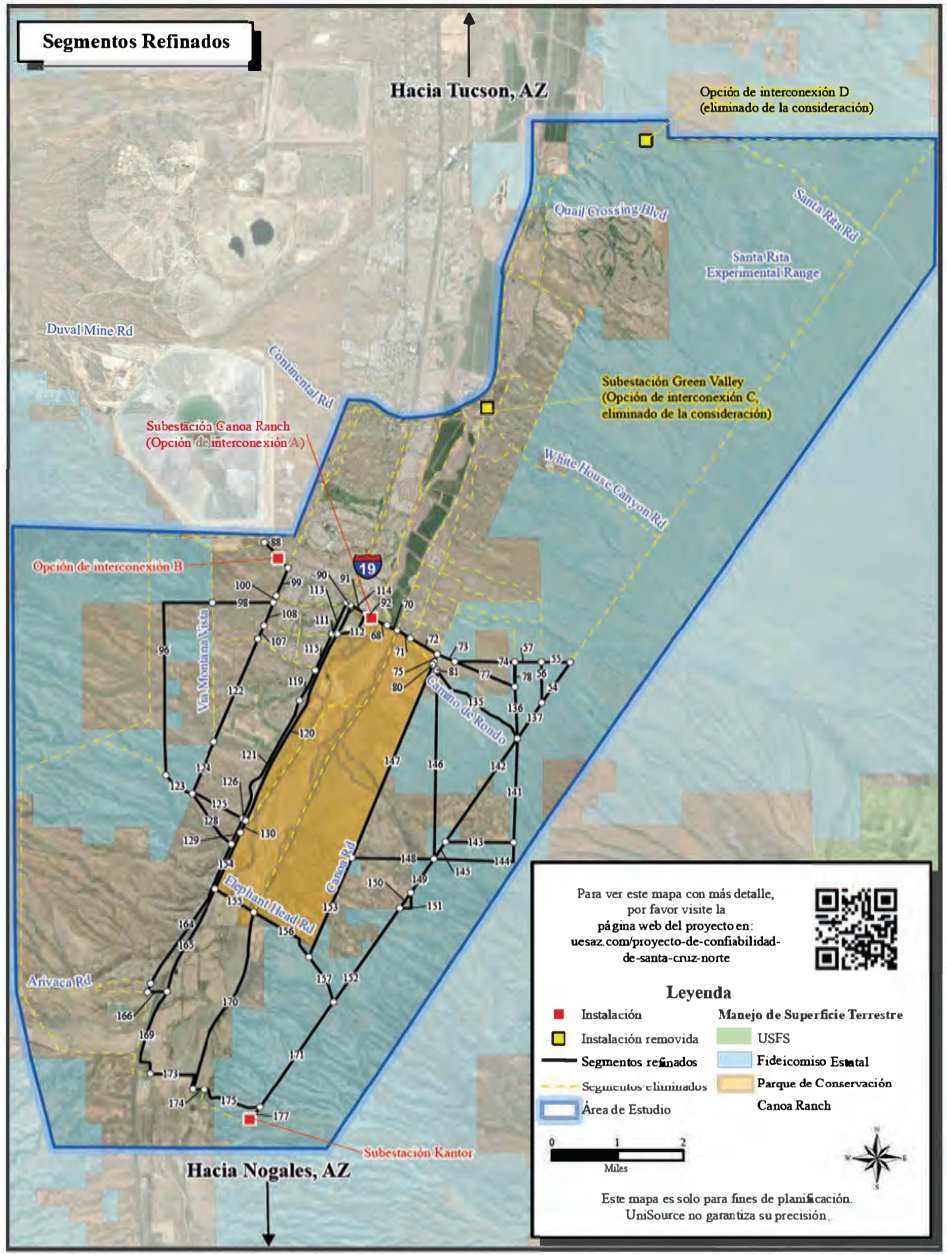
Rellene un formulario de comentarios en línea en:
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

Envíe sus comentarios por correo electrónico a:
scrnorth@uesaz.com

Llame al:
(520) 917-6635 y deje un mensaje de correo de voz

Envíe por correo una carta con comentarios a:
A/A: Proyecto de Confiabilidad de Santa Cruz Norte
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Un mapa interactivo se encuentra en la pagina web.



Santa Cruz Reliability Project North

AGENCY BRIEFING

CLARK BRYNER – MANAGER, SITING, OUTREACH AND ENGAGEMENT



UniSourceEnergy SERVICES

May 2025

1

Agencies

- Federal Agencies
- State Agencies
- Pima County
- Santa Cruz County
- Town of Sahuarita
- Green Valley Coordinating Council
- Chambers of Commerce
- Telecommunication Companies
- Greater Nogales Santa Cruz County Port Authority
- School Districts
- Union Pacific Railroad
- Utilities
- Large private landowners

Please type into the chat:
- **Name**
- **Organization**
- **Title/Role**

UniSourceEnergy SERVICES

2

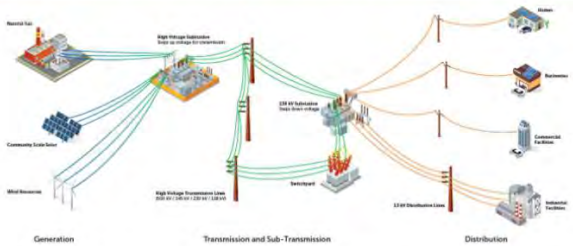
Agenda

- How Power Gets to You
- Santa Cruz Reliability Project – Three Phases
- Need and Benefits
- Phase 1 – Santa Cruz Reliability Project North
- Revised Study Area
- Kantor Substation
- Proposed Transmission Line
- What is Siting?
- Planning and Siting Process
- Project Schedule
- Public Participation
- Q&A Session

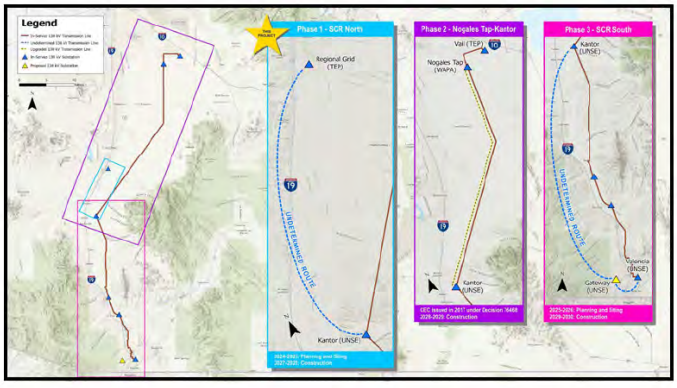
UniSourceEnergy SERVICES

3

How We Deliver Energy Service to You



4



5

Need and Benefits

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Maintain and strengthen reliability for Santa Cruz County and its residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Meet current and future energy needs without impacting service to existing customer.
- Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County.
- Support maintenance and other upgrades, allowing work to be performed without interrupting system operations.

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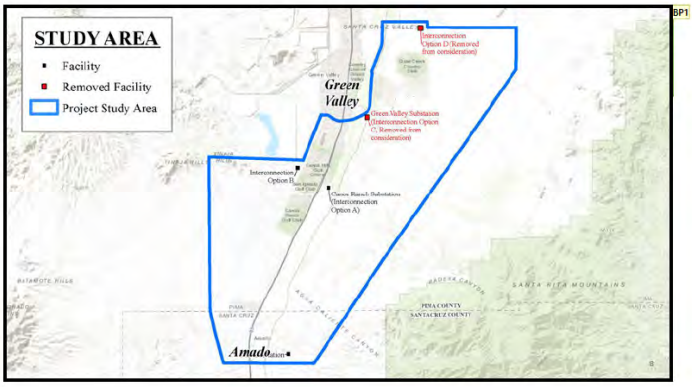
Santa Cruz Reliability Project North (Phase 1)

- First phase of a three-phase project.
- Construct a second 138 kilovolt (kV) transmission line to connect UniSource's Kantor Substation, in Santa Cruz County, to the regional electric grid in Pima County.
- Upgrade and expand the Kantor Substation to accommodate operations and maintenance requirements.

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7

7



8

Kantor Substation



UniSource Energy SERVICES

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Kantor Substation Planned Expansion



UniSource Energy SERVICES

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Kantor Substation Planned Expansion



UniSource Energy SERVICES

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Example Pole Structure

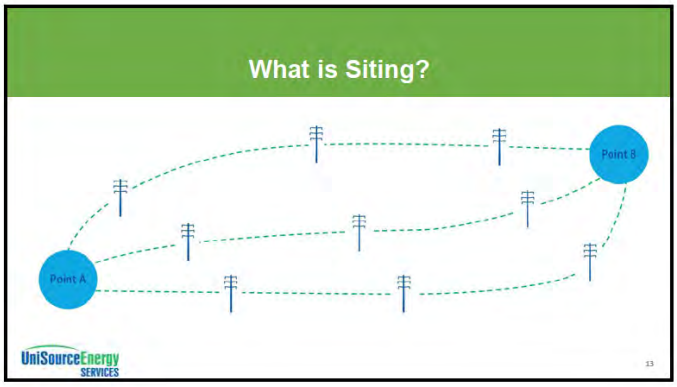
Tubular, Weathering Steel Monopoles



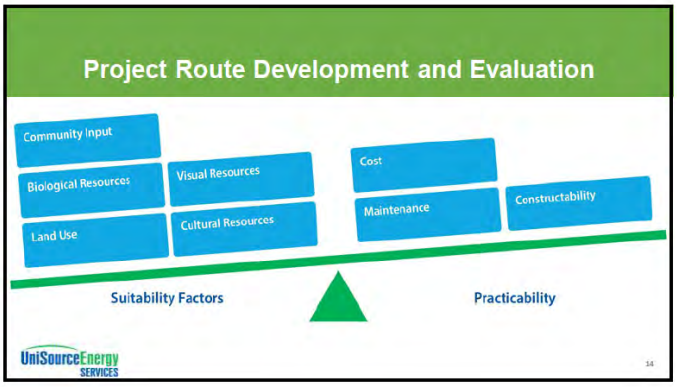
UniSource Energy SERVICES

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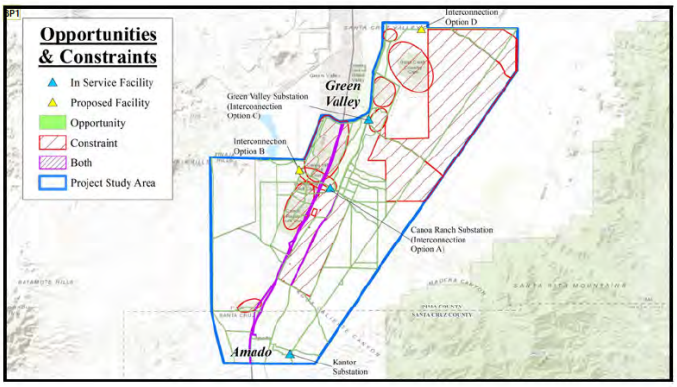
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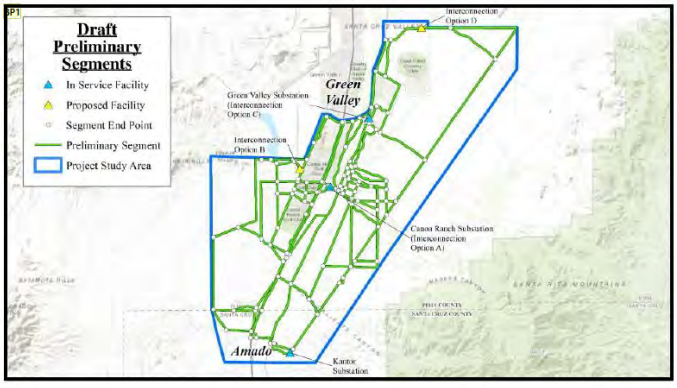
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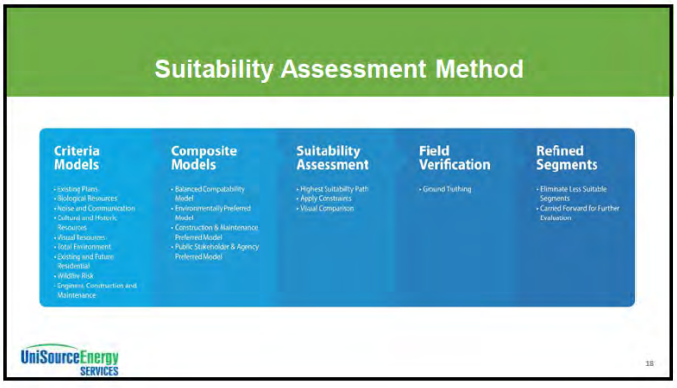
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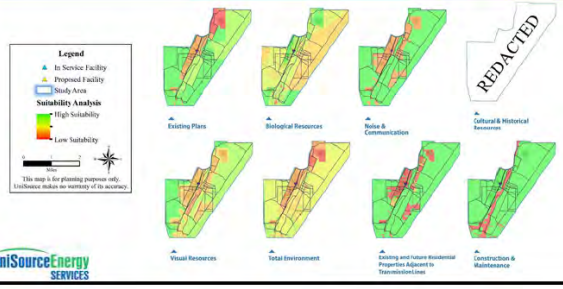


17



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Suitability Criteria



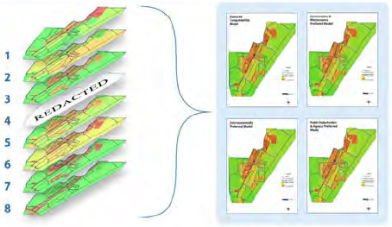
UniSourceEnergy SERVICES

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Composite Suitability Methodology

Criteria 1: Existing Plans
Criteria 2: Biological Resources
Criteria 3: Noise & Communication
Criteria 4: Cultural and Historical Resources
Criteria 5: Visual Resources
Criteria 6: Total Environment
Criteria 7: Existing and Future Residential Properties Adjacent to Transmission Lines
Criteria 8: Construction & Maintenance

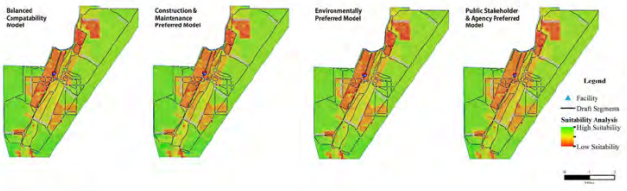


UniSourceEnergy SERVICES

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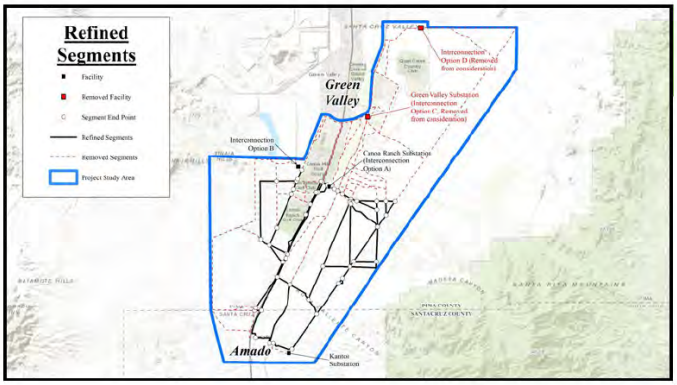
Composite Suitability Models



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21

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22

Project Schedule*

Under Arizona law, certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

- Q3 '23-Q2 '24 – Transmission Line Planning and Siting
- Fall 2025 – CEC Application Submittal
- Fall 2025 – Arizona Power Plant and Transmission Line Siting Committee Hearing
- Q1 2026 – Arizona Corporation Commission (ACC) Open Meeting
- 2028 – Phase 1: Project in Service
- 2029 – Phase 2: Project in Service
- 2030 – Phase 3: Project in Service

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* Target schedule, subject to change

23

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Public Participation

- Fill out an online comment form at: ueasz.com/santa-cruz-reliability-north
- Send comments via email to: scrnorth@uesaz.com
- Call (520) 917-6635 and leave a voicemail message
- Mail a letter with comments to:
  ATTN: Santa Cruz Reliability North
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

Public Open House Opportunities

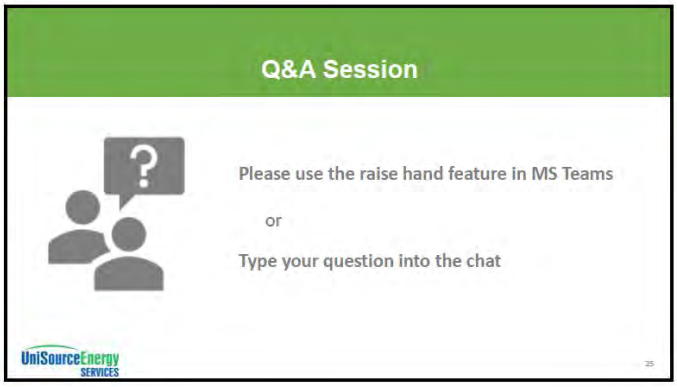
Tuesday, May 20, 2025. 9-11 a.m.
Hosted by the Green Valley Coordinating Council
Green Valley Recreation Las Campanas Center
565 W Bell Tower Drive
Green Valley, AZ 85614

Tuesday, May 20, 2025. 5-7 p.m.
Sopori Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

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Q&A Session
Please use the raise hand feature in MS Teams
or
Type your question into the chat
UniSourceEnergy SERVICES
25

25

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Santa Cruz Reliability Project North

Welcome

Bienvenidos, hablamos español

Please Sign In

Favor de registrarse

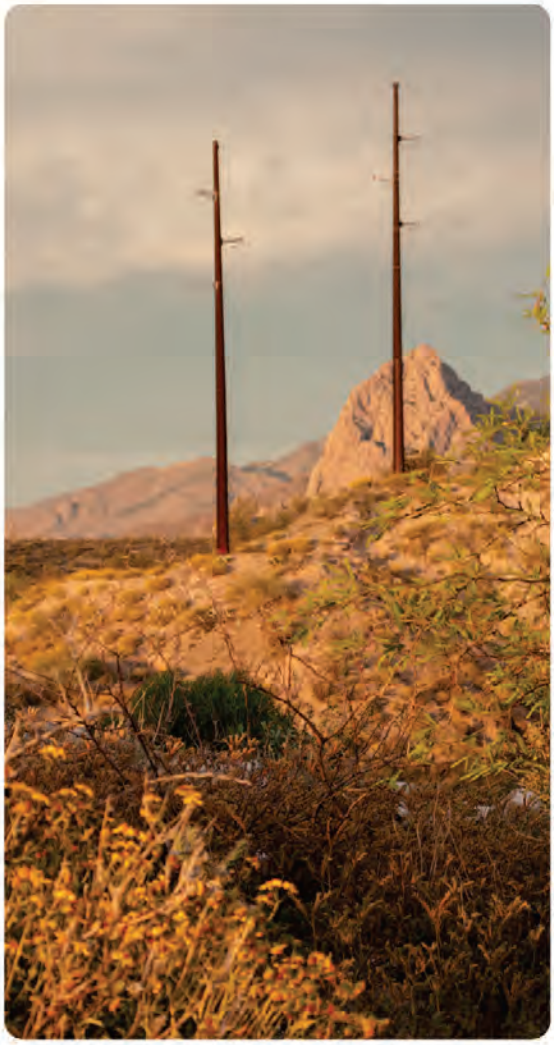
For More Information

Para Más Información

Purpose & Need

Purpose

Improve the reliability and resiliency of the electrical transmission system servicing Santa Cruz County



Need

Maintain and strengthen reliability for Santa Cruz County and its residents, businesses, and industries including hospitals, schools, ports of entry, and federal facilities

Meet current and future energy needs without impacting service to existing customers

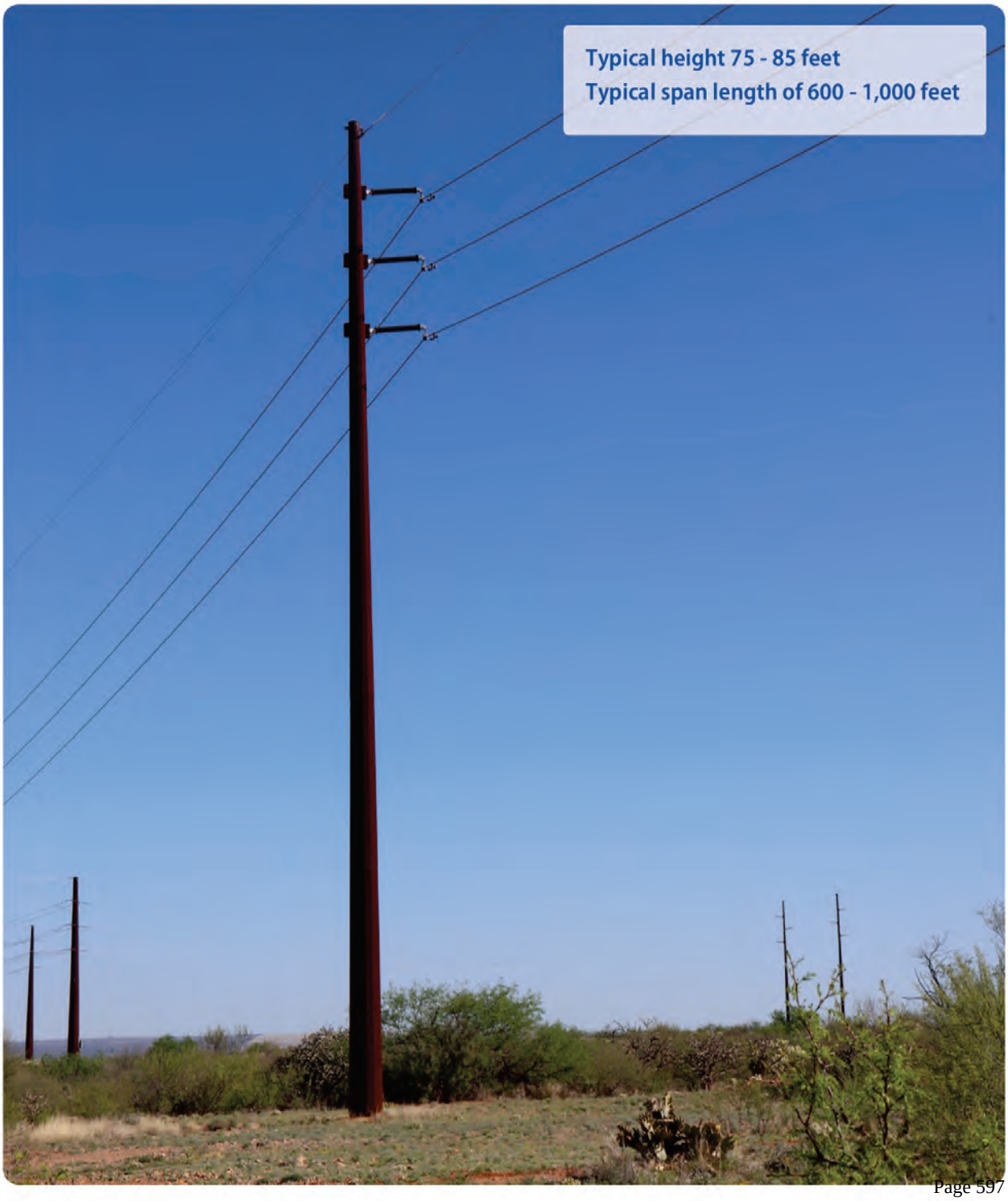
Convert the current radial line configuration servicing Santa Cruz County to a looped transmission system

Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County

Support maintenance and other upgrades, allowing work to be performed without interrupting system operations

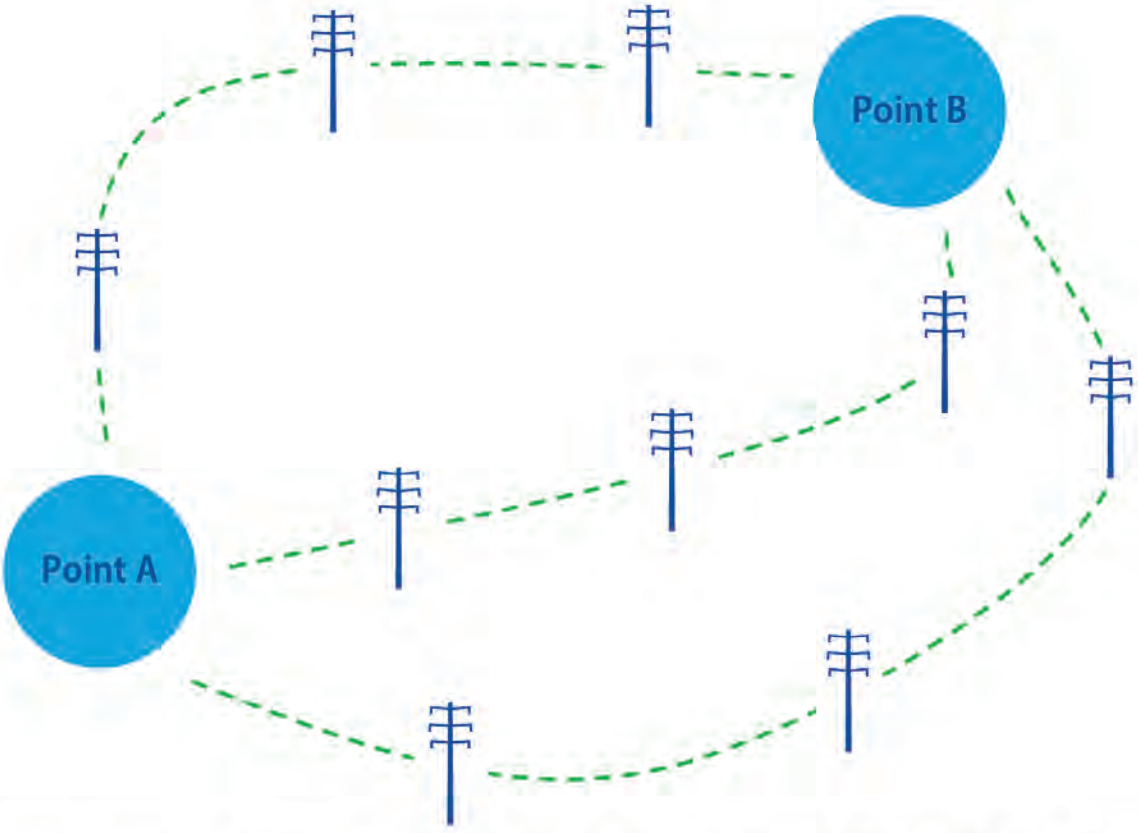
Example Pole Structure

Tubular, Weathering Steel Monopoles



What is Siting?

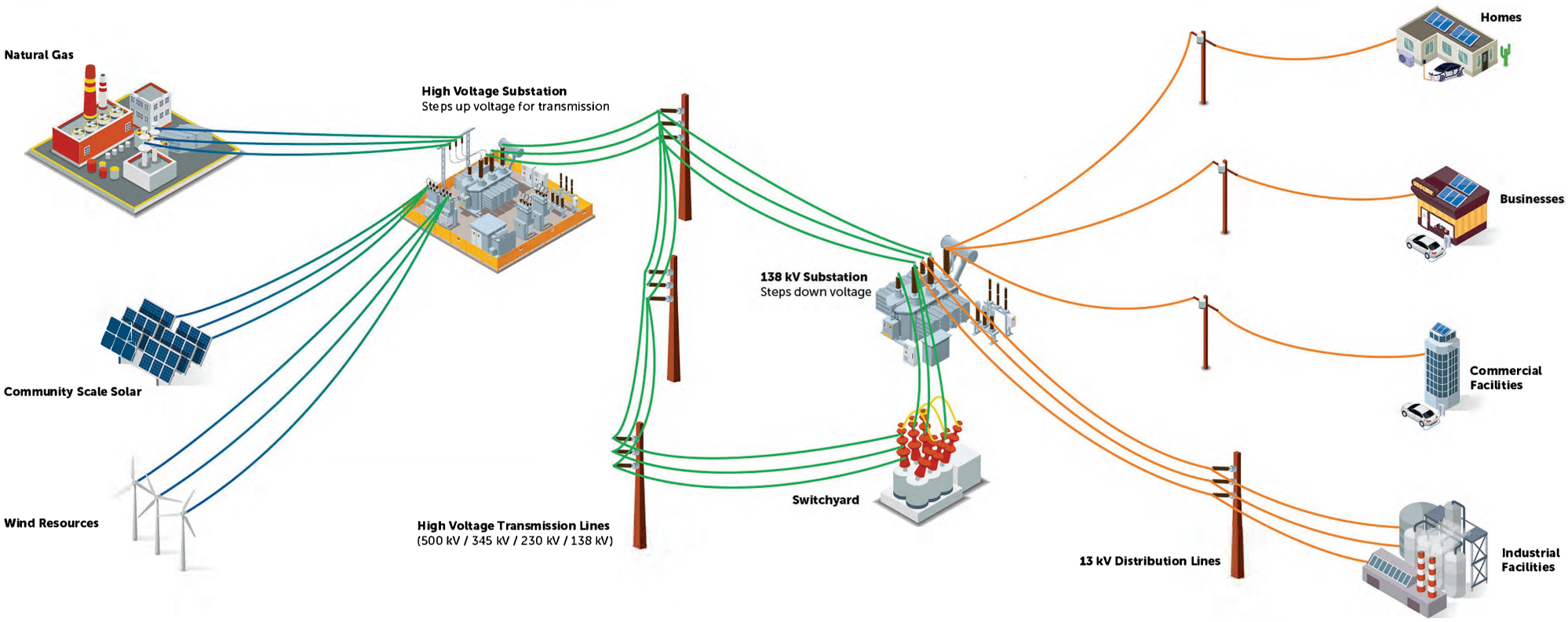
The process of determining the exact route or location where a high-voltage transmission line will be built between two or more points. These points could be new or existing substations, switchyards or energy resources.



A component of siting is permitting. Under Arizona law (A.R.S. § 40-360 et seq.), certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

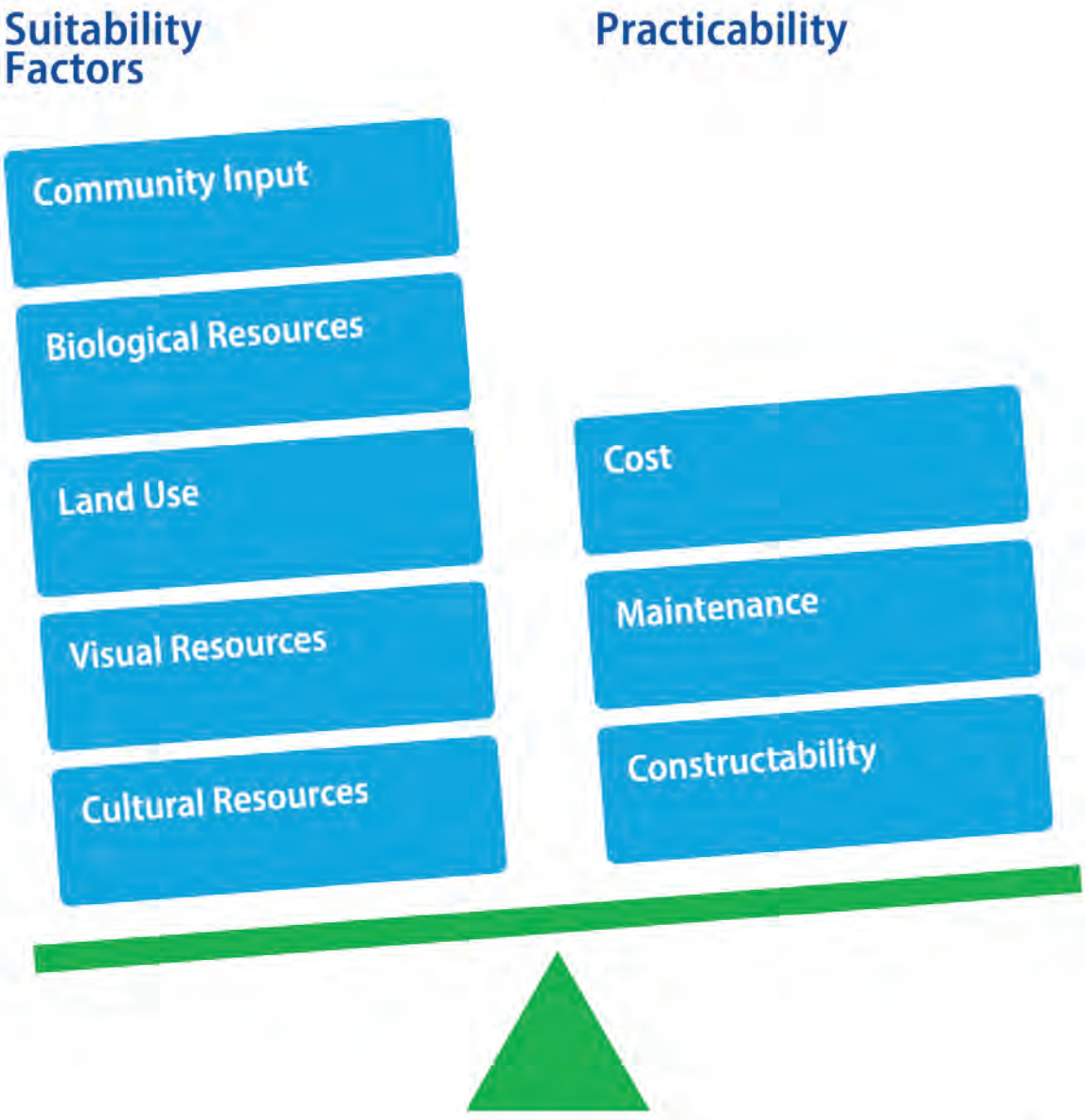
Our Energy Grid
How we deliver electric service to you

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Project Route Development and Evaluation

UniSource considers factors important to the community and environment, and balances them with constructability, maintenance, and cost to find the most suitable path for the transmission line that satisfies the need for the project.



Santa Cruz Reliability Project North

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Siting Process Flowchart

Phase 1: Pre-Analysis

- Conduct Field Visits
- Develop Study Area
- Identify Opportunities and Constraints
- Conduct Public and Stakeholder Outreach
- Develop Preliminary Segments

Phase 2: Data Inventory

- Conduct Research and Collect Data

Phase 3: Suitability Assessment

- Develop Suitability Models
- Conduct Suitability Assessment
- Field Review
- Conduct Public and Stakeholder Outreach
- Refine Segments

Phase 4: Compatibility Analysis

- Conduct Compatibility Analysis
- Develop Route Alternatives
- Field Review

We Are Here

Phase 5: Concept Evaluation

- Conduct Public and Stakeholder Outreach
- Identify Preferred Route
- Submit CEC Application
- Public Notification and Hearing

Santa Cruz Reliability Project North

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Siting Considerations

The Arizona Corporation Commission will consider several factors before approving a Certificate of Environmental Compatibility. These factors, used by UniSource to analyze potential line routes, include:

- Wildlife & plant life
- Scenic areas, historic sites & archaeological sites and structures
- Environment
- Noise emission levels & interference with communication signals
- Potential public recreational uses
- Existing development plans
- Engineering feasibility and challenges
- Project costs & potential impacts on customer rates
- Public input

Interested in shaping the evaluation of transmission line routes? Scan the QR code or complete a comment form to share your perspective on the values that matter most to you in this assessment.

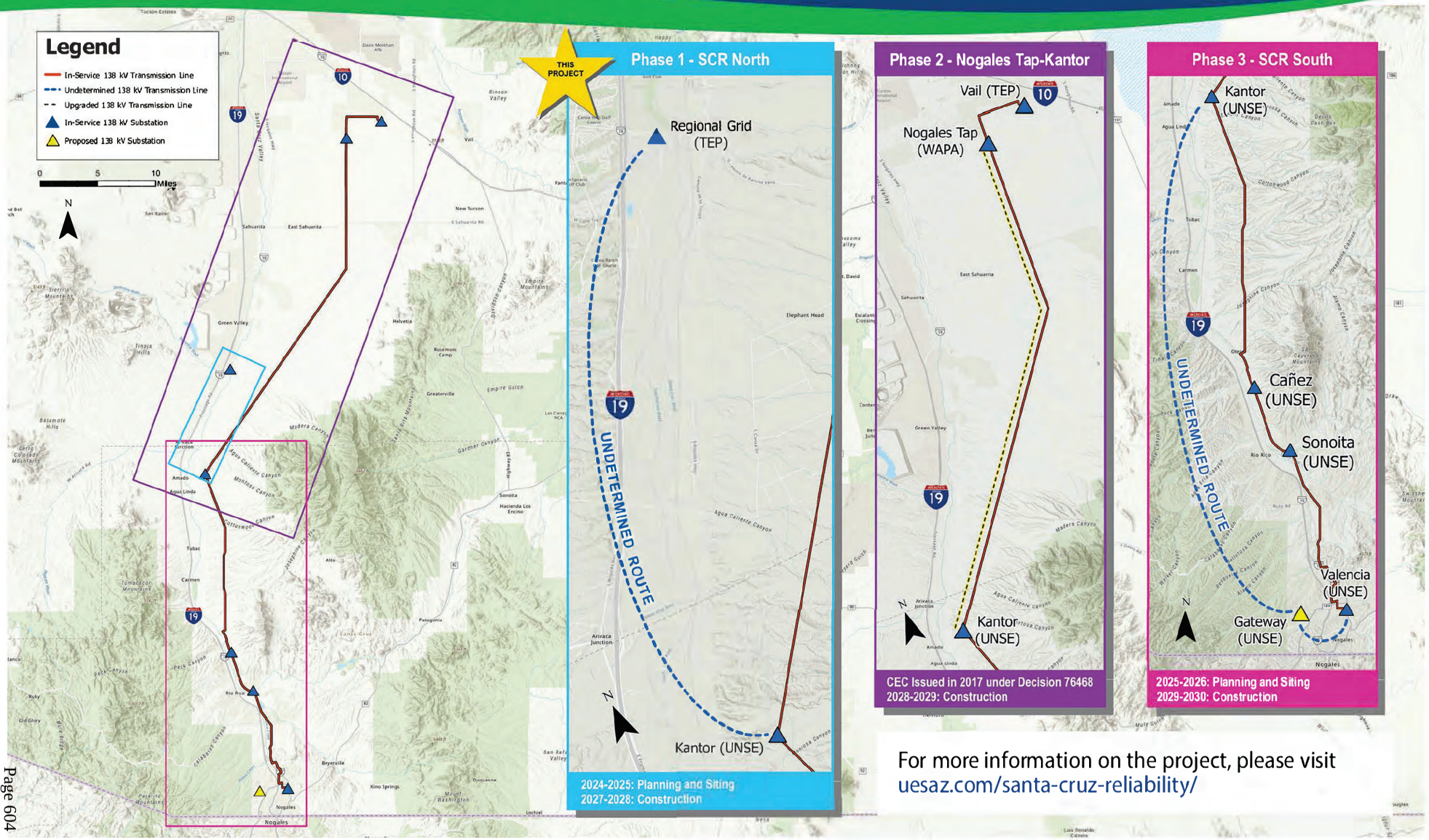
Kantor Substation Upgrades





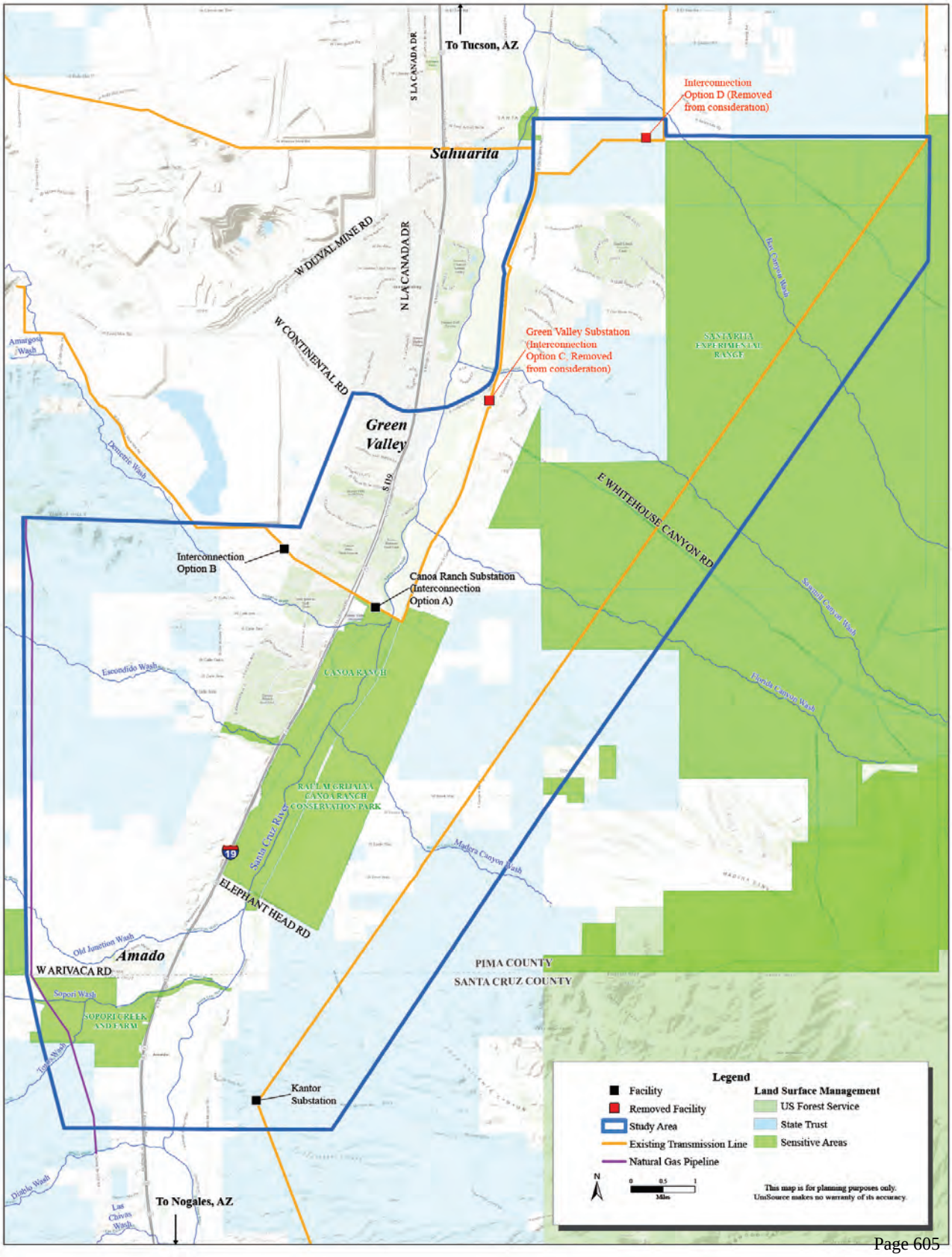
Santa Cruz Reliability Project

UniSourceEnergy SERVICES

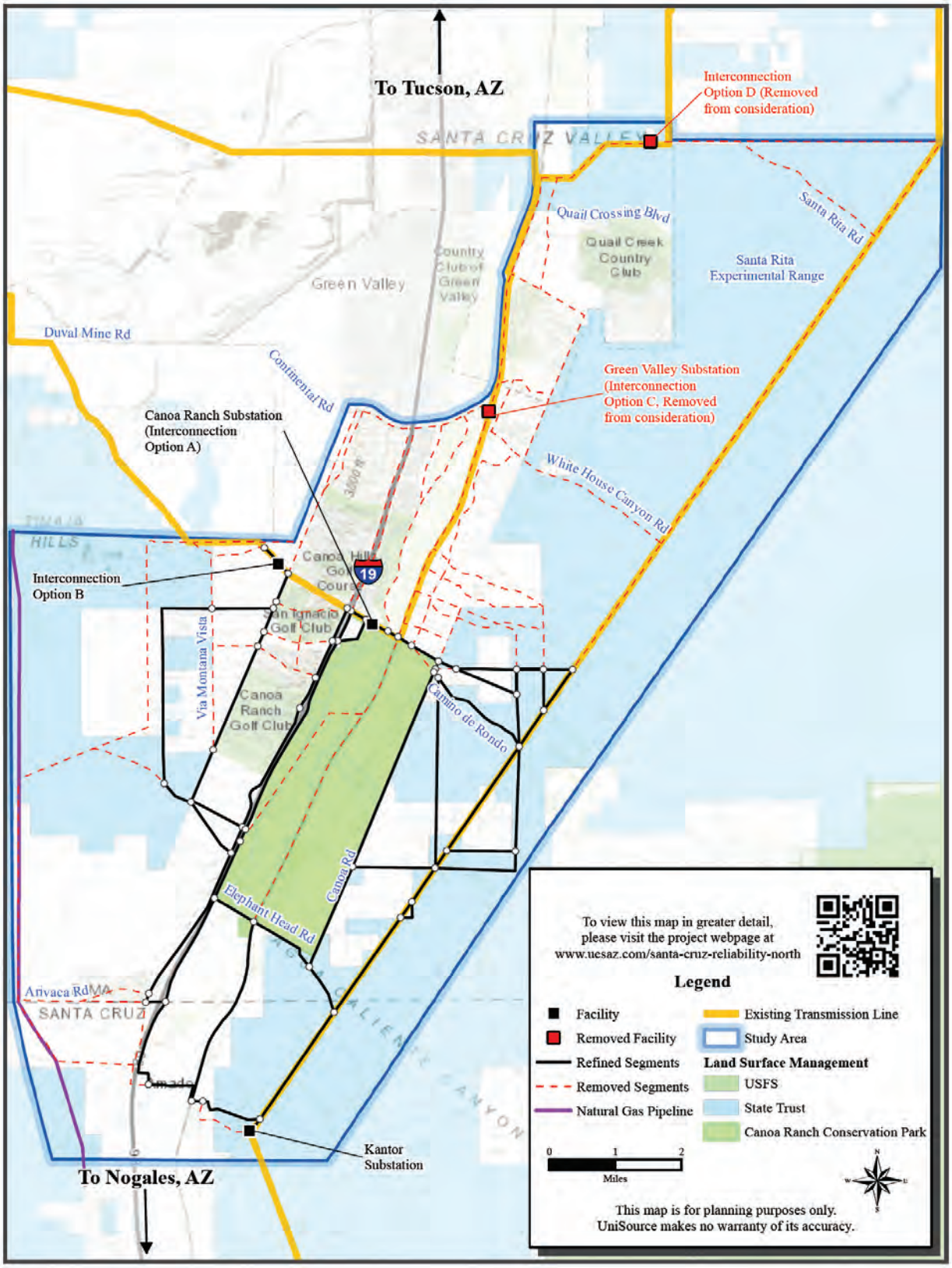


For more information on the project, please visit uesaz.com/santa-cruz-reliability/

Study Area


To Tucson, AZ
S LA CANADA DR
Interconnection Option D (Removed from consideration)
Sahuarita
W DUVAL MINE RD
N LA CANADA DR
W CONTINENTAL RD
Green Valley Substation (Interconnection Option C, Removed from consideration)
Amargosa Wash
Green Valley
Demetrie Wash
SANTA RITA EXPERIMENTAL RANGE
E WHITEHOUSE CANYON RD
Interconnection Option B
Canoa Ranch Substation (Interconnection Option A)
Escondido Wash
CANOA RANCH
RAILAM GRIJALVA CANOA RANCH CONSERVATION PARK
Santa Cruz River
Madera Canyon Wash
ELEPHANT HEAD RD
Old Junction Wash
Amado
W ARIVACA RD
Sopori Wash
SOPORI CREEK RANCH FARM
Tubac Wash
Kantor Substation
PIMA COUNTY
SANTA CRUZ COUNTY
Diablo Wash
Las Chivas Wash
To Nogales, AZ
Legend
Facility
Removed Facility
Study Area
Existing Transmission Line
Natural Gas Pipeline
Land Surface Management
US Forest Service
State Trust
Sensitive Areas
N
0 0.5 1
Miles
This map is for planning purposes only. UniSource makes no warranty of its accuracy.

Refined Segments



Suitability Assessment

Criteria Models

- Existing Plans
- Biological Resources
- Noise and Communication
- Cultural and Historic Resources
- Visual Resources
- Total Environment
- Existing and Future Residential
- Wildfire Risk
- Engineer, Construction and Maintenance

Composite Models

- Balanced Compatability Model
- Environmentally Preferred Model
- Construction & Maintenance Preferred Model
- Public Stakeholder & Agency Preferred Model

Suitability Assessment

- Highest Suitability Path
- Apply Constraints
- Visual Comparison

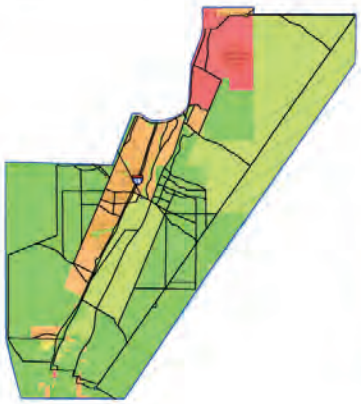
Field Verification

- Ground Truthing

Refined Segments

- Eliminate Less Suitable Segments
- Carried Forward for Further Evaluation

Suitability Criteria



Existing Plans



Biological Resources



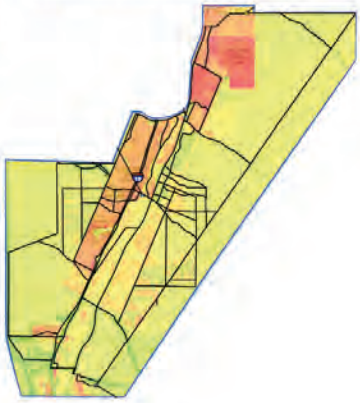
Noise & Communication



Cultural & Historical Resources



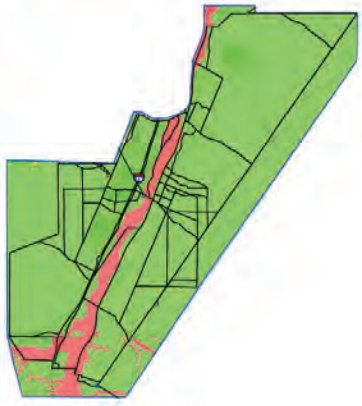
Visual Resources



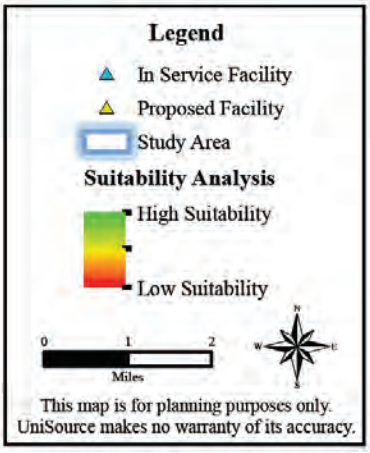
Total Environment



Existing and Future Residential Properties Adjacent to Transmission Lines

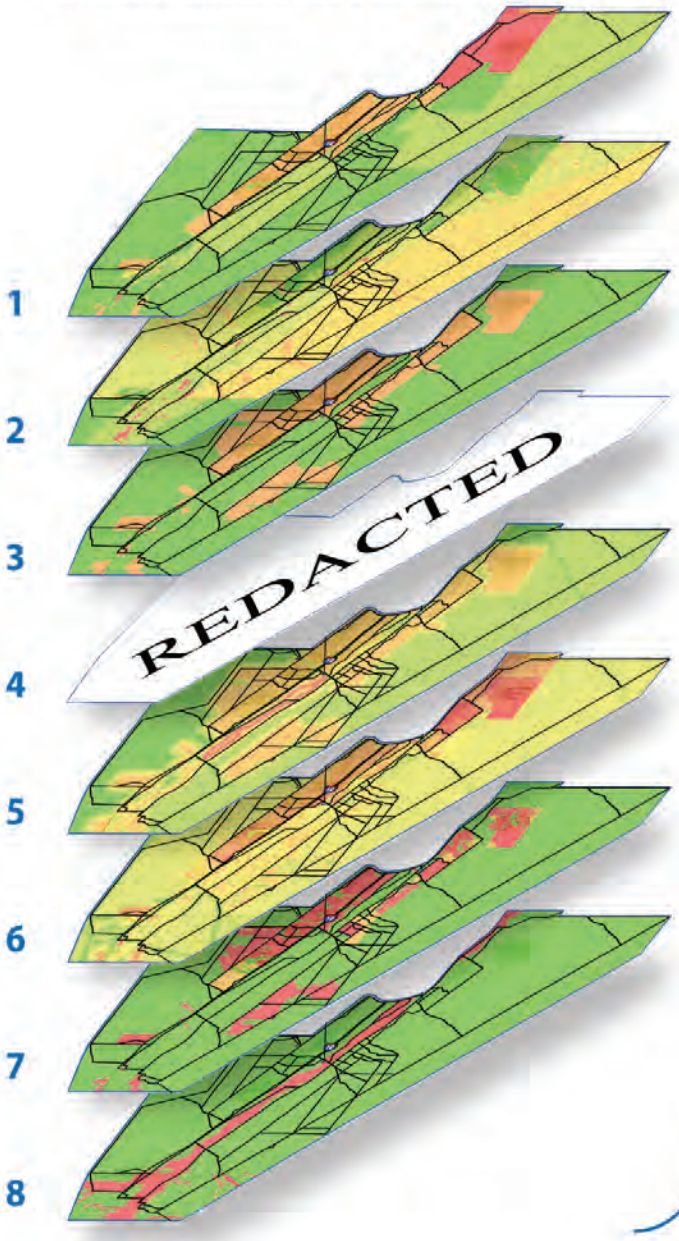


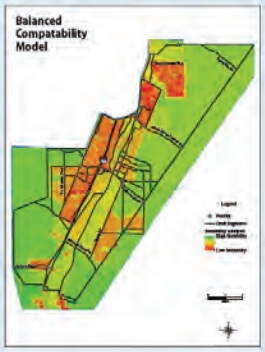
Construction & Maintenance



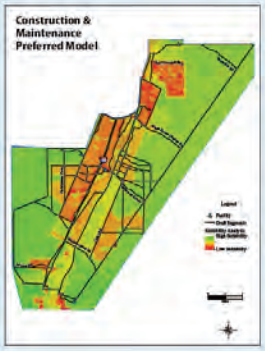
Composite Suitability Methodology

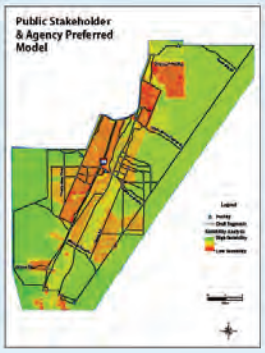
Criteria 1: Existing Plans
Criteria 2: Biological Resources
Criteria 3: Noise & Communication
Criteria 4: Cultural and Historical Resources
Criteria 5: Visual Resources
Criteria 6: Total Environment
Criteria 7: Existing and Future Residential Properties Adjacent to Transmission Lines
Criteria 8: Construction & Maintenance





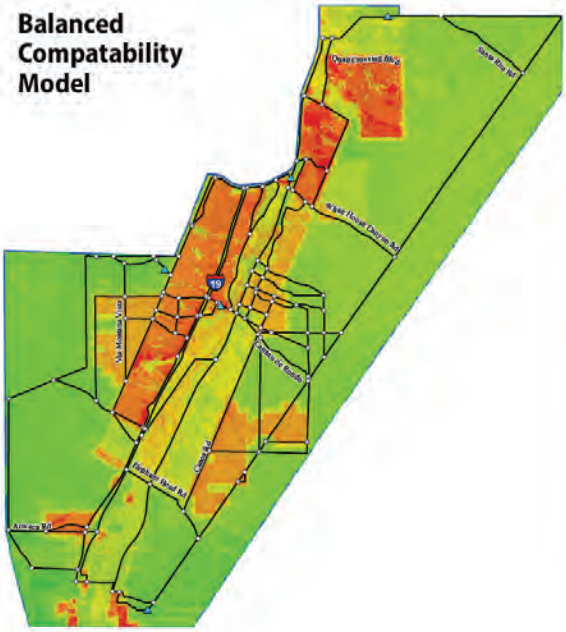




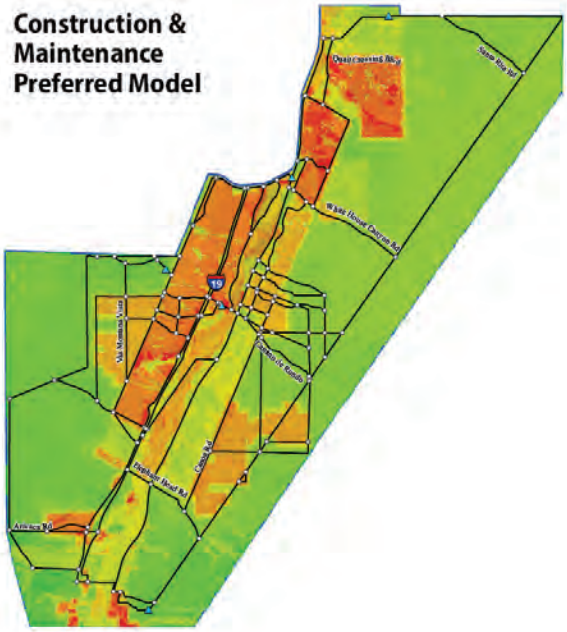


Composite Suitability Models

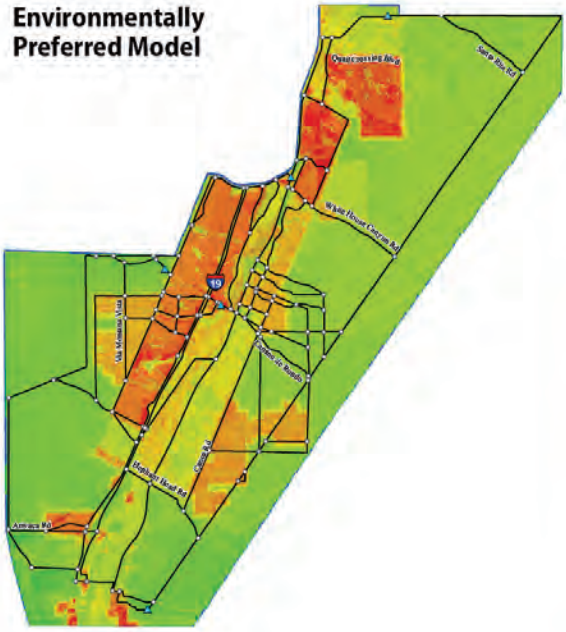
Balanced Compatability Model



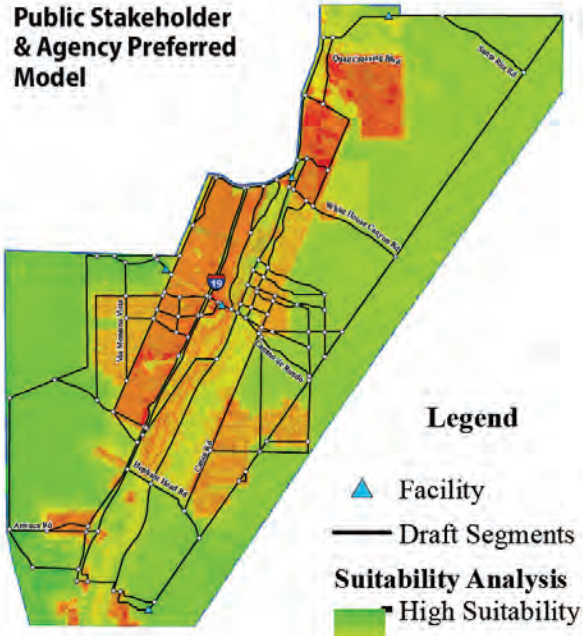
Construction & Maintenance Preferred Model



Environmentally Preferred Model



Public Stakeholder & Agency Preferred Model



Legend

- Facility
- Draft Segments

Suitability Analysis

- High Suitability
- Low Suitability

0 1 2

Miles

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Interactive Map Station

Provide Your Spatial Comments



Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

We Want To Hear From You

How to Provide Official Public Comment:

Fill out an online comment form at:
ueasz.com/santa-cruz-reliability-north

Email comments to:
scrnorth@uesaz.com

Call:
(520) 917-6635 and leave a voicemail message

Mail a letter with comments to:
ATTN: Santa Cruz Reliability North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

An interactive map is posted on our website.

Cómo proporcionar un comentario público oficial:

Llenando un formulario de comentarios en línea:
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

Enviando comentarios por correo electrónico a:
scrnorth@uesaz.com

Llamando al:
(520) 917-6635 y dejando un mensaje de voz

Enviando una carta con comentarios a:
A/A: Confiabilidad de Santa Cruz Norte
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Para ver un mapa interactivo, visite la página web del proyecto.

More Information
uesaz.com/santa-cruz-reliability-north/

Más información
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

SOCIAL MEDIA COMPLETION REPORT

Social Media Completion Report			
	English	Spanish	Total
Reach	13,284	13,727	27,011
Impressions	15,220	14,858	30,078
Click	76	19	95

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EXHIBIT J-9

AGENCY BRIEFING 4 SUMMARY (AUGUST 4, 2025)

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Agency Briefing #4 Summary Report
Monday August 4, 2025

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, is working to enhance energy independence and security for its customers by reducing reliance on the increasingly constrained regional energy market. To help meet growing reliability demands, UniSource is developing a transmission line that connects the Canoa Ranch Substation in Pima County, AZ to the Kantor Substation in Santa Cruz County, AZ. The Kantor Substation will also be expanded to accommodate the new transmission line.

In accordance with state regulations, UniSource must obtain a Certificate of Environmental Compatibility (CEC) to construct the necessary transmission line. As part of its due diligence and to better understand local community values that could influence the siting process, UNSE hosted an Agency Briefing to gather public input.

MEETING NOTIFICATION

UNSE compiled a stakeholder list based on the defined Project Study Area boundary, extending an additional 3 miles beyond that boundary for notification purposes. Agencies and Tribes with land ownership, jurisdictional authority, ancestral ties, or resource management interests within this area were identified. Additionally, entities that had previously expressed interest in UNSE or similar projects were included.

Once stakeholders were identified, their contact information was gathered. Notification of the virtual agency meeting was sent via email on July 22, 2024, by the Project's Project Manager.

MEETING SUMMARY

The virtual agency meeting took place on Monday, August 4, 2025, from 11:00 AM to 12:00 PM. The meeting featured a PowerPoint presentation that covered key aspects of the project, including its purpose and need, environmental permitting requirements, the line siting process, the study area and preliminary route segments, routing criteria, project schedule, additional resources, and a question-and-answer session.

Eocene staff present at the meeting included:

Table 1
EOCENE ATTENDEES

Name	Title
Brian Parker	Project Manager
Matt Ritter	Environmental Planner

UniSource staff present at the meeting included:

Table 2 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Manager, Transmission Line Siting
Robert Messenger	Engineering Project Manager
Teresa Bravo	Government Relations Representative
Adriana Marinez	Project Manager, Transmission Line Siting
Minerva Rivera Crill	Engineer
Todd Lichtas	Engineer
Deborah Vining	ROW Specialist
Chris Ortiz Y Pino	Project Manager, Transmission Line Siting
Joe Barrios	Communications
Jenna Reilly	Environmental Land Use Planner

All participants were requested to enter their name, agency affiliation, and role in the meeting via the chat function.

Table 1 Project Location	
Name	**Title/Organization**
Courtney Rose	Cultural Resources Program Manager, Pima County Conservation Lands & Resources department
Debbie Kenyon	GVC President
Armando Goncalvez	U.S. Customs and Border Protection
Jenny Neeley	Program Manager, Pima Co Conservation Lands & Resources
Ruben Ojeda	Assistant Director, Real Estate Division, Arizona State Land Department
Kelley Sims	Kinder Morgan / El Paso Natural Gas
Amber Toidl	Rights of Way Section Manager, Arizona State Land Department
Angela	ADOT
Luis Ramirez	President, Ramirez Advisors
Allison Moore	Executive Vice President, Fresh Produce Association of the Americas
Eric Wilson	Energy Manager Pima County

Table 1 Project Location	
Name	**Title/Organization**
Mary-Ellen Walsh	Cultural Resources Compliance Program Manager, SHPO
John Stitzer	Freeport McMoran (FMI)
Teresa Murphy	AEPCO, Manager of Land Services
Angel, Davis, Luis and Olivia	GVC
Anna Arce	ADOT Construction Tech inspector
Angela Fierros	ADOT Permit Tech
Armando Goncalvez	Assistant Director, CBP Tucson
Doug Kenyon	PC District 4 Representative
J Gomez	ADOT
Olivia Ainz-Kramer	Nogales-Santa Cruz County Chamber of Commerce
Estrella Sainburg	NPS
Patrick Brennan	Freeport McMoran (FMI)
John Stitzer	FMI

SUMMARY

UNSE opened the meeting with a thorough presentation detailing the project's purpose and rationale. The overview addressed key drivers for implementation, including environmental protection, improved public access, and support for regional planning efforts. UNSE outlined the expected benefits, such as ecological conservation, expanded recreational opportunities, and contributions to community development. A significant portion of the presentation focused on the conservation easement—its objectives, scope, and how it supports long-term stewardship and sustainable land use. UNSE also emphasized the project's alignment with agency priorities and broader policy initiatives.

After the presentation, UNSE invited questions from agency representatives. The discussion covered a range of topics, including technical clarifications, funding sources, project timelines, and interagency coordination. Environmental impacts and jurisdictional considerations were also addressed. UNSE responded to each question with detailed explanations and, where appropriate, committed to providing additional information or follow-up documentation. The Q&A session promoted a collaborative dialogue and ensured that all participants had a clear understanding of the project's goals and next steps.

SHPO asked about tribal consultation efforts, and UniSource shared that they've engaged tribes through public communications, direct letters, phone calls, and presentations, including one to the Four Southern Tribes. NPS asked about preferred route updates, and UniSource confirmed they will share route details and hearing dates once finalized.

Outlook

EXAMPLE

UniSource – Santa Cruz Reliability Project North Update

From Bryner, Clark <CBryner@tep.com>
Date Fri 2025-08-15 8:41 AM
Cc Santa Cruz Reliability North <SantaCruzReliabilityNorth@tep.com>

1 attachment (3 MB)
SCR North Newsletter - July 2025.pdf;

UniSource Energy Services is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

This upgrade, the Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

UniSource initiated a comprehensive planning and siting study in early 2024 to evaluate potential transmission line routes for this phase of the project. Following multiple rounds of evaluation, we have identified five route alternatives for public and agency review. See the map in the attached project newsletter or visit the project webpage to find a detailed interactive map.

You, or a designee, are invited to participate in a virtual agency briefing on Monday, August 4th at 11 a.m. to learn more about the project and provide feedback. A separate calendar invitation will follow.

Should you have any questions or comments, please contact me directly at cbryner@uesaz.com.

We appreciate your engagement in this important energy project.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

4350 E. Irvington Rd.
Mailstop CB200
P.O. Box 711 Tucson, AZ 85702
Phone: 520-917-6635
E-mail: scnorth@uesaz.com
Webpage: www.uesaz.com/santa-cruz-reliability-north

Santa Cruz Reliability Project North

PROJECT UPDATE PRESENTATION

CLARK ARTHUR – MANAGER, SITING, OUTREACH AND ENGAGEMENT



UniSourceEnergy SERVICES

August 2025

1

Agencies

- Federal Agencies
- State Agencies
- Pima County
- Santa Cruz County
- Town of Sahuarita
- Green Valley Coordinating Council
- Chambers of Commerce
- Telecommunication Companies
- Greater Nogales Santa Cruz County Port Authority
- School Districts
- Union Pacific Railroad
- Utilities
- Large private landowners

Please type into the chat:
- **Name**
- **Organization**
- **Title/Role**

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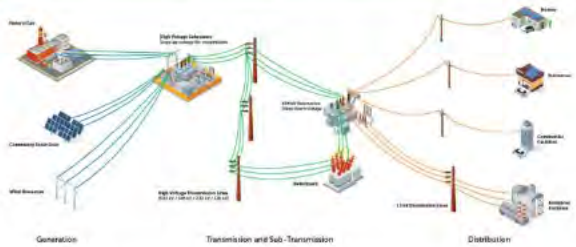
Agenda

- How Power Gets to You
- Santa Cruz Reliability Project – Three Phases
- Need and Benefits
- Phase 1 – Santa Cruz Reliability Project North
- Revised Study Area
- Kantor Substation
- Proposed Transmission Line
- What is Siting?
- Planning and Siting Process
- Project Schedule
- Public Participation
- Q&A Session

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3

How We Deliver Energy Service to You



4



5

Need and Benefits

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Maintain and strengthen reliability for Santa Cruz County and its residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Meet current and future energy needs without impacting service to existing customer.
- Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County.
- Support maintenance and other upgrades, allowing work to be performed without interrupting system operations.

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6

Santa Cruz Reliability Project North (Phase 1)

- First phase of a three-phase project.
- Construct a second 138 kilovolt (kV) transmission line to connect UniSource's Kantor Substation, in Santa Cruz County, to the regional electric grid in Pima County.
- Upgrade and expand the Kantor Substation to accommodate operations and maintenance requirements.

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Kantor Substation



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Kantor Substation Planned Expansion

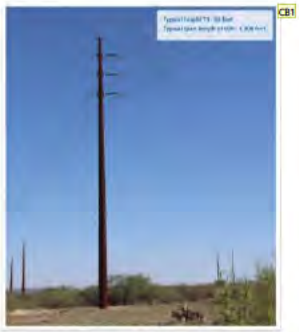


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Example Pole Structure

Tubular, Weathering Steel Monopoles



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What is Siting?

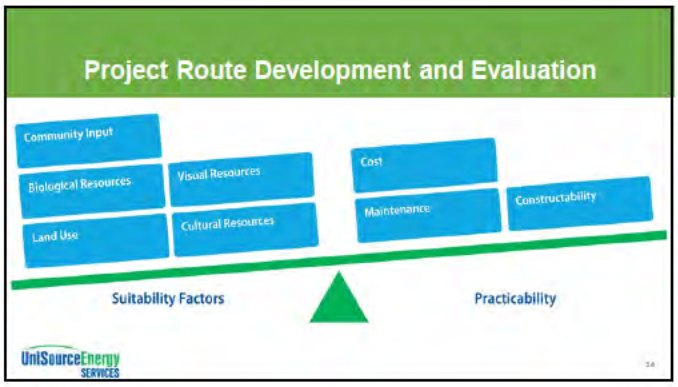


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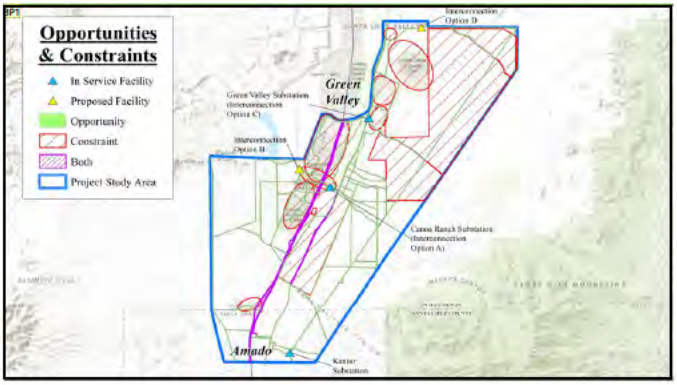
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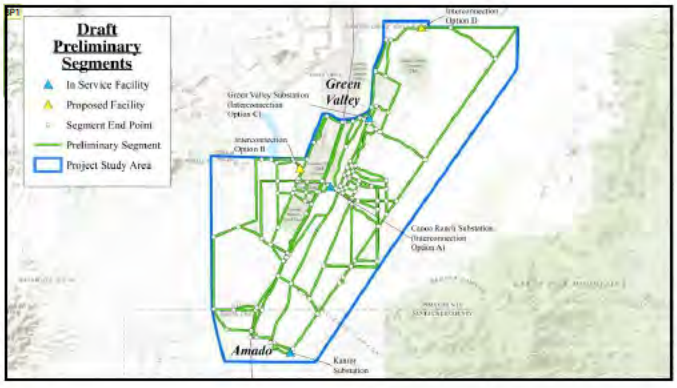
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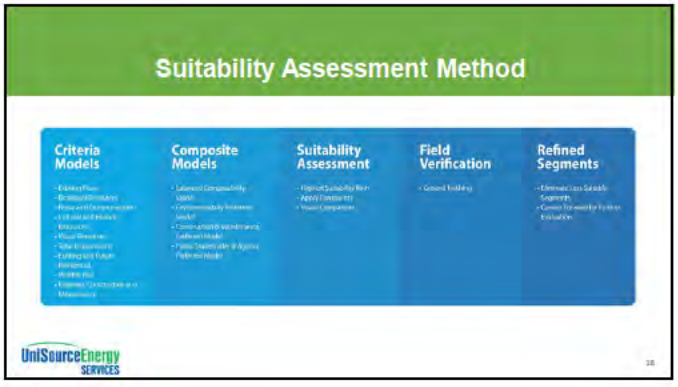
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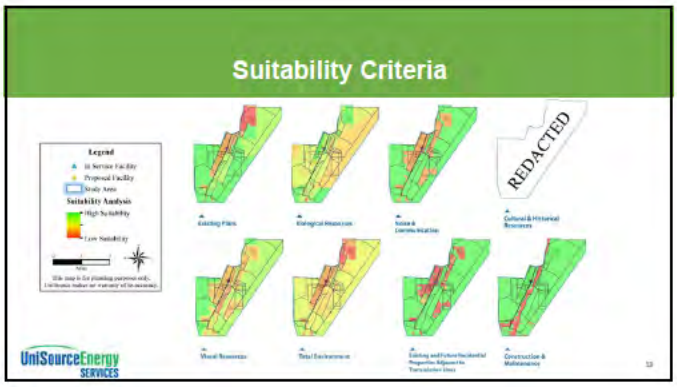
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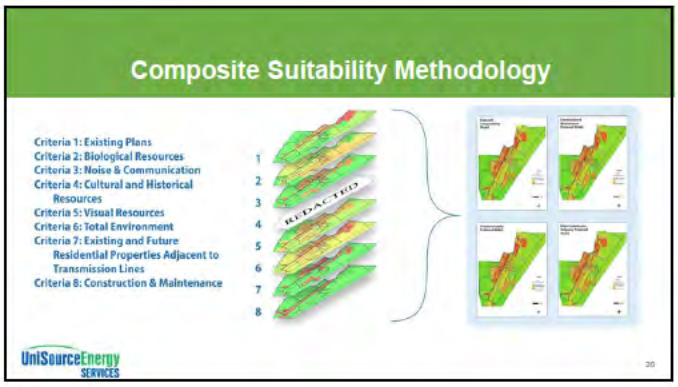
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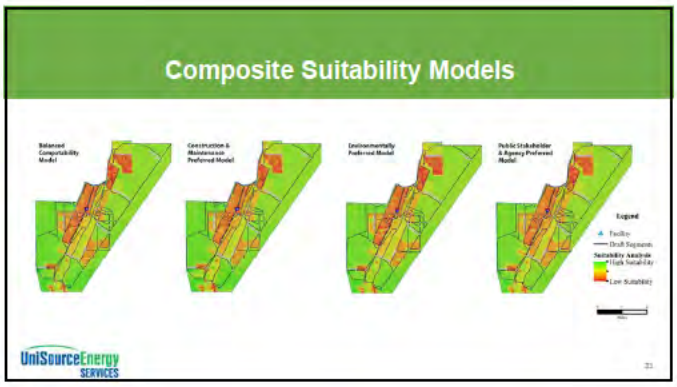
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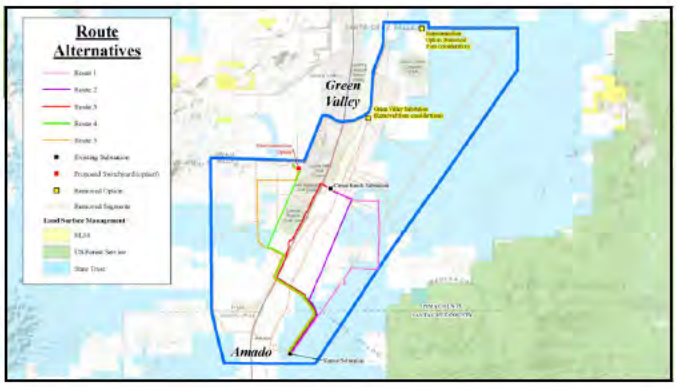
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Visual Simulations

Key Observation Points



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Visual Simulations

Key Observation Points



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Project Schedule*

Under Arizona law, certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

- Q3 '23-Q2 '24 – Transmission Line Planning and Siting
- Fall 2025 – CEC Application Submittal
- Fall 2025 – Arizona Power Plant and Transmission Line Siting Committee Hearing
- Q1 2026 – Arizona Corporation Commission (ACC) Open Meeting
- 2028 – Phase 1: Project in Service
- 2029 – Phase 2: Project in Service
- 2030 – Phase 3: Project in Service

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* Target schedule, subject to change

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Public Participation

- Fill out an online comment form at: ueasz.com/santa-cruz-reliability-north
- Send comments via email to: scrnorth@uesaz.com
- Call (520) 917-6635 and leave a voicemail message
- Mail a letter with comments to:
  ATTN: Santa Cruz Reliability North
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

Public Open House Opportunities

Tuesday, August 5, 2025. 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation East Center
7 S Abrego Drive
Green Valley, AZ 85614

Tuesday, August 5, 2025. 5-7 p.m.
Sopori Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

UniSourceEnergy SERVICES

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Public Participation

Upcoming Virtual Presentation Option

Thursday, August 7, 2025. 4:30-5:30 p.m.
Hosted via Microsoft Teams
Meeting ID/Login: 238 531 081 327
Passcode: kPc45
Call-in Option: (712) 274-3750, ID: 73476288

UniSourceEnergy SERVICES

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Q&A Session



Your input is important to us!

For questions or comments, we ask that you please raise your hand, and we will answer your question in the order it was received

THANK YOU!

UniSourceEnergy SERVICES

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EXHIBIT J-10

PUBLIC OPEN HOUSE 4 SUMMARY (AUGUST 5, 2025)

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Public Open House #4 Summary Report
Tuesday August 5, 2025

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, is working to enhance energy independence and security for its customers by reducing reliance on the increasingly constrained regional energy market. To help meet growing reliability demands, UniSource is developing a transmission line that connects the Canoa Ranch Substation in Pima County, AZ to the Kantor Substation in Santa Cruz County, AZ. The Kantor Substation will also be expanded to accommodate the new transmission line.

In accordance with state regulations, UniSource must obtain a Certificate of Environmental Compatibility (CEC) to construct the necessary transmission line. As part of its due diligence and to better understand local community values that could influence the siting process, UNSE hosted a Public Open House Meeting to gather public input.

MEETING NOTIFICATION

UNSE developed and mailed a newsletter providing an overview of the Santa Cruz Reliability Transmission Line Project North, including the date, time, and location of the public open house. On July 22, 2025, 14 days before the Public Open House Meeting, the newsletter was sent to approximately 17,000 property owners, residents, and small businesses with U.S. Postal Service addresses within a one-mile radius of the Project Study Area.

To further promote the meeting, geo-targeted Facebook and Instagram ads were run within an 11-mile radius of the study area during the week leading up to the event. Additionally, six notice signs were posted in and around the Project Study Area on July 22, 2025, 14 days before the meeting. Attachment 3 includes a map of sign locations, sign text, and photos of the signs in place.

Six flyers were also distributed to local community centers and public outlets, where they were posted on public bulletin boards to help spread awareness.

UNSE also published meeting notices in the *Green Valley News* on July 20, 27 and August 3, 2025; *Nogales International* on July 25 and August 1, 2025; and *Arizona Bilingual* on July 30, 2025. Attachment 5 includes the newspaper ad, and Affidavit of Publication. Meeting notifications were sent out for both morning and evening meetings on August 5, 2025.

MEETING SUMMARY

Two Public Open Houses were held on Tuesday, August 5, 2025, from 9:00 AM to 11:00 AM at Green Valley Recreation Center East, located at 7 South Abriego Drive, Green Valley Arizona. The second meeting was from 5:00 PM to 7:00 PM at Sopori Elementary School, located at 5000 West Arivaca Road, Amado, Arizona. The event followed an open house format and featured several informational stations, including a sign-in and comment table, refreshment area, GIS (Geographic Information Systems) table, and 10 project-related posters. These posters covered topics such as:

- Project overview
- Project location map with route alternatives
- Pole characteristics

- Planning and siting process and timeline
- Arizona Corporation Commission criteria for issuing a Certificate of Environmental Compatibility
- Environmental considerations for the transmission line
- Overview of the energy system

UNSE staff in attendance included the Project Manager, Government Liaison, Project Engineer, Environmental Engineer, and Environmental and Land Use Planner. Eocene supported the event with two Environmental and Land Use Planners and their GIS specialist. These representatives were available to answer questions and address community concerns.

All attendees were invited to sign in upon arrival. There were 130 individuals at the morning Open House and 15 at the evening Open House.

COMMENT

To date, the public outreach process has generated verbal feedback from individuals that attended the Open Houses and written comments. In addition, UNSE staff and consultants documented verbal comments received during the Open House meeting, which are included in this report.

Common themes in the written comments included concerns about the potential impact of the transmission line on adjacent properties, the effect a new transmission line might have on customer rates, concerns regarding public health and safety issues, and questions regarding how the project team will evaluate biological and environmental considerations during the preliminary transmission route analysis.

From:	Santa Cruz Reliability North
Cc:	Santa Cruz Reliability North
Subject:	UniSource – Santa Cruz Reliability Project North Update
Attachments:	SCR North Newsletter - July 2025 (email).pdf

EXAMPLE

You are receiving this email because you requested receipt of updates about the Santa Cruz Reliability Project North. If you would like to be removed from the project email list, please let us know.

UniSource Energy Services is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

This upgrade, the Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

UniSource initiated a comprehensive planning and siting study in early 2024 to evaluate potential transmission line routes for this phase of the project. Following multiple rounds of evaluation, we have identified five route alternatives for public review. See the map in the attached project newsletter or visit the project webpage to find a detailed interactive map.

You are invited to two in-person open house meetings on August 5th and one virtual meeting on August 7th, where you can ask questions about the project and provide feedback.

Tuesday, August 5, 2025 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation East Center
7 S Abrego Dr
Green Valley, AZ 85614

Tuesday, August 5, 2025 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd
Amado, AZ 85645

Thursday, August 7, 2025 4:30-5:30 p.m.
Microsoft Teams
Join the meeting now

Meeting ID: 226 630 125 702 2
Passcode: mg2ys2CZ
Dial in by phone
+1 712-274-3750,,881689883#
Phone conference ID: 881 689 883#

Should you have any questions or comments, please send an email to scrnorth@uesaz.com or call our project information line at 1-520-917-6635.

We appreciate your engagement in this important energy project.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

4350 E. Irvington Rd.
Mailstop CB200
P.O. Box 711 Tucson, AZ 85702
Phone: 520-917-6635
E-mail: scrnorth@uesaz.com

Webpage: www.uesaz.com/santa-cruz-reliability-north

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Public Open House

Please Join Us

Tuesday, August 5, 2025 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation East Center
7 S Abrego Drive
Green Valley, AZ 85614

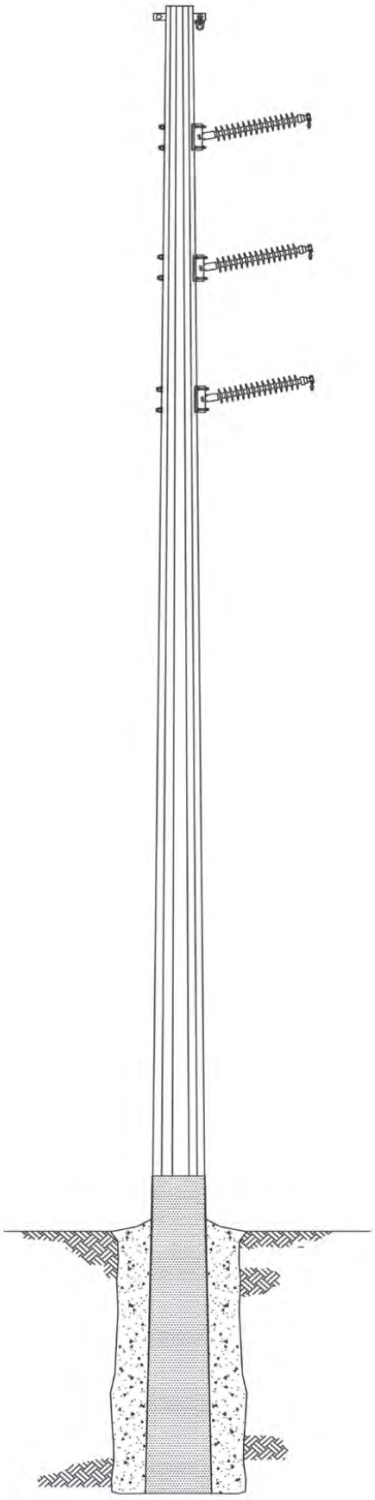
Tuesday, August 5, 2025 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd
Amado, AZ 8564

Light refreshments will be served.

Virtual Presentation (via Microsoft Teams)
Thursday, August 7, 2025 4:30-5:30 p.m.
Meeting ID/Login: 238 531 081 327
Passcode: kJPc45
Call-in Option: (712) 274-3750; ID: 73476288

More Information

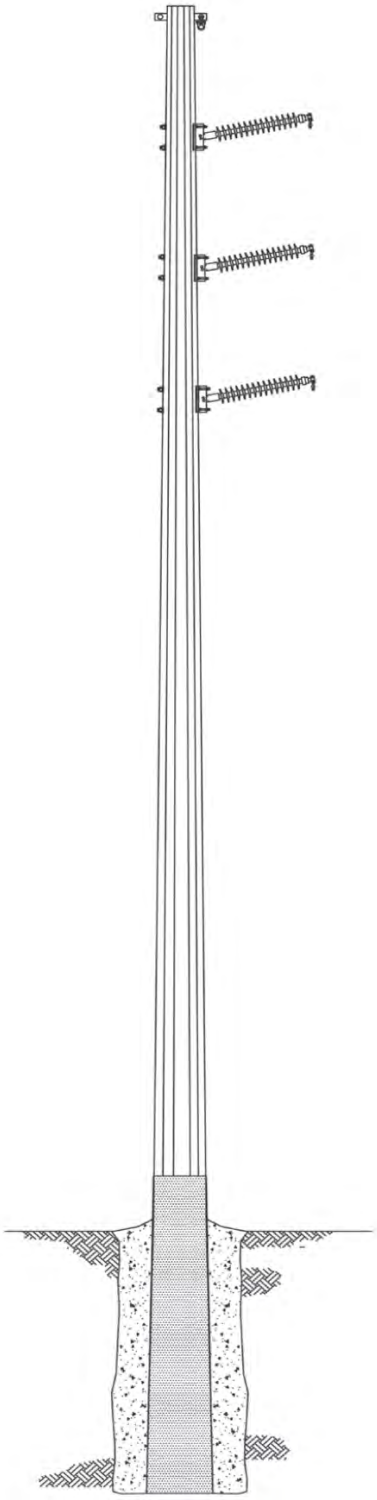
uesaz.com/santa-cruz-reliability-north



Proyecto de Confiabilidad Santa Cruz Norte

UniSourceEnergy SERVICES

Aviso de Reunión Abierta Pública



¡Acompáñenos!

Martes 5 de Agosto 9-11 a.m.
Alojado por el Consejo de Green Valley
Green Valley Recreation East Center
7 S Abrego Drive
Green Valley, AZ 85614

Martes 5 de Agosto 5-7 p.m.
Escuela Primaria Sopori
5000 W Arivaca Rd
Amado, AZ 85645

Se proporcionarán refrigerios livianos.

Presentación Virtual (a través de Microsoft Teams)
Jueves, 7 de Agosto de 2025 4:30 p.m. – 5:30 p.m.
ID de la reunión / Inicio de sesión: 238 531 081 327
Código de acceso: kJPc45
Opción para llamar por teléfono: (712) 274-3750; ID: 73476288

Más información

uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

FLYER LOCATIONS ROUND 4 OUTREACH	
Place	**Location**
Joyner - Green Valley Library	601 N La Cañada Dr, Green Valley, AZ 85614
Dollar General	28890 S Nogales Hwy, Amado, AZ 85645
Green Valley Chamber of Commerce	275 W Continental Rd Ste 123, Green Valley, AZ 85622
Sahuarita Library	670 W Sahuarita Rd, Sahuarita, AZ 85629
Posada Java	350 E Morningside Rd, Green Valley, AZ 85614
Sopori Elementary	5000 W Arivaca Rd, Amado, AZ 85645
The Longhorn Grill	28851 S Nogales Hwy, Amado, AZ 85645

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Proposed Electric Transmission Line

PUBLIC OPEN HOUSE

August 5 — In Person

August 7 — Virtual

Visit project webpage for details:
uesaz.com/santa-cruz-reliability-north

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Línea de Transmisión Eléctrica Propuesta

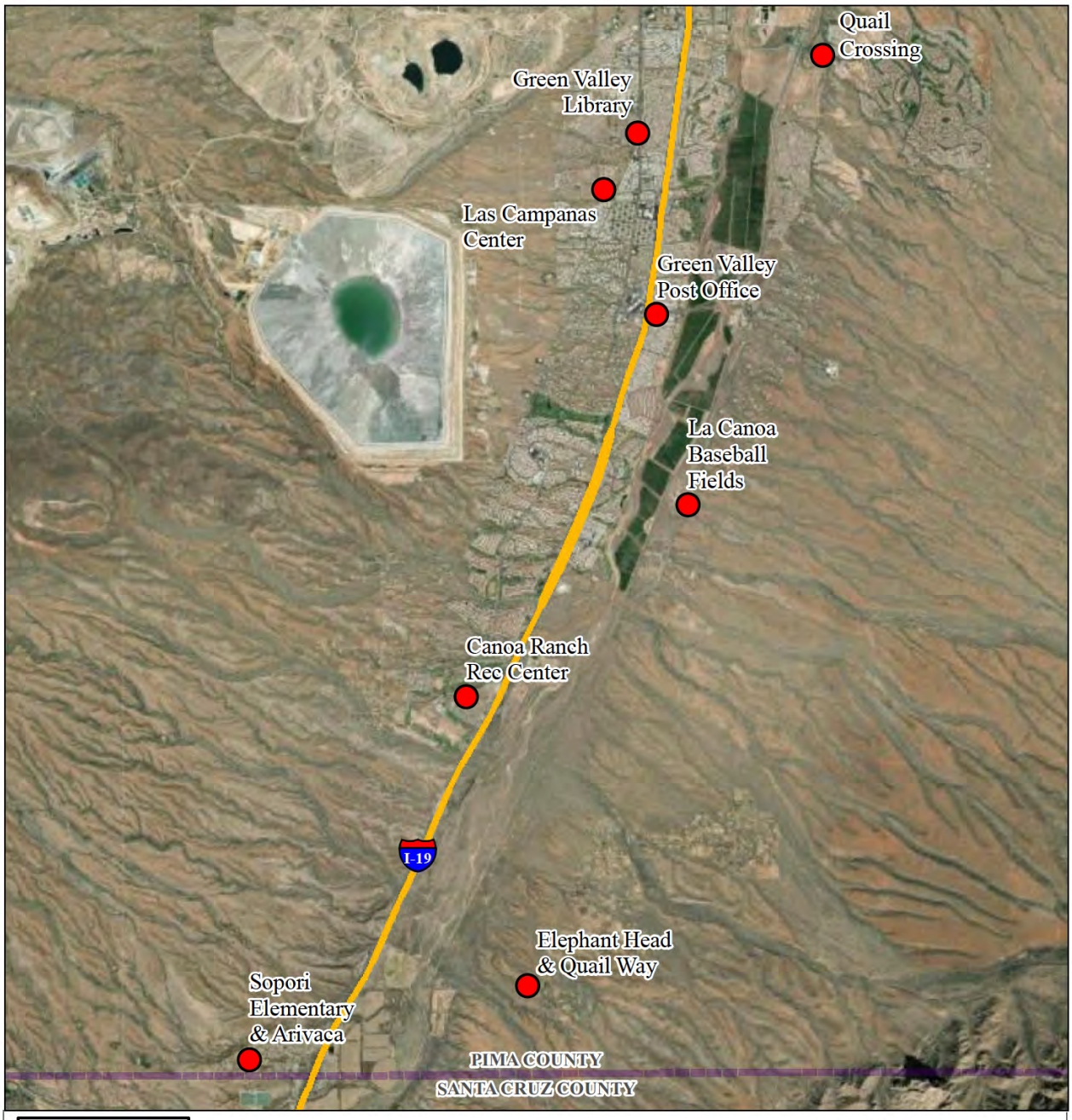
AVISO DE REUNIÓN ABIERTA PÚBLICA

Agosto 5 — Presencial

Agosto 7 — Virtual

Visite la página web del proyecto para más detalles

uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte







0 9,750

Feet

1:117,544

Legend

Sign Location

Notification Sign Context

Santa Cruz
Reliability Project North

UniSource Energy SERVICES

Date: 4/18/2025
Projection: NAD_1983_UTM_Zone_12N

This map is for planning purposes only.
UniSource makes no warranty of its accuracy.

Nogales International

See Proof on Next Page

AFFIDAVIT OF PUBLICATION

State of Florida, County of Orange, ss:

Anjana Bhadoriya, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Nogales International, a newspaper printed and published two days a week in the City of Nogales, County of Santa Cruz, State of Arizona, and that this affidavit is Page 1 of 3 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
Jul. 25, 2025

Aug. 1, 2025

Notice ID: FR78G0BhkEFKw9eNkGxc
Publisher ID: NIN001076
Notice Name: Newspaper Publication #5

Request of:
Nogales International
268 W View Point Dr
by: Matthew Ritter

Anjana Bhadoriya

Legal Advertising Representative

JESSICA GORDON-THOMPSON
Notary Public - State of Florida
Commission # HH301656
Expires on August 17, 2026

VERIFICATION

Notarized online using audio-video communication

State of Florida
County of Orange

Signed or attested before me on this: 08/05/2025

Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice
Aviso Público
Santa Cruz Reliability Project North
Proyecto de Confiabilidad de Santa Cruz Norte

Guided by input from customers, public agencies and other interested parties, UniSource Energy Services has identified five potential route alternatives, including two potential interconnection options, for the Santa Cruz Reliability Project North's proposed 138 kilovolt (kV) transmission line in Pima and Santa Cruz counties.

Santa Cruz Reliability Project North will involve the construction of a new 138 kV transmission line to connect UniSource's Kantor Substation in Santa Cruz County to the existing regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements. The proposed transmission line could interconnect at two locations identified through stakeholder engagement including the existing Canoa Ranch Substation or via a proposed switchyard that would be built on privately-owned property west of Interstate 19.

Public input is an important part of UniSource's planning process. Public feedback on the proposed transmission line route alternatives and interconnection options continues to influence the design of this project. UniSource has not yet identified a preferred route but anticipates doing so by September after considering additional public input. UniSource will include a preferred route, along with alternative routes in its application for a Certificate of Environmental Compatibility (CEC).

For more information, please visit the project webpage at uesaz.com/santa-cruz-reliability-north.

Guiados por las aportaciones de clientes, agencias públicas y otras partes interesadas, UniSource Energy Services ha identificado cinco posibles rutas alternativas, incluidas dos opciones de interconexión, para la línea de transmisión propuesta de 138 kilovoltios (kV) del Proyecto de Confiabilidad de Santa Cruz Norte en los condados de Pima y Santa Cruz.

El Proyecto de Confiabilidad de Santa Cruz Norte implicará la construcción de una nueva línea de transmisión de 138 kV para conectar la subestación Kantor de UniSource en el condado de Santa Cruz con la red eléctrica regional existente en el condado de Pima. También se realizarán mejoras para ampliar la capacidad de la subestación y cumplir con los requisitos de operación y mantenimiento. La línea de transmisión propuesta podría interconectarse en dos ubicaciones identificadas mediante la participación de las partes interesadas: la subestación existente de Canoa Ranch o mediante un patio de maniobras propuesto que se construiría en una propiedad privada al oeste de la Interestatal 19.

La participación pública es una parte importante del proceso de planificación de UniSource. Los comentarios del público sobre las rutas alternativas propuestas para la línea de transmisión y las opciones de interconexión continúan influyendo en el diseño de este proyecto. UniSource aún no ha identificado una ruta preferida, pero anticipa hacerlo para septiembre después de considerar más comentarios del público. UniSource incluirá una ruta preferida, junto con rutas alternativas, en su solicitud de Certificado de Compatibilidad Ambiental (CEC, por sus siglas in ingles).

Para más información, favor de visitar la página web del proyecto a uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte.

UniSourceEnergy SERVICES

PUBLIC OPEN HOUSE OPTIONS

Tuesday, August 5, 2025 | 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation East Center
7 South Abrego Dr.
Green Valley, AZ 85614

Tuesday, August 5, 2025 | 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd.
Amado, AZ 85645

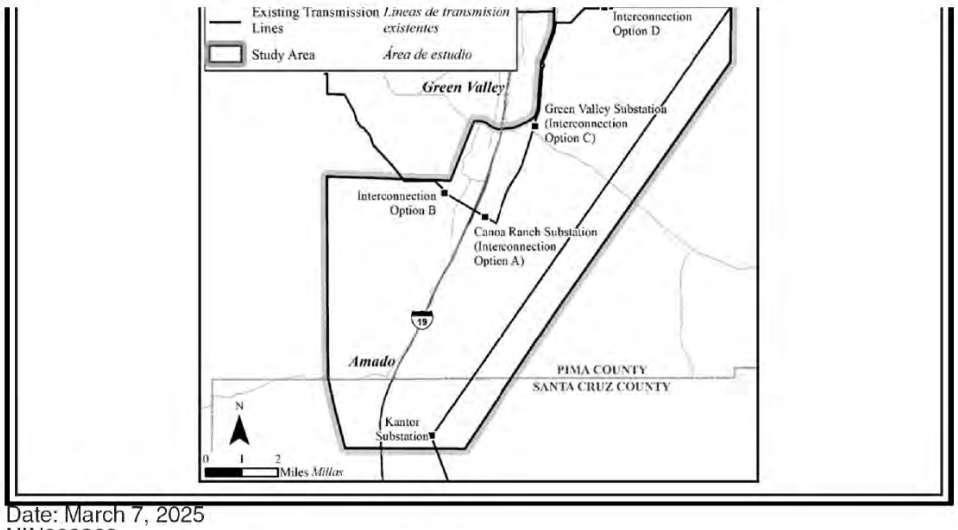
VIRTUAL PRESENTATION OPTION
Thursday, August 7, 2025 | 4:30-5:30 p.m.
Microsoft Teams
Meeting ID: 226 630 125 702 2
Passcode: mg2ys2CZ

OPCIONES DE SESIONES INFORMATIVAS ABIERTAS AL PÚBLICO

Martes 5 de agosto de 2025 | 9-11 a.m.
Organizado por el Consejo de Green Valley
Centro Recreativo East de Green Valley
7 S Abrego Drive
Green Valley, AZ 85614

Martes 5 de agosto de 2025 | 5-7 p.m.
Escuela Primaria Sopori
5000 W Arivaca Rd.
Amado, AZ 85645

OPCIONES DE PRESENTACIÓN VIRTUAL
Jueves 7 de agosto de 2025 | 4:30-5:30 p.m.
Equipos de Microsoft
Identificación de la reunión: 226 630 125 702 2
Passcode: mg2ys2CZ



Date: March 7, 2025
NIN000860

Green Valley News sun

See Proof on Next Page

AFFIDAVIT OF PUBLICATION

State of Florida, County of Broward, ss:

Edmar Corachia, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Green Valley News, a newspaper printed and published in the City of Green Valley, County of Pima, State of Arizona, and that this affidavit is Page 1 of 3 with the full text of the sworn-to notice set forth on the pages that follow, and the hereto attached:

PUBLICATION DATES:
Jul. 20, 2025

Jul. 27, 2025

Aug. 3, 2025

NOTICE ID: a5DlbJfqsSyaj0Uxzpjq
PUBLISHER ID: GVN000838
NOTICE NAME: Newspaper Publication #5

Request of: Matthew Ritter

I declare under penalty of perjury that the foregoing is true and correct.

Edmar Corachia

(Signed)_____

SHERI SMITH
Notary Public - State of Florida
Commission # HH269383
Expires on May 31, 2026

VERIFICATION

State of Florida
County of Broward

Subscribed in my presence and sworn to before me on this: 08/06/2025

S Smith

Notary Public
Notarized remotely online using communication technology via Proof.

Public Notice
Aviso Público
Santa Cruz Reliability Project North
Proyecto de Confiabilidad de Santa Cruz Norte

Guided by input from customers, public agencies and other interested parties, UniSource Energy Services has identified five potential route alternatives, including two potential interconnection options, for the Santa Cruz Reliability Project North's proposed 138 kilovolt (kV) transmission line in Pima and Santa Cruz counties.

Santa Cruz Reliability Project North will involve the construction of a new 138 kV transmission line to connect UniSource's Kantor Substation in Santa Cruz County to the existing regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements. The proposed transmission line could interconnect at two locations identified through stakeholder engagement including the existing Canoa Ranch Substation or via a proposed switchyard that would be built on privately-owned property west of Interstate 19.

Public input is an important part of UniSource's planning process. Public feedback on the proposed transmission line route alternatives and interconnection options continues to influence the design of this project. UniSource has not yet identified a preferred route but anticipates doing so by September after considering additional public input. UniSource will include a preferred route, along with alternative routes in its application for a Certificate of Environmental Compatibility (CEC).

For more information, please visit the project webpage at uesaz.com/santa-cruz-reliability-north.

Guiados por las aportaciones de clientes, agencias públicas y otras partes interesadas, UniSource Energy Services ha identificado cinco posibles rutas alternativas, incluidas dos opciones de interconexión, para la línea de transmisión propuesta de 138 kilovoltios (kV) del Proyecto de Confiabilidad de Santa Cruz Norte en los condados de Pima y Santa Cruz.

El Proyecto de Confiabilidad de Santa Cruz Norte implicará la construcción de una nueva línea de transmisión de 138 kV para conectar la subestación Kantor de UniSource en el condado de Santa Cruz con la red eléctrica regional existente en el condado de Pima. También se realizarán mejoras para ampliar la capacidad de la subestación y cumplir con los requisitos de operación y mantenimiento. La línea de transmisión propuesta podría interconectarse en dos ubicaciones identificadas mediante la participación de las partes interesadas: la subestación existente de Canoa Ranch o mediante un patio de maniobras propuesto que se construiría en una propiedad privada al oeste de la Interestatal 19.

La participación pública es una parte importante del proceso de planificación de UniSource. Los comentarios del público sobre las rutas alternativas propuestas para la línea de transmisión y las opciones de interconexión continúan influyendo en el diseño de este proyecto. UniSource aún no ha identificado una ruta preferida, pero anticipa hacerlo para septiembre después de considerar más comentarios del público. UniSource incluirá una ruta preferida, junto con rutas alternativas, en su solicitud de Certificado de Compatibilidad Ambiental (CEC, por sus siglas in ingles).

Para más información, favor de visitar la página web del proyecto a uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte.

UniSourceEnergy SERVICES

PUBLIC OPEN HOUSE OPTIONS

Tuesday, August 5, 2025 | 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation East Center
7 South Abrego Dr.
Green Valley, AZ 85614

Tuesday, August 5, 2025 | 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd.
Amado, AZ 85645

VIRTUAL PRESENTATION OPTION
Thursday, August 7, 2025 | 4:30-5:30 p.m.
Microsoft Teams
Meeting ID: 226 630 125 702 2
Passcode: mg2ys2CZ

OPCIONES DE SESIONES INFORMATIVAS ABIERTAS AL PÚBLICO

Martes 5 de agosto de 2025 | 9-11 a.m.
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Equipos de Microsoft
Identificación de la reunión: 226 630 125 702 2
Passcode: mg2ys2CZ


Santa Cruz Reliability Project North
Existing Substation
Proposed Switchyard (option)
Route Alternatives
Existing Transmission Lines
Study Area
Green Valley
Interconnection Option
Canoa Ranch Substation
Amado
19
PIMA COUNTY
SANTA CRUZ COUNTY
N
0
1
2
Miles

UniSource Energy SERVICES

Proyecto de Confiabilidad de Santa Cruz Norte
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Proyecto de Confiabilidad de Santa Cruz Norte

UniSource Energy SERVICES

¡Acompáñenos!

Aviso de Reunión Abierta Pública

Martes 5 de Agosto 9-11 a.m.
Alojado por el Consejo de Green Valley
Green Valley Recreation East Center
7 S Abrego Drive
Green Valley, AZ 85614

Martes 5 de Agosto 5-7 p.m.
Escuela Primaria Sopori
5000 W Arivaca Rd
Amado, AZ 85645

Se proporcionarán refrigerios livianos.

Presentación Virtual (a través de Microsoft Teams)
Jueves, 7 de Agosto de 2025 4:30 p.m. 5:30 p.m.
ID de la reunión / Inicio de sesión: 238 531 081 327
Código de acceso: kJPc45
Opción para llamar por teléfono: (712) 274-3750; ID: 73476288

UniSource Energy SERVICES

UniSource busca la opinión del público sobre las alternativas de ruta de la línea de transmisión

Guiado por los comentarios de los clientes, las agencias públicas y otras partes interesadas, UniSource Energy Services ha identificado cinco posibles alternativas de ruta, incluidas dos posibles opciones de interconexión, para la línea de transmisión propuesta de 138 kilovoltios (kV) del Proyecto de Confiabilidad de Santa Cruz Norte en los condados de Pima y Santa Cruz.

El Proyecto de Confiabilidad de Santa Cruz Norte es la primera de tres fases de un proyecto diseñado para mejorar el servicio de transmisión en la zona. El proyecto proporcionaría a UniSource otra forma de suministrar energía a las subestaciones que dan servicio a los residentes, las empresas, los proveedores de servicios y otros clientes del condado de Santa Cruz, lo que reduce la posibilidad de que se produzcan cortes de suministro generalizados y prolongados.

El Proyecto de Confiabilidad de Santa Cruz Norte incluirá la construcción de una nueva línea de transmisión de 138 kV para conectar la Subestación Kantor de UniSource, ubicada en el condado de Santa Cruz, con la red eléctrica regional existente en el condado de Pima. Además, se realizarán mejoras para ampliar la capacidad de la subestación y adaptarla a los requisitos de operación y de mantenimiento. La línea de transmisión propuesta podría interconectarse en dos ubicaciones identificadas a través del compromiso de las partes interesadas, incluida la Subestación Canoa Ranch existente o a través de un patio de maniobras propuesto que se construiría en una propiedad privada al oeste de la Interestatal 19. Ambos se identifican como "Opción de interconexión" y "Subestación Canoa Ranch", respectivamente, en el mapa adjunto.

Actualización de las rutas finales

Las alternativas de la ruta de la línea de transmisión se identificaron a través de un estudio integral de planificación y ubicación que se inició en 2024. Consideró múltiples criterios de evaluación, incluidos algunos exigidos por ley y otros considerados importantes por los residentes del área y otras partes interesadas. Inicialmente, UniSource identificó 177 segmentos de rutas preliminares. Después de múltiples rondas de evaluación, UniSource ha identificado las cinco alternativas de ruta presentadas aquí para realizar una revisión pública y de la agencia.

Criterios de evaluación de las rutas

UniSource utilizó estos criterios para identificar las cinco rutas alternativas más compatibles con una nueva línea de transmisión:

- Costo del proyecto e impacto potencial en las tarifas de los clientes
- Impacto en los usos actuales y previstos del suelo
- Proximidad a zonas residenciales
- Impacto en la fauna, la flora y los peces, incluidas las especies con estatus especial y su hábitat
- Proximidad a receptores sensibles al ruido (escuelas, hospitales, residencias asistidas y guarderías)
- Proximidad a emplazamientos de comunicaciones con licencia
- Impacto en zonas paisajísticas designadas
- Impacto en las vistas de las montañas desde las zonas residenciales
- Impacto en yacimientos históricos y arqueológicos
- Impacto en la salud pública, el bienestar y la seguridad
- Capacidad para construir, operar y mantener las instalaciones
- Capacidad para adquirir la servidumbre de paso necesaria
- Comentarios de residentes, agencias públicas y otros

Proyecto de Confiabilidad de Santa Cruz Norte

UniSource aún no ha identificado una ruta preferida, pero prevé hacerlo para septiembre después de considerar aportes públicos adicionales. UniSource incluirá una ruta preferida, junto con rutas alternativas en su solicitud para un Certificado de Compatibilidad Ambiental (Certificate of Environmental Compatibility, CEC).

Para obtener vistas detalladas de las rutas alternativas, visite nuestro mapa interactivo en la página web del proyecto en uesaz.com/proyecto-de-confiabilidad-de-santa-cruz. Los usuarios pueden buscar por dirección o acercarse al mapa para verlo más de cerca.

Aprobaciones necesarias y calendario

Bajo la ley estatal, UniSource debe obtener un CEC para construir la línea de transmisión. El Comité de Ubicación de Centrales Eléctricas y Líneas de Transmisión de Arizona revisa las solicitudes de CEC en un proceso público que permite a los vecinos y a otras personas interesadas aportar sus comentarios. La Comisión de Corporaciones de Arizona (Arizona Corporation Commission, ACC) debe revisar y aprobar el CEC antes de que UniSource pueda comenzar la construcción. UniSource planea presentar la solicitud del CEC en otoño de 2025. Si se aprueba, se espera que la primera fase del Proyecto de Confiabilidad de Santa Cruz se construya y esté en servicio para 2028. UniSource prevé que las tres fases estarán en servicio para 2030.

Participación Pública

Los aportes públicos son una parte importante del proceso de planificación de UniSource. La opinión pública sobre las alternativas de ruta de la línea de transmisión propuestas y las opciones de interconexión continúa influyendo en el diseño de este proyecto.

Los invitamos a participar en nuestras jornadas de puertas abiertas en persona el 5 de agosto de 2025, donde podrán obtener más información y compartir sus comentarios. Si no puede hacerlo en persona, acompáñenos en una presentación en línea el 7 de agosto de 2025. Encontrarán los detalles de la reunión en la portada de este boletín.

También les sugerimos compartir sus comentarios utilizando uno de los métodos que se indican a continuación:

Completa un formulario de comentarios en línea en:
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

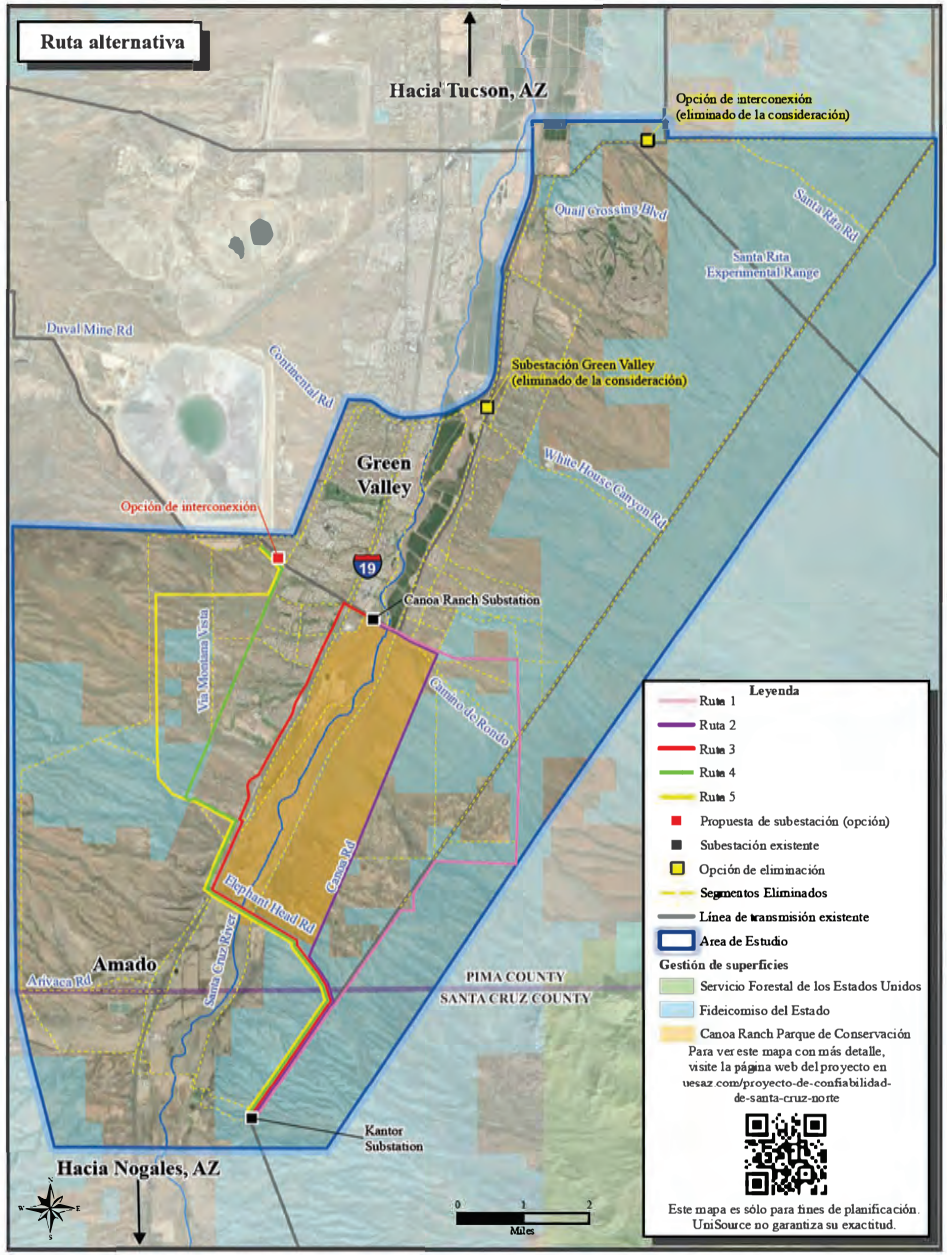
Envíe sus comentarios por correo electrónico a:
scrnorth@uesaz.com

Llame al:
(520) 917-6635 y deje un mensaje de correo de voz

Envíe por correo una carta con comentarios a:
A/A: Proyecto de Confiabilidad de Santa Cruz Norte
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Más Información

uesaz.com/proyecto-de-conabilidad-de-santa-cruz-norte



UniSourceEnergy SERVICES

Santa Cruz Reliability Project North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Please Join Us

Public Open House

Tuesday, August 5, 2025 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation East Center
725 Abrego Drive
Green Valley, AZ 85614

Tuesday, August 5, 2025 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd
Amado, AZ 8564

Light refreshments will be served.

Virtual Presentation (via Microsoft Teams)
Thursday, August 7, 2025 4:30-5:30 p.m.
Meeting ID/Login: 238 531 081 327
Passcode: kJPc45
Call-in Option: (712) 274-3750; ID: 73476288

¡Acompáñenos!

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Amado, AZ 85645

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Jueves, 7 de Agosto de 2025 4:30 p.m. 5:30 p.m.
ID de la reunión / Inicio de sesión: 238 531 081 327
Código de acceso: kJPc45
Opción para llamar por teléfono: (712) 274-3750; ID: 73476288

UniSourceEnergy SERVICES

UniSource Seeks Public Input on Transmission Line Route Alternatives

Guided by input from customers, public agencies and other interested parties, UniSource Energy Services has identified five potential route alternatives, including two potential interconnection options, for the Santa Cruz Reliability Project North's proposed 138 kilovolt (KV) transmission line in Pima and Santa Cruz counties.

The Santa Cruz Reliability Project North is the first of three phases in a project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for widespread, sustained outages.

Santa Cruz Reliability Project North will involve the construction of a new 138 kV transmission line to connect UniSource's Kantor Substation in Santa Cruz County to the existing regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements. The proposed transmission line could interconnect at two locations identified through stakeholder engagement including the existing Canoa Ranch Substation or via a proposed switchyard that would be built on privately-owned property west of Interstate 19. Both are identified as "Interconnection Option" and "Canoa Ranch Substation" respectively on the attached map.

Update on Final Routes

The transmission line route alternatives were identified through a comprehensive planning and siting study that was initiated in 2024. It considered multiple evaluation criteria, including some required by law and others deemed to be important by area residents and other interested parties. Initially, UniSource identified 177 preliminary route segments. Following multiple rounds of evaluation, UniSource has identified the five route alternatives presented here for public and agency review.

UniSource has not yet identified a preferred route but anticipates doing so by September after considering additional public input. UniSource will include a preferred route, along with alternative routes in its application for a Certificate of Environmental Compatibility (CEC).

For detailed views of the alternative routes, please visit our interactive map on the project webpage at uesaz.com/santa-cruz-reliability-north. Users can search by address or zoom in to the map for a closer look.

Route Evaluation Criteria

UniSource used these criteria to identify the five alternative routes most compatible with a new transmission line:

- Project cost and potential impact on customer rates
- Impact on existing and planned land uses
- Proximity to residential areas
- Impact on fish, wildlife, and plants, including special status species and their habitat
- Proximity to sensitive noise receptors (schools, hospitals, assisted living and daycare facilities)
- Proximity to licensed communication sites
- Impact on designated scenic areas
- Impact on mountain views from residential areas
- Impact on historic and archaeological sites
- Impact to public health, welfare, and safety
- Ability to construct, operate and maintain facilities
- Ability to acquire the necessary rights-of-way
- Input from residents, public agencies and others

Santa Cruz Reliability Project North

Required Approvals and Timeline

Under state law, UniSource must secure a CEC to construct the transmission line. The Arizona Power Plant and Transmission Line Siting Committee reviews CEC applications in a public process that allows neighbors and other stakeholders to provide comments. The ACC must review and approve the CEC before UniSource can begin construction. UniSource plans to file the CEC application in fall 2025. If approved, the first phase of the Santa Cruz Reliability Project is expected to be constructed and in-service by 2028. UniSource anticipates all three phases will be in-service by 2030.

Public Participation

Public input is an important part of UniSource's planning process. Public feedback on the proposed transmission line route alternatives and interconnection options continues to influence the design of this project.

We invite you to join us at our in-person public open houses on August 5, 2025, where you can learn more and share your comments. If you can't make it in-person, please join us for an online presentation on August 7, 2025. Meeting details are available on the cover of this newsletter.

We also encourage you to share your comments using one of the methods listed here:

Fill out an online comment form at:
uesaz.com/santa-cruz-reliability-north

Email comments to:
scrnorth@uesaz.com

Call:
(520) 917-6635 and leave a voicemail message

Mail a letter with comments to:
ATTN: Santa Cruz Reliability Project North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

More Information
uesaz.com/santa-cruz-reliability-north

UniSource solicita comentarios públicos de rutas alternativas

El Proyecto de Confiabilidad de Santa Cruz Norte de TEP reforzará los sistemas que garantizan la confiabilidad eléctrica para casi 17,400 hogares y 2,800 clientes comerciales en el condado de Santa Cruz.

Utilizando los aportes de los residentes y partes interesadas, UniSource ha identificado 5 posibles rutas alternativas para una nueva línea de transmisión que preste servicio al condado de Santa Cruz. UniSource está pidiendo comentarios de las partes interesadas sobre las rutas alternativas. Un mapa interactivo está disponible en la página web del proyecto.

UniSource alienta a los clientes y otras partes interesadas en el área de estudio del proyecto a asistir reuniones abiertas y ayudar a dar forma a nuestra futura red eléctrica. Participarán miembros del equipo bilingües.

Se publicará una versión en español de este boletín informativo en el sitio web del proyecto en uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte, y puede enviársele por correo si lo solicita utilizando la información de contacto anterior. Gracias por su interés en el proyecto.

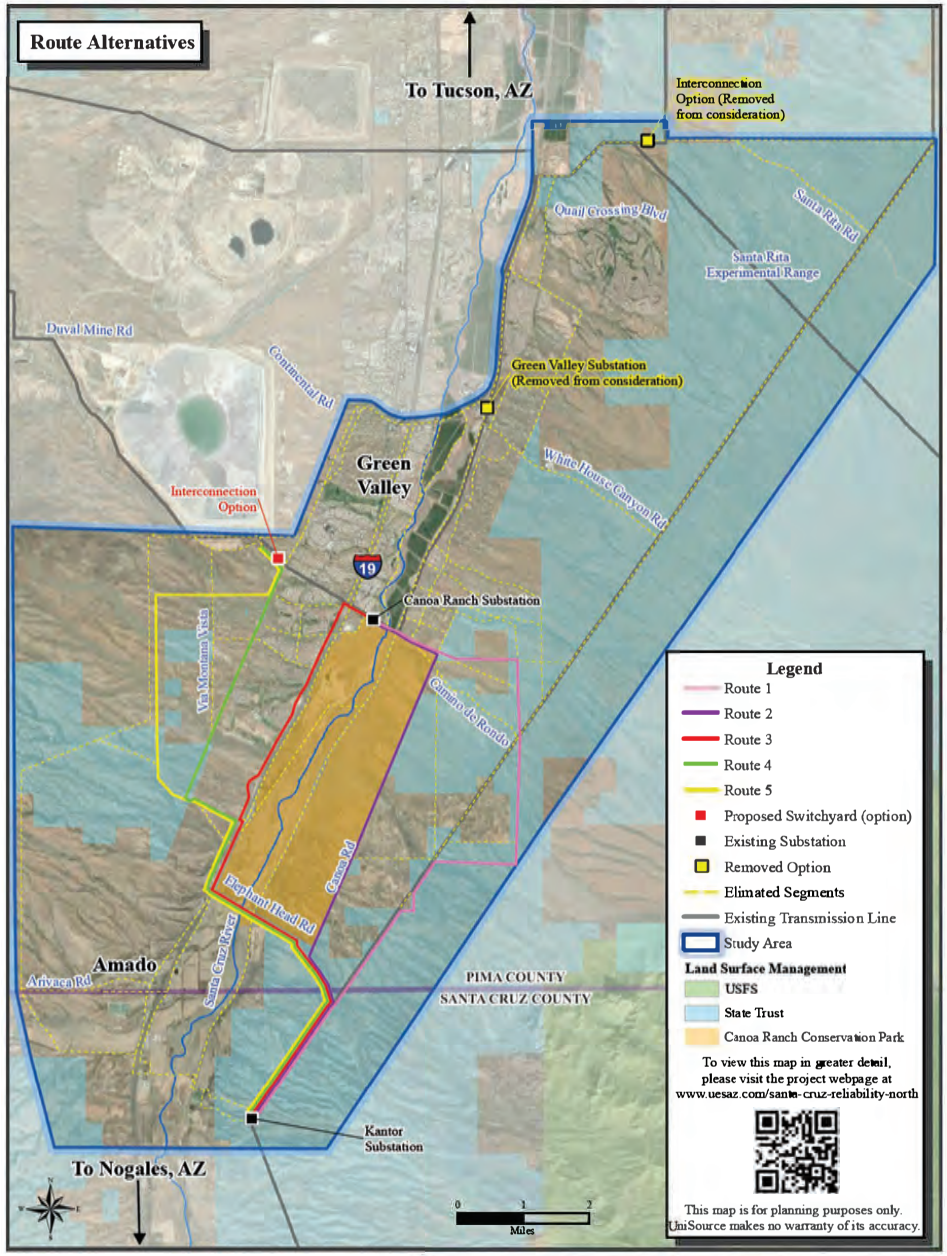
Participación Pública

Venga a nuestras reuniones abiertas el 5 de agosto o una reunión virtual el 7 de agosto y comparta sus comentarios.

Las partes interesadas también pueden hacer preguntas y enviar comentarios de la siguiente manera:

- al completar un formulario de comentario en línea en la página web del proyecto
- al enviar comentarios por correo electrónico a srcnorth@uesaz.com
- al llamar al 520-917-6635 y dejar un mensaje de correo de voz
- al enviar una carta por correo postal a la siguiente dirección:
  ATTN: Proyecto de Confiabilidad de Santa Cruz Norte
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

Más información
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte



Santa Cruz Reliability Project North

PROJECT UPDATE PRESENTATION

CLARK BRYNER – MANAGER, SITING, OUTREACH AND ENGAGEMENT

Your input is important to us!

For questions or comments, we ask that you please use the provided comment cards to write down your question and we will provide a response to your questions at the end of this presentation.

UniSourceEnergy SERVICES

August 2025

Agenda

- Santa Cruz Reliability Project – Overview
  - Need and Benefits
  - Project Components
- Update - Planning and Siting Process
- Visual Simulations
- Project Schedule and Next Steps
- Public Participation
- Q&A Session

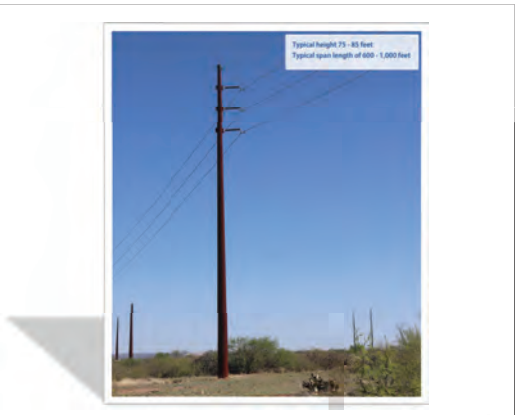


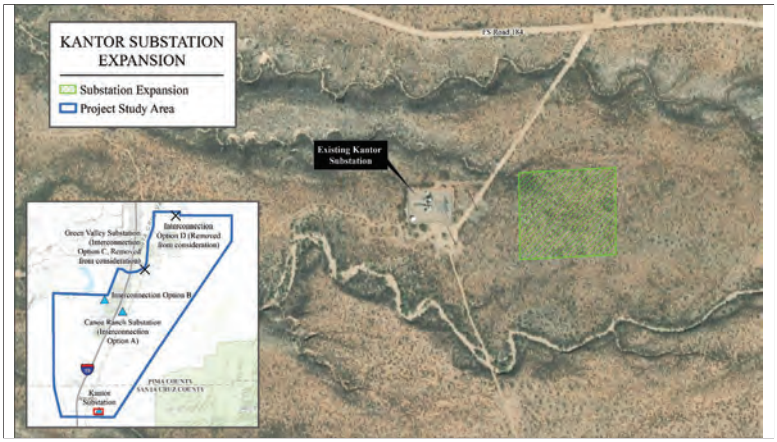
Need and Benefits

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Maintain and strengthen reliability for Santa Cruz County and its residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County.
- Meet current and future energy needs without impacting service to existing customers.
- Support maintenance and other upgrades, allowing work to be performed without interrupting system operations.

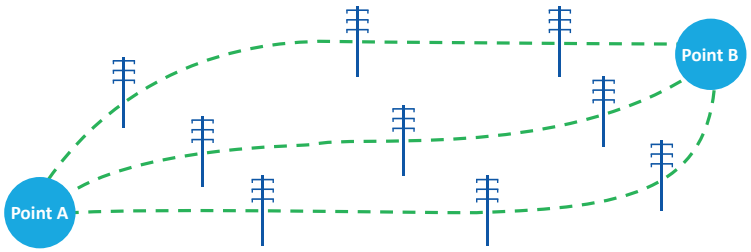
Example Pole Structure

- Tubular, Weathering Steel Monopoles
- Typical height 75 – 85 feet
- Typical span 600 – 1,000 feet





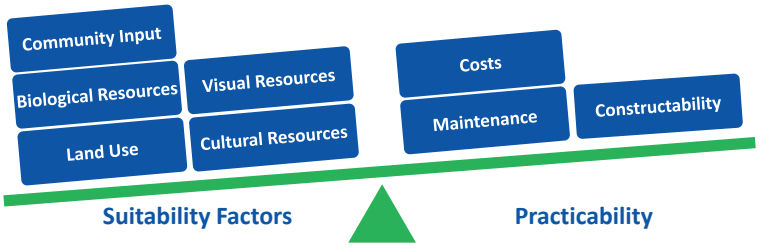
What is Siting?



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7

Project Route Development and Evaluation



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8

Planning and Siting Process Flowchart

Phase 1 Pre-Analysis
- Field Visits
- Study Area
- Opportunities & Constraints
- Outreach
- Preliminary Segments

Phase 2 Data Inventory
- Conduct Research
- Collect Data

Phase 3 Suitability
- Suitability Models
- Suitability Assessment
- Field Review
- Outreach
- Refined Segments

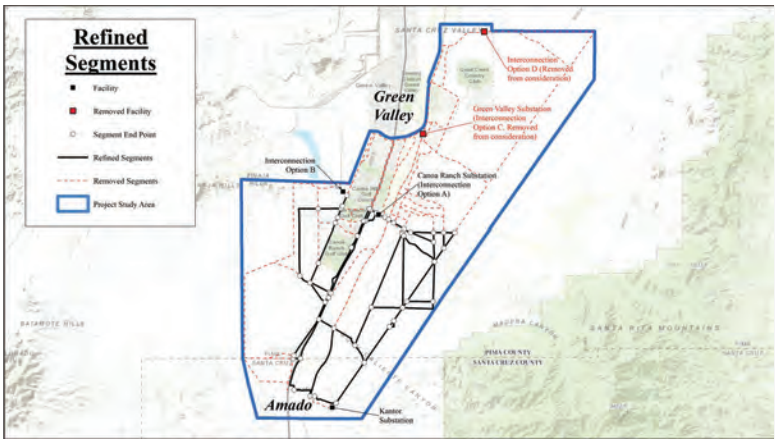
Phase 4 Compatibility Analysis
- Develop Route Alternatives
- Field Review

Phase 5 Concept Evaluation
- Outreach
- Identify Preferred Route
- CEC Application
- Public Notification and Hearing

We Are HERE

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9

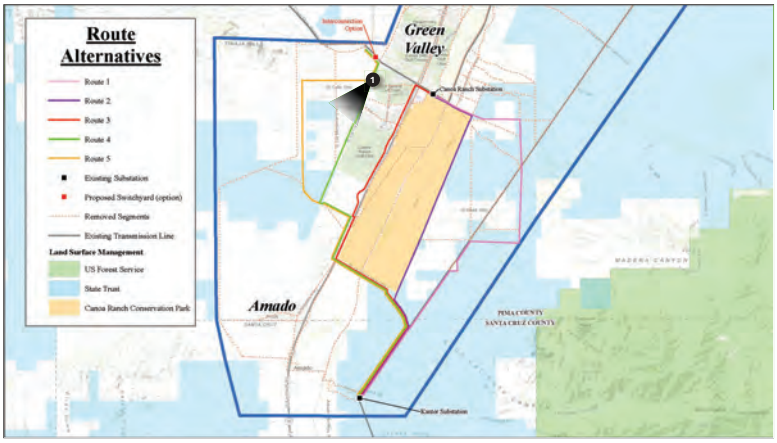


Evaluation Criteria

- Wildlife & plant life
- Scenic areas, historical sites & archaeological sites and structures
- Environment
- Noise emission levels & interference with communication signals
- Existing & planned land uses
- Engineering feasibility and challenges
- Project costs & potential impacts on customer rates
- Potential public recreational uses

Public Input
We hear you!
- Proximity to residential areas
- Impact on mountain views from residential areas
- Public health, welfare and safety

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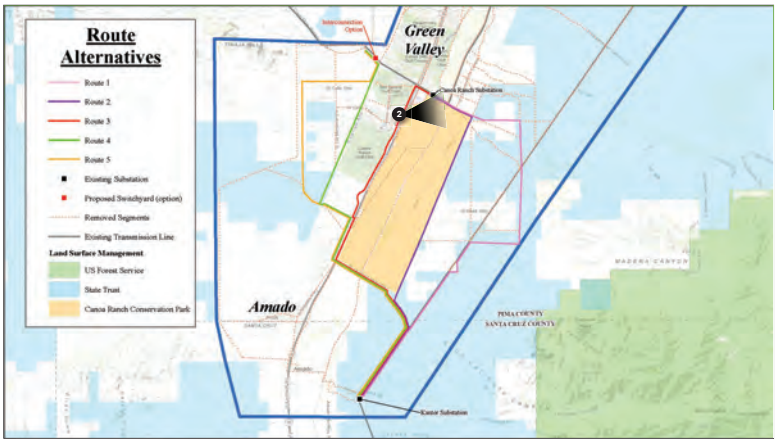
Visual Simulations

Key Observation Point 1

San Ignacio Ridge Estates

Via Nuevo Leon looking southwest along Via Cielo Azul





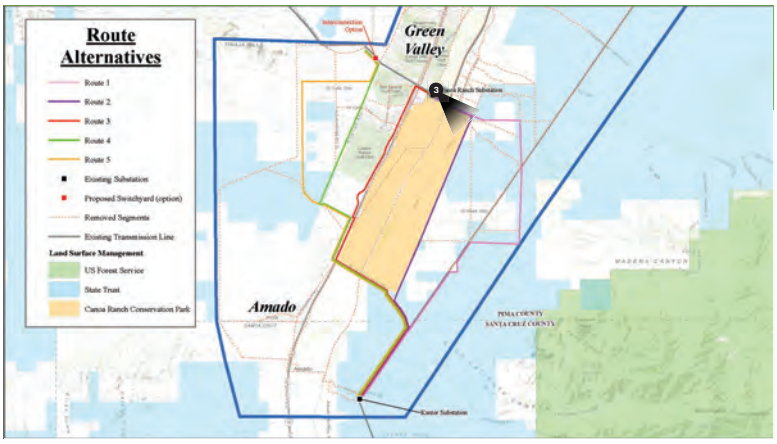
Visual Simulations

Key Observation Point 2

San Ignacio Vistas

Gloria View Court looking east along I-19 frontage





Visual Simulations

Key Observation Point 3

The Springs

Ground Squirrel Road looking southeast



Project Schedule and Next Steps*

Under Arizona law, certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

- **September 2025 – CEC Application Submittal**
- **November 2025 – Arizona Power Plant and Transmission Line Siting Committee Hearing**
- **Q1 2026 – Arizona Corporation Commission (ACC) Open Meeting**
- **2028 – Phase 1: Project in Service**
- **2029 – Phase 2: Project in Service**
- **2030 – Phase 3: Project in Service**

* Target schedule, subject to change

Public Participation

- Fill out an online comment form at: uesaz.com/santa-cruz-reliability-north
- Send comments via email to: scrnorth@uesaz.com
- Call (520) 917-6635 and leave a voicemail message
- Mail a letter with comments to:
  ATTN: Santa Cruz Reliability North
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

Public Open House Opportunities

Tuesday, August 5, 2025. 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation East Center
7 S Abrego Drive
Green Valley, AZ 85614

Tuesday, August 5, 2025. 5-7 p.m.
Sopori Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

Virtual Presentation Option

Thursday, August 7, 2025. 4:30-5:30 p.m.
Hosted via Microsoft Teams
Meeting ID/Login: 238 531 081 327
Passcode: kPc45
Call-in Option: (712) 274-3750; ID: 73476288

Q&A Session



Your input is important to us!

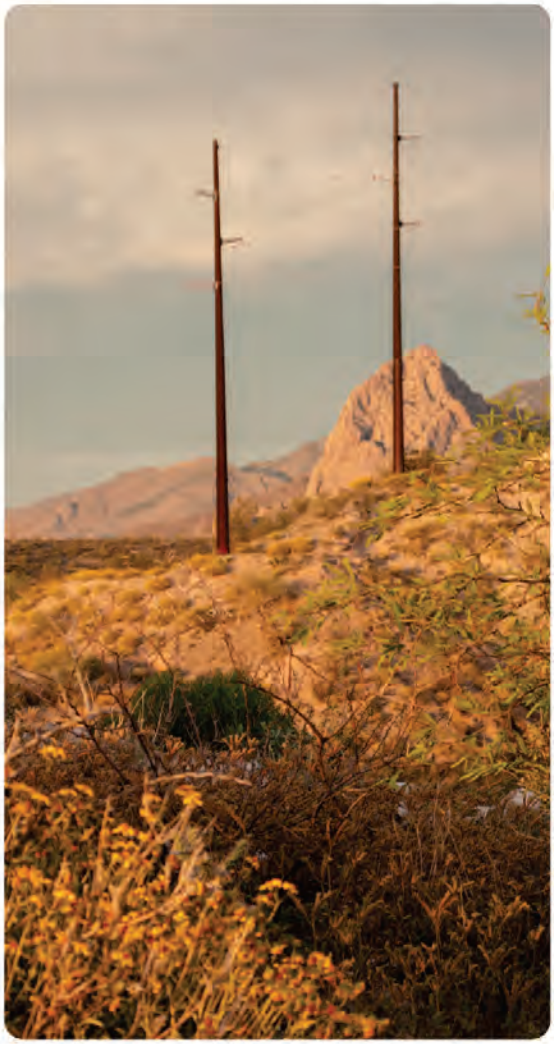
For questions or comments, we ask that you please use the provided comment cards to write down your question and we will answer your question in the order it was received.

THANK YOU!

Purpose & Need

Purpose

Improve the reliability and resiliency of the electrical transmission system servicing Santa Cruz County



Need

Maintain and strengthen reliability for Santa Cruz County and its residents, businesses, and industries including hospitals, schools, ports of entry, and federal facilities

Meet current and future energy needs without impacting service to existing customers

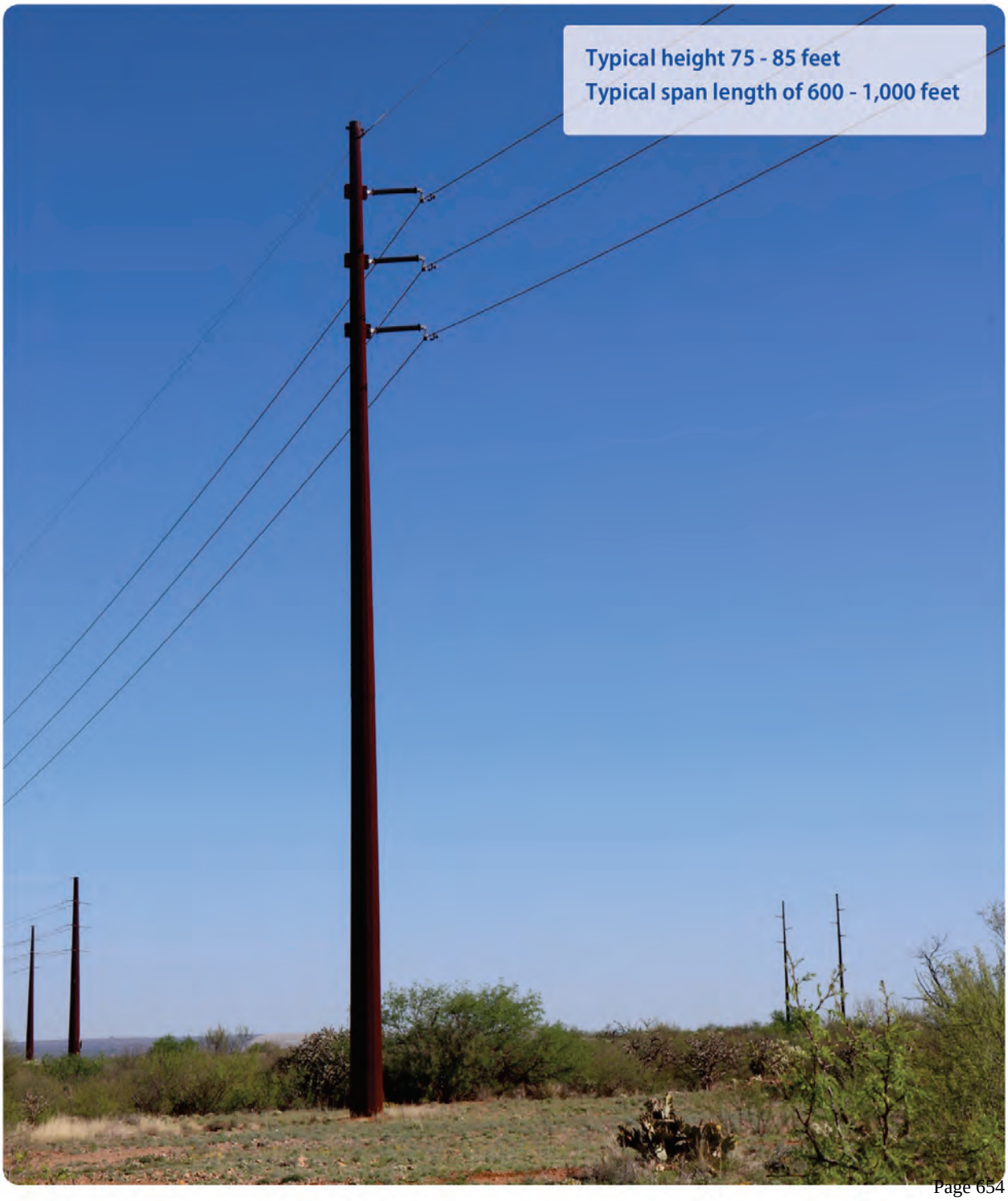
Convert the current radial line configuration servicing Santa Cruz County to a looped transmission system

Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County

Support maintenance and other upgrades, allowing work to be performed without interrupting system operations

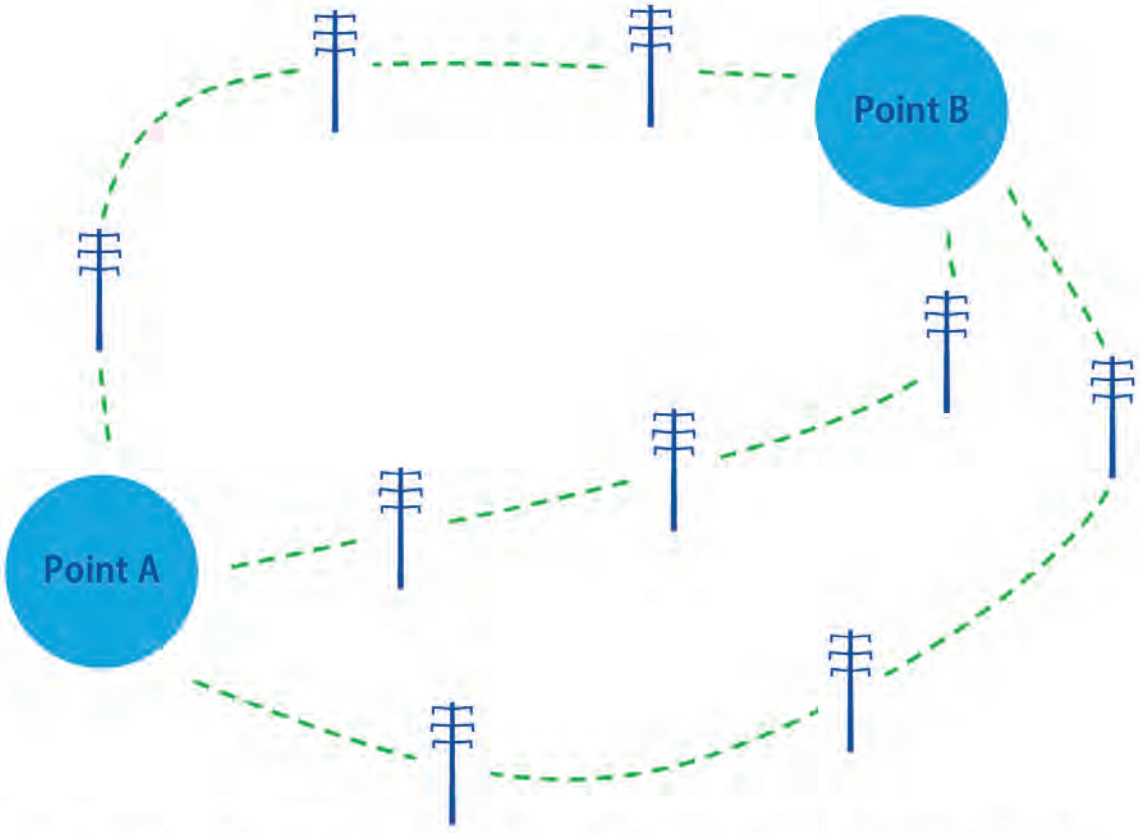
Example Pole Structure

Tubular, Weathering Steel Monopoles



What is Siting?

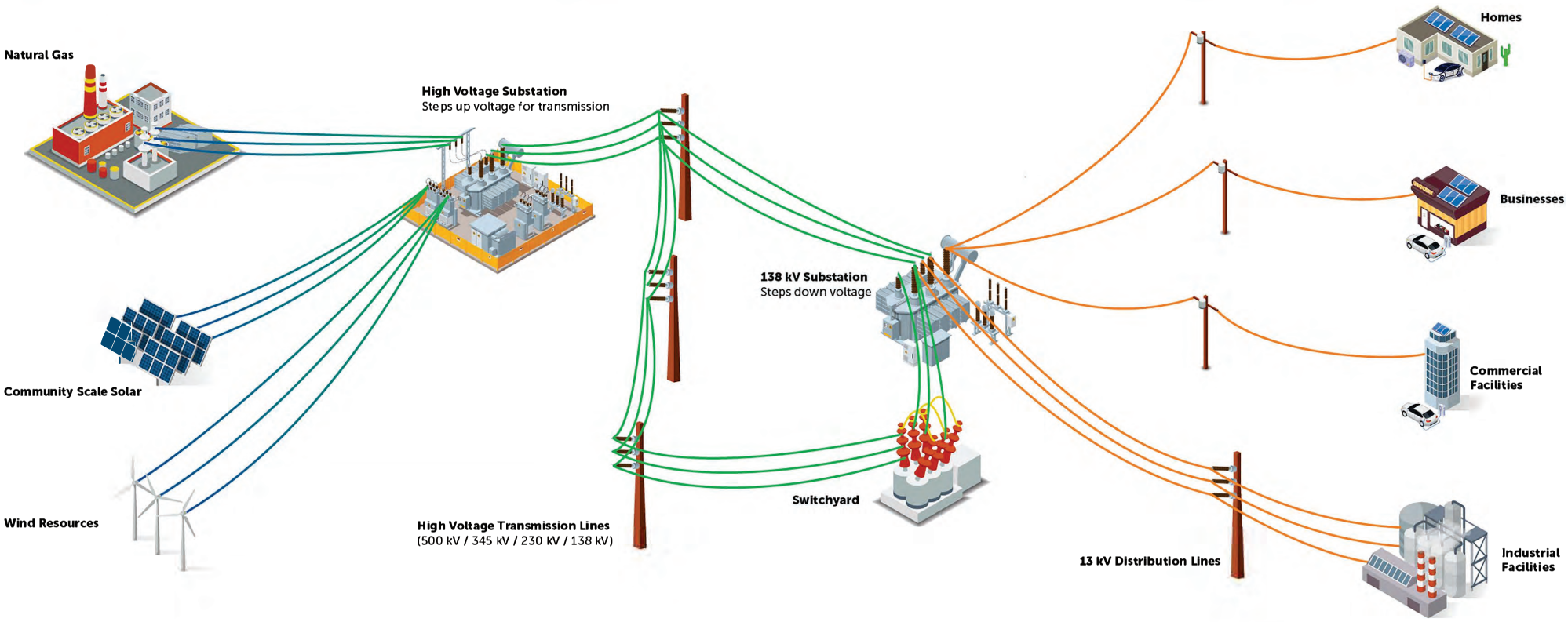
The process of determining the exact route or location where a high-voltage transmission line will be built between two or more points. These points could be new or existing substations, switchyards or energy resources.



A component of siting is permitting. Under Arizona law (A.R.S. § 40-360 et seq.), certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

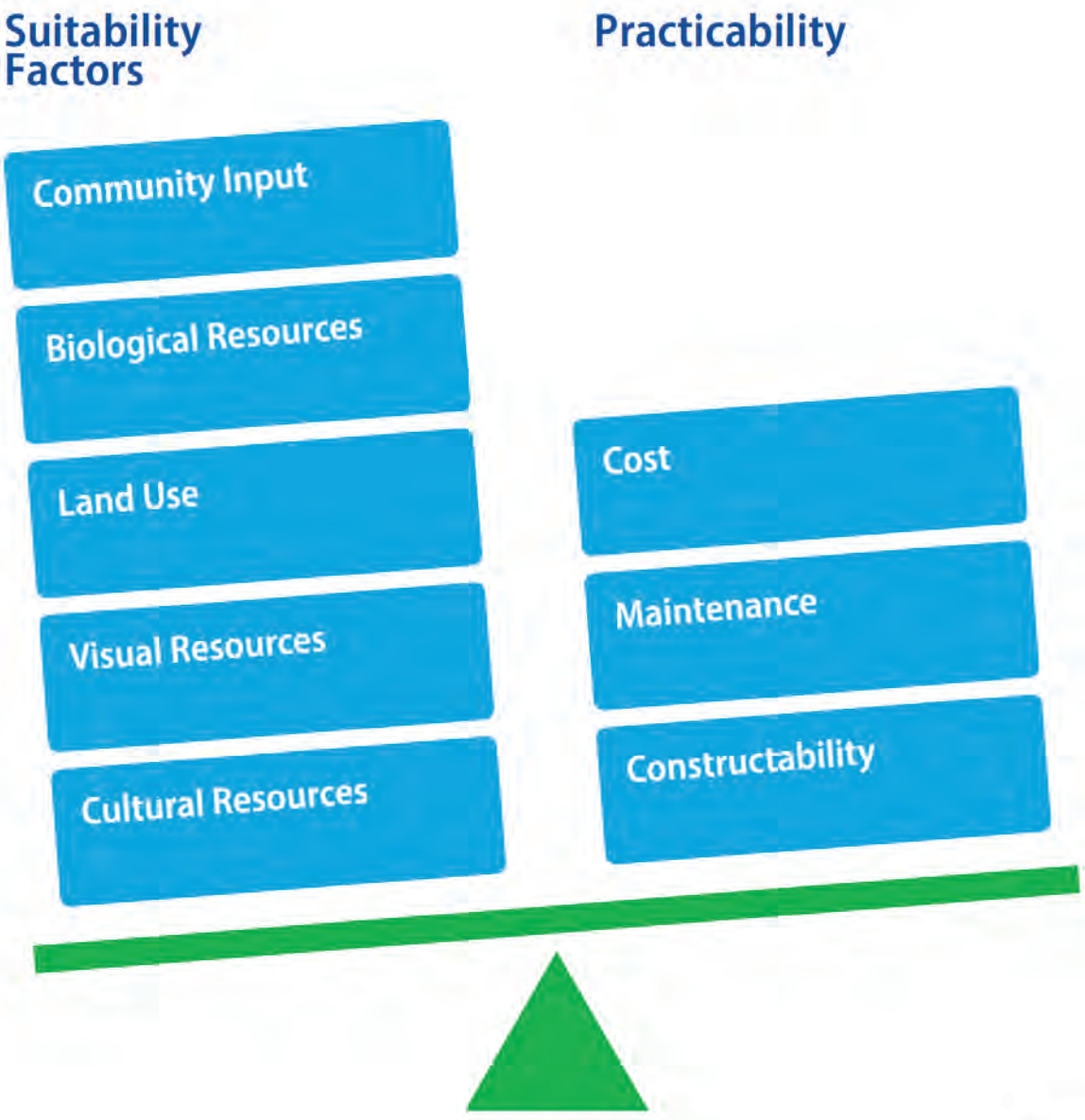
Our Energy Grid
How we deliver electric service to you

UniSourceEnergy SERVICES



Project Route Development and Evaluation

UniSource considers factors important to the community and environment, and balances them with constructability, maintenance, and cost to find the most suitable path for the transmission line that satisfies the need for the project.



Siting Process Flowchart

Phase 1: Pre-Analysis

- Conduct Field Visits
- Develop Study Area
- Identify Opportunities and Constraints
- Conduct Public and Stakeholder Outreach
- Develop Preliminary Segments

Phase 2: Data Inventory

- Conduct Research and Collect Data

Phase 3: Suitability Assessment

- Develop Suitability Models
- Conduct Suitability Assessment
- Field Review
- Conduct Public and Stakeholder Outreach
- Refine Segments

Phase 4: Compatibility Analysis

- Conduct Compatibility Analysis
- Develop Route Alternatives
- Field Review

Phase 5: Concept Evaluation

- Conduct Public and Stakeholder Outreach
- Identify Preferred Route
- Submit CEC Application
- Public Notification and Hearing



We Are Here

Siting Considerations

The Arizona Corporation Commission will consider several factors before approving a Certificate of Environmental Compatibility. These factors, used by UniSource to analyze potential line routes, include:

- Wildlife & plant life
- Scenic areas, historic sites & archaeological sites and structures
- Environment
- Noise emission levels & interference with communication signals
- Potential public recreational uses
- Existing and planned land uses
- Engineering feasibility and challenges
- Project costs & potential impacts on customer rates
- Public input
  - Proximity to residential areas
  - Impact on mountain views from residential areas
  - Public health, welfare, and safety

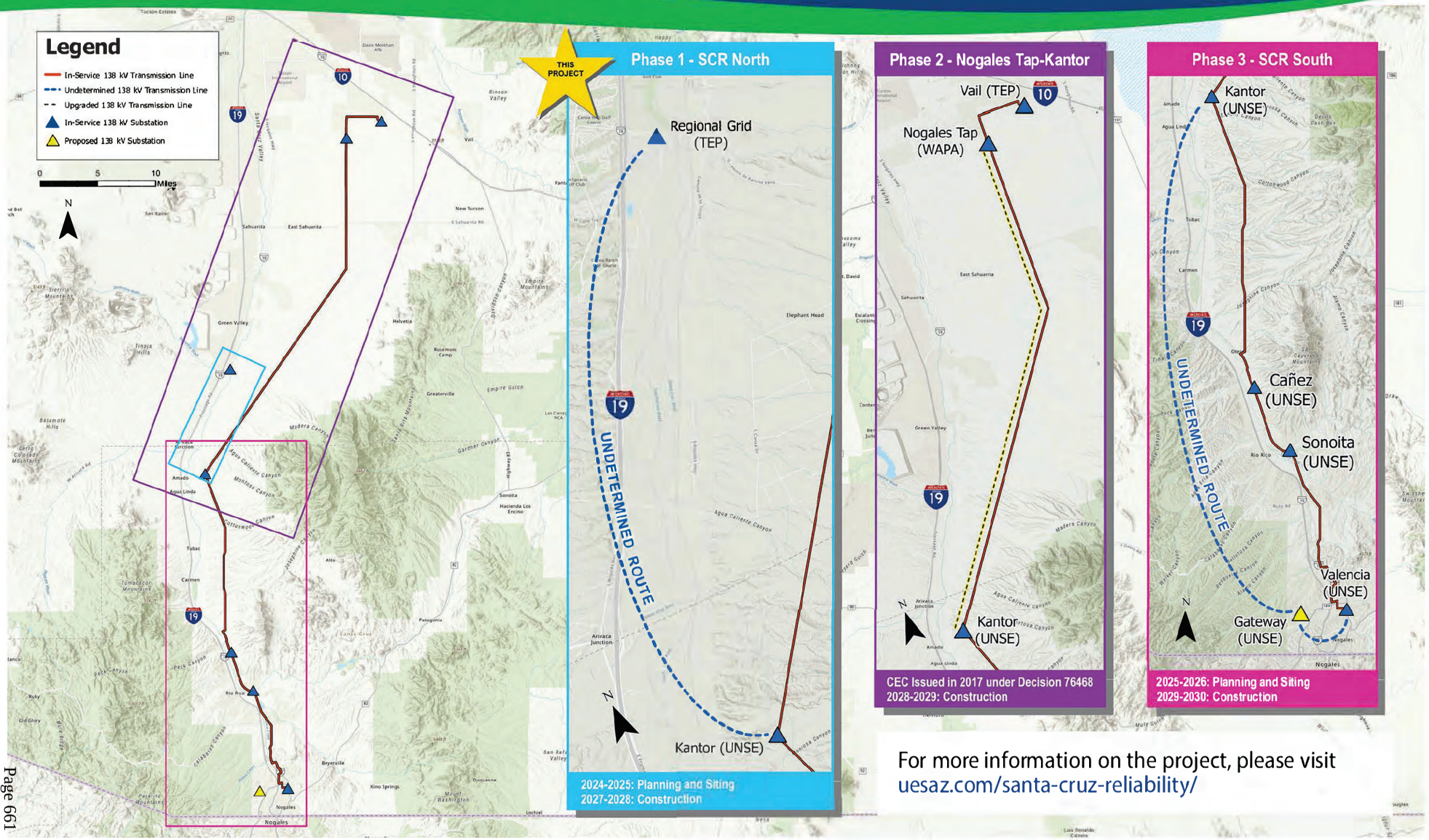
Kantor Substation Upgrades





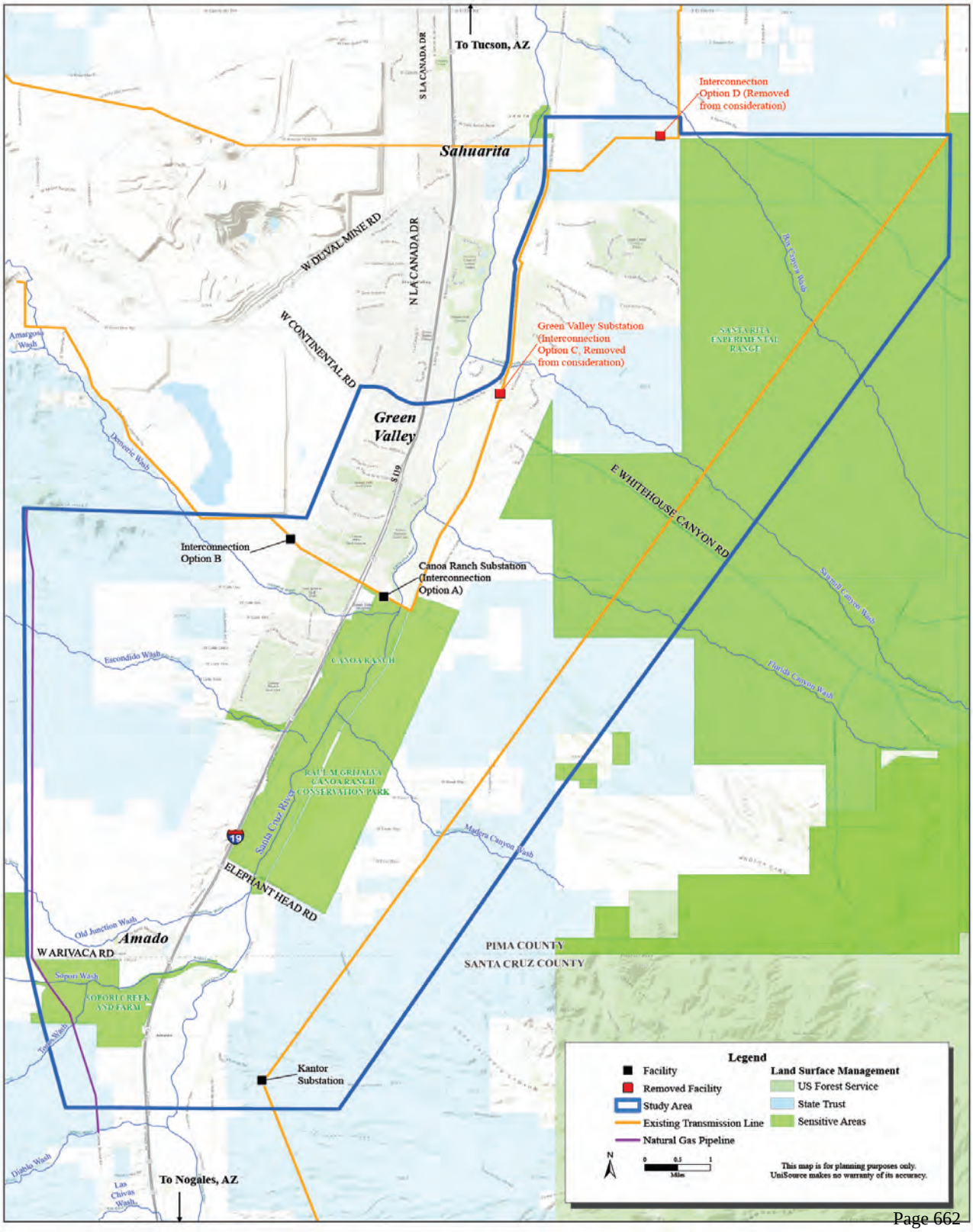
Santa Cruz Reliability Project

UniSourceEnergy SERVICES

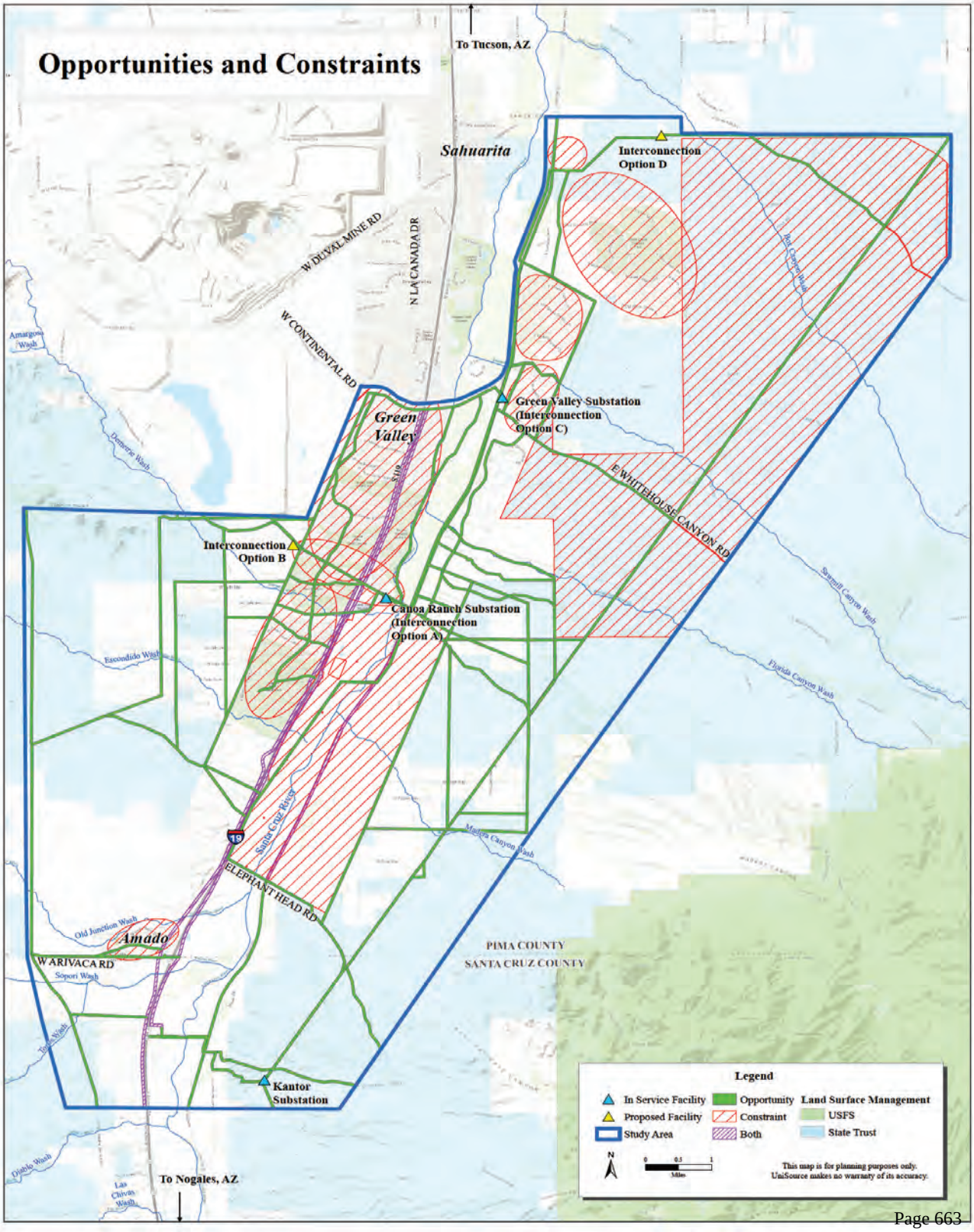


For more information on the project, please visit uesaz.com/santa-cruz-reliability/

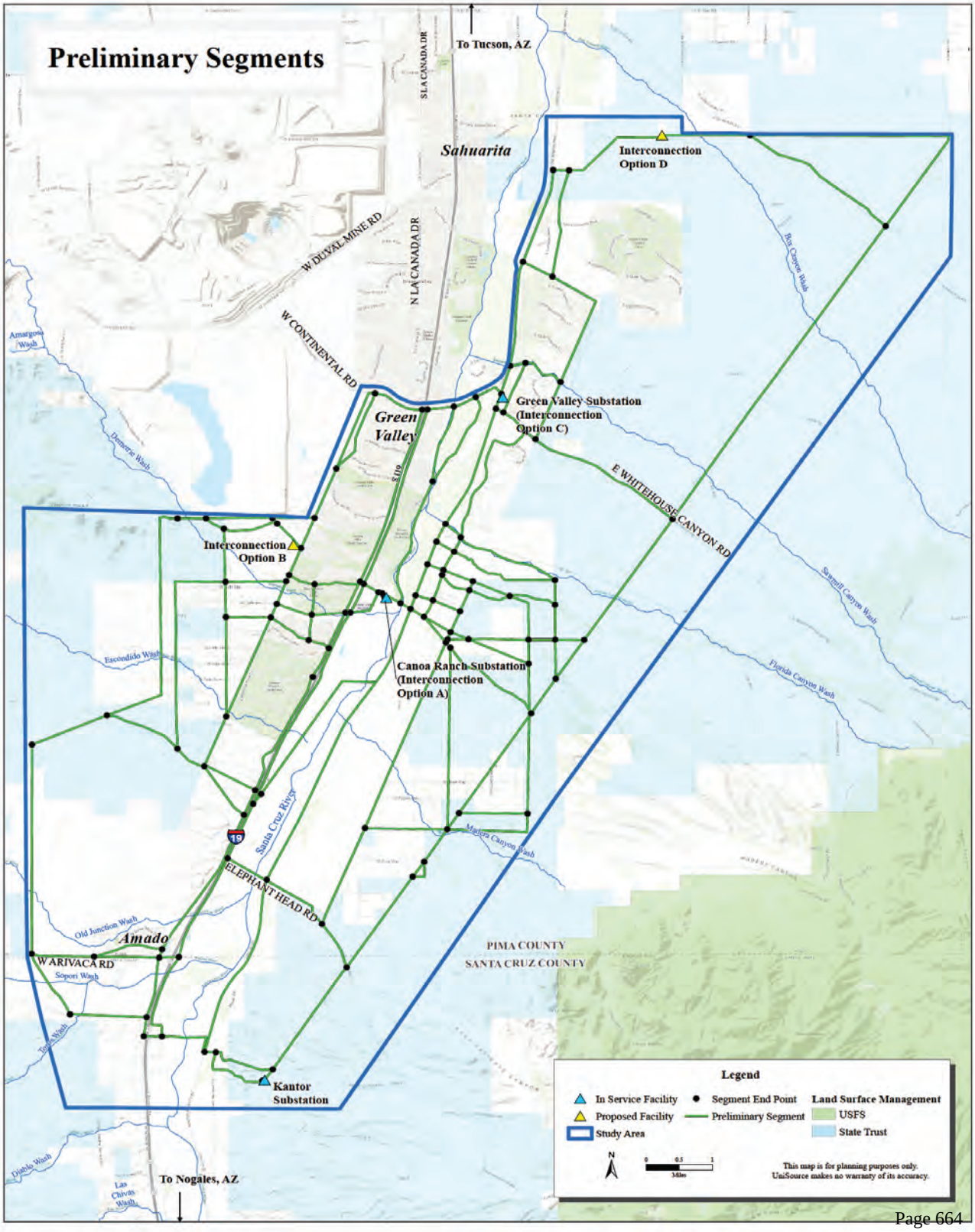
Study Area


To Tucson, AZ
S LA CANADA DR
Interconnection Option D (Removed from consideration)
Sahuarita
W DUVAL MINE RD
N LA CANADA DR
Rita Canyon Wash
SANTA RITA EXPERIMENTAL RANGE
W CONTINENTAL RD
Amargosa Wash
Green Valley Substation (Interconnection Option C, Removed from consideration)
Green Valley
Demetric Wash
S 19
E WHITEHOUSE CANYON RD
Interconnection Option B
Canoa Ranch Substation (Interconnection Option A)
Sawmill Canyon Wash
Escondido Wash
CANOA RANCH
Florida Canyon Wash
RAUL M. GRIJALVA CANOA RANCH CONSERVATION PARK
Santa Cruz River
19
Madera Canyon Wash
ELEPHANT HEAD RD
Old Junction Wash
Amado
W ARIVACA RD
PIMA COUNTY
SANTA CRUZ COUNTY
Sopori Wash
SOPORI CREEK RANCH FARM
Tubac Wash
Kantor Substation
Diablo Wash
To Nogales, AZ
Las Chivas Wash
Legend
Facility
Removed Facility
Study Area
Existing Transmission Line
Natural Gas Pipeline
Land Surface Management
US Forest Service
State Trust
Sensitive Areas
N
0 0.5 1 Miles
This map is for planning purposes only. UniSource makes no warranty of its accuracy.

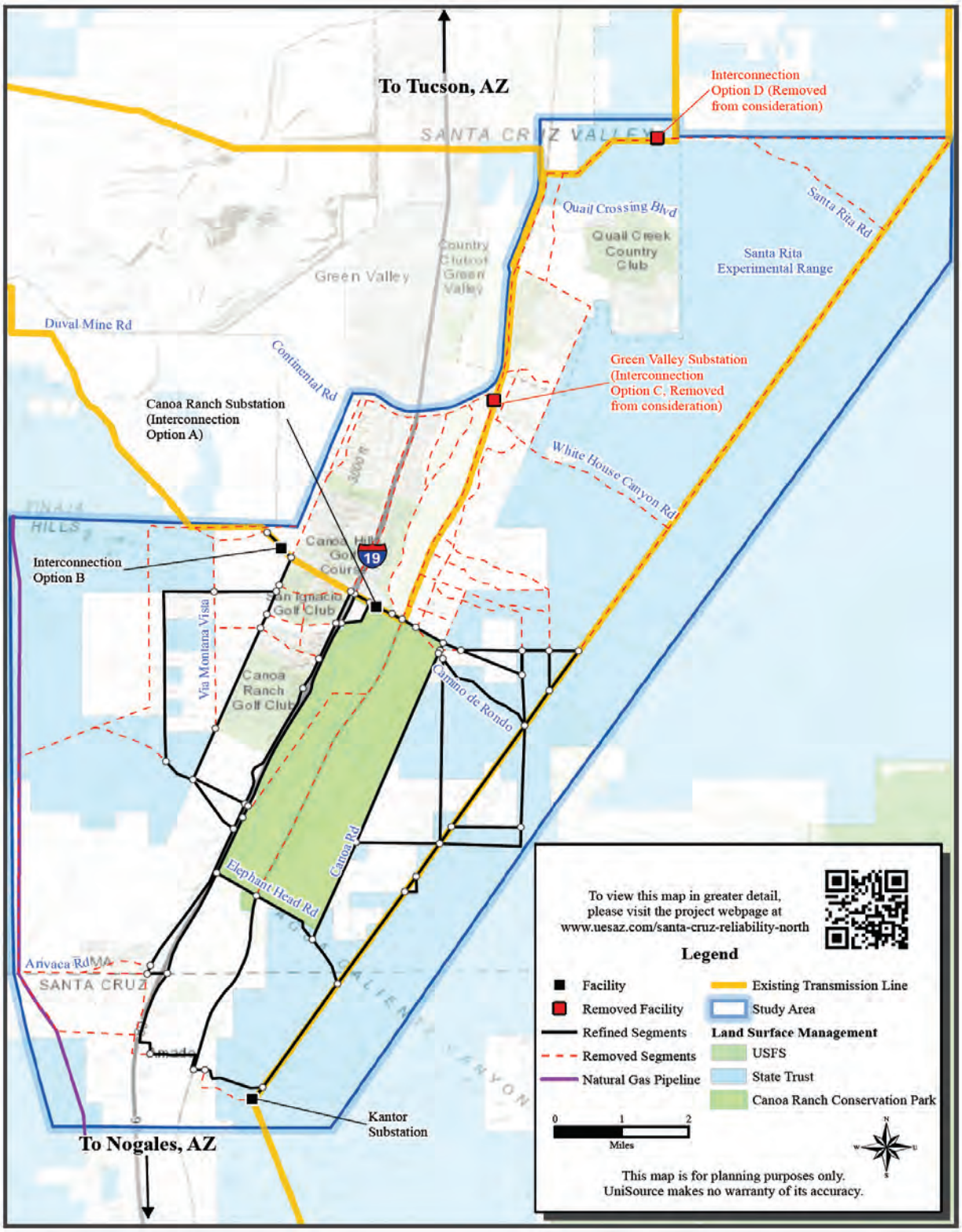
Opportunities and Constraints



Draft Preliminary Segments



Refined Segments



Suitability Assessment

Criteria Models

- Existing Plans
- Biological Resources
- Noise and Communication
- Cultural and Historic Resources
- Visual Resources
- Total Environment
- Existing and Future Residential
- Wildfire Risk
- Engineer, Construction and Maintenance

Composite Models

- Balanced Compatability Model
- Environmentally Preferred Model
- Construction & Maintenance Preferred Model
- Public Stakeholder & Agency Preferred Model

Suitability Assessment

- Highest Suitability Path
- Apply Constraints
- Visual Comparison

Field Verification

- Ground Truthing

Refined Segments

- Eliminate Less Suitable Segments
- Carried Forward for Further Evaluation

Santa Cruz Reliability Project North

UniSourceEnergy SERVICES

Suitability Criteria



Existing Plans



Biological Resources



Noise & Communication



Cultural & Historical Resources



Visual Resources



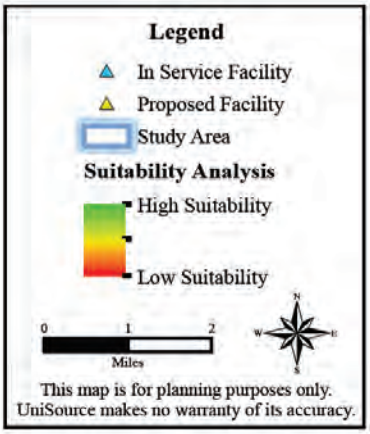
Total Environment



Existing and Future Residential Properties Adjacent to Transmission Lines

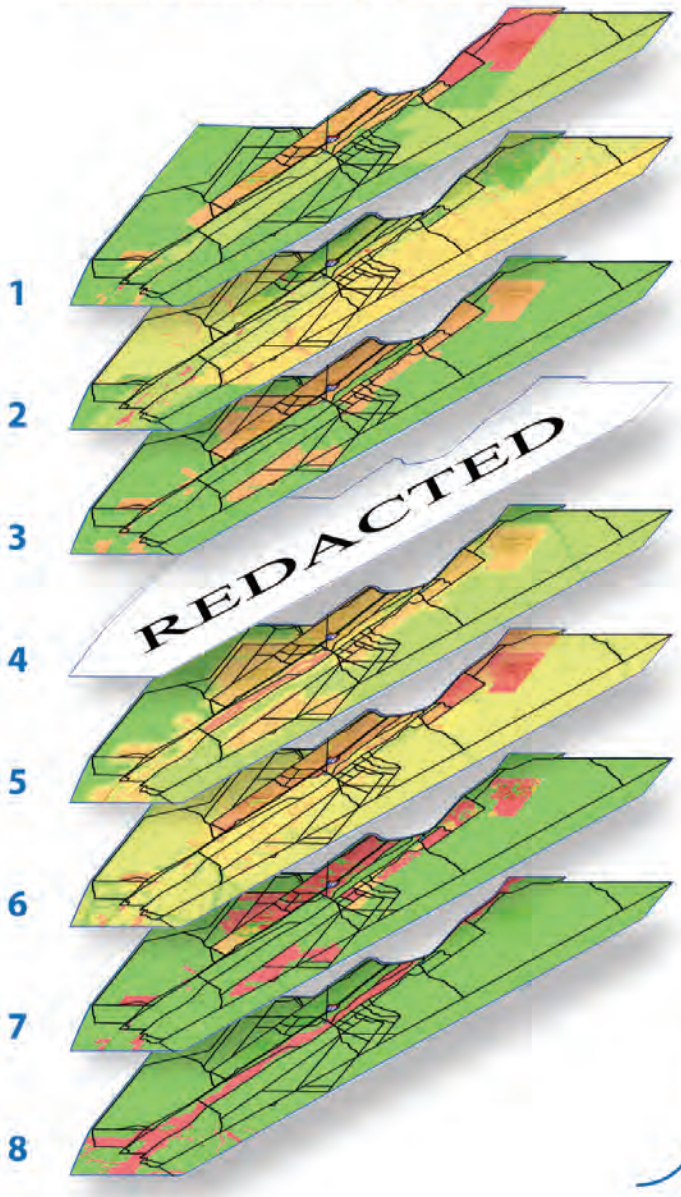


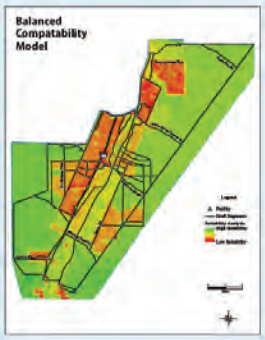
Construction & Maintenance



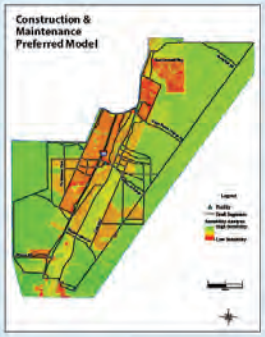
Composite Suitability Methodology

Criteria 1: Existing Plans
Criteria 2: Biological Resources
Criteria 3: Noise & Communication
Criteria 4: Cultural and Historical Resources
Criteria 5: Visual Resources
Criteria 6: Total Environment
Criteria 7: Existing and Future Residential Properties Adjacent to Transmission Lines
Criteria 8: Construction & Maintenance





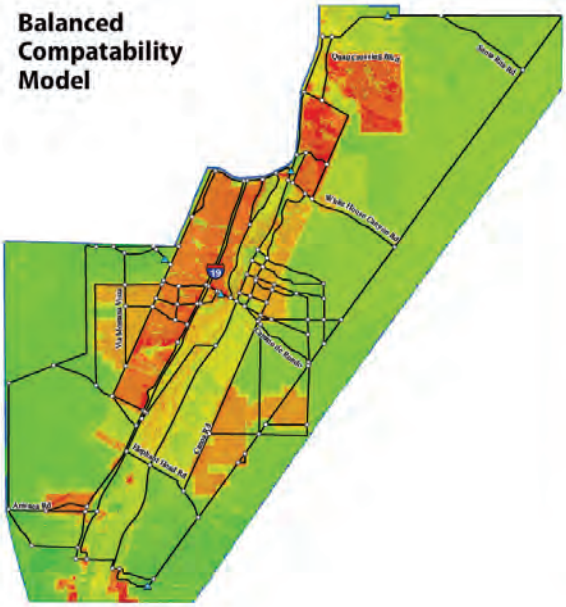




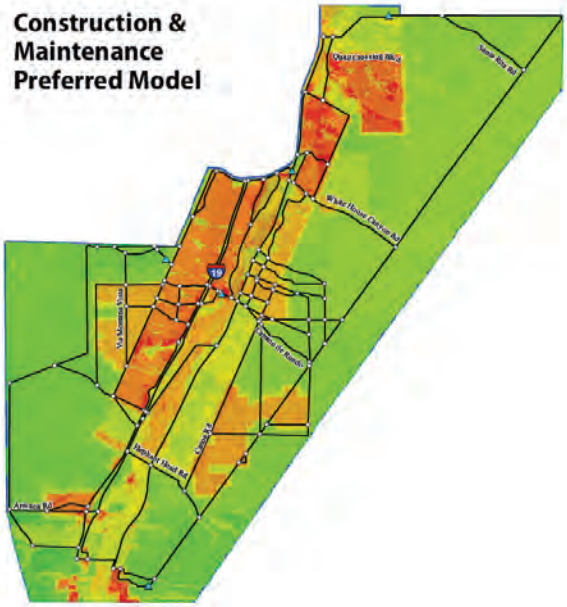


Composite Suitability Models

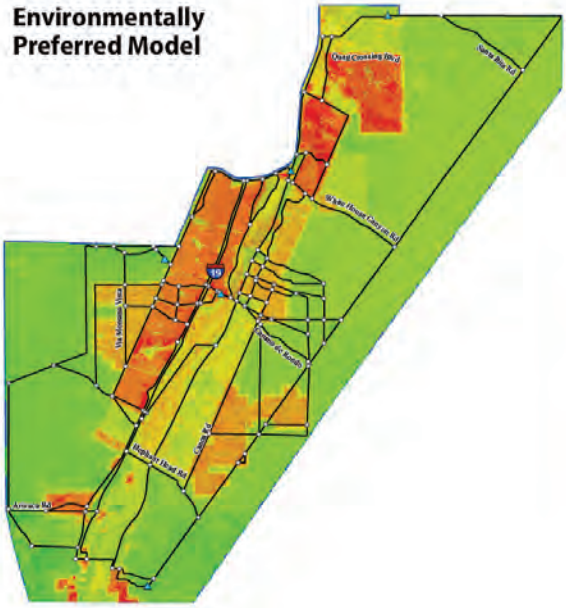
Balanced Compatability Model



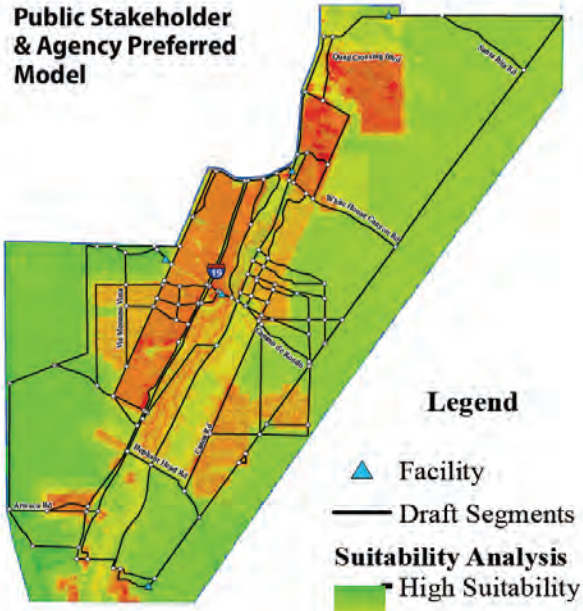
Construction & Maintenance Preferred Model



Environmentally Preferred Model



Public Stakeholder & Agency Preferred Model



Legend

- Facility
- Draft Segments

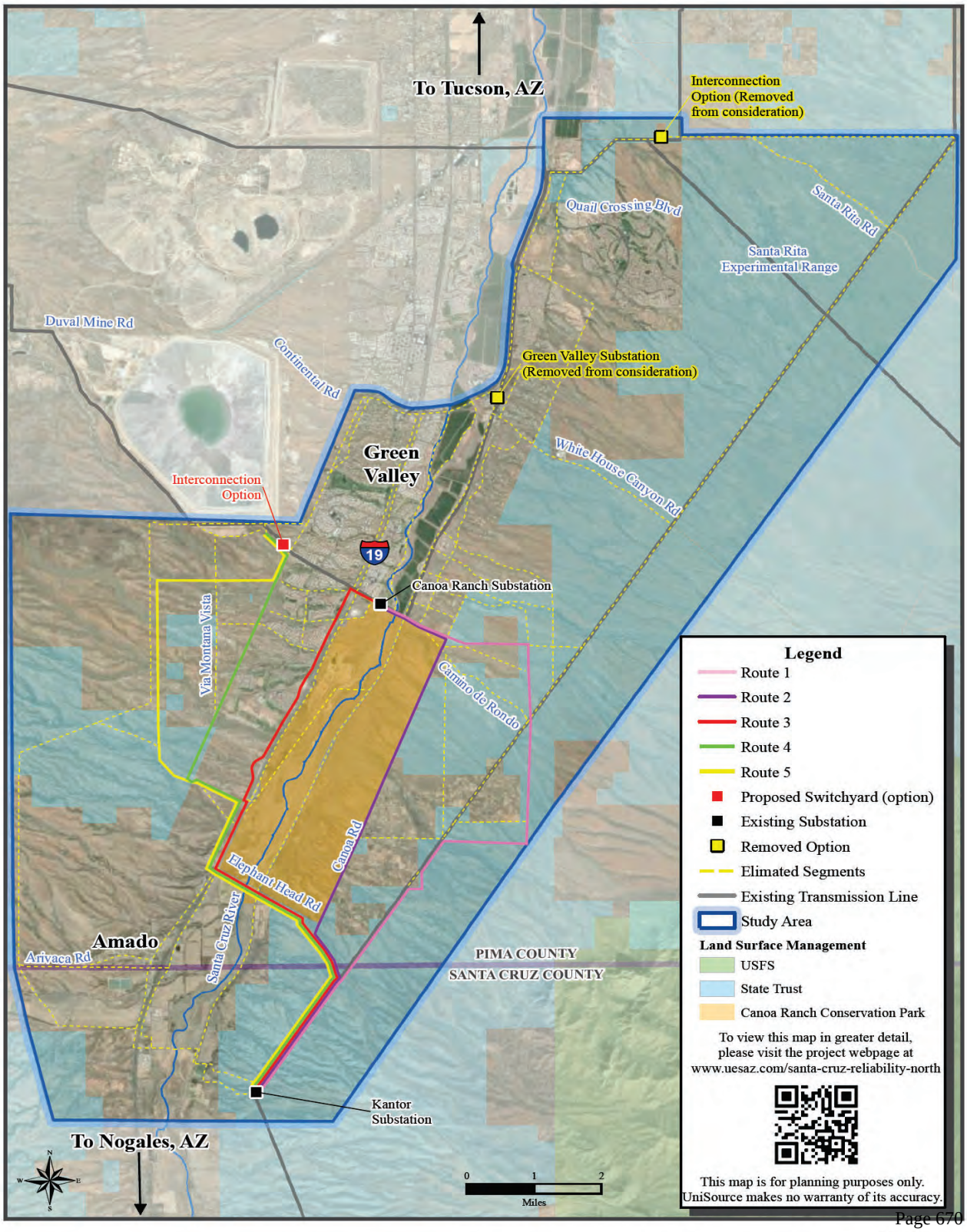
Suitability Analysis

- High Suitability
- Low Suitability

0 1 2

Miles

Route Alternatives



Santa Cruz Reliability Project North

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We Want To Hear From You

How to Provide Official Public Comment:

Fill out an online comment form at:
ueasz.com/santa-cruz-reliability-north

Email comments to:
scrnorth@uesaz.com

Call:
(520) 917-6635 and leave a voicemail message

Mail a letter with comments to:
ATTN: Santa Cruz Reliability North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

An interactive map is posted on our website.

Cómo proporcionar un comentario público oficial:

Llenando un formulario de comentarios en línea:
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

Enviando comentarios por correo electrónico a:
scrnorth@uesaz.com

Llamando al:
(520) 917-6635 y dejando un mensaje de voz

Enviando una carta con comentarios a:
A/A: Confiabilidad de Santa Cruz Norte
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Para ver un mapa interactivo, visite la página web del proyecto.

More Information
uesaz.com/santa-cruz-reliability-north/

Más información
uesaz.com/proyecto-de-confiabilidad-de-santa-cruz-norte

SOCIAL MEDIA COMPLETION REPORT

Social Media Completion Report			
	English	Spanish	Total
Reach	48,777	18,852	67,629
Impressions	75,271	26,157	101,428
Click	241	57	298

EXHIBIT J-11

VIRTUAL PUBLIC OPEN HOUSE SUMMARY (AUGUST 7, 2025)

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Virtual Open House Summary Report
Thursday August 7, 2025

UNS Electric, Inc. (UNSE), a subsidiary of UniSource Energy Services, is working to enhance energy independence and security for its customers by reducing reliance on the increasingly constrained regional energy market. To help meet growing reliability demands, UniSource is developing a transmission line that connects the Canoa Ranch Substation in Pima County, AZ to the Kantor Substation in Santa Cruz County, AZ. The Kantor Substation will also be expanded to accommodate the new transmission line.

In accordance with state regulations, UniSource must obtain a Certificate of Environmental Compatibility (CEC) to construct the necessary transmission line. As part of its due diligence and to better understand local community values that could influence the siting process, UNSE hosted a Public Open House Meeting to gather public input.

MEETING NOTIFICATION

UNSE developed and mailed a newsletter providing an overview of the Santa Cruz Reliability Transmission Line Project North, including the date, time, and location of the public open house. On July 22, 2025, 14 days before the Public Open House Meeting, the newsletter was sent to approximately 17,000 property owners, residents, and small businesses with U.S. Postal Service addresses within a one-mile radius of the Project Study Area.

To further promote the meeting, geo-targeted Facebook and Instagram ads were run within an 11-mile radius of the study area during the week leading up to the event. Additionally, six notice signs were posted in and around the Project Study Area on July 22, 2025, 14 days before the meeting. Attachment 3 includes a map of sign locations, sign text, and photos of the signs in place.

Six flyers were also distributed to local community centers and public outlets, where they were posted on public bulletin boards to help spread awareness.

UNSE also published meeting notices in the *Green Valley News* on July 20, 27 and August 3, 2025; *Nogales International* on July 25 and August 1, 2025; and *Arizona Bilingual* on July 30, 2025. Attachment 5 includes the newspaper ad, and Affidavit of Publication. Meeting notifications were sent out for both morning and evening meetings on August 5, 2025.

MEETING SUMMARY

The virtual Open House meeting took place on Thursday, August 7, 2025, from 4:30 PM to 5:30 PM. The meeting featured a PowerPoint presentation that covered key aspects of the project, including its purpose and need, environmental permitting requirements, the line siting process, the study area and preliminary route segments, routing criteria, project schedule, additional resources, and a question-and-answer session.

COMMENT

To date, the public outreach process has generated verbal feedback from individuals that attended the Open Houses and written comments. In addition, UNSE staff and consultants documented verbal comments received during the Open House meeting, which are included in this report.

Common themes in the written comments included concerns about the potential impact of the transmission line on adjacent properties, the effect a new transmission line might have on customer rates, concerns regarding public health and safety issues, and questions regarding how the project team will evaluate biological and environmental considerations during the preliminary transmission route analysis.

Santa Cruz Reliability Project North

PROJECT UPDATE PRESENTATION

CLARK BRYNER – MANAGER, SITING, OUTREACH AND ENGAGEMENT



UniSourceEnergy SERVICES

August 2025

Meeting and Q&A Guidelines



Your input is important to us!

For this presentation, mic and video for participants will be automatically turned off

For questions or comments, we ask that you please use the Q&A option at the top of your screen to type in your thoughts.

Following the presentation, we will read aloud and answer your questions

UniSourceEnergy SERVICES

2

Agenda

- Santa Cruz Reliability Project – Overview
  - Need and Benefits
  - Project Components
- Update - Planning and Siting Process
- Visual Simulations
- Project Schedule and Next Steps
- Public Participation
- Q&A Session

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3



Need and Benefits

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Maintain and strengthen reliability for Santa Cruz County and its residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County.
- Meet current and future energy needs without impacting service to existing customers.
- Support maintenance and other upgrades, allowing work to be performed without interrupting system operations.

UniSourceEnergy SERVICES

5

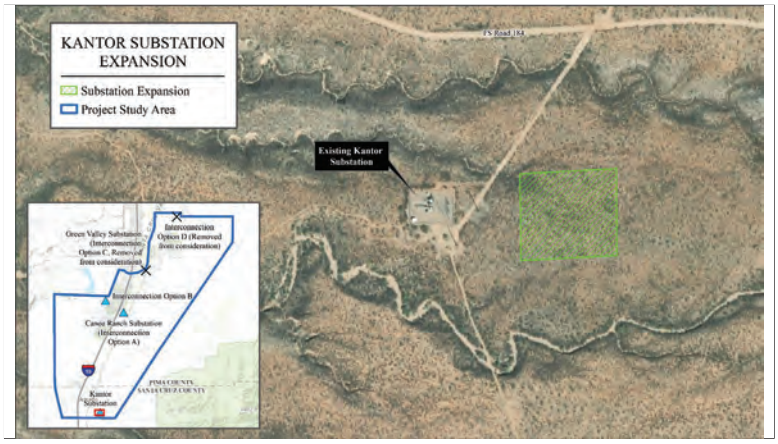
Example Pole Structure

- Tubular, Weathering Steel Monopoles
- Typical height 75 – 85 feet
- Typical span 600 – 1,000 feet

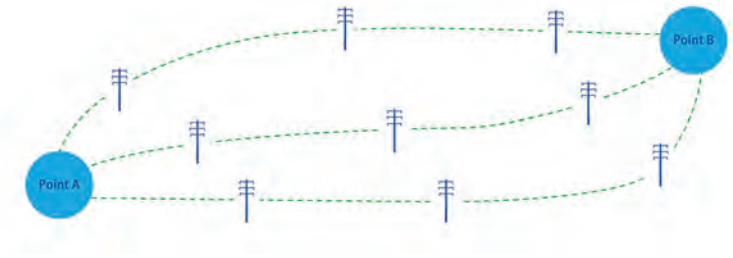


UniSourceEnergy SERVICES

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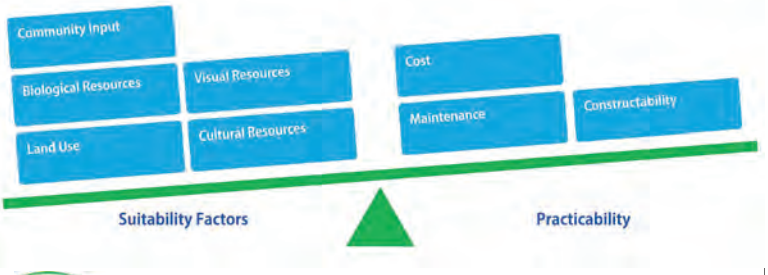


What is Siting?



UniSourceEnergy SERVICES

Project Route Development and Evaluation

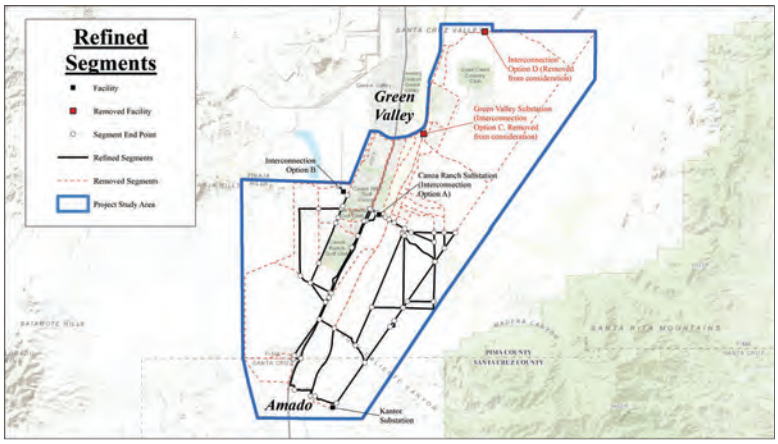


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Planning and Siting Process Flowchart



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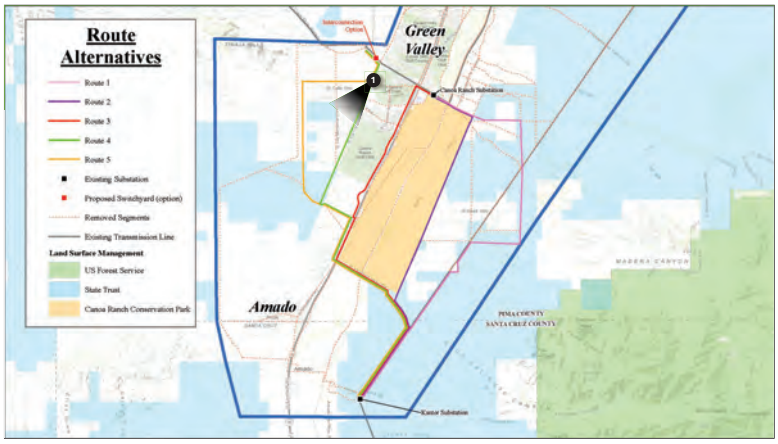


Evaluation Criteria



- Wildlife & plant life
- Scenic areas, historic sites & archaeological sites and structures
- Environment
- Noise emission levels & interference with communication signals
- Existing and planned land uses
- Engineering feasibility and challenges
- Project costs & potential impacts on customer rates
- Potential public recreational uses

UniSourceEnergy SERVICES



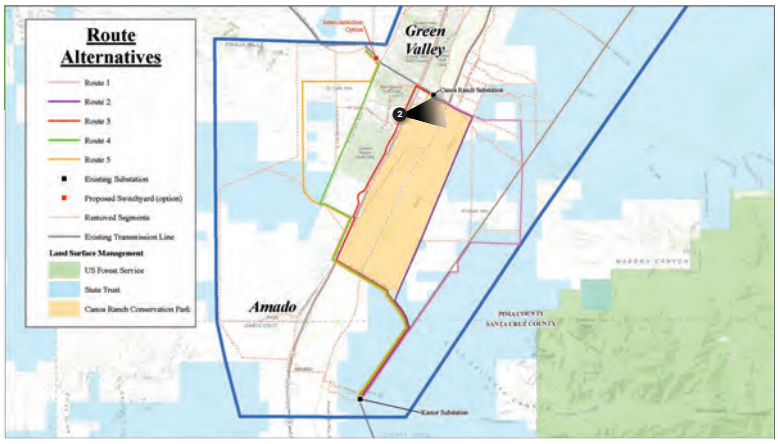
Visual Simulations

Key Observation Point 1
(San Ignacio Ridge Estates)

Via Nuevo Leon looking southwest along Via Cielo Azul.



UniSourceEnergy SERVICES



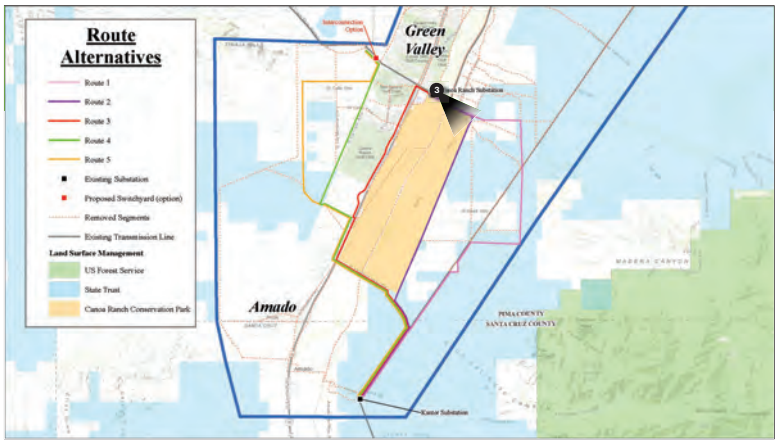
Visual Simulations

Key Observation Point 2
(San Ignacio Vistas)

Gloria View Court looking east along I-19 frontage.



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Visual Simulations

Key Observation Point 3
(The Springs)

Ground Squirrel Road looking southeast.



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Project Schedule and Next Steps*

Under Arizona law, certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

- September 2025 – CEC Application Submittal
- November 2025 – Arizona Power Plant and Transmission Line Siting Committee Hearing
- Q1 2026 – Arizona Corporation Commission (ACC) Open Meeting
- 2028 – Phase 1: Project in Service
- 2029 – Phase 2: Project in Service
- 2030 – Phase 3: Project in Service

* Target schedule, subject to change

Public Participation

- Fill out an online comment form at: uesaz.com/santa-cruz-reliability-north
- Send comments via email to: scrnorth@uesaz.com
- Call (520) 917-6635 and leave a voicemail message
- Mail a letter with comments to:

  ATTN: Santa Cruz Reliability North
  P.O. Box 711
  Mail Stop CB200
  Tucson, AZ 85701-0711

Q&A Session

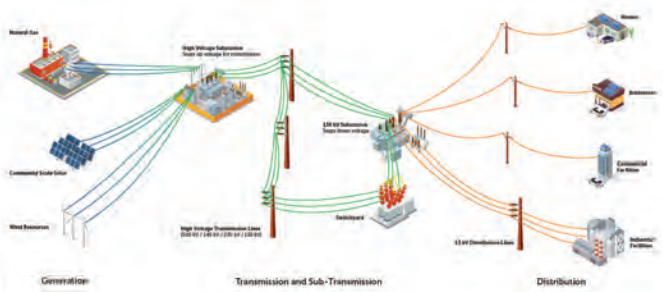


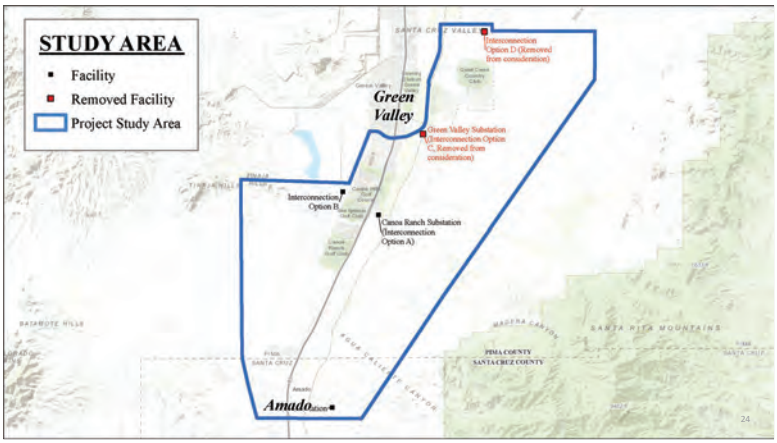
Your input is important to us!

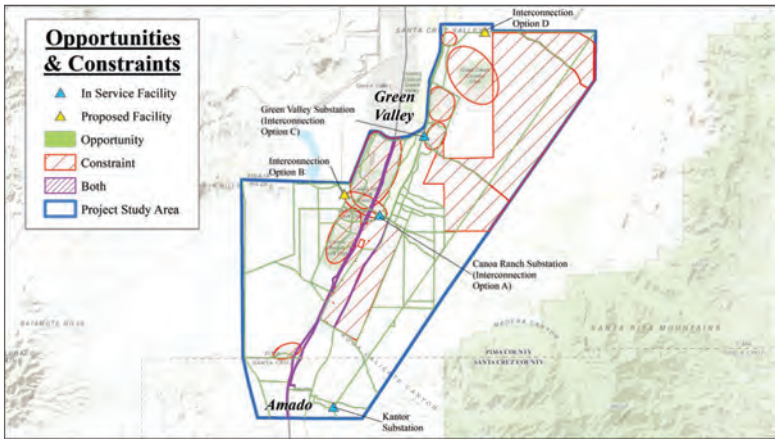
For questions or comments, we ask that you please use the Q&A option at the top of your screen to type in your thoughts.

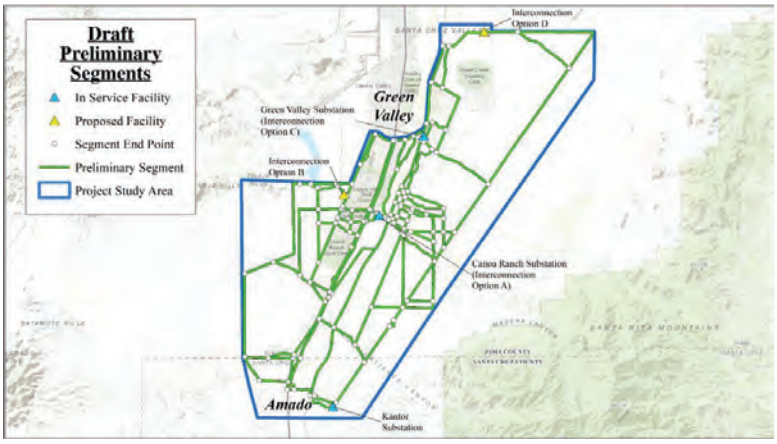
Supplemental Slides

How We Deliver Energy Service to You









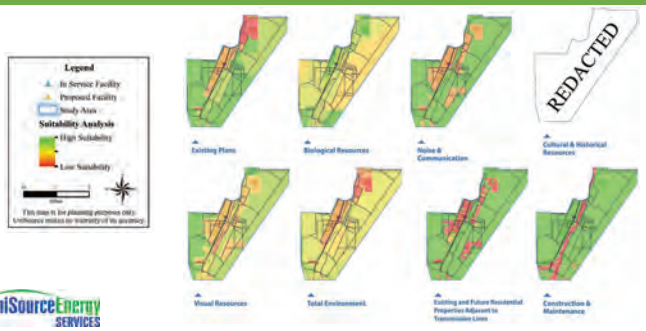
Suitability Assessment Method



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Suitability Criteria

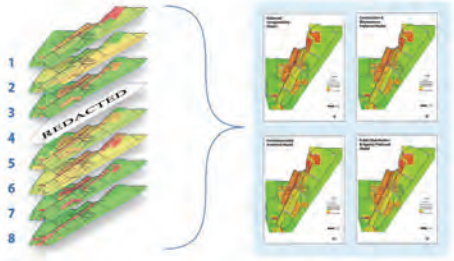


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Composite Suitability Methodology

Criteria 1: Existing Plans
Criteria 2: Biological Resources
Criteria 3: Noise & Communication
Criteria 4: Cultural and Historical Resources
Criteria 5: Visual Resources
Criteria 6: Total Environment
Criteria 7: Existing and Future Residential Properties Adjacent to Transmission Lines
Criteria 8: Construction & Maintenance



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Composite Suitability Models



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EXHIBIT J-12

ELECTED OFFICIAL OUTREACH SUMMARY

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Elected Official Outreach Summary

Proactive, transparent, and timely communication with elected officials is a cornerstone of effective public outreach and government relations. To uphold these standards, the UNSE Communications and Government Relations Department coordinated and conducted individualized briefings with elected officials throughout the project timeline.

These briefings were delivered using a variety of formats, including phone calls, virtual meetings, in-person sessions, and other appropriate methods, tailored to the preferences and availability of each official. The primary objective was to ensure that elected representatives received accurate, consistent, and trustworthy information prior to key project milestones, such as agency meetings, working group sessions, public engagement events, and the release of new or revised project materials.

Each briefing was designed to:

- Provide a clear overview of the project scope and objectives
- Address potential questions or concerns
- Facilitate informed participation in public and interagency discussions
- Reinforce UNSE’s commitment to transparency and collaboration

Organization	Title	Salutation	First Name	Last Name
State House	State Representative, Dist. 19	The Honorable	Lupe	Diaz
State House	State Representative, Dist. 19	The Honorable	Gail	Griffin
State House	State Representative, Dist. 21	The Honorable	Consuelo	Hernandez
State House	State Representative, Dist. 21	The Honorable	Stephanie	Stahl Hamilton
State Senate	State Senator, Dist. 19	The Honorable	David	Gowan
State Senate	State Senator, Dist. 21	The Honorable	Rosanna	Gabaldon
Pima County	County Chair	The Honorable	Rex	Scott
Pima County	County Vice Chair	The Honorable	Adelita	Grijalva
Pima County	County Supervisor	The Honorable	Steve	Christy
Administration	County Administrator	Ms.	Jan	Lesher
U.S. House	Congressman	The Honorable	Juan	Ciscomani
U.S. Senate	U.S. Senator	The Honorable	Mark	Kelly
U.S.Senate	U.S. Senator	The Honorable	Ruben	Gallego
Santa Cruz County	County Supervisor	The Honorable	Luis Carlos	Davis
Santa Cruz County	County Supervisor	The Honorable	John	Fanning
Santa Cruz County	County Supervisor, Chair	The Honorable	Rudy	Molera
Santa Cruz County	County Manager	Mr.	Jesus	Valdez
City of Nogales	Mayor	The Honorable	Jorge	Maldonado
City of Nogales	City Manager	Mr.	Joel	Kramer
Governor's office	So. AZ Director	Ms.	Marisol	Flores-Aguirre

UniSource – Santa Cr...North Update 7_14_2 g Open Share

EXAMPLE

From: Bravo, Teresa <Teresa.Bravo@tep.com>
Sent on: Monday, July 14, 2025 11:20:15 PM
To: mayormaldonado@nogalesaz.gov
Subject: UniSource – Santa Cruz Reliability Project North Update 7.14.25
Attachments: SCR North July 2025 Newsletter.pdf (3.1 MB)

Dear Mayor Maldonado,

As you are aware, UniSource Energy Services is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

This upgrade, the Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

UniSource initiated a comprehensive planning and siting study in early 2024 to evaluate potential transmission line routes for this phase of the project. Following multiple rounds of evaluation, we have identified five route alternatives for public and agency review. See the map in the attached project newsletter or visit the project webpage to find a detailed interactive map. The newsletter will be mailed out to customers next week.

Should you have any questions or comments or desire a briefing on this project, please contact me directly at teresa.bravo@uesaz.com.

In addition, we will be hosting two in-person open house meetings on August 5th and one virtual meeting on August 7th, where the public can ask questions about the project and provide feedback. You are, of course, invited to attend as well.

Tuesday, August 5, 2025 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation East Center
7 S. Abrego Dr.
Green Valley, AZ 85614

Tuesday, August 5, 2025 5-7 p.m.
Sopori Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

Thursday, August 7, 2025 4:30-5:30 p.m. (Virtual Meeting)
Microsoft Teams
Join the meeting now
Meeting ID: 226 630 125 702 2
Passcode: mq2vs2CZ

EXAMPLE

UniSource Energy Services (UES) is proposing the Santa Cruz Reliability (SCR) Project North. This project will strengthen the local energy grid by constructing a second 138 kilovolt (kV) transmission line to connect the Canoa Ranch Substation,
located in Pima County, and the Kantor substation, located in Santa Cruz County. This project would improve service reliability for customers by beginning the process of converting the current radial line configuration to a looped transmission system.

A map illustrating the project study area for proposed project is attached.

UniSource will be hosting a public open house meeting on April 25th to share more details about this project, please see details below.

Public Open House
Thursday, April 25
6 to 8 p.m.
Sopori Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

To learn more about the Santa Cruz Reliability Project please visit: https://www.uesaz.com/santa-cruz-reliability/

As always, please feel free to reach out if you have any questions.

Best regards,

-Teresa

Teresa Bravo
Government Relations Rep. I Local Affairs
88 East Broadway Boulevard I Mail Stop HQE504
Tucson, AZ 85701
teresa.bravo@tep.com
520-633-1112

EXAMPLE

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

This upgrade, the Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

UniSource initiated a comprehensive planning and siting study in early 2024 to evaluate potential transmission line routes for this phase of the project. Since that time, we expanded the initial study area and identified draft preliminary segments. See the map in the attached project newsletter or visit the project webpage to find a detailed interactive map. Please be aware that project website is also available in Spanish.

In addition, we will be hosting two open house meetings on March 20th where the public can ask questions about the project and provide feedback. You are, of course, invited to attend as well.

Thursday, March 20, 2025, 9-11 a.m.
Hosted by the Green Valley Coordinating Council
Green Valley Recreation East Center
7 S. Abrego Dr.
Green Valley, AZ 85614

Thursday, March 20, 2025, 5-7 p.m.
Sopori Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

We appreciate your engagement in this important energy project.

Should you have any questions or comments or desire a briefing on the project, please contact me directly at teresa.bravo@uesaz.com.

Best regards,

Teresa Bravo, MBA
Government Relations Rep - Local Affairs
88 East Broadway Boulevard - Mail Stop HQE504
Tucson, AZ 85701
Email: teresa.bravo@tep.com
Mobile: (520) 633-1112

EXAMPLE

As you are aware, UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County. The Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

Since presenting 177 "Preliminary Segments" representing possible locations for a future line in March, UniSource conducted an evaluation of each of these segments based on criteria informed by your comments. This evaluation resulted in the elimination of more than 100 of the Preliminary Segments, found to be less compatible with community values, from further consideration. Please see the attached map to view the route segments still under consideration.

Should you have any questions or comments or desire a briefing on the project, please contact me directly at teresa.bravo@uesaz.com.

In addition, we will be hosting two open house meetings on May 20th where the public can ask questions about the project and provide feedback. You are, of course, invited to attend as well.

Thursday, May 20, 2025 9-11 a.m.
Hosted by the Green Valley Coordinating Council
Green Valley Recreation Las Campanas Center
565 W. Bell Tower Drive
Green Valley, AZ 85614

Thursday, May 20, 2025 5-7 p.m.
Sopori Elementary School
5000 W. Arivaca Rd.
Amado, AZ 85645

We truly appreciate your engagement in this important energy project.

Best regards,

Teresa Bravo, MBA
Government Relations Rep - Local Affairs
88 East Broadway Boulevard - Mail Stop HQE504
Tucson, AZ 85701
Email: teresa.bravo@tep.com
Mobile: (520) 633-1112

EXAMPLE

As you are aware, UniSource Energy Services is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

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UniSource initiated a comprehensive planning and siting study in early 2024 to evaluate potential transmission line routes for this phase of the project. Following multiple rounds of evaluation, we have identified five route alternatives for public and agency review. See the map in the attached project newsletter or visit the project webpage to find a detailed interactive map. The newsletter will be mailed out to customers next week.

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Green Valley Recreation East Center
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Green Valley, AZ 85614

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Sopori Elementary School
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Amado, AZ 85645

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Microsoft Teams
Join the meeting now
Meeting ID: 226 630 125 702 2
Passcode: mg2ys2CZ
Dial in by phone
+1 712-274-3750,,881689883#
Phone conference ID: 881 689 883#

We appreciate your engagement in this important energy project. As always, please feel free to reach out if you have any questions or need additional information.

Best regards,

Teresa Bravo, MBA
Sr. Government Relations Rep., Local Affairs
88 E. Broadway Blvd., Mail Stop HQE504, Tucson, AZ 85701

Outlook

UniSource – Santa Cruz Reliability Project North Update 8.25.25

From Bravo, Teresa <Teresa.Bravo@tep.com>
To Joel Kramer <jkramer@nogalesaz.gov>

1 attachment (2 MB)
Santa_Cruz_North_Preferred_Route.pdf;

Dear Mr. Kramer,

As you are aware, UniSource Energy Services is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

In early 2024, UniSource began a comprehensive planning and siting study for the first phase of the Santa Cruz Reliability Project, to identify the best routes to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County. Following 20 months of study, which included 9 public meetings attended by hundreds of individuals who provided over 300 written comments, UniSource has identified the routes that will be included in an application for a Certificate of Environmental Compatibility (CEC). **The previously announced Route 2 was identified as the Preferred Route, while Route 1 was identified as an Alternative Route. Routes 3, 4, and 5 have been eliminated from consideration.** Please see the attached map.

UniSource plans to file a CEC application in mid-September and a public hearing before the Arizona Power Plant and Transmission Line Siting Committee is tentatively scheduled for November 3-7, 2025. Once the application has been filed, and the hearing date is confirmed, I will communicate further details.

Should you have any questions or comments or would like to schedule a briefing on the project with our team, please feel free to contact me directly.

We appreciate your engagement in this important energy project.

Best regards,

Teresa Bravo, MBA
Sr. Government Relations Rep., Local Affairs & Tribal Liaison
88 E. Broadway Blvd.,Mail Stop HQE504, Tucson, AZ 85701
Email: teresa.bravo@uns.com Mobile: (520) 633-1112
UNS Energy Corporation

Supervisor Bruce Bracker Briefing Summary Report
December 18, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Teresa Bravo	Government Liaison

Table 2 LMP ATTENDEES	
Name	**Title**
Bruce Bracker	Santa Cruz County Supervisor

MEETING SUMMARY

UNSE provided a project overview.

The supervisor emphasized potential community resistance if the transmission line runs west of I-19 near Tubac and advised engaging the Tubac Citizens Council. Key technical questions were raised about pole usage, conductor upgrades, and the distance from Kantor to Nogales. Santa Cruz County is experiencing growth, including mining, EV infrastructure, and cold storage, which is driving concerns about power capacity. Stakeholders stressed the importance of communicating that the project benefits all customers. A past outage in February had serious local business impacts, highlighting the need for reliability. There was also discussion about solar energy contributions to the grid and a DOE grant, which some team members were unaware of, despite prior county support and mentions at the Port Authority. A future presentation to the Nogales Port Authority was recommended.

Commissioner Marquez Peterson Briefing Summary Report
January 30, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Manger, Transmission Line Siting
Adriana Marinez	Project Manager, Transmission Line Siting
Bonnie Medler	Policy Analyst
Eddy Steven	Government Relations
Karen Kansfield	Manager, Regulatory Services
Erik Bakken	Senior VP and CAO
Chris Norman	VP Public Policy
Megan Hill	Attorney

Table 2 LMP ATTENDEES	
Name	**Title**
Marquez Peterson	Commissioner
Laurie W.	LMP Office

MEETING SUMMARY

UNSE provided an overview of the Project to Commissioner Marquez Peterson.

The discussion focused on the strategic and technical aspects of a proposed energy infrastructure project serving Nogales and surrounding areas. Currently fed by a radial line, the plan involves rebuilding parts of the existing line and possibly extending the CEC. The project is attractive to federal agencies due to its relevance to border infrastructure, EV growth, and fresh produce logistics. While there's no barrier to cross-border energy collaboration, concerns remain about the stability of the Sonora grid and the need for bilateral conversion capabilities. Despite population decline in Nogales, commercial and residential growth justify the project. All lines are included in the ten-year plan, though easement ownership varies.

Nathalia Untiveros Briefing Summary Report
August 21, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Teresa Bravo	Government Liaison
Eddy Steven	Government Relations
Nick Loper	Sr. Government Affairs Rep.

Table 2 LMP ATTENDEES	
Name	**Title**
Nathalia Untiveros	Deputy Director

MEETING SUMMARY

During this meeting, the TEP Team will brief Nathalia Untiveros, Deputy Director, So. Arizona Governor's Office on the Santa Cruz Reliability Project North.

The conversation addressed environmental and community engagement aspects of the project. Environmental impacts are being assessed through cultural and biological studies, and stakeholders appreciated that information has been made available in Spanish. Discussions with ASLD regarding the Kantor Substation have begun, and offers of assistance were welcomed. It was also suggested that newly elected officials be notified once they take office to ensure continued transparency and support.

Nogales Mayor Briefing Summary Report
April 2, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Chris Ortiz y Pino	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Teresa Bravo	Government Liaison

Table 2 MAYOR'S OFFICE ATTENDEES	
Name	**Title**
Anna Parada	Councilwoman
John Doyle	Councilman
Saula Bonilla	Councilman
Jorge Maldonado	Mayor

MEETING SUMMARY

UNSE provided a project overview with a PowerPoint presentation.

Councilmembers and the Mayor of Nogales expressed interest for the transmission line project, asking questions about its scope, timeline, and potential challenges. Councilmembers inquired about the team's experience with similar projects, and had concerns about the five-year timeline and possible delays. Councilmembers asked whether the project is driven by redundancy or increased capacity needs, noting that frequent power "flickers" are disrupting local businesses like gas stations.

Representative Stahl Hamilton Briefing Summary Report
September 11, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Teresa Bravo	Government Liaison
Eddy Steven	Government Relations
Nick Loper	Sr. Government Affairs Rep.

Table 2 LMP ATTENDEES	
Name	**Title**
Stephanie Stahl Hamilton	Representative, AZ Legislature

MEETING SUMMARY

UNSE provided a project overview.

The project involves upgrading transmission infrastructure to increase capacity, with plans to retire the existing 46 kV system where feasible. They appreciated the update, noting that the entire project falls within her district.

Supervisor Christy Briefing Summary Report
April 25, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Chris Ortiz y Pino	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Teresa Bravo	Government Liaison

Table 2 LMP ATTENDEES	
Name	**Title**
Beth Borozan	Chief of Staff (East Tucson, Tanque Verde and Mt. Lemmon)
Doug Kenyon	Greater Green Valley Rep.
Lucretia Free	Constituent Services (SE Region, Corona de Tucson, Vail)
Stephanie Dolam	Aide

MEETING SUMMARY

UNSE provided a project overview.

A frequently asked question was raised about why the transmission line isn't being placed underground. Additional concerns were noted regarding the west side of I-19 near mine property, which may present challenges. The Springs HOA is strongly opposed to the project and has been vocal in their efforts to stop it.

EXHIBIT J-13

INDIVIDUAL AGENCY MEETING SUMMARIES

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Pima County Briefing Summary Report
May 13, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Clark Bryner	Manager, Transmission Line Siting
Teresa Bravo	Government Relations Representative
Adriana Marinez	Project Manager, Transmission Line Siting

Table 2 PIMA COUNTY ATTENDEES	
Ian Milliken	Cultural Resources
Carrie Olson	Flood Control
Eric Shepp	Flood Control
Jenny Neeley	Environmental Planning
Julie Parizek	Conservation Lands

MEETING SUMMARY

UNSE provided a brief overview of the project, accompanied by a PowerPoint presentation.

The discussion covered several logistical and planning aspects of the transmission project. Pima County asked if a maintenance access road is needed, and UNSE responded it's not necessarily required. Pima County inquired about potential expansion of the Canoa Ranch Substation, which UNSE confirmed is not planned. Pima County asked about a preferred route alternative, and UNSE noted none has been selected yet. UNSE also raised the possibility of an aerial easement, and Pima County mentioned the existing covenant doesn't appear to address aerial rights, she will follow up with the County Attorney for clarification.

Pima County Briefing Summary Report
June 19, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Clark Bryner	Manager, Transmission Line Siting
Teresa Bravo	Government Relations Representative
Adriana Marinez	Project Manager, Transmission Line Siting
Megan Hill	Attorney
Renee Marruffo	Supervisor, Right-of-Way

Table 2 PIMA COUNTY ATTENDEES	
Kyle Johnson	Legal Council
Ian Milliken	Cultural Manager
Carrie Olson	Project Manager, Pima County Flood Control
Eric Shepp	Director, Pima County Flood Control
Jenny Neeley	Program Manager

Table 3 EOCENE ATTENDEES	
Name	**Title**
Matt Ritter	Environmental Planner

MEETING SUMMARY

UNSE has identified several issues to address regarding the expansion of a 138 kV line within the Conservation Park. UNSE also seeks an alternatives analysis to justify the project and demonstrate its impact on cultural resources. UNSE discussed exploring the possibility of using an aerial easement to minimize ground disturbance and reduce the project's footprint.

ACTION ITEMS

- UNSE will consult with their engineers to determine if 46kV line can be buried.
- Legal Counsel will meet separately the week of 6/28
- Depictions width and length of easements up to 160 ft. Easement areas visual will be provided to Pima County by UNSE.

Pima County Briefing Summary Report
July 23, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Adam Melton	Assistant General Council
Steven Eddy	Land Use Planner
Megan Hill	Attorney

Table 2 PIMA COUNTY ATTENDEES	
Name	**Title**
Kyle Johnson	Attorney

MEETING SUMMARY

UNSE presented plans to the County and updated them on the Project. The meeting was for an update to the Canoa Ranch Conservation District Process.

Pima County Briefing Summary Report
December 4, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Steven Eddy	Land Use Planner
Megan Hill	Legal Council

Table 2 PIMA COUNTY ATTENDEES	
Name	**Title**
Kyle Johnson	Attorney
Adam Melton	Attorney
Erin Mendoza	Regulatory Specialist

MEETING SUMMARY

Pima County is willing to negotiate and may consider releasing the restrictive covenants. Once terms are agreed upon, finalizing the agreement with U.S. Fish and Wildlife and the trust is expected to take approximately two months.

PIMA COUNTY ACTION ITEMS

- Confirm fee of $5,000 per acre
- Provide conditions of fee and land exchange options (e.g. minimum size, desired locations, contiguous, etc.)

Pima County Briefing Summary Report
December 18, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Steven Eddy	Land Use Planner
Megan Hill	Legal Council

Table 2 PIMA COUNTY ATTENDEES	
Name	**Title**
Kyle Johnson	Attorney
Adam Melton	Attorney
Erin Mendoza	Regulatory Spcecialist

MEETING SUMMARY

Pima County will be drafting an agreement that includes a mitigation fee. While no joint statement will be issued, the terms can be disclosed during negotiations. Pima County will also consult with CLR regarding the full northern easement for both the east and west options.

- Provide guidelines for the information TEP may disclose to the public at upcoming public meetings

UNSE ACTION ITEMS

- Look into the impact of the new easement (Confirm easement size and use)
- Look into the abandonment/restoration process (What would be the impact of the removal? Would TEP restore the land where lines are removed/relocated?)
- Provide a project timeline
    - SCR North:
        - Public Outreach #1 – Q1 2025
        - Public Outreach #2 – Q2 2025
        - Public Outreach #3 – Q3 2025
        - File Certificate of Environmental Compatibility (CEC) – Q4 2025
        - Arizona Power Plant and Transmission Line Siting Public Hearing, November 2025
        - Arizona Corporation Commission Public Hearing – early 2026
    - SCR South:
        - To commence in mid-2025

Pima County Briefing Summary Report
January 23, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Steven Eddy	Land Use Planner
Eli Ancharski	Attorney
Megan Hill	Attorney

Table 2 PIMA COUNTY ATTENDEES	
Name	**Title**
Kyle Johnson	Attorney
Adam Melton	Attorney
Erin Mendoza	Regulatory Specialist

MEETING SUMMARY

Pima County presented the County's draft agreement, modeled after the Sunzia template, which outlines two mitigation options. The County is enthusiastic about the proposal, noting it would streamline approval from PCBS, the trust, and U.S. Fish and Wildlife. In exchange for removing the parcels from the MSCP, the County would include an easement on Canoa Ranch. UNSE will review the proposal before reconvening after that date.

Pima County Briefing Summary Report
February 13, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Steven Eddy	Land Use Planner
Eli Ancharski	Attorney
Megan Hill	Attorney

Table 2 PIMA COUNTY ATTENDEES	
Name	**Title**
Kyle Johnson	Attorney
Adam Melton	Attorney
Jenny Neeley	Pima County Natural Resources, Parks, and Recreation
Kris Gade	Director, Environmental Planning
Erin Mendoza	Regulatory Specialist

MEETING SUMMARY

UNSE presented its plans for using the Cienega Creek line, emphasizing the need for a blanket easement to maintain and clear the area. Discussions also covered the PCBS process, contract drafting, and the need for GIS data on a western route not yet considered by the County. A follow-up meeting is scheduled for March 10, with the County expected to confirm its direction by early March.

Pima County Canoa Ranch Conservation Easement Briefing Summary Report
March 10, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Steven Eddy	Land Use Planner
Chris Ortiz Y Pino	Project Manager
Megan Hill	Attorney

Table 2 PIMA COUNTY ATTENDEES	
Name	**Title**
Erin Mendoza	Regulatory Specialist
Eric Shepp	Pima County Regional Flood Control District
George Andros	Comerica and Government Relations
Jenny Neeley	Pima County Natural Resources, Parks, and Recreation
Julie Parizek	Pima County Natural Resources, Parks, and Recreation
Ian Milliken	Pima County Office of Sustainability & Conservation

MEETING SUMMARY

Pima County shared the outcome of its internal discussions regarding the Cienega Creek parcels and UNSE's easement requirements. Additionally, UNSE requested an easement at Canoa Ranch, and the County indicated it has other lands of interest that could follow the same ownership and operational model as Cienega Creek.

ADOT Briefing Summary Report
October 22, 2024

MEETING ATTENDEES

Table 1 EOCENE ATTENDEES	
Name	**Title**
Brian Parker	Project Manager
Matt Ritter	Environmental Planner

Table 2 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Minerva Rivera Crill	Civil and Transmission Engineer
Michael Riesgo	Design Supervisor
Chris Ortiz Y Pino	Project Manager, Siting, Outreach and Engagement
Laura Marshall	ROW Specialist

Table 2 ADOT ATTENDEES	
Name	**Title**
Angela Fierros	Permitting
Jeremy Moore	District Engineer
Priscilla Thompson	Utility Engineering Coordinator
Sarah Karasz	Environmental Planning
Jay Gomes	Contracts
Richard Frieje	Traffic Engineering
Anna Arce	Permitting
Michella Garza	Permitting

MEETING SUMMARY

The meeting was to present a briefing of the Project to Arizona Department of Transportation.

Q&A

ADOT asked whether placing the transmission line on the east side of the frontage road would avoid crossings, which was confirmed as correct and potentially feasible. Line inspections would be conducted via spur roads spaced approximately every 800 feet, and no gates are planned. A clear zone discussion also took place. ADOT noted that the area is culturally rich, which could complicate development on the western side of I-19, though there are no major biological or hazardous concerns. ADOT clarified that the project would require a permit rather than easements. Additionally, USNE raised the possibility of an aerial easement, and ADOT will consult the County Attorney since the current covenant doesn't explicitly address it.

ADOT Briefing Summary Report
July 25, 2025

MEETING ATTENDEES

Table 1 EOCENE ATTENDEES	
Name	**Title**
Brian Parker	Project Manager

Table 2 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Project Manager
Chris Ortiz Y Pino	Project Manager, Siting, Outreach and Engagement
Deborah Vining	ROW Specialist

Table 3 ADOT ATTENDEES	
Name	**Title**
Angela Fierros	Permitting
Jay Gomes	Contracts
Richard Frieje	Traffic Engineering
Michella Garza	Permitting

MEETING SUMMARY

UNSE presented Phase 1 of a three-phase project aimed at improving power reliability in Santa Cruz County, with future phases involving line rebuilds and extensions. UNSE reviewed five alternative routes and plans to present these to the public and agencies in early August. ADOT provided feedback on potential aerial encroachments and lighting conflicts, which appear manageable.

ADOT Briefing Summary Report
October 22, 2024

MEETING ATTENDEES

Table 1 EOCENE ATTENDEES	
Name	**Title**
Brian Parker	Project Manager
Matt Ritter	Environmental Planner

Table 2 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Clark Bryner	Project Manager
Minerva Rivera Crill	Civil and Transmission Engineer
Michael Riesgo	Design Supervisor
Chris Ortiz Y Pino	Project Manager, Siting, Outreach and Engagement
Laura Marshall	ROW Specialist

Table 2 ADOT ATTENDEES	
Name	**Title**
Angela Fierros	Permitting
Jeremy Moore	District Engineer
Priscilla Thompson	Utility Engineering Coordinator
Sarah Karasz	Environmental Planning
Jay Gomes	Contracts
Richard Frieje	Traffic Engineering
Anna Arce	Permitting
Michella Garza	Permitting

MEETING SUMMARY

The meeting was to present a briefing of the Project to Arizona Department of Transportation.

ADOT asked whether placing the transmission line on the east side of the frontage road would avoid crossings, which was confirmed as correct and potentially feasible. Line inspections would be conducted via spur roads spaced approximately every 800 feet, and no gates are planned. A clear zone discussion also took place. ADOT noted that the area is culturally rich, which could complicate development on the western side of I-19, though there are no major biological or hazardous concerns. ADOT clarified that the project would require a permit rather than easements. Additionally, USNE raised the possibility of an aerial easement, and ADOT will consult the County Attorney since the current covenant doesn't explicitly address it.

State Historic Preservation Office Briefing Summary Report
May 22, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Manger, Transmission Line Siting
Adriana Marinez	Project Manager, Transmission Line Siting
Chris Ortiz Y Pino	Project Manager, Siting, Outreach and Engagement

Table 2 SHPO ATTENDEES	
Name	**Title**
Nick Loper	Cultural Resources Compliance Manager
Caroline Klecha	Compliance Specialist, ACC
Erin Davis	Project Coordinator

MEETING SUMMARY

Caroline, a compliance specialist for ACC, led a meeting where UNSE provided an overview of a project that intersects with ASLD. Erin highlighted the need for compliance with the State Historic Preservation Act (SHPA), noting limited survey activity on AZSite.

Santa Rita Experimental Range Meeting Summary Report
December 18, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Manger, Transmission Line Siting
Adriana Marinez	Project Manager, Transmission Line Siting
Deborah Vining	ROW Specialist
Chris Ortiz Y Pino	Project Manager, Siting, Outreach and Engagement

Table 2 SRER ATTENDEES	
Name	**Title**
Bruce Vaughan	Director, U of A Real Estate Administration

MEETING SUMMARY

UNSE reviewed the PowerPoint Presentation for this meeting with Santa Rita Experimental Range. The meeting was to discuss routes running a transmission line within the Santa Rita Experimental Range.

ACTION ITEMS

TEP action item:

- A project scope with a map of a conceptual route/easement, desired easement width, height/width of facilities (walls, poles, etc.)

SRER action item:

- Bruce to share scope with agricultural department and experimental range personnel (to circle back for a meeting once review is complete)

Santa Rita Experimental Range Meeting Summary Report
January 29, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Manger, Transmission Line Siting
Adriana Marinez	Project Manager, Transmission Line Siting
Deborah Vining	ROW Specialist
Chris Ortiz Y Pino	Project Manager, Siting, Outreach and Engagement

Table 2 SRER ATTENDEES	
Name	**Title**
Debra Han	
Bruce Vaughan	Director, U of A Real Estate Administration
Connie Yazzie	U of A Real Estate Administration

MEETING SUMMARY

This meeting was set up to review UNSE's conceptual routes.

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EXHIBIT J-14

TRIBAL COORDINATION

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TRIBAL OUTREACH

Communities

On April 11, 2024, UNSE mailed informal consultation request letters and emails notifying the following Native American Groups of the Project, upcoming informational meetings and to solicit for comment:

- Ak Chin Indian Community
- Gila River Indian Community
- Salt River Pima-Maricopa Indian Community
- Tohono O'odham Nation

No responses were received during this initial outreach effort.

Following a delay in the Project, in February of 2025, UNSE determined that additional Native American Groups may also have interest and were identified as stakeholders for future outreach. These seven groups were:

- Fort McDowell Yavapai Nation
- Hopi Tribe
- Mescalero Apache Tribe
- White Mountain Apache Tribe
- Pascua Yaqui Tribe
- San Carlos Apache Nation
- Pueblo of Zuni

Outreach

On March 1, 2025, UNSE mailed Project informal consultation request letters updating the eleven tribes on the Project's progress and status. These letters were followed up with email notifications to each tribe on March 3, 2025 and included to each tribe with the consultation letter and a request to take part in a virtual tribal consultation meeting that was held on Wednesday, March 19, 2025, and an informational tribal consultation field visit to the Project Siting Area to be held on March 27, 2025. No Native American Groups responded to attend the in-person field visit, and this event did not occur.

On March 8, 2025, UNSE emailed each tribe with an updated Project newsletter, and an invitation to the Project open houses to be held on March 20th in Green Valley and Amado, AZ. UNSE followed up with each tribe via phone several times throughout March to ensure the notifications had been received.

Additional follow-up emails, Project newsletters and phone calls were sent to each tribe in May and August 2025 to coincide with the broader stakeholder outreach periods and meetings for the Project. For details, please refer to the tribal consultation log provided in this Exhibit.

In addition to the tribal outreach, UNSE delivered the Class I Cultural Resources Investigation to all the Native American Groups for their review on July 22, 2025. No further tribal comments were received during any outreach efforts.

Tribal Responses and Input

On March 17, 2025, the White Mountain Apache Tribe responded determined the proposed Project will have a “No Adverse Effect” to the tribe’s cultural heritage resources and/or Traditional Cultural Properties. This response letter is provided in this Exhibit.

EXAMPLE

February 21, 2025

Verlon M. Jose, Chairman
Tohono O'odham Nation
P.O. Box 837
Sells, AZ 85634

Re: Santa Cruz Reliability Project North – Request for Informal Consultation

Dear Mr. Chairman:

UniSource Energy Services is proposing to build a new 138 kilovolt (kV) transmission line to connect the Kantor Substation located in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements. The Santa Cruz Reliability Project North is the first of three phases in a project designed to improve transmission service in the area.

The Santa Cruz Reliability Project will provide UniSource with another way to deliver power to the substations that support service to residents, businesses, service providers and other customers in the area. Power outages would be less frequent and shorter because UniSource could supply energy from more than one direction.

Project Benefits
The project would provide several benefits to customers in the area. The project is designed to:

- Improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.
- Reduce the frequency and duration of outages affecting residents, businesses and industries, including hospitals, schools, ports of entry and federal facilities.
- Expand energy capacity in the area to meet current and future energy needs without impacting service to existing customers.
- Support maintenance and other upgrades by giving UniSource the ability to perform maintenance without interrupting system operations.

Project Updates
UniSource initiated a comprehensive planning and siting study in early 2024 to evaluate potential transmission line routes. Environmental resources and land uses are incorporated into this study, and together with public and tribal input, guide the development of routes.

UniSource originally planned a line connecting the Kantor Substation to Tucson Electric Power's Canoa Ranch Substation in Pima County. After discussions with interested parties, we have identified several additional potential points of interconnection.

With these additional interconnection options, we have expanded our study area. We have identified routing opportunities where a new line might be constructed, as well as areas of constraint where challenges to construct a new line exist. Potential routes deemed feasible to construct are identified as draft preliminary segments. However, these segments will be subject to further scrutiny and evaluation, resulting in the elimination of many from consideration.

The enclosed map depicts the project study area, which is also the cultural resources area of potential effect for the transmission line.

Under state law, the Arizona Corporation Commission (ACC) must review and approve a Certificate of Environmental Compatibility (CEC) for the project before UniSource can begin construction. The Arizona Power Plant and Transmission Line Siting Committee would review our CEC application in a public process that allows residents and other interested parties to provide comments. We anticipate filing a CEC application later this year.

UniSource is currently reviewing information from previous projects and known archaeological sites in the study area to identify any sensitive cultural resources that could be affected by the project. This data will ultimately be used to prepare a Class I cultural resources records review report of the proposed transmission line corridor, which will support the ACC's review requirements under Arizona's State Historic Preservation Act (Arizona Revised Statutes 41-861 et seq.).

UniSource anticipates easements or permits, as appropriate, for the crossing of Arizona State Trust lands administered by the Arizona State Land Department (ASLD). The project will comply with cultural resources review requirements under Arizona's State Historic Preservation Act as well as those in Section 106 of the National Historic Preservation Act (36 Code of Federal Regulations 800).

At this time, UniSource is respectfully requesting information to help identify culturally sensitive places in the study area that may have religious and traditional cultural significance to your community. This information will support our impact mitigation efforts. If you have concerns that the project might negatively impact these locations, we would like to discuss possible ways to avoid, minimize, or mitigate those effects. As part of this outreach effort, UniSource has scheduled the following opportunities for tribal communities and nations to engage:

Virtual Informal Tribal Consultation Meeting

Wednesday, March 19, 2025, from 10:30 – 11:30 a.m.
Please email scrnorth@uesaz.com to RSVP and receive a meeting link, or to request a meeting at a time of your choosing.

Field Visit

Wednesday, March 27, 2025, from 9:00 a.m. – 4:00 p.m.
Please email scrnorth@uesaz.com to RSVP and receive the meeting details.

If you have any initial concerns that the project might impact resources of religious or traditional cultural importance, please let us know within 30 days of the virtual meeting, or by April 18th, 2025, and note any specific concerns in your response. This information would be useful in siting the locations of the proposed project facilities.

Comments may be submitted via email to Everett Bassett, Principal Investigator, Eocene Environmental Group, ebassett@eocene.com, or scrnorth@uesaz.com, or mailed to:

Attn: Santa Cruz Reliability North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

Please include the name and contact information for your community's principal representative in your reply to assist in the informal consultation efforts. We value your assistance and appreciate learning of any properties of religious and cultural significance to your community that could be affected by this project.

Thank you very much for your time and consideration.

Sincerely,

Clark Bryner

Clark Bryner, AICP
Manager, Siting, Outreach and Engagement

CC: Everett Bassett, Principal Investigator; Eocene Environmental Group

From:	Parker, Brian
To:	arden.kucate@ashiwi.org
Cc:	cbryner@tep.com; Bassett, Everett
Bcc:	Ritter, Matthew; Cummings, Kelli
Subject:	UniSource – Santa Cruz Reliability Project North Update
Date:	Monday, March 3, 2025 5:53:00 PM
Attachments:	SCR North_Draft Tribal Consultation Letter_2025 0221_Final.pdf

EXAMPLE

Dear Governor Kucate,

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

This upgrade, the Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

UniSource initiated a comprehensive planning and siting study in early 2024 to evaluate potential transmission line routes for this phase of the project. Since that time, we expanded the initial study area and identified draft preliminary segments. To view the area of potential effect for cultural resources, please see the attached map or visit the project webpage to find a detailed interactive map.

UniSource is currently reviewing information from previous projects and known archaeological sites in the study area to identify any sensitive cultural resources that could be affected by the project. At this time, UniSource is respectfully requesting information to help identify culturally sensitive places in the study area that may have religious and traditional cultural significance to your community. This information will support our impact mitigation efforts. If you have concerns that the project might negatively impact these locations, we would like to discuss possible ways to avoid, minimize, or mitigate those effects.

You, or a designee, are invited to participate in a virtual informational tribal consultation meeting on Wednesday, March 19th at 10:30 a.m. to learn more about the project and provide feedback. A separate calendar invitation will follow.

Additionally, UniSource has scheduled an informational tribal consultation field visit of the study area on Thursday, March 27, 2025 from 9:00 a.m. – 4:00 p.m. Please email scrnorth@uesaz.com to RSVP and receive meeting details.

Should you have any questions or comments, these can be submitted via email to Everett Bassett, Principal Investigator, Eocene Environmental Group, ebassett@eocene.com, or scrnorth@uesaz.com, or mailed to:

Attn: Santa Cruz Reliability North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

We value your assistance and appreciate learning of any properties of religious and cultural significance to your community that could be affected by this project.

Best Regards,

Brian Parker
Regional Manager
Eocene Environmental Group

5930 Grand Avenue, West Des Moines, Iowa 50266
MOBILE 385-242-5040 **OFFICE** 480.807.0095
EMAIL bparker@eocene.com

eocene.com | **LinkedIn** | **Employee Owner**

Outlook EXAMPLE

UniSource – Santa Cruz Reliability Project North Update

From Parker, Brian <bparker@eocene.com>
Date Mon 2025-03-10 10:36 AM
To executivemail@gric.nsn.us <executivemail@gric.nsn.us>
Cc Bassett, Everett <EBassett@eocene.com>; cbryner@tep.com <CBryner@tep.com>

1 attachment (861 KB)
SCR North_Tribal Consultation Letter_2025 0221_Final_GRIC.pdf;

To Whom It May Concern,

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

This upgrade, the Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

UniSource initiated a comprehensive planning and siting study in early 2024 to evaluate potential transmission line routes for this phase of the project. Since that time, we expanded the initial study area and identified draft preliminary segments. To view the area of potential effect for cultural resources, please see the attached map or visit the project webpage to find a detailed interactive map.

UniSource is currently reviewing information from previous projects and known archaeological sites in the study area to identify any sensitive cultural resources that could be affected by the project. At this time, UniSource is respectfully requesting information to help identify culturally sensitive places in the study area that may have religious and traditional cultural significance to your community. This information will support our impact mitigation efforts. If you have concerns that the project might negatively impact these locations, we would like to discuss possible ways to avoid, minimize, or mitigate those effects.

You, or a designee, are invited to participate in a virtual informational tribal consultation meeting on Wednesday, March 19th at 10:30 a.m. to learn more about the project and provide feedback. A separate calendar invitation will follow.

Additionally, UniSource has scheduled an informational tribal consultation field visit of the study area on Thursday, March 27, 2025 from 9:00 a.m. – 4:00 p.m. Please email

scrnorth@uesaz.com to RSVP and receive meeting details.

Should you have any questions or comments, these can be submitted via email to Everett Bassett, Principal Investigator, Eocene Environmental Group, ebassett@eocene.com, or scrnorth@uesaz.com, or mailed to:

Attn: Santa Cruz Reliability North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

We value your assistance and appreciate learning of any properties of religious and cultural significance to your community that could be affected by this project.

Best Regards,

Brian Parker
Regional Manager
Eocene Environmental Group

5930 Grand Avenue, West Des Moines, Iowa 50266
MOBILE 385-242-5040 **OFFICE** 480.807.0095
EMAIL bparker@eocene.com
eocene.com | **LinkedIn** | **Employee Owner**

From:	Parker, Brian
To:	arden.kucate@ashiwi.org
Cc:	Bryner, Clark; Bravo, Teresa; Bassett, Everett
Bcc:	Cummings, Kelli; Ritter, Matthew
Subject:	UniSource - Santa Cruz Reliability Project North Update
Date:	Tuesday, July 22, 2025 3:50:00 PM
Attachments:	SCR North Class I Final 2025 0722 red.pdf SCR North Newsletter August 2025 FINAL.pdf

EXAMPLE

Dear Governor Kucate,

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

UniSource is proposing to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

This upgrade, the Santa Cruz Reliability Project North, is the first of three phases in a larger project designed to improve transmission service in the area. The project would provide UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers in Santa Cruz County, reducing the potential for a widespread, sustained outage.

The transmission line route alternatives were identified through a comprehensive planning and siting study initiated in 2024. This study considered a wide range of evaluation criteria—some mandated by law and others highlighted as important by local residents and other stakeholders.

Initially, UniSource identified 177 preliminary route segments. After multiple rounds of evaluation, the list was narrowed down to five route alternatives, which are now being presented for public and agency review.

At this stage, UniSource has not selected a preferred route. However, a decision is expected by September after considering additional public input. UniSource will include a preferred route, along with alternative routes in its application for a Certificate of Environmental Compatibility (CEC).

For more information on the project and to view a detailed interactive map of the alternative routes, please visit our project webpage at uesaz.com/santa-cruz-reliability-north.

Request for Informal Consultation

UniSource has completed a Class I Cultural Resources Investigation report (enclosed). At this time, it is not known if a nexus exists that would require compliance with Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800, however we do request an informal consultation to help identify historic properties in the project area that may have religious and cultural significance to your tribe, and if such properties exist, to help assess how the project might affect them. If the project might have an adverse effect, we would like to discuss possible ways to avoid, minimize or mitigate potential adverse effects.

If you have any initial concerns with impacts of the project on religious or cultural properties, can you please let us know within 30 days and note them in your response? Can you please include in your reply, the name and contact information for the tribe's principal representative in the informal consultation?

Should you have any questions or comments, these can be submitted via email to Everett Bassett, Principal Investigator, Eocene Environmental Group, ebassett@eocene.com, or scrnorth@uesaz.com, or mailed to:

Attn: Santa Cruz Reliability North
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85701-0711

In addition, UniSource respectfully invites interested tribal representatives to participate in a field visit to review the proposed route alternatives on the ground. These visits offer an opportunity to share insights, ask questions, and provide input directly related to areas of cultural or environmental significance. If your tribe is interested in scheduling a visit, please reach out to me directly.

We value your assistance and appreciate learning of any properties of religious and cultural significance to your community that could be affected by this project.

Sincerely,

Brian Parker
Regional Manager
Eocene Environmental Group

5930 Grand Avenue, West Des Moines, Iowa 50266
MOBILE 385-242-5040 **OFFICE** 480.807.0095
EMAIL bparker@eocene.com

eocene.com | LinkedIn | Employee Owner

CC:

Clark Bryner, Manager, Siting, Outreach and Engagement (UniSource)

Everett Bassett, Principal Investigator (Eocene Environmental)

Teresa Bravo, Sr. Government Relations Representative/Tribal Liason

Outlook

UniSource – Santa Cruz Reliability Project North Update 8.25.25

From Bravo, Teresa <Teresa.Bravo@tep.com>
To verlon.jose@tonation-nsn.gov <verlon.jose@tonation-nsn.gov>
Cc Matt Smith <matts@simginc.com>; contactus@tonation-nsn.gov <contactus@tonation-nsn.gov>

1 attachment (2 MB)
SCR North - Preferred and Alternative Routes.pdf;

Dear Chairman Jose,

UniSource Energy Services is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

In early 2024, UniSource began a comprehensive planning and siting study for the first phase of the Santa Cruz Reliability Project, to identify the best routes to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County. Following 20 months of study, which included 9 public meetings attended by hundreds of individuals who provided over 300 written comments, UniSource has identified the routes that will be included in an application for a Certificate of Environmental Compatibility (CEC). **The previously announced Route 2 was identified as the Preferred Route, while Route 1 was identified as an Alternative Route. Routes 3, 4, and 5 have been eliminated from consideration.** Please see the attached map.

UniSource plans to file a CEC application in mid-September and a public hearing before the Arizona Power Plant and Transmission Line Siting Committee is tentatively scheduled for November 3-7, 2025. Once the application has been filed, and the hearing date is confirmed, I will communicate further details.

Should you have any questions or comments or would like to schedule a briefing on the project with our team, please feel free to contact me directly.

We appreciate your engagement in this important energy project.

Best regards,

Teresa Bravo, MBA
Sr. Government Relations Rep., Local Affairs & Tribal Liaison
88 E. Broadway Blvd.,Mail Stop HQE504, Tucson, AZ 85701
Email: teresa.bravo@uns.com Mobile: (520) 633-1112
UNS Energy Corporation

White Mountain Apache Tribe

Office of Historic Preservation
PO Box 1032
Fort Apache, AZ 85926
Ph: (928) 338-3033 Fax: (928) 338-6055

To: Clark Bryner, AICP Manager, Siting, Outreach and Engagement

Date: March 15, 2025

Re: *Unisource Energy Services proposed Santa Cruz Reliability Project North*

The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the project dated; *February 21, 2025.* In regard to this, please refer to the following statement(s) below;

Thank you for allowing the White Mountain Apache tribe the opportunity to review and respond to the above proposal to construct a new 138 kilovolt transmission to connect the Kantor Substation and improvement to existing facilities, located in Santa Cruz County to the regional electric grid in Pima County, Arizona.

Please be advised, we have reviewed the information provided, and we have determined the proposed transmission project will have a ***"No Adverse Effect***" to the tribe's cultural heritage resources and/or Traditional Cultural Properties.

Thank you for the continued tribal engagement and consultation, and collaborations in protecting and preserving places of cultural and historical importance.

Sincerely,

[redacted]

White Mountain Apache Tribe – THPO
Historic Preservation Office

Tohono O'odham Nation	520-383-2028	contactus@tonation-nsn.gov	P.O. Box 837, Sells, AZ 85634	Chairman: Verlon M. Jose
introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/17, 3/18,3/21; 5/3 email /EB (Kim Encias); project update email /BP 7/24/2025; project update reception/EB 8/30/2025				
Ak Chin Indian Community	520-568-1000	info@ak-chin.nsn.us	42507 W Peters and Nall Rd, Maricopa, AZ 85138	Chairman: Gabriel Lopez/ Vice Chairman Carlyle
introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/14, 3/21; 5/3 email /EB; project update email /BP 7/25/2025; project update reception/EB 8/30/2025				
Gila River Indian Community	520-562-9691	D.Carlye@ak-chin.nsn.us	P.O. Box 97, Sacaton, AZ 85147	Governor: Stephen Roe Lewis/ Lt. Governor Regine Antone
introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/14, 3/21; 5/3 email /EB; (Ardell Moore; project update email /BP 7/25/2025; project update reception/EB 8/30/2025				
Salt River Pima-Maricopa Indian Community	480-362-7400	bryan.meyers@srpmic-nsn.gov	10005 E Osborn Rd, Scottsdale, AZ 85256	President: Martin Harvier
introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/14, 3/17, 3/21; 5/3 email /EB (Kelly Washington/Shane Anton, Angela Garcia-Lewis); project update email /BP 7/24/2025; project update reception/EB 8/30/2025				
Pascua Yaqui Tribe	520-879-6319	Julian.Hernandez@pascuayaqui-nsn.gov	7474 S Camino De Osete, Tucson 85746-9308	Chairman: Julian Hernandez
introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/14, 3/21; 5/3 email /EB; project update email /BP 7/24/2025; project update reception/EB 8/30/2025				
Fort McDowell Yavapai Nation	480-789-7000	omoreno@fmyn.org/ sandra.pattea@fmyn.org	P.O. Box 17779, Fountain Hills, AZ 85269	President: Sandra Pattea
introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/14, 3/21; 5/3 email /EB (Clissene Lewis/Debbie Haynes); project update email /BP 7/25/2025; project update reception/EB 8/30/2025				
San Carlos Apache Nation	(928) 475-1600	info@scat-nsn.gov	PO Box 0, San Carlos, AZ 85550	Chairman: Terry Rambler

introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/13, 3/21; 5/3 email /EB; project update email /BP 7/24/2025; project update reception/EB 8/30/2025

Pueblo of Zuni	505-782-7000	cordelia.hooee@ashiw@org	PO Box 339, 1203B State HWY 53, Zuni, NM 87327	Governor: Arden Kucate/ Lieutenant Governor Cordelia Hooee

introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/21; 5/3 email /EB (Kim Encias/Cordelia .Hoovee@ashiwi.org); project update email /BP 7/24/2025; project update reception/EB 8/30/2025

White Mountain Apache Tribe	928-338-4346	n.a.	PO Box 700, Whiteriver AZ, 85941	Chairman: Kasey Velasquez

introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/14; response: 3/17 project would have no Adverse Effect; no further consultation required

Hopi Tribe	928-734-3102	hopicouncil@hopi.nsn.us	123 Main St, Kykotsmovi Village, AZ 86039	Chairman: Timothy Nuvangyaoma

introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/14, 3/21; 5/3 email /EB; project update email /BP 7/24/2025; project update reception/EB 8/30/2025

Mescalero Apache Tribe	575-464-4494	t.cochise@mescaleroapachetribe.com	P.O. Box 227, 108 Central Avenue, Mescalero, NM 88340	President: Thora Welsh Padilla / Tazalynn Cochise

introductory email /BP 3/1/2025; phone call-no results: 3/11, 3/14, 3/21; 5/3 email /EB; project update email /BP 7/24/2025; project update reception/EB 8/30/2025

Fort McDowell Yavapai Nation Meeting Summary Report
March 19, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Manger, Transmission Line Siting
Teresa Bravo	Government Liaison
Chris Ortiz Y Pino	Project Manager, Siting, Outreach and Engagement

Table 2 TRIBAL ATTENDEES	
Name	**Title**
Orlando Moreno	Community and Economic Development Director for McDowell Yavapai Nation

Table 3 EOCENE ATTENDEES	
Name	**Title**
Matt Ritter	Environmental Planner
Kelli Cummings	Regional Supervisor
Sean Flyn	Archaeologist
Everett Bassett	Archaeologist
Osmer Beck	VP

MEETING SUMMARY

UNSE provided an overview of the project (need, benefits, conservation easement, etc.). UNSE took questions from Tribal representatives.

The Tribe asked whether the full length of the site had undergone archaeological analysis, and Eocene confirmed that Class I data has been pulled from AZSite, also noting that many resources are clustered and already categorized into resource districts. The team plans to consult with tribes after recording the sites to ensure cultural sensitivity and avoid impacting significant areas. The Tribe also expressed concern about traditional land use, sharing that the Yavapai have a historical presence in the area and that he owns land held in trust, which may contain cultural remnants important for preserving heritage and educating future generations.

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EXHIBIT J-15

INDIVIDUAL HOA AND MISCELLANEOUS PUBLIC MEETING SUMMARIES

Canoa Canyon Estates Summary Report
Thursday April 25, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting

Table 2 UNSE ATTENDEES	
Name	**Title**
Pam Weston and two other residents	Resident

MEETING SUMMARY

Pam and two other residents from Canoa Ranch Estates expressed concern about a new transmission line along Duval Waterline Rd at the Green Valley Coordinating Council Meeting on Thursday, April 25 at 9 a.m. Adriana Marinez met with the residents following the meeting, at approximately 11 a.m. at the corner of W. Via del Petirrojo and S. Via de la Cruces. The residents object to any new lines on the west side of I-19, especially along Duval Waterline Rd – the existing line, which serves the mine, is already very close to homes. The residents also inquired about the lot on the east corner of W. Via del Petirrojo and S. Via de la Cruces, which they believe is owned by TEP.

The Springs Briefing Summary Report
Thursday March 12, 2025
21 Attendees from The Springs

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Manager, Transmission Line Siting
Adriana Marinez	Project Manager, Transmission Line Siting

MEETING SUMMARY

The Chair began the meeting by informing neighbors that the discussion would provide a preliminary overview of a proposed project and encouraged them to attend upcoming public meetings for more details. UNSE then presented the project's background, highlighting its necessity, anticipated benefits, the role of a conservation easement, and the potential impact on the Spring's land.

Concerns were raised about visual impacts, EMF studies, HOA liability, and disruption to nature parks and dog areas. UNSE committed to dust control during construction and clarified that pole installation in specific areas would take only a week or two. The project's timeline depends on crossing conservation land, with decisions expected by June. Access routes, vegetation preservation, and motorized access restrictions were discussed, especially regarding the blue dashed line, which the community strongly opposed. Existing poles in conservation areas are grandfathered, and while vertical stacking of circuits is possible, it poses maintenance challenges.

September 12, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Clark Bryner	Manager, Transmission Line Siting
Adriana Marinez	Project Manager, Transmission Line Siting
Chris Ortiz Y Pino	Project Manager, Transmission Line Siting

Table 2 FMI ATTENDEES	
Name	**Title**
Rustyn Sherer	Sr. Resource Analyst - Land and Water for Sierrita Mine
John Stitzer	Land and Water for Sierrita Mine
Brian Heins	Communication Specialist
Daniel Farmer	
Gordon Anderson	Sr. Electrical Engineer - Planned Engineering

MEETING SUMMARY

UNSE gave an overview of the project and highlighted challenges related to the Canoa Ranch Conservation Easement. The mine was open to the idea of placing a switchyard near residential areas on the edge of their property, ensuring it remained well set back from berms and tailings, with no development southwest of the tailings. They requested a KMZ file to share with their leadership, estimating a review period of about a month. UNSE mentioned retiring the 46 kV line, prompting questions about its impact on the mine's wells.

Freeport McMoRan Summary Report
January 27, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Minerva Rivera Crill	Engineer
Deborah Vining	ROW Specialist
Laura Marshall	ROW Specialist
Chris Ortiz Y Pino	Project Manager, Transmission Line Siting

Table 2 FMI ATTENDEES	
Name	**Title**
Rustyn Sherer	Sr. Resource Analyst - Land and Water for Sierrita Mine
John Stitzer	Land and Water for Sierrita Mine
Keven Bennett	Communication Specialist
Daniel Farmer	Water Sierrita Mine
Patrick Brennan	Land for Sierrita Mine
Gordon Anderson	Sr. Electrical Engineer - Planned Engineering

MEETING SUMMARY

UNSE's initially proposed switchyard site was considered problematic due to its proximity to mine tailings and a natural gas line, prompting the mine to suggest a location closer to residential areas while acknowledging their plans remain flexible. Although the mine is open to collaboration and public disclosure, they emphasized the need for a well-developed proposal from UNSE, given the area's political sensitivity and land restrictions.

Freeport McMoRan Summary Report
February 24, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Minerva Rivera Crill	Engineer
Deborah Vining	ROW Specialist
Laura Marshall	ROW Specialist
Chris Ortiz Y Pino	Project Manager, Transmission Line Siting

Table 2 FMI ATTENDEES	
Name	**Title**
Rustyn Sherer	Sr. Resource Analyst - Land and Water for Sierrita Mine
John Stitzer	Land and Water for Sierrita Mine
Keven Bennett	Communication Specialist
Daniel Farmer	Water Sierrita Mine
Patrick Brennan	Land for Sierrita Mine
Gordon Anderson	Sr. Electrical Engineer - Planned Engineering

MEETING SUMMARY

Last month, FMI asked UNSE to evaluate a revised switchyard site near a different defunct golf course. FMI proposed alternative locations and interconnection points and requested UNSE to explore reliability-focused solutions and routing options, emphasizing reliability over financial concerns like a potential balloon payment.

Farmers Investment Company Summary Report
February 11, 2025

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Deborah Vining	ROW Specialist
Clark Bryner	Project Manager
Manny Romero	Key Account Manager
Chris Ortiz Y Pino	Project Manager, Transmission Line Siting

Table 2 FICO ATTENDEES	
Name	**Title**
Rich Walden	Farm Manager
Brian Driscoll	COO

MEETING SUMMARY

This meeting is intended to provide a high-level overview of the project, including its purpose, scope, and anticipated outcomes. A key focus will be on presenting and discussing the conceptual alignments of the proposed infrastructure routes.

PBS Consultation Summary Report
August 13, 2024

MEETING ATTENDEES

Table 1 UNSE ATTENDEES	
Name	**Title**
Adriana Marinez	Project Manager, Transmission Line Siting
Minerva Rivera Crill	Engineer
Deborah Vining	ROW Specialist
Liza Castillo	ROW Consultant
Laura Marshall	ROW Specialist
Chris Ortiz Y Pino	Project Manager, Transmission Line Siting

Table 2 EOCENE ATTENDEES	
Name	**Title**
Brian Parker	Project Manager
Matt Ritter	Environmental Planner

Table 3 PBS ATTENDEES	
Name	**Title**
K. Harman	Land Representative

MEETING SUMMARY

UNSE shared a project overview involving a substation and looped line, and discussed crossing privately held land. The landowner, who holds the property for future development and currently uses it for grazing, expressed interest in receiving route maps, noting no major conflicts with current use.

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EXHIBIT J-16

PROJECT WEBPAGE



Español

Santa Cruz Reliability Project North

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electric transmission system serving Santa Cruz County.

The Santa Cruz Reliability (SCR) Project North will strengthen the local energy grid

More information

- Newsletter – *July 2025*
- Interactive Map
- Route Alternatives Map
- Comment Form

Santa Cruz Reliability Project North

UniSource is preparing plans for new transmission facilities to improve the reliability and resiliency of the electric transmission system serving Santa Cruz County.

The Santa Cruz Reliability (SCR) Project North will strengthen the local energy grid by connecting its Kantor Substation located in Santa Cruz County to the regional electric grid in Pima County, while also performing upgrades to expand the substation's capacity and accommodate operations and maintenance requirements.

SCR North is the first of three phases in a project designed to improve transmission service in the area.

Public Open House Options—Please Join Us!

Tuesday, August 5, 2025 9-11 a.m.
Hosted by the Green Valley Council
Green Valley Recreation East Center
7 S Abrego Dr
Green Valley, AZ 85614

Tuesday, August 5, 2025 5-7 p.m.
Sopori Elementary School
5000 W Arivaca Rd
Amado, AZ 85645

Virtual Presentation
Thursday, August 7, 2025 4:30-5:30 p.m.

Microsoft Teams
Meeting ID: 226 630 125 702 2
Passcode: mg2ys2CZ

More information

- Newsletter – *July 2025*
- Interactive Map
- Route Alternatives Map
- Comment Form

Passcode: mg2ys2CZ

Dial in by phone: +1 712-274-3750,,881689883#
Phone conference ID: 881 689 883#

- Project Description +
- Need and Benefits +
- Maps +
- Outreach Materials +
- Required Approvals and Timeline +
- Public Participation +



English

Proyecto de Confiabilidad de Santa Cruz Norte

UniSource está preparando planes para nuevas instalaciones de transmisión para mejorar la fiabilidad y resiliencia del sistema de transmisión eléctrica que sirve al Condado de Santa Cruz.

Más Información

- Mapa de rutas alternativas
- Formulario de Comentarios
- Boletín informativo – *julio de 2025*

Proyecto de Confiabilidad de Santa Cruz Norte

UniSource está preparando planes para nuevas instalaciones de transmisión para mejorar la fiabilidad y resiliencia del sistema de transmisión eléctrica que sirve al Condado de Santa Cruz.

El Proyecto de Confiabilidad de Santa Cruz (SCR) Norte fortalecerá la red energética local mediante la construcción de una segunda línea de transmisión de 138 kilovoltios (kV) para conectar la subestación Kantor, ubicada en el Condado de Santa Cruz, con la red eléctrica regional en el condado de Pima y, a su vez, realizar mejoras para ampliar la capacidad de la subestación y adaptarse a los requisitos de operación y mantenimiento.

SCR Norte es la primera de tres fases que UniSource está planeando para mejorar el sistema de transmisión de alta tensión que sirve a los clientes en el Condado de Santa Cruz.

Aviso de Reunión Abierta Pública — ¡Acompáñenos!

Martes 5 de Agosto 9-11 a.m.
Alojado por el Consejo de Green Valley
Green Valley Recreation East Center
7 S Abrego Dr
Green Valley, AZ 85614

Martes 5 de Agosto 5-7 p.m.
Escuela Primaria Sopori
5000 W Arivaca Rd
Amado, AZ 85645

Presentación Virtual

Más Información

- Mapa de rutas alternativas
- Formulario de Comentarios
- Boletín informativo – *julio de 2025*

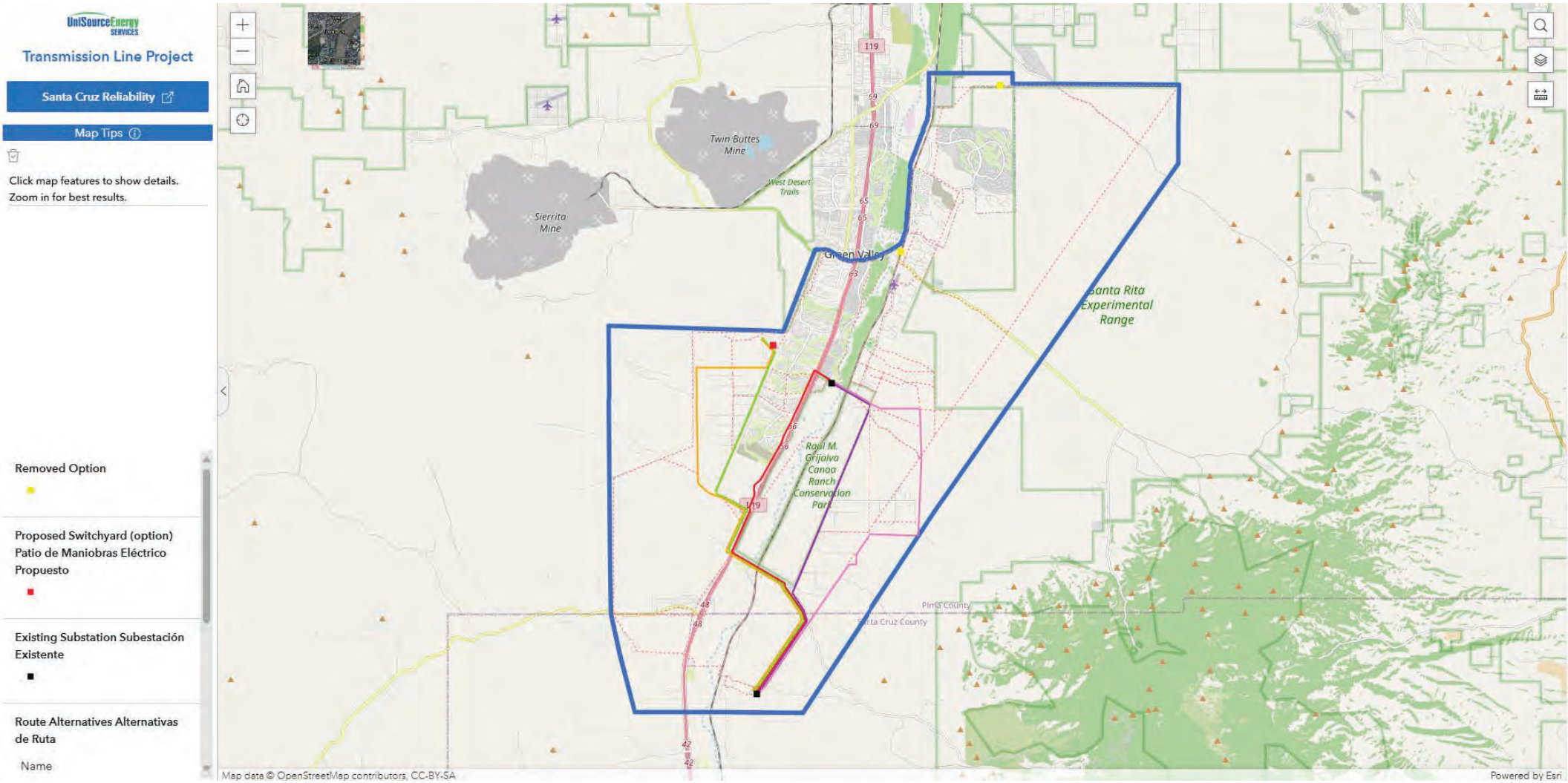
Escuela Primaria Sopori
5000 W Arivaca Rd
Amado, AZ 85645

Presentación Virtual
Jueves 7 de Agosto 4:30-5:30 p.m.

Haga clic aquí para unirse a la reunión
Id. De reunión: 226 630 125 702 2
Código de acceso: mg2ys2CZ

Llamar por teléfono: +1 712-274-3750,,881689883#
Id. de conferencia de teléfono: 881 689 883#

- Descripción del Proyecto +
- Necesidad y Beneficios +
- Mapas +
- Materiales de difusión +
- Aprobaciones Requeridas y Cronograma +
- Participación Pública +


UniSourceEnergy SERVICES
Transmission Line Project
Santa Cruz Reliability
Map Tips
Click map features to show details.
Zoom in for best results.
Removed Option
Proposed Switchyard (option)
Patio de Maniobras Eléctrico Propuesto
Existing Substation Subestación Existente
Route Alternatives Alternativas de Ruta
Name
Twin Buttes Mine
Sierrita Mine
West Desert Trails
Green Valley
Santa Rita Experimental Range
Raúl M. Grijalva Canoa Ranch Conservation Park
Pima County
Santa Cruz County
119
59
69
65
63
56
48
42
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Powered by Esri

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EXHIBIT J-17

COMMENTS

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/15/2024

Method Phone

Category General/Support

Issues/Comments

Message: This is [redacted], could you please return my call at [redacted]? I'm in Elephant Head on the way and I happen to live next to the property that has one of your utility poles, or otherwise known as the Tucson/Nogales power line road. I have some questions, if could please give me a call back I'd appreciate it. Thank you.

Response Sent

Conversation: [redacted]). She said she received the mailer and saw the meeting sign and wanted to know more about the project. I explained how the project will benefit Santa Cruz County and connect the Canoa Ranch and Kantor substations. She said if the line near her home - that she called the "Tucson/Nogales power line" - will stay the same then she has no concerns. She also said that using that line made a lot of sense because it'd be an easy/cheap option. She does not plan on attending the upcoming open house, but sounded interested in attending the next meeting when there are route alternatives.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/15/2024

Method Email

Category General/Support

Issues/Comments

I am responding to the information in the recent flyer. I live in Green Valley, probably served by the Canoa Ranch Substation. We enjoy reliable power currently. I like your ongoing efforts to improve the robustness of the transmission facilities. We hear a lot that the current grid is not well prepared for new, renewable power sources, nor for more EVs. I am glad to see this effort and would like to see it approved and implemented.

Response Sent

Thank you for your email. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North. For more information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/18/2024

Method Online Comment Form

Category Viewshed

Issues/Comments

We live in the area where you are planning for the Santa Cruz Reliability Project. We bought this home for the only purpose of enjoying a clear view of our beautiful mountains. We even decided it would be worth putting up with Hwy 19 traffic noise. We are not comfortable about driving at night. If you could have your meeting earlier in the day, more residents in the Canoa Ranch area would be able to attend.

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.
For the most up-to-date information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/18/2024

Method Phone

Category Routing

Issues/Comments

I'd like to know if the project that's going to be somewhere by my house is underground or aboveground. It's the UniSource plans for transmission facilities to support community resiliency. My address is [redacted] My phone number [redacted] Please call me back. Thank you, goodbye.

Response Sent

[redacted] received the newsletter in the mail. I explained that we are proposing an aboveground route and how we are at the beginning stages of the project. She said she wants the line placed underground. She lives right by I-19 and the only reason
she puts up with the noise is so she can see the beauty of the mountains. I told her the best way to provide input is via a written comment, directed her to the project website, and explained the Google Map (opportunities and constraints). She said that a lot
of people, including herself, cannot drive at night and that we should have the option for a daytime meeting. She had not heard of the GVCC meeting and is not a member.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/22/2024

Method Email

Category Other

Issues/Comments

Adriana -
Please send me the information on Your project. We would be glad to support Your efforts.
Thank you
--
[redacted]

Response Sent

Thank you, [redacted] I appreciate it. The website is probably the best source of information. I'll also provide more information during tomorrow's agency briefing if you're able to make it. If not, you can find the presentation on the website later this week. Thank you for your support.
https://www.uesaz.com/santa-cruz-reliability/
Kind regards,
Adriana Mariñez

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/25/2024

Method Online Comment Form

Category Routing

Issues/Comments

We live on atascosa peak drive and the existing high voltage line borders the west side of our property. Please consider another route.

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.
For the most up-to-date information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/25/2024

Method Online Comment Form

Category General/Opposition

Issues/Comments

I attended the meeting at Sopori Elementary School on Thursday, April 25. I am strongly opposed to the proposed transmission lines going in and around homes and people, specifically Lines 3, 9, and 20. If there is need for these transmission lines, there is plenty of open desert several miles away from Green Valley to build these.

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.
For the most up-to-date information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/25/2024

Method Online Comment Form

Category other

Issues/Comments

1. I noticed that the power poles for existing 138kV transmission line out of the Canoa Ranch Substation heading West on Duval Mine Waterline Road already have six arms. As I understand from the public meeting, this means these power poles already have two lines. If these existing power poles are selected as part of the final route of the new 138kV line, can a third line be added to these poles or will new poles have too be installed in this ROW? 2. Prior to the replacement of the old poles with these new poles some years ago, a large was large erected on Camino Del Sol where the new power lines cross Camino Del Sol at Duval Mine Waterline Road (on the east side of Camino Del Sol). This sign announced this new project, now completed some years ago. The sign has become an eye sore. Do you think its time for you to remove it (before you put up new signs announcing the next improvement)?

Response Sent

Good morning, [redacted]
Thank you for your comments on the Santa Cruz Reliability Project North.
We are still in the early planning stages of the project and do not have a predetermined route. The existing line on Duval Mine Waterline Road is too narrow for a second pole line and adding a third circuit to the existing line is not ideal for several reasons. We plan to evaluate each opportunity and constraint in the coming weeks and will inform the public once we've had an opportunity to eliminate certain options before developing route alternatives.
Thank you for bringing the signs to our attention. We are working to get them removed as soon as possible.
Please feel free to reach out with any further questions.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/25/2024

Method Paper Comment Form

Category other

Issues/Comments

Please indicate any issues that are important to you in evaluation the transmission line: Location, Serving those needing the power at the lowest cost and least impact on the environment. Is there any addition information that you would like UniSource to consider when designing this project? Have you looked into advanced reconducting & solar?

Response Sent

Thank you for attending the Santa Cruz Reliability Project North Open House and for submitting a comment. To answer your question:
UniSource is considering advanced conductor in situations where appropriate and plans to expand its renewable resources by 350 MW by 2028 (225 MW of solar) as outlined in the company's Integrated Resource Plan (IRP).
For more information on the company's IRP, please visit https://docs.uesaz.com/wp-content/uploads/2023-UniSource-IRP.pdf, and for more information about the project, please visit https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/25/2024

Method Paper Comment Form

Category Routing

Issues/Comments

[redacted] provided a map showing his preferences for a route, avoiding the residential areas in Green Valley and stay far west of the I-19/

Response Sent

No response needed.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/25/2024

Method Paper Comment Form

Category other

Issues/Comments

Please indicate any issues that are important to you in evaluation the transmission line: I worked in Nogales for 19 years and know the electric outages and lack of power. Santa Cruz needs more electric power for their economic development. Is there any addition information that you would like UniSource to consider when designing this project? More solar arrays, internet access

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/29/2024

Method Email

Category Routing

Issues/Comments

[redacted] and two other residents from Canoa Ranch Estates expressed concern about a new transmission line along Duval Waterline Rd at the Green Valley Coordinating Council Meeting on Thursday, April 25 at 9 a.m. Adriana Marinez met with the residents following the meeting, at approximately 11 a.m. at the corner of W. Via del Petirrojo and S. Via de la Cruces. The residents object to any new lines on the west side of I-19, especially along Duval Waterline Rd – the existing line, which serves the mine, is already very close to homes. The residents also inquired about the lot on the east corner of W. Via del Petirrojo and S. Via de la Cruces, which they believe is owned by TEP.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/3/2024

Method Online Comment Form

Category Routing

Issues/Comments

From the map, the Kantor line through State Trust land would appear to be a more direct and less disruptive route to serve Rio Rico and Nogales than running additional power lines on the narrow Waterline Road through populated areas.

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.
For the most up-to-date information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/4/2024

Method Online Comment Form

Category Property Value

Issues/Comments

Our HOA has Waterline Mine Road adjacent to several homeowners properties, and the TEP high-voltage lines are currently within Close proximity to these homeowners properties!!
I am President of our HOA and our homeowners have asked that the UNISOURCE project NOT use Waterline Mine Road to avoid more high-voltage lines close to their homes. Waterline Mine Road is very narrow and right up against many of our homeowners properties, which causes concern!!

[redacted]

Response Sent

"Good morning, [redacted]
Thank you for attending the Santa Cruz Reliability Project North meeting presentation to the Green Valley Council and for your time after the meeting.
I wanted to follow up to let you know I checked with the project team, including our Transmission, Distribution and Land Resources planners and they've confirmed that while TEP owns the land, there are no plans for the empty lot at the corner W. Via del Petirrojo and S. Via de Las Cruces.
We are still in the early planning stages of the project and do not have a predetermined route for the line. For the latest project information, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/ or feel free to email with any further questions or concerns.
Thank you for your interest in the project.
Kind regards,
Adriana Mariñez
Transmission Line Siting Project Manager
Tucson Electric Power & UniSource Energy Services
"

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/6/2024

Method Paper Comment Form

Category Property Value

Issues/Comments

My property borders the Duval water line road with the power poles that are being looked at as a possible route for this large expansion. This runs right through many residential neighborhoods, including mine. The extra power lines and associated KW's will make these a major deterrent to any future buyers of these homes. The noise, and other know problems with this much power on the transmission poles should be considered to take a much less intrusive path. Thank you

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.

For the most up-to-date information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/7/2024

Method Email

Category other

Issues/Comments

Hello,
I am a homeowner in Santa Cruz County; I live in Mowry which is south of Harshaw and north of Washington Camp along Harshaw Rd. I am guessing that, as part of the infrastructure improvement projects, Unisource may find itself in a situation where it needs to dispose of unneeded / used utility poles. If so, I can assist Unisource by taking unneeded poles off your hands so they don't end up in a landfill.
Thanks,
[redacted]

Response Sent

Thank you for your comment submission.
I believe your comments are related to the Rio Rico to Harshaw Transmission Line Project. Your request has been shared with the UniSource team, who will reach out if there's an opportunity to coordinate the disposal of any unused distribution poles.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/16/2024

Method Paper Comment Form

Category Property Value

Issues/Comments

I am extremely concerned about the potential sites for the AC transmission line between Kantor and Canoa substations. In particular, line 3, is very close to many homes. There is potential for interference with communication devices, which is already a problem for part of the line 3 option. Lines 9 and 20 are also surrounded by existing homes. Lines that are further from existing homes appear to be more reasonable options.
Thanks for your consideration.

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.
For the most up-to-date information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/16/2024

Method Paper Comment Form

Category Property Value

Issues/Comments

Proposed AC transmission line, # 3, near S Atascosa Peak Dr. is inappropriate.
Canoa Sierra is a senior community in which maintaining health is a number one priority.
Possible AC line interference with already poor communication here could be very detrimental to many in this community.

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.
For the most up-to-date information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/13/2024

Method Email

Category Routing

Issues/Comments

Your publication is general at this point. As a resident of San Ignatio vistas I am concerned about these lines location as to obstruct the views of the mountain.
Many lines are underground, is this not possible other than cost? could they not be located along the existing railway. When is the next public meeting.
Thank you
[redacted]

Response Sent

Thank you for sharing your concerns. Your comments have been added to the project record.
It costs much more to build a transmission line underground than to build the same line overhead. The cost difference varies significantly by project but increases dramatically with higher voltages, which explains why many lower voltage lines are installed underground while higher-voltage transmission lines are not. Underground lines also have higher maintenance costs. Because our costs are passed along to customers, UniSource avoids unnecessary expenditures to help keep rates as affordable as possible.
UniSource is exploring many opportunities in the area, including an alignment adjacent to the existing railway.
The next public meeting has not yet been scheduled, but you will receive notice in the mail once a date has been set.
In the meantime, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/ for the most up-to-date project information.
Kind regards,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/15/2024

Method Email

Category General/Opposition

Issues/Comments

Hello,
I own the property at [redacted]. I want to go on the record that I am against any attempt to change current landscape surrounding the area.
I bought the property to get away from all the EMF and electrical pollution. Please preserve the conservation park and surrounding neighborhood as is. We already have enough evidence of the electrical infrastructure driving up to the area.
Sincerely,
[redacted]

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.
For the most up-to-date information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/15/2024

Method Phone

Category Routing

Issues/Comments

7/15 @ 2:32 p.m.
Hi, this is [redacted] and my phone number is [redacted]. My question is, I live in the Montana Vista subdivision, which you have in a red circle on your flyer which you sent out recently. Once you get this boost to the grid completed, will you be taking over as our electric provider, we're currently with Trico. I would appreciate some information.

Response Sent

7/16 @ 10:30 a.m.
Adriana provided information about the project and explained to [redacted] that she will not have a change in service providers. She was grateful for the information and happy to hear she would still be served by Trico. [redacted] also asked if the project would be undergrounded or avoid residential area. Adriana responded that the project would be overhead and that residential areas would be avoided as much as possible.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/17/2024

Method Paper Comment Form

Category other

Issues/Comments

I have a concern over reliable energy and I also have a concern over the aesthetics of the community that I live in. I would like to know where the transmission line may go and how it may be visible.

Response Sent

Thank you for sharing your concerns. Your comments have been added to the project record and you have been added to the project email distribution list.
No routes have been determined at this stage of the project, but we invite area residents, including yourself, to help identify opportunities and constraints, areas to avoid, and potential routes for our project. You can view the latest opportunities and constraints by viewing our interactive map.
For the latest information, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability.

Response Received

Like the newsletter line, the link you include with your email reply to me, for the "Interactive map" does not work. When clicked upon I continually get an error message that says "Site can not be reached".

Please advise.

Response Sent

Good morning – You can view the interactive map from the project webpage: https://www.uesaz.com/santa-cruz-reliability/ (just click on “Interactive Map” link under “More Information” on the right hand side of the page).

Response Received

This link also goes to a page that says "Unable to Load".....!!!!!!!!

Response Sent

Thank you for brining this to our attention. We are working on resolving the issue. In the meantime, you can view the opportunities and constraints in the attached static map (see page 2).

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/17/2024

Method Email

Category other

Issues/Comments

Your opportunities and constraints map is completely screwed up it shows calle tres south of calle cinco and calle seies

Response Sent

Thank you for bringing this to our attention. We will make the necessary corrections. Have a great day.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 10/04/2024

Method Letter

Category Routing

Issues/Comments

I am concerned about proposed line 3. It should be moved west further to reduce the impact on more populated areas.

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 11/20/2024

Method Phone

Category other

Issues/Comments

[redacted] would like to speak with you regarding Black Mountain Generating Station - Mohave. He can be reached at [redacted].

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 11/20/2024

Method Phone

Category Routing

Issues/Comments

Hello Clark,

I received a couple of messages for you at switchboard.

[redacted] would like to know about a special project having to do with the Santa Cruz power lines and a public hearing. If you can please contact him at [redacted]

Thank you kindly!

Response Sent

Hello [redacted]

Great speaking with you today. I've attached our latest phase map for your information.

You may also have an interest in viewing our phase one webpage here. We'll be working on some updates to that page as well as creating a general webpage with information about all three phases. We hope to have that live by the end of the year.

Please feel free to reach out with any questions.

All my best,

Additional Notes

[redacted] is on the board of the Santa Cruz Valley Citizens Group, a non-profit, non-partisan, citizens group. He asked for an update on Santa Cruz Reliability North, and subsequent phases. His group would like to be included in all project updates.

Adriana explained the delay in phase 1 and committed to add [redacted] to the project distribution list. She also offered to present to the group.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 2/27/2025

Method Email

Category other

Issues/Comments

Good Afternoon,
We would love to invite you to one of upcoming team meetings to hear more about the Santa Cruz Reliability Project North.. Would you be available to come to our office at one of the follwing dates & times:
March 19th - 10:30 or 11:00 am
April 2nd - 10:30 or 11:00 am
April 16th - 10:30 or 11:00 am
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/6/2025

Method Phone

Category other

Issues/Comments

Hi, I got this letter from the UniSource Energy Services, and I won't be available to attend that public open house that you'll be having that's hosted by the Green Valley Coordinating Council. And I just wanted to know if this includes me? I am in the Madera Reserve Subdivision, off of Whitehouse Canyon Road. And so I would like some more information on what this is all about. So please return my call at [redacted] and the last name is [redacted]. Thank you, bye.

Response Sent

Clark Bryner 3/7/2025: She received the newsletter and wanted to talk with someone to learn more about the project, if it affected her, and if she needed to do anything. She would prefer the line not be located adjacent to the Madera Reserve subdivision. I shared that UniSource preference is to find a suitable interconnection further south, but at this stage, the beginning stage of our siting process, we're considering everything. She looks forward to receiving future information on the project as we narrow our focus.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/7/2025

Method Email

Category Property Value

Issues/Comments

Hello,
We are residents of the Springs in Green Valley and wish to register our opposition to the plan to construct power lines on the southern edge of our HOA. That project would decrease the value of our property, ruin the Springs walking path and dog park, and overall decrease our overall well being as retirees in Green Valley. Please consider alternatives to the project that would serve to not lessen our quality of life in our community. Thank you.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.\

At this point, the lines you see on a map, including the one along the southern edge of the The Springs neighborhood, represent concepts of where a line "might" be able to be constructed. We'll use environmental data and feedback from the community to evaluate each of these "concepts" and then remove from consideration those that have the greatest impact to the environment and community values.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/7/2025

Method Email

Category General/Opposition

Issues/Comments

To Whom It May Concern,
I would like to express my opposition to the new power lines you propose installing along the southern border of the Santa Rita Springs property in Green Valley, Arizona.
Considering the changing climate which is increasing storms across the country and especially increasing wind velocity here in Arizona as witnessed this winter. I believe that installing underground lines would be far better and cheaper in the long run. I have friends and relatives in the eastern parts of the country where they have had large numbers of poles down this winter and multiple consecutive days of power outages.
The poles you are considering installing would have a multitude of negative affects on residents in the Springs. Among these would be health issues caused by exposure to electromagnetic fields for those living too close to power lines, destruction of our dog park and walking path, and reduction of our property values to name a few.
It also appears that insufficient studies have been done around this project. I feel that more research is necessary and a new route should be used which would place these power lines away from communities. Also I am wondering why lithium batteries are not being considered.
I Vote strongly NO to this project as it is presently proposed.
[redacted]

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I agree with your statement that insufficient studies have been conducted to determine the route for this new transmission line. Right now, the lines you see on a map, including the one along the southern edge of the The Springs neighborhood, represent concepts of where a line “might” be able to be constructed. During the next step in our process, we’ll use environmental data and feedback from the community to evaluate each of these “concepts” and then remove from consideration those that have the greatest impact to the environment and community values. After that, we'll do another more detailed study on each route before ultimately landing on a route, or alternative routes that would be proposed to the Arizona Corporation Commission for approval towards the end of the year.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/8/2025

Method Email

Category Property Value

Issues/Comments

We appreciate the need for improved infrastructure for the area's electricity. We do however appreciate and value our view of the Santa Rita mountains as much.
We are residents of Green Valley. Most of Green Valley values the view and proximity to the Santa Ritas. DO NOT diminish the view by running a transmission line, and all accompanying support towers, on the east side of Green Valley. Find a route that does not place it between Green Valley and the Santa Ritas.
[redacted]

Response Sent

[redacted]
Thank your for providing your comment and concern. As we progress through our planning and siting process in the coming months, we will take this into consideration as part of the route evaluation criteria. I hope you'll be able to join us at one of two upcoming public open houses on March 20th. I encourage you to stay engaged with the project as we incorporate your thoughts, together with those of other members of the community, to develop the best possible project.
For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/8/2025

Method Email

Category routing

Issues/Comments

I am unable to locate any good rendering of the options for transmission line placement. I have gone through all of the maps that are on the website you offer, but none are very clear. Please provide me with a way to view options for transmission line placement.
Also, will you describe the support towers that will be a part of this project (size, height, frequency, etc.)
[redacted]

Response Sent

Thank you for submitting this additional question. I'm sorry you were not able to find what you were looking for on the project webpage, we'll see if we can make these details a little more apparent on the webpage.

For the greatest level of detail on route segments currently under consideration for placement of the transmission line, I'll refer you to the Interactive Project Map available through this direct link. I'll caveat that in no way will we be building a transmission line along all of the segments on this map, represented with black lines. These are essentially a compilation of all the possible routes that could theoretically be built, based on an analysis of high-level opportunities (existing linear infrastructure, natural features, etc.) From here, we'll be subjecting these segments to a broad range of evaluation and analysis to narrow them down in order to identify those routes most compatible with the environment and the community.

To your second question, our typical transmission structures are between 75-85 feet tall and are located within a right-of-way up to 100 feet in width, spaced every 600-1,000 feet. I've attached an image of one of these structures for your reference.

Should you have further questions or comments, please do not hesitate to reach out.

Thank you,

Response Sent

Clark,

Thank you for your reply and attachment. This does help.

There are currently transmission lines, poles, etc. in place. Would this project use current infrastructure (poles) or would the route add to the existing poles and lines that go into the Canoa Ranch, etc. substation?

[redacted]

Response Sent

[redacted]

This would add an additional line and set of poles to those already in place today. What you see today going into the Canoa Ranch substation is a double circuit line, with a 138kV transmission circuit on one side of the pole, and a 46kV circuit on the other side. We are proposing a single 138kV circuit only.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Is it safe to assume that the existing poles can not have the proposed 138V line added...? Is it also safe to assume that the number of existing poles would basically be doubled with the addition of this line?

Response Sent

Yes, your assumptions are correct. While we don't have a route selected yet, if the line were to interconnect at Canoa Ranch, it would likely have a matching set of poles to those existing today extending either east of west out of the substation.

Thank you again for expressing your concern.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/8/2025

Method Email

Category Health/Safety

Issues/Comments

After reviewing the evaluation criteria outlined in the March 2025 UniSource Energy Services bulletin, I submit that the assessment lacks the depth necessary to address the complexities of the proposed new transmission facilities. To ensure transparency and informed public engagement, I have outlined what I believe to be a more comprehensive framework for discussion.
Evaluation of upgrades to electric transmission facilities, as a community we must consider several key criteria to guide utilities in planning such operations.
1. Public Safety and Hazard Mitigation
- Risk Reduction Strategies: Ensure that upgrades incorporate fire-resistant infrastructure, insulated conductors, composite poles, and undergrounding where necessary.
- Vegetation Management: Assess plans for clearing and maintaining rights-of-way to prevent power line-related ignition sources.
- Automatic Shutoff Protocols: Evaluate the need for Public Safety Power Shutoff (PSPS) programs during extreme weather conditions and their impact on residents.
- Emergency Response Coordination: Require utilities to work with local fire departments, emergency management agencies, and municipalities to enhance rapid response capabilities.
- Infrastructure Resilience: Ensure the system can withstand extreme weather events, earthquakes, and other natural disasters without compromising public safety.
- Wildfire Considerations: Prioritize transmission upgrades that minimize fire risks in high-risk areas by utilizing advanced grid hardening techniques, strategic line placement, and enhanced monitoring technologies.

2. Reliability and Resilience
- Grid Stability Improvements: Assess whether the upgrade strengthens the transmission system against outages and voltage fluctuations.
- Backup Power Solutions: Evaluate how the project integrates microgrids, distributed energy storage, and local power generation to maintain service during disruptions.
- Redundancy and Blackout Prevention: Ensure that new transmission lines provide alternative pathways for power delivery to avoid prolonged outages.

3. Capacity, Future Demand, and Advanced Infrastructure
- Projected Energy Demand Growth: Analyze how the upgrade supports population growth, economic development, and increased electrification (such as EV charging networks).
- Integration of Renewable Energy Sources: Assess whether the project enables more solar, wind, and other clean energy sources to enter the grid.
- Energy Storage and Demand Response: Evaluate whether transmission upgrades facilitate large-scale battery storage and smart grid solutions to enhance efficiency.
- State-of-the-Art Transmission Line Replacement: Consider replacing outdated infrastructure with advanced transmission technologies, such as high-voltage direct current (HVDC) lines, composite-core conductors, and superconducting cables to improve efficiency and reduce transmission losses.
- Siting-Specific Upgrade Possibilities: Conduct a comprehensive site evaluation to determine the most effective upgrades, including undergrounding lines where justified, rerouting transmission corridors to avoid sensitive habitats, or employing modular grid technologies to improve adaptability to future energy demands.

4. Environmental and Land Use Considerations
- Minimizing Ecological Impact: Ensure that transmission routes avoid protected habitats, wetlands, and culturally significant lands.

- Electromagnetic Field (EMF) Exposure: Address community concerns regarding long-term

exposure risks, especially in residential areas.

- Smart Siting Strategies: Optimize routing to minimize environmental disruption while balancing feasibility and cost considerations.

5. Public and Stakeholder Engagement

- Community Input & Transparency: Require public hearings and open forums for residents and businesses to voice concerns.
- Equity & Environmental Justice: Ensure that upgrades do not disproportionately impact vulnerable or low-income communities.
- Local Government Collaboration: Work closely with municipal planners, emergency responders, and economic development groups.

6. Economic and Financial Considerations

- Cost vs. Public Benefit Analysis: Evaluate the financial feasibility while prioritizing public safety and reliability.
- Ratepayer Impact: Ensure that the project does not place an unfair financial burden on residents and businesses.
- Local Job Creation & Workforce Development: Consider how the project can contribute to skilled labor opportunities and local economic growth.

7. Regulatory Compliance and Permitting

- Safety and Environmental Standards Compliance: Ensure adherence to state and federal hazard mitigation requirements.
- Federal, State, and Local Approvals: Confirm that the upgrade meets all zoning and regulatory requirements.
- Right-of-Way (ROW) Considerations: Address land acquisition concerns and ensure responsible use of public and private lands.

8. Technological Advancements & Grid Modernization

- Smart Grid & Real-Time Monitoring: Support advanced sensors, automated shutoff systems, and real-time data analytics to detect safety hazards.
- Undergrounding Power Lines in High-Risk Areas: Prioritize underground transmission where justified, balancing cost and feasibility.
- Cybersecurity and Grid Protection: Ensure that digital infrastructure upgrades safeguard against cyber threats, which could have safety implications.

9. Timeline and Construction Impacts

- Project Scheduling & Phasing: Establish clear timelines for construction to minimize disruptions.
- Minimizing Community Impact: Consider how construction affects emergency response routes, local traffic, and daily life.
- Emergency Preparedness During Construction: Implement contingency plans to ensure that critical services remain operational.

While certain aspects of the project must be addressed exclusively by the utility companies, it is essential that the community has the opportunity to provide input and feedback, even on these areas. Public engagement is critical to ensuring transparency and accountability in the decision-making process.

Respectfully Submitted,

[redacted]

Response Sent

[redacted]

Thank you for taking the time to provide a well thought out and constructive response. As you are clearly aware, siting and constructing a new transmission facility is a complex process, requiring the consideration of many variables. Public input and engagement throughout the process is crucial to developing a project in harmony with the community.

Many of the considerations you've outlined are things that drove the need for this project, while others can be considered in project design. I will share your thoughts with our project team and we will discuss how we can incorporate your feedback into each stage of the project.

In addition, I will include your letter in the project record that will be shared in an application to the Arizona Corporation Commission later this year and discussed in a public hearing before the Arizona Power Plant and Transmission Line Siting Committee.

I hope you'll be able to join us at one of two upcoming public open houses on March 20th. I encourage you to stay engaged with the project as we incorporate your thoughts, together with those of other members of the community, to develop the best possible project.

For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP

UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/8/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

I would like to see a model or illustration of what this project would actually look like. That is, what sort of visual impact or footprint does this transmission facility have on my area?
Thank you.

Response Sent

[redacted]
Thank you for reaching out. We're very early in the process working towards identifying a proposed route for the new transmission line. So at this point, I can't tell you the exact footprint of the line in your area. However, our typical transmission structures are between 75-85 feet tall and are located within a right-of-way up to 100 feet in width. I've attached an image of one of these structures for your reference. As we progress through our planning and siting process in the coming months, we'll start to identify more specific routes and we'll develop photographic simulations of what the proposed facilities will look like from different key vantage points in the area. I think you'll be interested to see those once they are prepared.
I've added your name to our project email list and I encourage you to stay engaged with the project and provide future comments to help shape the development of this project. You can always find the most up-to-date information about the project, by visiting the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/11/2025

Method Email

Category Routing

Issues/Comments

I'm coming to this just now, not having seen or heard before. I did go on line and look at earlier maps etc.
I'm just a resident. I have no knowledge of electric power lines and needs.
Here's my 2 cents worth:
You are proposing a second high power line between GV/Canoa Ranch substation and Kantor.
Your map now shows a total of 177 possible segments. That seems crazy.
Can the new line run parallel to the existing? If not why?
Major concern is stability of all existing and new electric lines etc. considering the wild fires in CA that have been attributed to faulty lines and stations. Winds are getting stronger in the area? So in locating a new line primary consideration should be given to locating away from residential, other infrastructure, schools and businesses.
In my opinion the existing power line behind Atascosa is unsightly and to put the second power line there is too near a lot of residential buildings and also unsightly.
The map shows a nice straight shot from the east end of Santa Rita Road to Kantor 177. This seems the best route.5465
I don't understand how or why it would be efficient and safe to route the line back and forth near residences and populated areas.

Response Sent

Good morning! Thank you for sharing your comments and concerns. As we progress through our planning and siting process in the coming months, we will take these into consideration as part of the route evaluation criteria.
We are in the early phases of this project. At this stage we have identified opportunities for a possible transmission line. We define these opportunities as areas with similar linear infrastructure, major roadways, or natural linear features. These opportunities were reviewed to see if it was possible, from an engineering perspective, to construct and operate a transmission line in that area. If it was, we identified it as a "Preliminary Segment", which there are 177 as you referenced – these essentially represent all the possibilities we have identified. Now, just because an area was identified as an opportunity, and deemed feasible to build, does not mean it would be a good route for a transmission line. In the next phase of our evaluation we'll be looking at land uses, such as residential development, visual impact, and environmental resources and through an evaluation process, we'll pare down the list of 177 to just those segments that are more compatible with the environment, existing/proposed land uses, and the values of the community.
Now to answer your question. Yes, it is entirely feasible to construct a second line parallel to the existing one. And that is one of the routes we are studying. There are some advantages, from an electric reliability perspective, to have the lines located in distinct geographic areas, but that is not a hard requirement.
I hope you'll be able to join us at one of two upcoming public open houses on March 20th. I encourage you to stay engaged with the project as we incorporate your thoughts, together with those of other members of the community, to develop the best possible project.
For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/12/2025

Method Email

Category routing

Issues/Comments

I looked at your map on the website and found it to be very outdated. Could you please use an updated map?
Thank you,
[redacted]

Response Sent

[redacted]
Thank you for bringing this to our attention. I presume you are referring to an old map titled "Opportunities and Constraints—April 2024". I am having that map removed right now. In the meantime, you can view the latest map on the webpage through this direct link https://docs.uesaz.com/wp-content/uploads/santa-cruz-reliability-north-map.pdf. We also have an updated interactive project map available at https://www.uesaz.com/maps/Santa-Cruz-Opportunites-and-Constraints/.
I hope you'll be able to join us at one of two upcoming public open houses on March 20th. I encourage you to stay engaged with the project as we incorporate your comments, together with those of other members of the community, to develop the best possible project.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/13/2025

Method Email

Category General/Opposition

Issues/Comments

Dear Unisource
I am in receipt of your March 2025 newsletter concerning project updates for a new transmission line in our area.
I am a 40+ year energy industry professional in the power generation and transmission services business.
If I understand the Draft Preliminary Segments map, lines 5, 6, 7, 8 and 9 are proposed transmission line routes south and west of Quail Creek.
As you are aware, there is an existing transmission line on the west side of Old Nogales Hwy / Continental Road that crosses over Quail Crossing Blvd.
We do not need another transmission line crossing through or bordering Quail Creek. As you can see via segment 20, 4 and 2, there is plenty of open desert to facilitate a proposed substation at Option D.
As a Professional Engineer and Project Director, I have managed the development, siting, and installation of many power stations, switchyards, and substations.
It is imperative that Unisource adhere to the strictest standards of public safety, environmental stewardship, and social responsibility, regardless of cost or convenience.
My expectation as a Professional Engineer is Unisource will not propose a transmission line route that unnecessarily infringes on any residential or commercial properties, and any proposed route has the least amount of impact on the environment and the community. This expectation is grounded in Unisource's regulatory, legal and ethical responsibilities in the conduct of its business and its impact to the community.
With Regards, [redacted]

Response Sent

[redacted]
Thank you for sharing your comments and concerns. As we progress through our planning and siting process in the coming months, we will take these into consideration as part of the route evaluation criteria.
As you know based on your knowledge and experience, siting and constructing a new transmission facility is a complex process, requiring the consideration of many variables. Public input and engagement throughout the process is crucial to developing a project in harmony with the community.
We're currently in the initial stages of our siting process, and we've essentially laid everything out on the table for consideration. In the next phases of our siting process we'll be paring down these "Preliminary Segments" through evaluation to just those segments that are found more compatible with the environment, existing/proposed land uses, and the values of the community.
I hope you'll be able to join us at one of two upcoming public open houses on March 20th. I encourage you to stay engaged with the project as we incorporate your thoughts, together with those of other members of the community, to develop the best possible project.
For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/15/2025

Method Email

Category Tribal

Issues/Comments

The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the project dated; February 21, 2025. In regard to this, please refer to the following statement(s) below;
Thank you for allowing the White Mountain Apache tribe the opportunity to review and respond to the above proposal to construct a new 138 kilovolt transmission to connect the Kantor Substation and improvement to existing facilities, located in Santa Cruz County to the regional electric grid in Pima County, Arizona.
Please be advised, we have reviewed the information provided, and we have determined the proposed transmission project will have a "No Adverse Effect" to the tribe's cultural heritage resources and/or Traditional Cultural Properties.
Thank you for the continued tribal engagement and consultation, and collaborations in protecting and preserving places of cultural and historical importance.
Sincerely,
[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/15/2025

Method Letter

Category Routing/Recreation

Issues/Comments

Hi Joseph

I am seeking the maps that were mailed to Green Valley residents a few months ago showing proposed routes for the new TEP/Unisource transmission line that will serve santa cruz county. The only route I can currently see is the one that connects to the substation on the south border of the HOA I live in, and then cuts east through our nature park, the golf course and the pecan farm.

If you have access to that other mailing that went to residents a few months back (I believe), please send me a link? I can't find anything through the various utility company websites.

Thanks so much

Respectfully yours

Response Sent

Hi Alison. Thank you for reaching out. I apologize for the delayed response. I was in training all day yesterday and couldn't respond to your message until now.

We have interactive and PDF maps available on the project website at https://www.uesaz.com/santa-cruz-reliability-north/. I'm not sure which mailing you're referring to. Under "Outreach materials," we have copies of the three newsletters we've mailed since public outreach started last year. Here are links to the three newsletters:

- Newsletter No. 1 – April 2024
- Newsletter No. 2 – July 2024
- Newsletter No. 3 – March 2025

Are you planning to attend our open house on Thursday? We'll be happy to answer any questions you might have. Thanks for your interest in the project.

Joseph Barrios
Senior Media Relations and Regulatory Communications Specialist

Response Received

Thank you so much for responding!!!!!

I still plan to attend.

I am one of the residents whose HOA property would be directly impacted as the lines would run through our property on the south side, so I am interested in learning how homeowners like myself can register our voices.

Thank you again for your response - I did write to TEP and they were not informative.

You're a star!

:)

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category General/Support

Issues/Comments

Hopefully not a big difference to what is there now. I am ok with whever has to be done to complete the project.
Neighbor south of me is dead set against project. Beware

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Property Value

Issues/Comments

East of I-19, West of Mine
Stay away from current residential areas.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Routing

Issues/Comments

Option A may lead to new lines within 15 feet of our HOA (The Springs) proerty. I hope you can pick an option which deos not impose the residents of my neighborhood so directly.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Routing

Issues/Comments

I totally understand the need for the power transmission line. With population growth we need greater energy needs in the future. You are being proactive anticipating growing demand. In my opinon a pwerline alond I-19 is less invasive than through neighborhoods or along Camino del Sol.
Please inform me of the final power transmission route.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Routing

Issues/Comments

The point A to point B idea seems the most non problematic and issue free way to go option B.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Tribal

Issues/Comments

View, Cultural assets
Consider Option B with Freeport paying part of the cost of new substation
Could line be underground not near residential areas on west side of Camino del Sol (On Freeport property)

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Property Value

Issues/Comments

The path of the new lines should the least intrusive to existing neighborhoods even at increased costs. The option B with new transmission lines running southwest of Montana Vista would be the least impact. 2nd option A with transmission lines south as far east as possible. With the increase in use, include the new mine, in Santa Cruz County. A local power station may be an option.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Health/Safety

Issues/Comments

Property values, views, health risk, environmental impact Adamantly oppose interconnection Option A Canoa Ranch Substation

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Viewshed

Issues/Comments

My house is about 30 feet from an existing power line, possibly a 14.4 kv line? I am hopeful that an additional line will not be going in tnext to this existing line, adversely affecting the aesthetic/view/value of my hojme. Option B looks to be very to my home/neighborhood.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Viewshed

Issues/Comments

The views of the Santa Rita Mountains are invaluable and irreplaceable. Do not add any more transmission poles, lines, reflectors, etc. That will be in this panoramic view.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Viewshed

Issues/Comments

Green Valley has been buildt to mximize views of the Santa Rita Mountains this needs to be a primary factor in selecting the new power line route.
Option B seems to be the least offensive option

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/20/2025

Method Paper Comment Form

Category Property Value

Issues/Comments

Decrease of property values; obstruction of views; all of these nagatives and these lines done even benefit the pople they negatively impacted. The only reason you want these routes is be cause it's cheaper for you. I have to suffer consequences for your fincanical gain. Please pursue Option D.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/21/2025

Method Online Comment Form

Category Routing

Issues/Comments

Please don't use interconnect option D. It would run lines right by our houses and ruin the views of many houses, affecting property values as well. Using segment 20 would be much preferred over the other routes.
I do find it interesting that your discussions seem to say it will help Pima county, but it only appears to be for the copper world mines.

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I do want to correct the record on one of your statements. This is a UniSource project and is being done for the benefit of customers in Santa Cruz County. It has nothing to do with the Copper World mine. If I said anything that communicated differently, I apologize for creating any confusion.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/21/2025

Method Email

Category Health/Safety

Issues/Comments

Please put the lines underground. I understand that's more expensive that way. But it is safer especially for us because of all the dry brush around our homes. My home is separated by an iron fence from dry brush, that goes all the way down to the highway. We bought this home so that we could have an interrupted view of Elephant head, and our beautiful mountains. When purchasing our home we paid extra because of that view.
Under ground wires are much safer.

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/21/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

I'm against this project. Based on the Q&A, there are no benefits to Pima County residents since all additional power generated will be exclusively for Santa Cruz County residents.
In addition, your proposed project will obstruct the mountain views that many residents paid hundreds of thousands to have.
Our electric bills have risen greatly. You have the money. Build your power plant in Santa Cruz County.
Thank you

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I do want to correct the record on one of your statements. The Santa Cruz Reliability Project does not include an electrical generation component (a power plant). It is simply a project to provide a second "extension cord" or transmission line between Santa Cruz County and the regional electric grid. I invite you to visit the project webpage to learn more at https://www.uesaz.com/santa-cruz-reliability-north/.
Should you have further questions, please continue to reach out.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/21/2025

Method Online Comment Form

Category Routing

Issues/Comments

Please do not pick option 2. I live in the santa rita springs and the huge power polls would be an eyesore and decrease property values.

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/22/2025

Method Phone

Category Property Value

Issues/Comments

Hi, my name is [redacted]. I am the [redacted]
The General Manager asked me to contact the project for the Santa Cruz Reliability Project North. I understand that there is a meeting that will happen on March 20th, this week, that invites the public. So I've gone over the different maps and trying to understand what the project is and how it might affect Quail Creek. So, one of the things that my General Manager is wanting to know is whether or not we should alert our residents in Quail Creek, about whether or not they should attend. It's a little bit difficult to understand, I understand that, new transmission lines, but it did look like, when I was looking at the map, that there were some options for where the transmission lines might be. It looks like there were a couple of different options in front of Quail Creek, a #5 and a #6. So I don't know whether or not, both of those would be used. Option 5 or option 6…. So we're just looking for, is there a significant enough impact to Quail Creek and our residents to alert them and let them know that they really need to have the meeting. We don't want to sound the alarm if there's no alarm to be sounded. But it's, you know, we just have whatever information has been published. So I'm just trying to find out a little bit more if you could give me a call back at [redacted] I'd really appreciate it. Again, that's [redacted]. Thank you so much in advance. Bye.

Response Sent

Hello. This message is for [redacted]. Please give us a call back at [redacted] regarding your comments on the Santa Cruz North Reliability Project. Thank you and have a great day.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/22/25

Method Email

Category Routing

Issues/Comments

Hi. I apologize for not being able to attend the 3/20/25 public meeting.

I live at [*redacted*]. Our townhouse abouts the Duval Mine Waterline road.

A potential route referenced "West of Camino del Sol & Duval Mine Waterline road" on vacant land.

Is said vacant land on Mine property or the 2 track that becomes S.Via Ceilo Azul ? How close to the West ends of Huarache & Napoleon would the line run?

Thank you.

Response Sent

Thank your for your question and I apologize that it has taken a few days to provide a response. At this time, we have route options, or “preliminary segments” as we call them, along the two track that becomes S Via Cielo Azul, as well as several on vacant land owned by the mine. These preliminary segments can be seen in detail on the Interactive Project Map available on the project webpage. The preliminary segments do not represent proposed routes. This is the first step in our sting process, where we’ve essentially identified all possibilities that could be constructed. Over the coming months, we’ll evaluate these segments for impacts with respect to environmental and land use considerations, along with criteria/factors important to the community. Many of these segments will be eliminated from consideration, while those segments with fewer impacts will be carried forward and may become alternative routes for construction of the proposed transmission line.

If you take a look at the interactive map, you’ll be able to see the proximity of the preliminary segments to both W Camino del Huarache and W Placita Napoleon. The closest preliminary segment is number 99 which is located just west of the end of W Camino del Huarache.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Response Received

Mr.Bryner,

Thank you so much for your prompt & helpful response& helpful response. I passed your information on to our HOA board members.

Please add me to any email lists for status updates. Unless a board member of our 46 unit HOA wants to step in, I'll facilitate correspondence.

Response Sent

Thank you for your offer to facilitate correspondence with your HOA and for providing your contact information. We will add your email to our project list for all future updates.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/22/2025

Method Online Comment Form

Category Routing

Issues/Comments

My husband and I attended the meeting at East Center in Green Valley this past Thursday, 3/27/2025. Our recommendation on this project is to keep the proposed transmission lines at a minimum of one mile from the city lines, no matter the cost. This will be the best option to keep the GV homeowners and residents protected, safe and happy. Green Valley has no benefit from this project and Green Valley needs that respect. Thank you.

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/22/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

I am a resident in the study area.
We do not like the location of preliminary segment 8 as it will interfere with our view of the mountains to the east and could have an effect on our property values. We prefer options A or B as the starting point of the line heading south. If there is anything we can do as residents of Pima County to facilitate the approval for tie in at Canoa Ranch, please let us know who to correspond with.
Thank you
[redacted]

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I appreciate your offer of assistance with Pima County in resolving the restrictions at the Canoa Ranch Substation. Pima County has been working cooperatively with us to work on a solution. That said, your support would be appreciated and I would suggest reaching out to the Pima County Supervisor representing this area, which is Steve Christy.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/22/2025

Method Email

Category Property Value

Issues/Comments

My husband and I live in The Springs in Green Valley. We are close to the area where you are considering putting in a new 138 kilovolt transmission line - I am referring to your Plan A, abutting our HOA's land to the immediate north of TEP's substation. We already have a high voltage transmission line between us and that TEP substation that is just to our south.
While we understand the need for more supply for the Santa Cruz area, we dislike very much having more of the 75-85 foot transmission poles closer than those already in place by TEP along our walking path to our east. Your Plan A will also need access along our trail in order to complete this project and we are not sure if property set backs are being looked at here.
To continue to use our walking trail around the Nature Park is so important to our lives here. Giant transmission poles EVEN CLOSER THAN WHAT IS THERE NOW is an unpleasant concept and we want to make the point that we are very much AGAINST this solution to the problem of Unisource's power supply.
Respectfully,
[redacted]

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

Response Received

I appreciate your reply, and am greatly relieved to hear your project will not expand northernly unto any of the Springs' property.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/23/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

I really don't want to see these large towers go up in Green Valley and ruin the views and property value of my home.

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/23/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

Stop this!

Response Sent

[redacted]
Thank you for sharing your thoughts. Are you against the entire project or are there specific aspects of the project design that you are opposed to? If you could be a little more specific with your comment and thoughts it will give us the ability to take them into consideration in future analysis and influence the next phases of our planning and siting process. Nonetheless, we will include your noted opposition in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/23/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

NO MORE ELECTRICAL INSTALLATIONS IN GREEN VALLEY! MOVE THIS FURTHER EAST!!! OUR NEIGHBORHOOD IS BESIDE WATERLINE ROAD AND NEXT TO I-19. PLEASE GIVE US A BREAK!!
PLEASE! [redacted]

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/23/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

Why are Green Valley residents paying the price via mountain view property values taking a hit so Santa Cruz county residents can benefit? Why can't you spend the money for underground d power lines so nobody's view is affected or lay the lines in Santa Cruz county and only affect the view of recipients of the power? Help me to understand why using Green Valley is necessary…is it just financially better for the shareholders?

Response Sent

[redacted]

Thank you for your questions and concerns. Let me start off by clarifying that UniSource does not have a route identified at this time for the proposed transmission line. We are in the first step of our sting process, where we've essentially identified all possible route segments that could be constructed. Over the coming months, we'll evaluate these segments for impacts with respect to environmental and land use considerations, along with criteria/factors important to the community. Many of these segments will be eliminated from consideration, while those segments with fewer impacts will be carried forward and may become alternative routes for construction of the proposed transmission line.

We have noted your concern regarding visual impacts of the line to residents in Green Valley and will take it into consideration in future analysis as part of the next phases of our planning and siting process.

To answer your question about constructing the line underground, UniSource does not install transmission lines underground because it costs significantly more to build a transmission line underground than to build the same line overhead. Because our costs are passed along to customers, UniSource avoids unnecessary expenditures to help keep our rates as affordable as possible. In October 2023, the Arizona Corporation Commission approved a policy statement instructing regulated utilities like UniSource to avoid underground installation. A portion of the statement says: "As a general matter, utilities under the Commission's jurisdiction should avoid incurring these higher costs unless underground installation of a transmission line is necessary for reliability or safety purposes or to satisfy other prudent operational needs."

Lastly, regarding your question about siting the line fully in Santa Cruz County. There is a single transmission line, or source of electricity serving Santa Cruz County today. The primary purpose of the project is to bring a second source of electricity to Santa Cruz County. In order to do that, the line needs to interconnect, or plug in, somewhere on the existing regional electric grid. There are no other lines in this portion of Santa Cruz County connected to the larger regional grid, necessitating the line originate in Pima County.

I hope these answers are helpful and responsive to your questions.

We will include your questions and comments in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/25/2025

Method Email

Category Viewshed

Issues/Comments

Please keep these high tension lines in Santa Cruise county! Green valley doesn't want them.

[redacted]

[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/24/2025

Method Online Comment Form

Category Routing

Issues/Comments

I feel the best plan is "B" on the maps I saw in the Sopori Elementary School.
Plan A, north of Conoa Ranch may be a possible but the electric line would have to follow along I-19 and the home owner west of the fontage road may not approve the plan.
Plan B gives the project more room to build the electirc line in less populate area and west of the GV home owners.
Will need to assess the environment to limit damage the habit and to restore the area after the project is completed.

Response Sent

Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/24/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

Unfortunately, I was unable to attend your recent meeting backlash presentation to the Green Valley residence regarding your Santa Cruz reliability project. However, I have taken time to research your proposal, and your past installations. I could reiterate all the reasons that the Green Valley residence do not support this project. But, you already have heard them all. I just want to add my name to the list of objectors to this project.

Response Sent

[redacted]
Thank you for sharing your thoughts. We will take all comments received into consideration in future analysis as part of the next phases of our planning and siting process. We will include your noted opposition in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/24/25 to 3/26/25

Method Phone

Category Other

Issues/Comments

3/24/25
Good morning. My name is [redacted]. I attended the meting that was recently held in Green Valley. I do have some questions that pertain to the power lines. My phone number is [redacted]. Thank you!

3/25/25
Good afternoon. I'm calling about the utility pole project. I called yesterday, but I haven't hears from anyone. My phone number is [redacted]. Thank you! Have a good afternoon.

3/26/25
Good morning. This is my third call trying to get some questions answered. My phone number is [redacted]. Thank you!

Phone Discussion Notes

[redacted] shared that she lives east of the railroad tracks on W Silver Sky Place and she had a couple of questions.

She wanted to know if Interconnection Option A were selected, what work would be required north of there. I shared with her that no work north would be required.

She asked for the specific location of Interconnection Option B. I shared with her that the specific location was not known at this time, but that it would be on land owned by Freeport McMoran. And she asked about Interconnection Option C and if it were possible to fit another line in that area because there are already so many poles. I shared with her that if that were used, we would likely make use of the existing line along the railroad track which is already built to support two 138kV circuits, but would then need to identify a location to put a 46kV circuit currently attached to that line.

She shared that Option A or B seem to be what most people like. I shared that we like those too because they are shorter, but until we're confident they will work, we'll keep C and D on the table. I shared that we plan to conduct further outreach in May and hope to be able to share more definitive details at that time. She asked for the meeting date. I shared that I did not have them now, but would message her with them as soon as the date was scheduled.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/25/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

NO, NO, NO!

Response Sent

[redacted],
Thank you for sharing your thoughts. Are you against the entire project or are there specific aspects of the project design that you are opposed to? If you could be a little more specific with your comment and thoughts it will give us the ability to take them into consideration in future analysis and influence the next phases of our planning and siting process. Nonetheless, we will include your noted opposition in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/25/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

I am voicing my objection to these power lines being run through Green Valley!

Response Sent

[redacted],
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/25/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

Put your high tension Lina in Santa Cruse county! They are the ones benefiting. Don't destroy our view

Response Sent

[redacted],
We received both your email and this online comment form. Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/26/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

I do not want to see towers in the landscape. At all. Ever.

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/26/2025

Method Paper Comment Form

Category Routing

Issues/Comments

INTERCONNECTION Proposal D or C. We strongly suggest that these interconnect would require transition across undisturbed lands which are abundant with willfie which would suffer from such projects. Additionally, line 7, 8 and 17 would be directly in front of our residential property and reduce our enjoyment of the property
We cannot find any scussions about building battery support for the Santa-Cruz area. This coule be charged off at peak from existing lines. Additionally, the batters would offset peak demand for years to come. Also, this could be accomplished at a much lower facility and line cost that the proposed transmission line increase.
Please have staff readh out with information about how this opportunity has been reviewd by the Reliability Project Staff.

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
With regards to your request that we consider batteries in Santa Cruz County as an alternative solution, I will bring the idea to our planning staff for consideration.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/26/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

Do not NOT put the lines for Santa Cruz power anywhere near The Springs community in Green Valley. Devalues property EMS concern last but not least esthetics. No new lines anywhere near The Springs community!!!!!

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/26/2025

Method Email

Category other

Issues/Comments

I have seen no numbers associated with this project. How unreliable is the present system? How much improvement in reliability will the project produce, and at what cost? - [redacted]

Response Sent

[redacted],
Thank you for asking your questions. I'll answer your first question by stating that it's not a matter of how reliable the current system is, rather it's a matter of being okay with the impacts when a failure on the system occurs. Overall, the UniSource system is very reliable, however when a failure occurs, we do not have an adequate backup and it has consequences that are far reaching and are unacceptable to the community served in Santa Cruz County. Contrast that with TEP's system in the Green Valley area. This system is looped and fully redundant. If a component of the system fails, the consequence is a blink of the lights. This answers your second question, once the full scope of the Santa Cruz Reliability project is complete, the UniSource system will be fully redundant in the same manner as the TEP system. So, when a component of the system fails, it will not result in a power outage and customers in Santa Cruz County will enjoy the same benefits already enjoyed by others.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at
Thank you

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/26/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

I strongly object to having this proposed transmission line run by the Nature Park in the Springs out to the east and then south towards Nogales - I believe it is called Plan A or something "A".
At the meeting here in G.V. last Thursday, the talk leader showed us 4 different proposals and after seeing them all it really looked like Plan B would affect less populated areas than the other three Plans.
Please keep us informed with all developments that the public is entitled to know.
Oddly enough, I don't think the question of what is truly driving this Project came under question. Since that area of Santa Cruz County is lightly populated, and the power went out once for half of a day, it does make one wonder if this is to be ready for a new mine project in the Santa Rita's. It would be so good to know if this is getting ready for future growth in that area of that county.

Response Sent

[redacted]
I believe I responded to a separate comment from you a little earlier. We have noted these additional comments for consideration in future analysis as part of the next phases of our planning and siting process, and will include these in our project record that will be submitted to the Arizona Corporation Commission.
I'd like to respond to your question about need for the project. The project is not being driven by any single customer, nor by future growth. As I stated during the presentation last Thursday, the project is designed to improve transmission service in Santa Cruz County. The project will strengthen the reliability and resiliency of the electric transmission system serving Santa Cruz County by providing UniSource with another way to deliver power to the substations that serve residents, businesses, service providers and other customers, reducing the potential for a widespread, sustained outage. Within the Tucson Metropolitan area, including Green Valley, the electric grid is already built in this manner leading to very good electric service reliability.
I invite you to visit the overall project webpage at https://www.uesaz.com/santa-cruz-reliability/ to learn a little more about why UniSource has proposed this project.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/27/2025

Method Online Comment Form

Category Property Value

Issues/Comments

I do Not want the TEP power project to extend south along the river. I am concerned about the high voltage and it will negatively affect my property value in my hoa community The Springs.

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/30/2025

Method Online Comment Form

Category other

Issues/Comments

When will there be an open house in Tubac for the Santa Cruz Reliability Project?

Response Sent

[redacted]
Thank you for your inquiry. We were invited to share a brief presentation on the project at the Santa Cruz Valley Citizen's Council meeting on April 14th at 9:00am at the Tubac Community Center. You are welcome to attend that meeting.
We are just beginning efforts on the phase of the project to site a new transmission line from a substation just north of Tubac to Nogales. That phase of the project is called "Santa Cruz Reliability Project South". A project open house has not yet been announced for this phase of the project, but we are tentatively planning to have one in the mid-May timeframe.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on all phases of the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/31/2025

Method Email

Category other

Issues/Comments

Clark,

As we sift through the large amount of information that you gave us at the East Center meeting on March 20, can you please refresh my memory so that I have the correct information which would allow us to make the best and most informed decision? Thank you.

If you were to choose the Green Valley Substation C as your option, can you please give me the following information?

1) How many of the new 70 foot high power poles (pardon me if I use the incorrect terminology) would be needed to complete the project?
2) How far apart would the poles be from each other in order to complete the project?
3) How close would the poles be to the residents of the Springs who live on S. Wolf Run Road and Camino del Golfista?
4) As the poles head east, what other streets would be located closest to the poles? How far would these other streets be from the new poles?
5) What would be the westernmost/easternmost location of the new poles to be installed?
6) What would be the northernmost/southernmost location of the new poles to be installed?
7) How many total miles would the new poles cover?
8) Would all of the new poles be located on the east side of I-19?

If you were to choose the Interconnection Substation B as your option, can you please give me the following information?

1) How many of the new 70 foot high power poles would be needed to complete the project?
2) How far apart would the poles be from each other in order to complete the project?
3) How close would the poles be to the residents of the west side of I-19? What streets would be closest to the new poles?
4) What would be the westernmost/easternmost location of the new poles to be installed?
5) What would be the northernmost/southernmost location of the new poles to be installed?
6) How many total miles would the new poles cover?
7) Would all of the new poles be located on the west side of I-19?

Thank you for taking the time to provide this important information to our community.

Response Sent

Thank you for providing your thoughtful questions. I would like to be as responsive as possible, but at this point in the siting process we don't have a specific route from "any" of the potential interconnection points A, B, C, or D. That means we don't have specific engineering for any route. I would suspect it will be late Summer when I will be able to answer your questions more definitively. Nonetheless, let me answer what I can for now.

If you were to choose the Green Valley Substation C as your option, can you please give me the following information?

1) How many of the new 70 foot high power poles (pardon me if I use the incorrect terminology) would be needed to complete the project?
UniSource Response – unknown until a specific route is identified.

2) How far apart would the poles be from each other in order to complete the project?
UniSource Response – typical spacing between poles is 600-1,000'.

3) How close would the poles be to the residents of the Springs who live on S. Wolf Run Road and Camino del Golfista?
UniSource Response – unknown until a specific route is identified.

4) As the poles head east, what other streets would be located closest to the poles? How far would these other streets be from the new poles?
UniSource Response – unknown until a specific route is identified.

5) What would be the westernmost/easternmost location of the new poles to be installed?
UniSource Response – unknown until a specific route is identified.

6) What would be the northernmost/southernmost location of the new poles to be installed?
UniSource Response – unknown until a specific route is identified.

7) How many total miles would the new poles cover?
UniSource Response – unknown until a specific route is identified.

8) Would all of the new poles be located on the east side of I-19?
UniSource Response – unknown until a specific route is identified.

If you were to choose the Interconnection Substation B as your option, can you please give me the following information?

How many of the new 70 foot high power poles would be needed to complete the project?
UniSource Response – unknown until a specific route is identified.

How far apart would the poles be from each other in order to complete the project?
UniSource Response – typical spacing between poles is 600-1,000'.

How close would the poles be to the residents of the west side of I-19? What streets would be closest to the new poles?
UniSource Response – unknown until a specific route is identified.

What would be the westernmost/easternmost location of the new poles to be installed?
UniSource Response – unknown until a specific route is identified.

What would be the northernmost/southernmost location of the new poles to be installed?
UniSource Response – unknown until a specific route is identified.

How many total miles would the new poles cover?
UniSource Response – unknown until a specific route is identified.

Would all of the new poles be located on the west side of I-19?
UniSource Response – since the Kantor Substation is located on the east side of I-19, I can definitively state that at some point the poles would need to cross to the east side of I-19, but until a specific route is identified I can't say where.

The next step in our siting process is to take all of the "Preliminary Segments" that have been identified as illustrated on the project newsletter that was sent as well as the interactive project map and run them through a suitability assessment that will take into consideration a number of environmental and land use factors, including community values such as views towards the Santa Rita Mountains. Those "Preliminary Segments" that have a greater collective impact on these factors will be eliminated from consideration as potential routes. The more suitable segments, in other words those segments that conflict less with the values of the community, will persist to the next phase of analysis and undergo further scrutiny until we've landed on a specific route, or possibly several route alternatives. At that point, which I expect we'll reach later this summer, we'll do some preliminary engineering and I'll be able to fully respond to your questions.

Until then, I hope you'll continue to stay engaged with the project. We're planning to have another public open house in mid-May to share the results of the suitability assessment and would appreciate your continued feedback as we try to identify the best possible route for this proposed transmission line.

Thank you,

Response Received
Clark,

Another question arose which we hope you could answer.

What is the cost of erecting a 70 foot power line above ground as compared to the cost of burying that pole below ground?

Thank you.

Response Sent

On a per mile basis, the typical cost of an overhead 138kV line is about $1.2 million/mile. Underground has a lot of variables to consider, but typical costs can exceed 10 times more than overhead. We had underground estimates prepared for a recent project in Tucson for comparative purposes and the costs were between 14-22 times more than overhead construction.

Thank you for asking your question.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Thank you for the quick reply. Much appreciated.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/31/2025

Method Email

Category other

Issues/Comments

Hello — I am a Green Valley Resident and I just wanted to tell you how impressed I was with your outreach at the GVR East Center recently. I came expecting “trouble” — a project insensitive to greater public concerns, and I left the meeting so very impressed by your presenter and staff, by your intelligence and by your sensitivity to all aspects of the public sphere as well as the technology and project management spheres.
Thank you so much

Response Sent

[redacted]
Thank you very much for sharing your positive experience and feedback regarding the conduct of the project team and the siting process. I will share your thoughts with the team and know they will be appreciative.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7C09bb23ded81442b4316d08dd712c9ab0%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638791158610828005%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=06OgQ6%2BQcMKzqjemGhUwryoGddlgWbYNdGn6l2WuaXg%3D&reserved=0.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/31/2025

Method Paper Comment Form

Category Property Value

Issues/Comments

Your plan A (or is it Site A?) will put those trasmission lines even closer to our nature park and walking paththan the poles there now. What upheaval will be caused to the south entrance to our path? How is it that necssary and allowed?
Know that we two oppose this plan strategy.
Further discussions, any approvals or disapprovals.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/31/2025

Method Paper Comment Form

Category Viewshed

Issues/Comments

While I apprciate and understand the value of having reliable electricity I also appreciate the allure of the Santa Rita Mountains rand and what it brings to a community such as Green Valley in the forma of beauty entertainment, and desire to want to live there. To obstruct the view with transmission lines and therefore distract from its' natural elegancis is irreplacable.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 3/31/2025

Method Email

Category other

Issues/Comments

Hello — I am a Green Valley Resident and I just wanted to tell you how impressed I was with your outreach at the GVR East Center recently. I came expecting "trouble" — a project insensitive to greater public concerns, and I left the meeting so very impressed by your presenter and staff, by your intelligence and by your sensitivity to all aspects of the public sphere as well as the technology and project management spheres.
Thank you so much
[redacted]

Response Sent

[redacted]
Thank you very much for sharing your positive experience and feedback regarding the conduct of the project team and the siting process. I will share your thoughts with the team and know they will be appreciative.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/1/2025

Method Email

Category Property Value

Issues/Comments

I live in the Santa Rita Springs community in Green Valley which is Option A of this project.
Our community has had to live with the construction of the ugly TEP substation and huge power poles. Now there is a proposal for even taller poles and a location that would rob us of our dog park and nature trail serenity.
I know - not in my back yard - but we already have a mess. Do you have to make it worse?
Sincerely,
[redacted]

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/1/2025

Method Online Comment Form

Category Property Value

Issues/Comments

I live in The Springs at Santa Rita HOA. After learning about the plan to install additional transmission line poles in our subdivision, I would like to express my concern about this option. The likelihood of tearing up the southeast portion of our Nature Park, eliminating the much-used dog run, infringing on additional conservation areas, and decreasing our property values by increasing the eyesore of additional poles and transmission lines is too great a price to pay.

Response Sent

Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/1/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

I am strongly against the propsed route of the power ooles which borders my community of The Springs at Santa Rita.

Response Sent

[redacted],
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/1/2025

Method Email

Category routing

Issues/Comments

Good morning. I did follow Clark Bryner's suggestion to visit the website and would like to make a suggestion to improve the info available:
the two maps are cluttered with lines and one cannot possibly see just where 'interconnection A' or ' interconnections B, C, or D ' lines would be placed. Could you please add these individual maps to the website? That would be very helpful.
Sincerely,
[redacted]

Response Sent

[redacted]
Thank you for the feedback. I understand the map posted to the webpage is difficult to read. There are a lot of different lines under consideration. At this point, we don't have lines specific to any of the interconnection points A, B, C, or D. The best way for you to see the detail you would like is to view the interactive project map at https://www.uesaz.com/maps/Santa-Cruz-Opportunites-and-Constraints/. On this map you can zoom in to the area you are interested in reviewing in more detail.
Please let me know if you have any issues accessing or navigating the map.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/2/2025

Method Online Comment Form

Category Property Value

Issues/Comments

I am the Town of Sahuarita Community Development Director and am providing comments on behalf of the town. We support the effort to improve grid reliability in Santa Cruz County, however, I would like to ensure that the work done has minimal impact on the Town of Sahuarita and its residents. If the project includes facilities north of White House Canyon Road, my preference is for the easternmost segment alignment (20, 3) to be used rather than the draft segments that abut the existing communities of Madera Highlands and Quail Creek. I am happy to engage further in these conversations and would like to be included in project communications.
I'd like to provide some additional information related to my earlier comments. If there are existing transmission line facilities along the draft segments shown on the map, our preference would be to co-locate with any existing transmission line facilities. If not, the preference is to stay as far away from existing development as possible.

Response Sent

[redacted]
Thank you for both of the comments you provided on behalf of the Town of Sahuarita. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
We have you included as our contact with the Town to be included on all communications and to be invited to our regular stakeholder briefings. We're planning to have another meeting in mid-May, so be on the lookout for that invitation in the next couple of weeks. If you know of others from the Town that you'd like us to invite and/or include on any project related communications, please let us know. In addition, if it would be helpful for us to schedule a meeting with you and your staff to discuss the project in more detail/answer questions/learn of concerns we'd be happy to do so at your convenience, please just let me know and we'll set it up.
I appreciate your interest in the project and hope you will continue to stay engaged in the project going forward as we identify the best possible route for this new transmission line.
Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/3/2025

Method Email

Category Property Value

Issues/Comments

To whom it may concern, I am extremely disappointed to learn of the proposed Power Plant and new transmission line to the south of The Springs at Santa Rita subdivision. I purchased a property in the subdivision last October because of the esthetics of the subdivision. A huge factor in my decision was the nature path, the dog run, and natural open space with the Anza Trail behind the subdivision. The proposed infrastructure by your company severely infringes on these areas and eliminates a good portion of it including the dog run. This is a beautiful subdivision in a natural setting and your proposal will mean that I will soon be walking along an easement road and ugly bare area with large transmission poles right next to the nature path and access to the Anza Trail. Additionally, I am aware of the studies that show the impact of electromagnetic fields on human health due to a family member being an electric emissions expert, and I am a nurse in the medical field. This proposed project will deter future buyers from purchasing property in this subdivision and significantly impact the quality of the mental and physical wellbeing of the current residents. Please consider an alternative placement of this infrastructure.
Thank you, [redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.

I'd like to clarify two things that may have been misunderstood. First, a power plant is not being proposed, so need to be concerned about that. Second, we do not have a proposed route for the proposed transmission line yet. At this point, the lines you see on a map, including the one along the southern edge of the The Springs neighborhood, represent concepts of where a line "might" be able to be constructed. We'll use environmental data and feedback from the community to evaluate each of these "concepts" and then remove from consideration those that have the greatest impact to the environment and community values.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/5/2025

Method Phone

Category Property Value

Issues/Comments

Hi, this is [redacted]. I have looked at the materials that were sent out on the Santa Cruz Reliability Project North and I actually live within a few houses of the Option B for this proposal. And I'm concerned about a number effects that if that were to be the chosen area that would affect not only me, but hundreds of other people close to that proposed area and that's primarily why I called. Its a major concern on a number of fronts. Health, property value, traffic, noise, etcetera. And thank you for your listening. My number is [redacted]. If someone wants to call back and talk with us about it. Thank you.

Response Sent

Called back and left voicemail; no further response.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/5/2025

Method Email

Category other

Issues/Comments

To whom it may concern:
(Please distribute this to executives and the engineering department.)
I write for two reasons: The first, to provide feedback for the public open house. Also, to comment on an existing piece of TEP/UniSourceEnergy Infrastructure that I believe to be significantly problematic.
I attended the public open house for the Santa Cruz Reliability Project North on Thursday, March 20, at the Sopori Elementary School. I agree that public input is very important. Every single representative that I encountered was respectful and more than qualified and eager to answer my questions. The plethora of charts, computer displays and map materials was helpful. In furthering public awareness, I would add that a ten-minute video, tying all the elements together, might have been a better way to go. We live in a video culture where people really don't read. The themes could've been: This is where we are, these are the alternatives and challenges, and this is where we'd like to end up. There wasn't a sense of beginning or ending with the charts and graphs alone. However, I still left knowing more than when I started, and appreciate the experience.
I have a concern about the utility pole right at the intersection of East Quail Crossing Boulevard and South Old Nogales Highway. Specifically, this giant pole sits in the median of East Quail Crossing Boulevard, on the west side of the intersection, across from the entrance to Robson Quail Creek, where I reside.
Quail Creek is a long-established 55+ community and is rapidly expanding to six thousand homes. The relatively recent extension of East Quail Crossing Boulevard northwestward to South Nogales Highway (to Walmart, Sprouts and lots of other shopping), is a great boon to the residents here. The negatives are that there are many visually impaired and less-than-courteous drivers, whose senses have been diminished by age and bad habits. Throw in a busy railroad crossing, and there's a formula for disaster. This intersection has already garnered several major vehicular accidents since the installation of the traffic signals. Reports from Sahuarita Town Police, Green Valley Fire Department and other agencies will back up my claim.
As a driver approaches this intersection from the east, entering the dedicated left turn lane to South Old Nogales Highway, typically the driver sees a flashing yellow left arrow rather than a solid green arrow. This can be problematic enough, as many drivers don't understand how to interpret the light. However, this isn't the real issue. As the driver decides to pull forward, their view is heavily impeded by the aforementioned power pole on the opposite side of the street. It blocks a greater view of oncoming traffic more than one might imagine. Without measuring, I'd guess that it spans about two to three feet across at eye level of the driver.
With the other power upgrades planned, I respectfully ask that you consider repositioning the offending pole. Perhaps there could be two new poles on either side, straddling East Quail Crossing Boulevard, leaving space for a future dedicated right turn lane for eastbound East Quail Crossing Boulevard.
This is a brazen request, but a change may save a grandparent's life! Should my comments require any further clarification, then I ask that you contact me. I invite any and all TEP/UniSourceEnergy executives to take a drive to Quail Creek and view the aforementioned issue from the point of the driver.
I kindly request the favor of a response.
--
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. I especially appreciate hearing your thoughts on how we might more effectively share our message with the public. We're working on a short project video now and will take into consideration the thoughts you shared.

Thank you for raising your concern about the pole in the median at the intersection of East Quail Crossing Boulevard and South Old Nogales Highway, I have shared this with our Engineering, Safety, and Customer Service teams to look into further. Either they, or I, will be in touch.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP

Response Received

Mr. Bryner,

Thank you for your prompt and thorough response.

It was a pleasure to meet you that evening.

[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/7/2025

Method Online Comment Form

Category Routing

Issues/Comments

Good morning--I believe that Option B is the best choice. This location would have the least impact on existing housing areas where residents have a beautiful view of the mountains or state lands, which is reflected in their home's value. No one wants to see a power substation in their view or have one too close to their neighborhood, so I believe Option B is far enough out of the way to have the least impact on our community. Thank you, [redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/7/2025

Method Email

Category Property Value

Issues/Comments

Mr. Bryner,
It has come to our attention that TEP is seriously considering adding electrical poles through The Springs Nature and Walking Park.
We totally understand the need for electrical power that withstands bad weather electrical outage. However, we are asking that TEP look at other alternatives.
Our reasoning is based on the fact, as mentioned, that our nature park is exactly that with only walkers allowed on the trail, not even bicycles. That, of course, also means there is no access for the vehicles needed to install said poles and lines.
There is also a dog park in that vicinity which is in use.
Another factor about the park that may not be known is that it is NOT just for residents of The Springs. It is open to the public, a big factor in its use.
We would ask that TEP go back to the drawing board and come up with another way to strengthen electrical power in this area.
Respectfully,
[redacted]
The Springs

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I want to clarify that we do not have a proposed route for the proposed transmission line yet. At this point, the lines you see on a map, including the one along the southern edge of the The Springs neighborhood, represent concepts of where a line “might” be able to be constructed. We’ll use environmental data and feedback from the community to evaluate each of these “concepts” and then remove from consideration those that have the greatest impact to the environment and community values.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at
Thank you,
Clark Bryner, AICP

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/9/2025

Method Online Comment Form

Category other

Issues/Comments

To Whom It May Concern,
I am a resident of Santa Rita Springs with serious concerns about the proposed power line along the southern borders of The Springs.
Unfortunately, I was unable to attend the meeting on March 12th. But I do have several questions regarding the project:
1) Where does Unisource Energy get its power now?
2) Couldn't the current power source or route be upgraded to accommodate their needs?
3) If that isn't feasible, the power lines should be placed underground.
I realize that putting power lines underground is an expensive under taking, but those costs are dwarfed the loss of human life and the astronomical cost of property damage. These catastrophic events implicating downed powerlines or transformers have become all too common in recent years across the country. The drier windier weather of climate change has only exasperated the problem.
If the final solution is to build an above ground powerline, might I suggest pursuing an easement across the property south of The Springs and immediately adjacent to the TEP substation.
I am opposed to ceding property or rights to TEP for the purpose of building an above ground powerline on property extensively used by Springs homer owners and guests.
[redacted]

Response Sent

[redacted]
Thank you for reaching out with your questions. I'll answer each in the order you have provided them.
1. The area of Santa Cruz County served by UniSource currently receives its power through a single 138kV transmission line originating near I-10 and Rita Road in the Tucson area. In addition, there are two partial backup sources, including a 46kV line originating near I-19 and Elephant Head Road, as well as some local generation in Nogales – both of which can only partially meet the needs of the area.
2. The problem being addressed by this project is not that the current source of electricity does not meet the needs of the community, rather it is that there is only a single source adequate to meet those needs. The objective of the project is to provide a second source of electricity that can fully meet the electricity needs in Santa Cruz County. This level of service is what you have in the Green Valley area today.
3. As you have correctly pointed out, underground transmission lines are very expensive. As a result, UniSource does not install transmission lines underground because it costs significantly more than to build the same line overhead. Because our costs are passed along to customers, UniSource avoids unnecessary expenditures to help keep our rates as affordable as possible. Underground lines also have higher maintenance costs, and in this case would not offer any advantages from a reliability or safety standpoint over and above those that could be achieved with an overhead line.
Lastly, in October 2023, the Arizona Corporation Commission approved a policy statement instructing regulated utilities like UniSource to avoid underground installation. A portion of the statement says: "As a general matter, utilities under the Commission's jurisdiction should avoid incurring these higher costs unless underground installation of a transmission line is necessary for reliability or safety purposes or to satisfy other prudent operational needs."
I appreciate the comments and concerns you've provided. We are in the early stages of identifying a proposed route and we have noted these for consideration in future analysis as part of the next phases

of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/9/2025

Method Email

Category Property Value

Issues/Comments

I live in the development, called The Springs in Green Valley. The map shows the new line would come through our park.
TEP has a substation facility directly across from our Park area. From it are large electrical poles going west.
There is also a road going directly into the TEP facility.
The new lines and poles are going to go east. It does not make sense to cross into our property when it goes straight east and not cross into our property.
That land east of the Tep facility is either owned by Pima County or the state.
What you are requesting will take several acres from our property, including a dog park.
The danger of these large electrical poles would be much less if directly headed east.
[redacted] Thank you.
Sent from my iPhone

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/14/2025

Method Online Comment Form

Category Routing

Issues/Comments

We are at [redacted] TheSprings where option A is. First comment Recent news paper article TEP concerned about Fires from power lines in the Elephant Head (EH) area from the front of our house we see EH we also see 24 power poles all of which could cause fires. Rencently City of zTucson and Pima County have made Fire hazard a very high priority. Option A fits into a high fire area, and as you know very close to National Forest land.
The 24 poles around Option A plus many new poles to complete Option A increase visual pollution (vp) as well as all the Mining going on.Does TEP really want to add to vp.
National Real Estate Board has done studies indicating Home values can be affect ed by power poles and the lines associated. Value can reduced from 10 to plus 30%.If our house market value today is approximately $350.000 and we use 10% reduction, our dwelling is worth approximately $315.000 that's a big wack to ones head times many hundreds of homes in Green Valley. I would think not one employee of TEP would like to see there personal home go down by 10 plus %.please note have not spoke about option A effecting our views of the Mountains
I'm confident that TEP has looked at other Options that are not as impactful as Option A Thank You for your consideration

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received
Thank you for responding, yep, you were correct! Question, I see on the map that the "yellow" route has been removed. Is that true? It was there yesterday. And if so, that makes us Montana vista people happy! Are you able to share the reason?

Thank you,

Response Sent
We have not eliminated any of the routes from consideration at this point. We have a "virtual" public meeting tonight. Following that meeting we will consider the comments received, along with other data on each route and determine which routes to move forward with, as well as any routes that we might eliminate.

We will keep you posted. Thanks.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/14/2025

Method Phone

Category Routing

Issues/Comments

Good morning. My name is [*redacted*]. My phone number is [*redacted*]. I am the [*redacted*] of Canoa Vistas 2. And it looks like for the Santa Cruz project, a Preliminary Segment 99, is one that is just right on top of our community. It runs along Waterline Rd., just parallel to two of our streets, behind some of our houses.

And so, the residents here are very, very concerned about what's going to happen. And I have a number of questions. You exchanged an e-mail with a [*redacted*] and gave him some information. And in that you say, over the coming months you're going to evaluate these segments for impacts with respect to environmental and land use considerations along with criteria factors important to the Community, and many of these segments will be eliminated from consideration, while those segments with fewer impacts will be carried forward. I'd like to know how you're going to communicate when those decisions have been made #1 and what those decisions are #2.

Another question the neighbors in this community have is if this segment 99 is chosen, and it goes through, are you replacing the current transmission poles that are there, or bigger transmission poles? How much construction will happen because of that?

And finally, I'll say in terms of feedback. Choosing this segment will have huge impact on our home values #1 and that's a given. You can go out and listen to many real estate agents and lots of people don't want to be around these power lines. Now, I realize that there's already power lines there, but they're not the same kind. They're not the high transmission power lines. So that will have a huge impact on home values. Not only on this community, the CV2 Community. But the community that are surrounding us too, that these are going to go through. And so, we have a huge amount of concerns.

There's a lot of other concerns regarding health issues and proximity of being close to high transmission lines. So on and so forth.

But I really would appreciate if you could get back to me and answer the specific questions and provide any other detail that you can. I don't feel like the communication has sunk into a lot of people. I know there was an article in Green Valley paper, and I have the presentation that you put together, but there's not the level of detail that we're looking for. Hence the questions that I have.

Again, this is [*redacted*]. And my phone number is [*redacted*] and my e-mail is [*redacted*] and that's an under score, not a dash, so I'll say that again, [*redacted*]. Thank you. And if this message is going to Clark Bryner, which is who contacted [*redacted*], I appreciate your attention to these questions.

Response Sent

Thank you for the detailed voicemail message you left on April 14th. I will return your call to discuss, but also wanted to respond in writing in the event you would like to share the response and answer to your questions with the other members of your HOA.

The first question you posed and I'll paraphrase: How will UniSource communicate when decisions are made to eliminate segments from further consideration for the proposed transmission line, and what those decisions are?

Answer: UniSource will go through a couple of rounds of evaluation to refine the segments being considered.

The first round of evaluation is occurring right now. This is a high-level evaluation which will consider environmental impacts (such as wildlife and habitat), historic and cultural resource impacts, land use impacts (such as proximity to residential areas), along with several considerations that were expressed as being important to the community including views of the mountains and wildfire concerns. The results of this analysis and the segments that will be eliminated from further consideration as a result will be communicated to everyone within the project study area through a newsletter and emails (by request) that will be sent the first week of May, and we'll have another public meeting on May 20th. These results will also be posted to the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Over the summer we'll conduct a second evaluation, this time a very detailed evaluation of all the remaining segments. This will include many of the same considerations, along with engineering, right-of-way, and cost factors, as well as any new community values we learn of between now and then. This evaluation will once again result in the elimination of segments from further consideration as well as identifying route alternatives. These route alternatives, and we expect to have more than 1, would be complete routes from point A to point B. These results would again be communicated through a newsletter and a public meeting. I don't have an exact date for this yet, but our plan is for this to occur in the August time period.

From there, we'll use feedback from the community to inform a decision on which of the alternative routes would be our preferred route. These would then be included in an application submitted to the Arizona Corporation Commission, followed by a public hearing before the Arizona Power Plant and Transmission Line Siting Committee. Our plan is for this to occur in the November time period. Again, all of this would be communicated through a newsletter and emails.

The next question was: If segment 99 were selected, would the current transmission poles be replaced, and would they be replaced with much bigger poles? And how much construction would occur?

Answer: Yes, if segment 99 were selected the existing poles would be replaced. The poles would be very similar in both height and look to what is there today, but would be built to accommodate the existing 46 kilovolt circuit as well as the new 138 kilovolt circuit. This is the exact configuration of the poles that exist along Water Line Road today, so looking at those would give you a good idea of what to expect.

As far as construction. We would need to do some vegetation clearing and grading at the site of each structure (pole). That is about 1 day. Installing each pole is usually done over the course of a couple of days, but not in row due to need for concrete curing, etc. Then we have to "string" the conductor (wire) to the line which is done over the course of a few days. So in any given area, construction would be about 1 week total, but divided up over the course of several months.

Concern 1: home/property values

Answer: We do not expect that new transmission line projects will negatively impact property values. Both TEP and UniSource's lines are located above ground throughout the areas we serve, and that reality is already priced into local home values. I realize that a large volume of information is available online that supports all sides of this concern. TEP commissioned a study in 2024 by an

independent appraiser to see if there was any evidence of an impact to property values as a result of transmission line construction. As part of your research, I'd encourage you to review the study, its methods, and results. You can find the study online, beginning at page 195 of the document at https://docket.images.azcc.gov/0000211344.pdf?i=1744730914219

Concern 2: health and safety

Answer: For more than 30 years, scientists and researchers from universities, national laboratories, health agencies, the World Health Organization and other groups have conducted research activities into possible health effects of EMFs. According to this large body of research, there are no confirmed health risks caused by exposure to low-level EMFs. Again, similar to the property value concern, information is available online to support all sides of the discussion. I encourage you to research and come to your own conclusions but would encourage you to focus on reputable sources such as WHO, NIH, and National Cancer Institute. We have links to some of these posted on our webpage at https://www.uesaz.com/electric-and-magnetic-fields/.

I hope these responses are helpful, but please continue to ask any questions you, or your neighborhood, may have and we'll be happy to answer to the best of our ability.

Thanks,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Additional Notes

Sent an email with responses to questions. Followed up with a phone call and left a voicemail.

[*redacted*] called back and we reviewed the responses that were sent by email. She asked if she could copy and paste my responses in an email to her community, and I said absolutely. She shared that she didn't realize this project was happening until her neighbor shared with her. She stated that she just wasn't paying attention and suspects that many others aren't either. I shared the ways we are trying to spread information and notice about the project and asked if she had any additional ideas. She appreciated the responses and felt she had the information that she needed now.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/17/2025

Method Online Comment Form

Category Routing

Issues/Comments

I support Interconnection Option B, the westernmost location and in a southerly direction as well. When looking from west to east across Green Valley, this site would have the least adverse visual impact. Thank you for your consideration in this matter. Sincerely, [redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/17/2025

Method Phone

Category Viewshed

Issues/Comments

Hello. I would like to thank you for collecting public input regarding the Santa Cruz Reliability Project North. I appreciate you taking the public input during the selection process. My name is [redacted], and I am a resident at [redacted]. I support interconnection option B, as in bravo. Which is the westernmost location and also in the southerly direction as well. Because when, the way I see it, when you're looking from west to east across Green Valley, this site has the least adverse visual impact in comparison to the others. Thank you for your consideration in this matter. Sincerely, [redacted]

Response Sent

No return call necessary.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/17/2025

Method Email

Category Property Value

Issues/Comments

You will not be putting 140kv power lines in front of my house. You can forget about Montana Vista as an option, it is not going to happen.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/17/2025

Method Email

Category Viewshed

Issues/Comments

Thank you for collecting public input during the selection process. I am a resident at [redacted]
I support Interconnection Option B, the westernmost location and in a southerly direction as well. When looking from west to east across Green Valley, this site would have the least adverse visual impact. Thank you for your consideration in this matter. Sincerely, [redacted]

Response Sent

[redacted]
Thank you for sharing your thoughts. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/24/2025

Method Email

Category Health/Safety

Issues/Comments

Mr.Bryner. I have techie questions / need assistance re EMF distance / strength calculations. I looked at several industry & NIH websites pertaining to exposure strength & distance. I was not able to find a simple formula for calculating the exposure strength by voltage over distance. I did see similar charts such as you included in your material, but none went as close as we are. Nor did I find any information as[redacted]
My house is a[redacted] Mine Waterline Road abuts my property to the North. I think the existing lines to the mine are 46 kilovolts. Adding the new 138k line will bring a total of 184k running about 20 horizontal feet from my house. Vertical probably 70-80 ish. Based on my observations our house would be the closest of all to the 184k line. We don't want to move nor do we want to worry about the potential of being harmed by the significant increase of the EMF. We're looking for assurances. So, what do we /you need to to make us comfortable with the potential increased exposure?

- Can you provide technical assistance to measure our present exposure and extrapolate that data to the proposed line for comparative purposes ?
- does the formula distance number include vertical height or triangulation, or is the typical chart data solely based on horizontal distance from the edge of right of way?
- are you aware of any safety "minimum distance requirement"? If so, does our house fall in or out of any guidelines ?

I am aware that a number of years ago, a Midwest utility company provided concerned homeowner groups with a Gauss meter to run their own EMF checks. The same utility previously sent out contract engineers to do the testing. It was cheaper to "trust" the homeowners to do the testing and also get them invested in the process, than to pay the contract engineers. Is gauss testing worth pursuing?
To sum up, I'm looking for help to find hard scientific information specific to our specific 20 feet away property situation.
Thank you,
[redacted]

Response Sent

[redacted]
Thank you for your additional questions. I am not an EMF expert, but I am copying one of my co-workers Nate Palma who is. I spoke with Nate and he would be happy to come to your home and explain the specifics of how EMF is calculated and take some measurements.
The line you referenced that runs to the north side of your home is a double circuit line, with both a 46kV circuit and a 138kV circuit. Since that line exists today, while Nate is there, he'll be able to provide you with the exact readings you are after.
I have additional news. Since the line already exists to the north of you, that is not a segment that we are considering as part of the proposed new 138kV transmission line route. However, since I know you are not just asking these questions on your behalf, but also on behalf of your neighbors. If Segment 99 to the west side of your neighborhood were selected, we would be looking to rebuild that existing line to the same configuration as the line by your home. So, it would become a double circuit line, with both a 46kV circuit (exists today) and a 138kV circuit. Whatever EMF readings are calculated near your home today would be very similar to what homeowners on the west end of the neighborhood would experience.

Nate will reach out to you to schedule a time to meet and provide you with the answers that you're after. Again, if you have further questions or comments, please continue to reach out.
Thanks,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Mr.Bryner, thank you for your clear, understandable, & informative response. The marked up pictures were excellent.

As to the lines close to our house, there will be no change as we already have 46k & 138k lines. Good to know.

Thank you for arranging for a gauss meter test which we can share with our HOA neighbors.

We appreciate your prompt responses,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/25/2025

Method Email

Category Property Value

Issues/Comments

Hello Clark,
One of our HOA residents has a question I don't have the information to provide. Could you assist and I will share with all our HOA residents. She is very close to the current lines.
"I have been combing through the information you have passed on (thank you!), and tried to find a photo of what the proposed transmission poles look like. "Water LIne Road," as referenced by Mr. Bryner, didn't provide an accurate picture - a Google shot of a stretch of it in Tucson showed poles that looked very dated. Surely, they can provide us residents with an illustration or photo of what they plan to replace existing poles with. I also want to know if they would replace poles and/or add poles. Search transmission poles with 46 and 138 kilovolt circuits. There are more lines and arms...not attractive."
Thank you.
[redacted](Segment 99 area)

Response Sent

[redacted]
Thank you for your question on behalf of your HOA member. I have put together a simple exhibit that I hope will answer the question. The exhibit includes a map illustrating the existing overhead electric facilities in the vicinity of your neighborhood. On the map are yellow circles with numbers. These are photo points. On the subsequent pages are photos of these facilities, labeled to educate on what is being shown.
While we don't have a route selected at this time. If Segment 99 were selected, the existing line along Segment 99 would be replaced with something that looks like the line existing today at Photo Points 1 and 2 in the attached exhibit.
These poles all exist today right in your neighborhood, so I would recommend anyone interested to go look at these locations in person since photos never quite capture everything.
Again, please continue to reach out with any further questions you may have, or questions from your neighborhood.
Thanks,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/25/2025

Method Online Comment Form

Category Property Value

Issues/Comments

I am a resident of Santa Rita Springs and I am appalled that TEP would consider taking a portion of our HOA property for a road and transmission line. Our HOA is a community of 440 homes, many of which are duplexes, and most of which have only small patios of outdoor space. The proposed site of the power line on our property comes within a few feet of our walking trail and would obliterate our dog park. The trail is heavily used enabling us to enjoy our park-like outdoor space. Please choose an alternative to this intrusive plan!

Response Sent

[redacted]
Thank you for sharing your thoughts. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I want to clarify that we do not have a proposed route for the proposed transmission line yet. At this point, the lines you see on the map, including the one along the southern edge of the The Springs neighborhood, represent concepts of where a line “might” be able to be constructed. As we move into the next phase of our siting study we’ll use environmental data and feedback from the community to evaluate each of these “concepts” and then remove from consideration those that have the greatest impact to the environment and community values.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/28/2025

Method Email

Category Property Value

Issues/Comments

Hello,

Unfortunately, we do not participate in preliminary project discussions or meetings. The way our process works is you will need to submit an application to us once you have your full plans completed and submitted to us for review. Our engineer team will need all the information relevant in order to approve of your proposed utilities on UPRR right of way. That would include the design plans and profile pages, aerial images of the route/design of proposed utilities. There should be more information on the website, I will provide links.

Utility Contracts System: fees, timelines, RUSH services, click here to begin application process

UP: Real Estate and Utility Specifications homepage, find engineering guidelines and specifications, procedures and more

Logo
Description automatically generated

[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/28/2025

Method Email

Category Other

Issues/Comments

Hello,
Thank you for informing and including the National Park Service about the Santa Cruz Reliability Project. We have been invited to a couple meetings in May and plan to attend them. Thank you.
[redacted] Trail Planner

Response Sent

Excellent, I'm very glad to hear that you'll be able to participate. These meetings are for two different phases of the same project. I'm managing the north piece of the project, and I'm copying Chris Ortiz y Pino who is managing the south piece of the project. In our meetings we hope to be able to provide a general update on what's happening with the project. And most importantly, we hope to be able to learn information from agencies with management responsibilities in the area, and other stakeholders, important information that can influence the siting process so that we can identify the best route for this new transmission line, with the least impact on the environment, land uses, and the communities.
If after the upcoming meetings, on either project, you feel it would be helpful to meet to go over specific concerns we'd be happy to do so.
We appreciate your willingness to spend some of your valuable time assisting us with this important energy project.
Clark Bryner, AICP
Manager, Siting, Outreach and Engagement
Tucson Electric Power/UNS Electric Inc.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/29/2025

Method Email

Category Other

Issues/Comments

Hi Clark,
I really appreciate it. I have shared the information with Tumacácori National Historical Park (U.S. National Park Service) who is a local National Park site and may be interested in participating as well. Thank you.
[redacted]

Response Sent

Excellent, I'm very glad to hear that you'll be able to participate. These meetings are for two different phases of the same project. I'm managing the north piece of the project, and I'm copying Chris Ortiz y Pino who is managing the south piece of the project. In our meetings we hope to be able to provide a general update on what's happening with the project. And most importantly, we hope to be able to learn information from agencies with management responsibilities in the area, and other stakeholders, important information that can influence the siting process so that we can identify the best route for this new transmission line, with the least impact on the environment, land uses, and the communities.

If after the upcoming meetings, on either project, you feel it would be helpful to meet to go over specific concerns we'd be happy to do so.

We appreciate your willingness to spend some of your valuable time assisting us with this important energy project.

Clark Bryner, AICP
Manager, Siting, Outreach and Engagement
Tucson Electric Power/UNS Electric Inc.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/30/2025

Method Online Comment Form

Category Property Value

Issues/Comments

We are building a custom home at [redacted]. We strongly oppose constructing the El Paso Gas Line "utility corridor" near our home on the West Side. Unisource has confirmed that the already existing 138(kV) transmission line on the East side of Tubac could accommodate a 2nd 138 (kV) transmisson line for the redundancy. This is the best option that will have the least impact on the environment, use less resources, reduce the cost for UNS customers and PROTECT our WEST side historic open vistas land. This would have significant impact on our Property Value and the safety issues we have with placing a 138 (kV) transmission line so close to over 2 ACTIVE MAJOR GAS PIPELINES.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 4/30/2025

Method Email

Category Health/Safety

Issues/Comments

Andrea,

I did have someone take a look at this pole. It's not our practice to put poles in the median but I don't believe this pole will obstruct the view of traffic to the point that it's unsafe. The pole could be hit if a vehicle left the pavement but the same could happen if the pole was on the north or south side of Quail Crossing. This pole is approximately 2 ft in diameter at the base.

We are happy to help if it's determined the pole needs to move.



Response Sent

Thank you for your feedback, [redacted]

If anyone has any additional concerns, please let us know. Who will follow up with the customer, Clark?

Thank you,

Andrea Hengsteler (Lopez), MBA, CUSP
T&D Safety and Training Supervisor I
Tucson Electric Power
520-869-0484
Alopez@tep.com

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/1/2025

Method Phone

Category Information Request

Issues/Comments

Yes, good morning. My name is [redacted] . I live in the San Ignacio Ridge Estates Neighborhood in Green Valley. I'm just trying to confirm that you folks are doing your next open house on May 20th at the Green Valley Recreation Las Companas Center. And I want to confirm the date and the time if I can, because we'd like to put a little e-mail out to some of the residents in our neighborhood so that they have the option to attend the open house. So if the date, and time, and location is out for public consumption, if you'd let me know, I'd appreciate it. And again, it's and my number is . Thank you.

Response Sent

Confirmed that the meeting would be on May 20th beginning at 9:00am at the Las Campanas Center.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/1/2025

Method Email

Category Viewshed

Issues/Comments

To Whom It May Concern:
I live in The Springs development and am highly opposed to the Plan A which TEP/UNISOURCE is proposing for increasing power to Santa Cruz county.
I walk the trail daily and am saddened by the thought of losing our beautiful scenic area. The concern for health, safety and quality of life is real.
Also, I am certainly concerned about the decrease in property values if this were to become reality.
You have already impacted our community by placing the power plant in the first place. Please don't mess with us again. Please choose a better route for your power needs.

[redacted]

Response Sent

[redacted]
Thank you for sharing your thoughts. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I want to be clear that we do not have a proposed route for the proposed transmission line yet. At this point, the lines you see on the map, including the one along the southern edge of The Springs neighborhood, represent concepts of where a line "might" be able to be constructed. As we move into the next phase of our siting study we'll use environmental data and feedback from the community to evaluate each of these "concepts" and then remove from consideration those that have the greatest impact to the environment and community values.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/1/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

Why would we not use the existing transmission lines that are on the east side of I-19? The infrastructure is already there and I understand they were built with another line in mind. This makes no sense to me. I spent $700,000 on a house in the west side of Tubac that has unfiltered views of the Santa Rita Mountains. This home is to provide our nest egg for retirement in 15 years and having power lines in the backyard is not acceptable.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/1/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

I live at [redacted] and own 53 acres and am totally against the power lines going in on the west side of route 19. I do hope there is an alternative to such intrusion.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/2/2025

Method Email

Category Viewshed

Issues/Comments

Residing on Wolf Run in the Springs for the last 10 years; we have a direct view of the current TEP lines. I have requested that the trees not be trimmed in an attempt to block the visible TEP lines , despite the tree growth obstructing Mountain views!

Please do not add insult to injury!

Deteriorating our property values and destroying the existing terrain is not worth meeting your objectives.

Sincerely

[redacted]

Response Sent

[redacted]

Thank you for sharing your thoughts. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP

UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/3/2025

Method Phone

Category Routing

Issues/Comments

Hello, I am a resident of The Springs in Green Valley, Arizona. And I know that one of the potential routes for your new power lines is through The Springs at Santa Rita. I would like to really, very, very, very strongly to object to that. This is a community of 400 plus homes. We all use the nature parks. We all, all of us who have dogs, use the dog run. It would highly impact us in multiple ways. I'm sure that there will be a better option for you for this power line. Thank you.

Response Sent

No return call needed.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/5/2025

Method Email

Category other

Issues/Comments

We received your email and appreciate the public open house on this subject. This notice says Thursday May 20 but May 20 is a Tuesday.
Please clarify the day.
Thank you
[redacted]

Response Sent

Thank you for pointing out that error. I will send out a correction immediately to clear up any confusion. The meetings will be held Tuesday, May 20th.
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/5/2025

Method Phone

Category Routing

Issues/Comments

Hi, my name is [redacted] and I just have a comment about the flyer you sent out about the energy grid update. I just think that the map that you sent out is absolutely awful. It's really difficult to find out where our neighborhood is. Actually, there isn't any definition clearly of roads. As far as input, I would like any towers placed as far west of Green Valley as possible. I live in San Ignacio Vistas and I hope that there's not a power line anywhere close to Calle Tres and the Frontage Rd. Thank you very much. My number is [redacted].

Response Sent

Left voicemail 5/6/2025 @ 1:50pm.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/5/2025

Method Online Comment Form

Category Other

Issues/Comments

I don't understand the blue dotted line on map No. 1. It seems to curve over I19 but it is not a segment or group of segments shown on the revised segments map??
Any new line should avoid existing homes. How high would this line be? Consideration should given to whether it would interfere with residents views and safety.
There is already an unsightly line of power poles and lines behind Atascosa. If a new line were located further beyond Atascosa would these existing poles and lines be removed?

Response Sent

[redacted]

Thank you for reaching out with your questions. I'll answer them in the order you've posed them.

First, the blue dashed line on map No. 1 is simply an illustration that the first phase of the Project is to connect those two points with a new transmission line. The blue dashed line is not a "segment" that we are studying, but simply an illustration of the idea we are trying to accomplish.

While the ultimate height of the new line will be determined once a final route is identified, in general the poles or structures, will range between 75-85 feet in height.

Lastly, when you mention the existing line behind Atascosa, I presume you are referring to the existing line along Via del Cielo Azul, which is identified as Segment 122 on our maps. If Segment 122 were included as part of the route that is approved for this project. Those existing poles would be replaced and rebuilt to accommodate both the existing line and the new line on a single pole. For reference to the previous question, the existing poles along Via del Cielo Azul are roughly the height of the poles we would be installing as part of this project.

Please continue to ask any questions you may have. We'll also include your concerns as part of the project record and take them into consideration as we evaluate routes as we continue with our planning and siting process over the coming months.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/5/2025

Method Email

Category routing

Issues/Comments

Good Morning:
I just received an email with an Interactive Map to view route segments still under consideration. I am unable to fully understand this map; it doesn't show Amada, Tubac, Nogales, etc. I live in Tubac and we are currently building our Home at [redacted]. One of the locations being considered was further down our road near [redacted]. I noticed that the next two meetings are scheduled for Green Valley and Amado. Originally, one had been scheduled for next Monday at the Tubac Community Center. Has our area - Alegria Road, Tubac, been removed from consideration?
Sincerely,
[redacted]

Response Sent

[redacted]
Thank you for reaching out for clarification. It would appear you are on two different email lists, for two different phases of the Santa Cruz Reliability Project.
Based on your location, I assume you are more interested in Phase 3, or the South portion of the project. There are meetings for that phase of the project planned for May 13th at the Tubac Community Center, we hope you'll be able to join us.
To avoid confusion, would you like me to remove you from the email list for the "North" phase of the project which is located more in the Green Valley area?
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/5/2025

Method Email

Category Other

Issues/Comments

Yes; please. Thank you so much for your quick response & clarification.
[redacted]

Response Sent

[redacted]

Thank you for reaching out for clarification. It would appear you are on two different email lists, for two different phases of the Santa Cruz Reliability Project.

Based on your location, I assume you are more interested in Phase 3, or the South portion of the project. There are meetings for that phase of the project planned for May 13th at the Tubac Community Center, we hope you'll be able to join us.

To avoid confusion, would you like me to remove you from the email list for the "North" phase of the project which is located more in the Green Valley area?

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/6/2025

Method Email

Category other

Issues/Comments

Hello,
Regarding the Santa Cruz Reliability Project North, we prefer:
Option A - Canoa Ranch Substation Interconnection.
Thank you,
[redacted]
Green Valley

Response Sent

[redacted]
Thank you for sharing your comment. We have noted your preference for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/7/2025

Method Phone

Category Routing

Issues/Comments

Howdy! This is [redacted]. We live at [redacted] in the Santa Rita complex there. And we vote “No” for the TEP project that they now have in mind. Just want to get our vote in there. Thank you. Bye.

Response Sent

No return call needed.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/7/2025

Method Email

Category other

Issues/Comments

Hi, Clark – I have the email about the times and places of the meetings on May 20th. As two of a number of residents who are now away from Green Valley for the summer months, we wonder if there would be a way of attending these meetings via Zoom or some similar platform?

Please let us know and thank you.

[redacted]

Response Sent

Good morning,
We don't have a virtual option planned for the meeting on May 20th. That said, I would be more than happy to find a time to meet with the two of you virtually and go over the presentation and answer any questions you may have. Please let me know a couple of dates/times that would work for you and we can get it scheduled.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/7/2025

Method Online Comment Form

Category Routing

Issues/Comments

I attended the first information session on this project, and, at that time, impacts on the Elephant Head neighborhood seemed likely to be minimal. That does not appear to be the case, anymore, since there are black lines in many places on the Elephant Head street map. What changed, and why? Are you still planning to try to use existing power lines, or are you adding quite a few? You are apparently coming right down my road, now, and this was not on the original drawings.

Response Sent

[redacted]
Thank you for staying actively engaged in this project as we continue to work our way through the siting process.
While we have eliminated many potential route segments from further consideration, at this point we do not have a proposed route for the proposed transmission line yet. The lines you see in “black” on the map, including those through the Elephant Head area, represent concepts of where a line “might” be able to be constructed. We have not added any new lines to the map since our meetings in March 2025, we’ve only removed lines from consideration.
The next step of our siting study will be a detailed evaluation of each of the route segments still under consideration by subject matter experts. This evaluation will include a review of factors we’ve heard are important to the community such as, environmental impacts, land use impacts, cultural resource impacts, and visual impacts. It will also factor in financial costs to secure rights-of-way and construction/operations of the line if a particular segment were selected. This evaluation will result in the removal of further segments from consideration and the identification of complete route alternatives from Point A to Point B. In the end, only 1 new line will be constructed.
I hope you’ll be able to attend one of the two public open houses we have planned on May 20th in Green Valley or Amado. Details for each of the meetings can be found on the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/12/2025

Method Phone

Category Routing

Issues/Comments

Hey, good morning. This is [redacted]. I'm with [redacted] and we have the resident at [redacted]. We're calling about the construction project, about the addition of transmission lines, and the fact that it might go through our backyard. So we're trying to talk to someone, I think Clark Bryner is the one who is Project Manager, regarding more specific questions we have regarding that project. My number is [redacted]. This is [redacted]. The property's in [redacted] name. Look forward to asking our questions and being able to talk. Thank you.

Response Sent

[redacted] asked for clarification on what options were still being considered and the timeline for making a decision. He further asked about what was included in the evaluation process. He was concerned about wildfire risk and if that was being considered. He asked where he could see similar facilities. He shared that he would likely call back with additional questions.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/14/2025

Method Email

Category Other

Issues/Comments

Hello Christopher and Clark,

I hope this finds you well. Where can we find the definitions for constraints and opportunities? I remember this being shared briefly on the slides, but I do not see these up or the definitions online.

Thank you.

Response Sent

[redacted]

We will be posting the presentation provided during the open house meeting to the project webpage this week. The brief descriptions of Opportunities and Constraints is bulleted in those slides as you noted. In the meantime, please see the below more detailed descriptions of Opportunities and Constraints.

Opportunities are areas within the study area where viable alternatives could be reasonably constructed based off initial desktop and on-site reviews. The primary rationale for identifying potential opportunities included utilizing existing infrastructure alignments to both minimize environmental impact while limiting impacts to residential communities, reduced costs, and streamline project development, such as existing transmission and distribution ROWs, road alignments (paved and unpaved), and other linear infrastructure (i.e. pipelines) and features (i.e. washes). where environmental impacts could be minimal.

Constraints arise from residential density, environmental sensitivity, and existing infrastructure that at an early stage of the siting process potentially may limit the project's scope or necessitate complex mitigation strategies. The rationale for potential constraints identified included developed residential areas, particularly medium to high density developments and historically and culturally significant areas, environmentally sensitive lands, and infrastructure conflicts.

Please let me know if you have any further questions.

Thanks,
~Chris

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/16/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

Everyone in Green Valley looks east at our beautiful Santa Rita mountain vistas. It's bad enough we have to deal with Copper World and I19's noise but now Unisource wants to further negatively impact what we moved to Green Valley for! Instituting a secondary power source for Santa Cruz County is, without doubt, a positive project. We have mines west of Green Valley; nobody looks that way. Use that already destroyed desert land, Interconnection Option B, for your siting to the Kantor Substation! Use nodes: 99,100, 98, 96, 123, 128, 154, 164, 166, 169, 173, 174, 175, and 177. That route disturbs the fewest of us in Green Valley.

Response Sent

[redacted]
Thank you for sharing your comment. We have noted your preference for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/16/25

Method Email

Category Health/Safety

Issues/Comments

Hello [redacted],

It was nice chatting and getting to meet you yesterday. I have attached the results from the EMF readings that were performed at your home and surrounding areas. There is also a document attached that includes results from other EMF readings that have been performed in TEP's service territory.

Please let me know if you have any questions.

Have a great day,

Nate Palma
520-571-4134.

Response Received

Nate, thanks for you & Clark coming out to do the EMF testing and having the patience to educate me.

Thank you for the comparative EMF measurement information. If you still have the 46k line readings you took at [redacted]'s house at [redacted], would you be so kind as to send her a copy? Her email address is [redacted]. Or send to me and I'll deliver it with a copy of the info you sent me.

In the event our HOA route is selected, I'm sure it would be greatly appreciated if the proposed new 138/46k line & pole could be located further from [redacted] house than the existing pole,; far enough to drop the EMF level close to the present level to be a net wash. With the likely location of the proposed 138k line junction being West on mine property, the new 138k line would then run South East then South on Azul. With a few tweaks, a new pole may be able to be located further West or South of her house. I believe you would then be able to reasonably state the EMF mG exposure of the new line & configuration would have no material impact on any home in our HOA,

Thanks again,

Response Sent

I have attached a map with the readings that were performed around [redacted]. If you need an additional information, feel free to let me know.

Thank you for the suggestions regarding the potential pole line. They will be taken into consideration and evaluated if that is the chosen route.

Have a great day,
Nate

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/19/2025

Method Email

Category Health/Safety

Issues/Comments

Typo. My earlier email said 35' towers. We are aware they are ~85' tall

[redacted] at 12:5 PM, [redacted] > wrote:

Dear [redacted]

[redacted]. We own the property at [redacted]. Unfortunately, as we are out of town, we will be unable to attend the meetings on May 20th to discuss the Santa Cruz Reliability Project North. We would like to contribute our thoughts regarding "Option B" for these meetings.

We are opposed to pursuing "Option B".

Rational:

1. Increased Fire Hazards
   a. Running high-power transmission lines through a desert environment with only 100' of easement is a tragedy waiting to happen.
   b. Desert fires are a problem in SW Arizona currently.
   c. Increasing the probability and threat to private property when there are alternatives is a risk that should be avoided.
   d. Lacking specific plans for maintaining the narrow easement exasperates the increased risk.
2. Property Value Impact
   a. Additional 35' steel towers on the edge of or running through residential development will have a detrimental impact on property values.
   b. The added line "humming" that will be experienced during cool and humid conditions will negatively affect property.
   c. Showing and marketing property with 85' electrical towers that support noisy, high-power transmission lines on, adjacent to or within view of the property will add significant challenges and realtor complexity for retaining or expanding property value.
   d. Narrow 100' easements within our many independent HOAs will require organized planning and discipline too within the HOAs to ensure the value of our neighborhoods is recognized.
3. Astec Values
   a. Most residents did not purchase their property with adjacent 85' high-power transmission lines.
   b. The property's appearance and views will be impacted.
4. Coordination With Expanding Mining Operation
   a. There are no published plans as to how the expanding mining operations would be coordinated with our many HOAs.
   b. Given "Option B" borders shared property lines, this will be a necessity moving forward.

Regards,

[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/19/2025

Method Email

Category Wildlife

Issues/Comments

Please accept this email as my voice being heard in rejection to Option A on the southern boarder of The Springs property.
I do not approve this project. I just purchased a home in The Springs and walk the nature trail daily. The addition of power lines here will interrupt the peace, enjoyment and value of my property while providing no benefit for The Springs homeowners.
Thank you for hearing our voices!

[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/20/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

As a longtime resident of Santa Cruz County and Tumacacori, Arizona, we are opposed to the building of this large powerline across many of our beautiful lands. We're concerned about endangering the wildlife as well as the people below it. These powerlines are not healthy to live under or nearBy

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/20/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

Keep the power lines along Route 19 Frontage Road could help minimize disruption for the neighborhoods while still ensuring necessary infrastructure upgrades.

Response Sent

[redacted]

Thank you for sharing your comment. We have noted your preference for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/20/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

Placing the power lines along Route 19 Frontage Road could help minimize disruption for the neighborhoods while still ensuring necessary infrastructure upgrades.

Response Sent

[redacted]
Thank you for sharing your comment. We have noted your preference for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/20/2025

Method Online Comment Form

Category Routing

Issues/Comments

Folks,
I wanted to attend the open house at Las Campanas this morning but was unable to find transportation. Thank you for allowing public participation in this matter that so affects Green Valley residents.
Please put your stations on the west side option along the mine rather than along I-19.
SIncerely,
[redacted]

Response Sent

[redacted]
Thank you for sharing your comment. We have noted your preference for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/20/2025

Method Email

Category Routing

Issues/Comments

We attended the public meeting in Green Valley today and want to inform you of an issue that we feel is important.
We certainly understand the need to update infrastructure for the Santa Cruz area.
Howard, we believe the new Transmission Facilities would be better suited to a commercial location, like Freeport McMoran. Freeport has always been very supportive of our local community and I believe they would look on this favorably.
Locating the Transmission facilities so close to the SPRINGS Residential community would be a hardship for the residents who live here. In addition to the unsightly poles/wires/equipment, it could negatively affect the property values of homeowners in the SPRINGS.
In many cases, a home is the largest asset for many retirees who live in the SPRINGS.
Issues that sometimes accompany aging can often create the need to liquidate this asset, in order to pay for Assisted Living or Memory Care or other health-related care.
We respectfully ask that you consider this fact and, perhaps give it even more "weight" than just views or preferences.
Respectfully,
[redacted]

Response Sent

[redacted]
I'm glad you were able to make it to our open house, and thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/20/2025

Method Email

Category Routing

Issues/Comments

At today's meeting, a suggestion was made to build any and all additional poles on Frontage Road. This would be a happy compromise that would protect the mountain views of homeowners while allowing Unisource to build their needed poles.
Thank you.
[redacted]
Sent from my iPhone

Response Sent

[redacted]
I'm glad you were able to make it to our open house, and thank you for sharing your comment. We have noted your preference for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/20/2025

Method Paper Comment Form

Category Alternatives/Routing

Issues/Comments

I attended a meeting and am recommending Choice B then A and not C or D. Area looks like an industrial area already with 2-3 lines of poles on both sides of the road. B or A would affect the least amount of people and not make Green Valley look industrial. It is a nice bedroom community with a lot of views. I don't want to be looking at anymore new poles with C or D. Lets hop that B or A; your shortest route coud be worked out with the parties involved. Please consider the expression of the residents who live here in making your decisions. Thank you.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/20/2025

Method Paper Comment Form

Category Communication/Safety

Issues/Comments

Concerned about trnsmission line being run on grid #'s 141, 143 , and 144. They are close to our house and could interfere in my ham radio reception and transmitting. If grid goes down or there is a disaster I would need to let others know about what to do or where to go?
I am concerned with EMF if line is placed close to our house.

Response Sent

[redacted]

It was nice chatting with you on the phone a few minutes ago about the concern you raised at the May 20th open house in Amado on the Santa Cruz Reliability Project “North”.

I wanted to send you this note for records, and also give you my personal contact information should you ever have any issues with interference.

While a route for the new transmission line is yet to be decided, I did speak with our communications engineers about your concern. Since this is not my area of expertise, I want to be sure and capture the complete answer, so I’ll share the response I received verbatim below:

Typically such electromagnetic (EMI) or radio frequency interference (RFI) are caused by improper installation of transmission line hardware, faulty hardware (like insulators), corrosion or dirty connectors. That would cause arcing or sparking (most common case) that would emit continuous or pulsed RF noise. A properly installed and maintained transmission line would not cause such issues. Some other uncommon cases are arcing across a line switch for example or Corona discharge.

Since these noise signals tend to be in the lower Mhz range, may go up to low Ghz can travel anywhere from several hundred meters up to several miles. These are usually addressed case by case bases and would be hard to predict at what distance it would have an impact.

In summary a properly designed, installed, and maintained transmission line would not impact any HAM radio users. If a user did experience interference and reported to UniSource our communication electronics techs would perform an RFI study, and if proven to be caused by UniSource’s transmission line or other faulty equipment owned by UniSource we would then be obligated to address the issue.

I hope this helps address your concern, should you have additional questions or concerns, please do not hesitate to reach out.

Thank you,

Response Received

[redacted]

We met briefly at the public open house on the Santa Cruz Reliability Project “North” in Amado on May 20th. You shared with me that you are a ham radio operator and were concerned with potential interference if the line were located near your home/base of operations.

While a route for the new transmission line is yet to be decided, I did speak with our communications engineers about your concern. Since this is not my area of expertise, I want to be sure and capture the complete answer, so I’ll share the response I received verbatim below:

Typically such electromagnetic (EMI) or radio frequency interference (RFI) are caused by improper installation of transmission line hardware, faulty hardware (like insulators), corrosion or dirty connectors. That would cause arcing or sparking (most common case) that would emit continuous or pulsed RF noise. A properly installed and maintained transmission line would not cause such issues. Some other uncommon cases are arcing across a line switch for example or Corona discharge.

Since these noise signals tend to be in the lower Mhz range, may go up to low Ghz can travel anywhere from several hundred meters up to several miles. These are usually addressed case by case bases and would be hard to predict at what distance it would have an impact.

In summary a properly designed, installed, and maintained transmission line would not impact any HAM radio users. If a user did experience interference and reported to UniSource our communication electronics techs would perform an RFI study, and if proven to be caused by UniSource’s transmission line or other faulty equipment owned by UniSource we would then be obligated to address the issue.

I hope this helps address your concern, should you have additional questions or concerns, please do not hesitate to reach out.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/21/2025

Method Online Comment Form

Category Property Value

Issues/Comments

How will this impact my property value and insurance?
I closed off my property to keep people from coming onto my land.
Will a gate be provided and locked?
Cancer from the energy is another concern. Can you address this?
[redacted]

Response Sent

[redacted]
Thank you for sharing your questions. At this point in time, we do not have a specific route identified, so I'll answer your questions somewhat generically. In looking at the location of your property, I see that UniSource's existing 138kV transmission line crosses through the east side of your property today. If we were to route the new line in this area, it would be collocated on the same structures with the existing line.
To answer your concern about property value, we do not expect that new transmission line projects will negatively impact property values. UniSource's lines are located above ground throughout the areas we serve, and that reality is already priced into local home values. Transmission line projects also help preserve property values by relieving electric reliability risks.
To answer your question about gates. UniSource requires access to our facilities, but yes this access can be gated and locked, with a lock that UniSource would provide, so that we can still gain access. Since there is an existing line across your property I assume this access already exists.
To answer your concern about health impacts due to high voltage lines, I would encourage you to do your own research. UniSource has some information and links to reputable sources on its website at https://www.uesaz.com/electric-and-magnetic-fields/.
We have noted your questions and will include your them, along with our responses, in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/21/2025

Method Email

Category Health/Safety

Issues/Comments

Hello,
To be safe from the effects of Electromagnetic Radiation, most online resources suggest at least a 1/4 to 1/3 mile distance from power lines. Please consider at least 1/2 mile from any residence when planning this transmission line.
Best Regards,
[redacted]

Response Sent

[redacted]
Thank you for sharing your comment. We have noted this for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/21/2025

Method Email

Category Other

Issues/Comments

Hello Cris and Clark,
What is your timeline for receiving public comments in this first phase or round?

Response Sent

Following up on our conversation this morning, public comments can be received throughout the process up to providing input on the preference of chosen alternative routes prior to the submittal of the CEC application. The Line Siting Committee will also hold a public hearing where anyone from the public may speak directly to the committee.

Thanks,

Response Received

Thank you for this information. We submitted our comment yesterday and just want to make sure that got to you. Thanks!

Response Sent

Following up on our conversation this morning, public comments can be received throughout the process up to providing input on the preference of chosen alternative routes prior to the submittal of the CEC application. The Line Siting Committee will also hold a public hearing where anyone from the public may speak directly to the committee.

Thanks,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/22/2025

Method Email

Category Viewshed

Issues/Comments

Appreciate the 5/20/25 presentation.
Please explain to me - who would be in opposition to Option A sub group 2 or 3 which would parallel the Frontage Road south of the Springs subdivision???
Thanks for your time!!
~~ [redacted]
Sent from my iPhone
> On May 1, 2025, at 9:1 PM, [redacted] wrote:
>
> Residing on Wolf Run in the Springs for the last 10 years; we have a direct view of the current TEP lines. I have requested that the trees not be trimmed in an attempt to block the visible TEP lines , despite the tree growth obstructing Mountain views!
> Please do not add insult to injury!
> Deteriorating our property values and destroying the existing terrain is not worth meeting your objectives.
> Sincerely
> [redacted]
> Sent from my iPhone

Response Sent

[redacted]

Clark is on vacation, so I'll answer for him while he's away.

The latest refined segments are attached from your reference. We are considering interconnecting the line from the Canoa Ranch Substation (Option "A") or from Freeport McMoRan land (Option "B") to our Kantor Substation.

We will present route alternatives at a public meeting in early August. Mailers for the August meeting will be going out within the next few weeks, and we will also send an email update to you and others who have inquired about the project via email or online comment form.

Please let me know if you have any further questions.

Kind regards,

Adriana Mariñez
Siting, Outreach and Engagement Project Manager
Tucson Electric Power & UniSource Energy Services

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/22/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

The Rte you are proposing to use along the Frontage Rd would be quite an eyesore for me as well as all my neighbors along S Painted Canyon in Canoa Terrace.
I bought my house specifically for the location and beautiful Mountain View's, which won't let be destroyed- as well as decreasing the value of our properties. Please find another Rte.

Response Sent

Thank you for sharing your comment. We have noted your concern and will consider it in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/22/2025

Method Email

Category Wildlife

Issues/Comments

Hello,
My name is [redacted] and I live in The Springs at Santa Rita. I've been concerned about TEP/Unisource's upcoming project and the location of it. I very much feel the first Option A as presented at the recent meeting held in Green Valley is the best/only option if it has to happen at all. As I understand, the project will not even be used by Green Valley residents and is for the Santa Cruz area. The less disturbance to the area the better. There is a lot of wildlife in the area.
Thank you
[redacted]

Response Sent

[redacted]
Thank you for sharing your comment. We have noted your preference for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/22/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

Please expand your substation in Green Valley to the south, southeast, or southwest of existing poles. Please do not extend into the Springs' park trail. It appears that there are suitable alternatives. Thank you.

Response Sent

[redacted]

Thank you for sharing your comment. We will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

The substation to the south of The Springs neighborhood, TEP's Canoa Ranch substation, is one of two potential interconnection points under consideration as part of the Santa Cruz Reliability Project. If selected, the substation would not need to be expanded. It was built to accommodate expansion and already has a placed for a new transmission line to interconnect.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Response Received

Mr Bryner,

I appreciate your reply, and am greatly relieved to hear your project will not expand northernly unto any of the Springs' property.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/22/2025

Method Email

Category Other

Issues/Comments

While I am glad that Unisource is committed to providing reliable service, I have serious concerns regarding the path for the proposed line through Santa Cruz County. Looking at the proposed path for the line, I cannot agree with situating the line west of I-19. This would result in it bisecting at least two historic ranches and beautiful Tumacacori foothills land, as well as devaluing numerous properties along the route and impacting the viewshed. I believe that the existing monopoles on the east side of the river, although not the most absolutely foolproof, are the wisest choice. Add the line to the poles that already exist. Please do not destroy more of our beautiful valley. Please consider upgrading and adding more land at the Valencia site to enlarge it, and thus, eliminate from the project the site on the west side of I-19 for the southern terminus. The best choice, of course, would be underground along the route of the current poles, but I realize that is not going to happen.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phases of our planning and siting process. In addition, we will include these in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at www.uesaz.com/santa-cruz-reliability-project-south/

Thank you,
~Chris

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/22/2025

Method Online Comment Form

Category Routing

Issues/Comments

Dear Gentlemen and Ladies,
I recently received an Energy Grid update. The included map included my service address [redacted], but was focused primarily upon service within the community of Green Valley.
Two substations were considered, but removed from consideration (options C and D).
I have reviewed your plan at
TEP-2020-Integrated-Resource-Plan-Lo-Res.pdf
1. Is TEP aware of and participating in the Santa Cruz Reliability Project and study?
2. Map 4 - TEP's Existing Transmission Resources (includes rights on other systems)appears to include the Santa Cruz Project area. Why this overlay?
3. Is our system reliable and resilient?
[redacted]

Response Sent

[redacted]
Thank you for reaching out with your questions and comments. We will include your comment in our project record that will be submitted to the Arizona Corporation Commission. I'll answer your questions in the order you asked:
1. Yes, TEP is aware of the Santa Cruz Reliability Project and is coordinating with UniSource. TEP and UniSource are sister companies under the same corporate umbrella of UNS Energy.
2. I had to do some digging to find that map, we've since put out a 2023 Integrated Resource Plan. The line from TEP's Vail Substation to Nogales is 100% owned by UniSource. TEP does not have any rights to that line. I can only say that the line was included on that map in error.
3. Yes, the TEP system is very reliable and resilient. In fact TEP has been ranked as one of the most reliable electric service providers for the past 12 years (click to see article). Part of this reliability comes from having multiple transmission lines into each substation. This is the same level of service and reliability UniSource is working to bring to customers in Santa Cruz County.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/23/2025

Method Email

Category General/Opposition

Issues/Comments

Hello,
As a resident of the Springs who is very concerned about the project to build new transmission lines to insure adequate power to Santa Cruz county and its inpact on the Springs with regard to property values and our magnificent views of the Santa Rita Mountains, I'd like to express my appreciation for an outstanding presentation by the TEP/Unisource team in Green Valley on May 20. Clark and others did a fine job and allayed much concern regarding the impact on our HOA. Option B would probably have the least impact on our community; however, that would increase the cost by $3M or so and I can understand the economic impact that would have on Santa Cruz customers; however, I can certainly live with Option A where the impact would be negligible - views south of the Cayetano Mountains would be slightly impacted perhaps depending on how how the lines are run with respect to the existing lines.
Thank you for a very good presentation and meeting that was informative and run with respect for all. Please consider the next meeting to have a Zoom option for those who may not be physically in the area at that time. Thank you.

[redacted]

Response Sent

[redacted]

Thank you for your kind comments, I know that I really appreciate the feedback and will pass them along to our project team.

I appreciate your continued engagement in the process. And yes, we will plan to have a virtual option to attend the next meeting which is tentatively planned for early August.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/24/2025

Method Email

Category General/Opposition

Issues/Comments

Do not go with option A. We do not want or need the lines close to springs property!!!!! Go with plan B and take the lines down the frontage road!!!!!!

Response Sent

Thank you for sharing your comment. We have noted your comment for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/25/2025

Method Email

Category Other

Issues/Comments

I would prefer that any new lines be buried.
However, since that doesn't seem to be an option, I would vote for Option B. I hope you build a new substation near the via Montana Subdivision and run the power lines SOUTH from there.
My second choice would be for the power lines to go WEST out of the substation, then across I-19 and then go SOUTH.
I live on [redacted]at Santa Rita HOA. In 2013, a transformer blew up and caught fire on a TEP pole, within sight of my bedroom window. The power surge from that explosion damaged my air conditioning unit.
TEP admitted that yes, their transformer had blown up. However, TEP refused to replace my air conditioning unit. I had to then file a claim for replacement with my homeowners insurance company and pay a $1,000.00 deductible.
Respectfully,
[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/27/2025

Method Letter

Category Sensitive Resources/Historic Trail

Issues/Comments

Re: Comments Regarding Santa Cruz Reliability – North and South - Impacts to the Juan Bautista de
Anza National Historic Trail

Dear UniSource Energy Services:
The National Park Service appreciates the opportunity to review the Santa Cruz Reliability (SCR) Project North and South. Our comments primarily address potential impacts to the Juan Bautista de Anza National Historic Trail (Anza NHT), due to our responsibility to administer, coordinate, preserve and enhance this component of the National Trails System.

Overview of the Anza NHT
The National Park Service (NPS) has a special interest in ensuring the protection of the Anza NHT.
Congress, under the National Trails System Act ([NTSA], 16 USC 1241 et. seq.), established the Anza NHT in 1990. The Act states that "National historic trails shall have as their purpose the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment." NPS as the administrator of the Ana NHT is charged with implementing this vision in collaboration with other federal, state, and local agency partners, such as Santa Cruz County, the State of Arizona, and the City of Nogales. The NPS owns very little of the trail route; only where it passes through NPS units does the NPS own land. Other land managers, such as the Bureau of Land Management, and many cities and counties along the route, take the lead role in building and maintaining segments of the trail within their jurisdiction. The Anza Trail Coalition of Arizona has taken the lead in building and maintaining the trail in Santa Cruz County. The Anza NHT has three linear components established in the Comprehensive Management and Use Plan (CMP): Historic Corridor, Recreational Trail, and Auto Tour Route, as described below. The study area for the SCR Project North and South encompasses the Historic Corridor, the Auto Tour Route, three Historic Campsites, and Recreational Trail, as shown in Appendix A.

Historic Corridor
The Historic Corridor is the route designated by Congress that traces the historic path of the 1775-1776 Juan Bautista de Anza expedition. The corridor is shown as a polygon of varying width. Much of the Historic Corridor near metropolitan areas lacks scenic or other integrity due to modern land use
changes (transportation infrastructure, residential, commercial, industrial development, etc.). However, in more remote areas, trail segments and entire landscapes of the trail route are essentially
undisturbed since the time of the expedition. These segments with high integrity and/or proximity to sites associated with the Anza NHT are sometimes referred to as high potential route segments, and they are areas we strive to protect. The Historic Corridor through the study area is viewable on Appendix A.

Auto Tour Route
The Auto Tour Route is shown on NPS publications and generally follows the Historic Corridor on
highways, allowing people to connect with related historic sites and Recreational Trail segments. The Auto Tour Route through Santa Cruz County follows Interstate 19 and guides the public to Tumacácori National Historical Park, the Historic Campsites, and the high potential recreational route segment. More on these resources below. The Auto Tour Route through the study area is viewable on Appendix A.

Historic Campsites
The study areas contain three Historic Anza Expedition Campsites. These sites are open to the public with significant historical value with publicly accessible interpretation and visitor experiences. An Historic Campsite is the place where the expedition stopped, rested, and refueled before continuing their journey. These campsites encompass a broad vicinity as the expedition group included over 240 people and about 1000 head of livestock. The sites are Expedition Camp #13, located at the present-day Las Lagunas de Anza; Expedition Camp #14, located at Tubac Presidio State Historical Park; and Expedition Camp #15, located at Historic Canoa Ranch. The Tubac Presidio State Historical Park and Historic Canoa Ranch are on the National Register of Historic Places indicating the value in preserving the properties for the American people. All three of these sites serve as interpretive sites of the Anza NHT. The three Historic Campsites are viewable on Appendix A.

Recreational Retracement Route (Recreational Trail)
The CMP of the Anza NHT calls for the establishment of a continuous "Recreation Retracement Route" (Recreational Trail) from Nogales, Arizona to San Francisco, California, and in the East Bay. The trail would ideally allow for multi-use travel by pedestrians, bicyclists, and equestrians. Approximately 484 miles of the recreation trail exists along the entire 1,200 miles of the trail in the U.S. Because the trail travels through so many different environments, varying from metropolitan areas to remote desert, the Recreational Trail varies significantly in its construction and the experience it offers.

The project area includes the Recreational Trail through the City of Nogales to the Tubac Presidio along, almost contiguously. The CMP identifies the segment between Tumacácori National Historical Park and Tubac Presidio State Historic Park as a high potential route segment, meaning that the segment affords a high-quality recreation experience greater than average scenic values or an opportunity to vicariously share the experience of the original users of a historic route ([NTSA], 16 USC 1251). The trail is a significant regional recreation resource for the County and welcomes birders, horseback riding, cyclists, runners, horse-back riders, walkers, and more. Similarly, the project area includes most of the Anza Recreational Trail through Canoa Ranch, Green Valley, and Sahuarita starting at Elephant Head Trailhead through North Santa Cruz Park. The undertaking thus has the potential to degrade the experience of the trail user due to viewshed impact and noise pollution from the transmission line. See Appendix A.

NPS has special concerns regarding the SCR Project North and South. We request to understand the impact of a new transmission line within the study area on Anza NHT cultural and recreation resources to a greater extent and that the information be provided publicly. For any clarification of our comments or for further information relevant to the Anza NHT, please contact Estrella Sainburg, Trail Planner, at Estrella_sainburg@nps.gov.

Sincerely,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/27/2025

Method Online Comment Form

Category other

Issues/Comments

I request my comments and questions be recorded verbatim.
My name is [redacted] and I am a local Real Estate broker, Developer, Local Charter School Founder, and a longtime resident of Santa Cruz County. I have worked very hard over the past 25 years to shape the Tubac Valley. The value we have in our area is the history, boutique art community and most of all our surrounding mountains, especially the Tumacacori mountains. We depend on tourism to survive, and Geo tourism is huge for us, hiking, biking, bird watching and so on. Tubac has been knocked down over the past 15 years by the economy, covid and the border Patrol Inspection Station.
I developed La Entrada de Tubac and have 28 tenants in the Tubac Village, and they are just hanging on. We cannot endure another setback. I also have two developments on the Westside. I have an 80-home project that we just completed our entitlements and will be ready to start building homes. We also have 350 acres on the Westside closer to the Palo Parado exit that will have 78 homes. The value of these projects is the location of being close to the Tumacacori mtns and if we lose that view, it will greatly depreciate our values. Our 350 acres borders the gas line to the west. We might not be able to move forward due to this effort you have on the Westside. We have over $10,000,000 invested in our land, designs, engineering, approvals, etc. It has also taken us 12 years to get to where we are.
You have a choice not to run your line down the Westside and do it on the Eastside. Which still has an effect on me as my home is on the Eastside and positioned in that direction and I have a 1,000-acre subdivision I'm working to start up. It borders your lines currently.
But for Tubac overall, since the lines are already on the Eastside, we can survive that, but the Westside would be a crushing blow to our community and Santa Cruz County due to the taxes derived from our area.
My investors and partners are heavy hitters in Southern AZ in business and politically. We do not want to get into a back and forth with attorneys and lobbying.
Please take into consideration the impact you will have by running the line down the Westside. You have a choice not to.
Please feel free to reach out to me for more information about the impact I see on the current community and the future of the Tubac Valley.
Thank you for hearing my concerns.
[redacted]

Response Sent

[redacted]
Thank you for sharing your comment. The Santa Cruz Reliability Project is broken into three separate phases. This email is for the "North Phase", Phase 1 located between the Green Valley and Amado areas. Based on the location of your developments, it appears that your comment pertains to the "South Phase", Phase 3 of the project located between Amado and Nogales and crossing the Tubac area. As a result, I'm copying my response to that project's email scrsouth@uesaz.com so that it can be considered and included in the project record.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the overall project, including all phases, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 5/31/2025

Method Letter

Category Routing

Issues/Comments

Hello. Thank you. for the opportunity to provide thoughts on this project.

We sincerely request that this new project be kept away from Green Valley urban areas. For both health concerns and property value concerns. For example, not along the West border, like Via Cielo Azul.

We understand that yours is a difficult task. But we strongly support new projects avoid residential areas as much as possible.

Respectfully,

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.

For the most up-to-date information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 6/5/2025

Method Email

Category General/Opposition

Issues/Comments

I recently attended the Unisource/TEP meeting in Green Valley, Arizona.
I live in The Springs development, which is close to a TEP property that you want to bring your new lines into.
Having driven down the E. Frontage Rd. toward Nogales and looking across the valley, there are already numerous electrical lines, etc. not attractive to look at.
It would seem to me it would be better if you selected to the mine development.
As you may know, there is going to be a large housing development being added just south of the Canoa Hills development in Green Valley.
This is on the west side of I 19.They will need additional electricity and it could all be developed through the west side. Also, there isn't much of view there because all you look at is the mine.
Thank you for considering this. [redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7C3e6b2ff244554dfee82408dda475ea6b%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638847548529531273%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=YgGaqUJttmPg4jXiHPnITeN5wp4iTS%2Fe%2BbQpUatJj5s%3D&reserved=0.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 6/6/2025

Method Email

Category General/Opposition

Issues/Comments

Hello,
Thank you for the continuing opportunity to comment on the project and your efforts to be transparent. As a Pima County resident who greatly enjoys the mountain views, I am adamantly opposed to any structure that impedes those views, particularly if the project does not benefit Pima County but instead benefits Santa Cruz County and/or the federal government, or affects wildlife.
Frankly, the Kantor Substation is not Pima County's problem, and Unisource Energy Services should not seek a solution to its issues in Santa Cruz County that impacts Pima County residents.
While some route segments have been removed from consideration, many remain and should not even have been considered in the first place. Also, your most recent mailing is disingenuous as it does not show county borders.
Please continue to commit to ethical practices and cease considering Pima County as an option for any construction.
Thank you,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

Thank you for pointing out the omission of the County line on the latest project map. I assure you that was an oversight and not a purposeful tactic to mislead or misrepresent the project. As a company, we strive to be transparent and clear in our communications. I'm sorry to hear we fell short of your expectations and we'll try to do better in the future.

I feel the need to briefly address your comment about the Kantor Substation being a Santa Cruz County problem and that a solution should not involve Pima County residents. You are entitled to your own opinion. But if the electric grid operated County by County, all the generating resources located in eastern New Mexico, northern Arizona, and central Arizona along with the transmission lines that bring that electricity to the Tucson metro area would need to be located in Pima County. They are not, and it would not be practical to do so. Those generation resources are located in remote areas, with abundant wind, solar, or thermal resources, and the associated transmission lines cross over hundreds of miles and through dozens of other counties to bring electricity to our homes for each of us to enjoy. The situation for Santa Cruz County and its electrical energy needs, while smaller in scale than Pima County, is no different.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 6/7/25

Method Online Comment Form

Category Viewshed

Issues/Comments

Use existing corridors, wherever possible.

This saves state funds, minimizes impact on asthetics (views), and minimizes impact on property values.

Creating new routes creates new problems for all of us.

All of the communities along the west side of I-19 will be detrimentally impacted by any new poles along I-19 or either frontage road. These routes should be eliminated from further consideration.

Sincerely,

Response Sent

Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Thank you for your response.

Other than property values (which is extremely important), the area behind our homes has a lot of brush, being close to high powered lines is concerning due to wildlife risk.

Please consider the option on the East side of I-19, near the former hospital. (Fewer homes)

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 6/11/2025

Method Email

Category General/Opposition

Issues/Comments

Dear UniSource Energy Services,
Thanks for the opportunity to share my feedback about the proposed Santa Cruz Reliability Project North.
First, I applaud your effort to provide reliable power to Santa Cruz county. That you for doing that work.
That said, I strongly disagree with your choice of where to route the 138 kilovolt (kV) transmission line.
I own a home at [redacted], just off of Aliso Springs Road in “The Ranches” development.
The route of the proposed transmission line will run less than 100 meters from many of the houses in this beautiful development.
I’m sure you are keenly aware:
High-voltage transmission lines impact real estate values
Because they often buzz.
They are ugly,
In this case, they will mar an otherwise pristine landscape.
I walk the Aliso Springs Road every day. I know that gas line. You can argue that it already exists, but the truth is, it’s invisible until you walk right up to it and look.
By contrast, a 138 kilovolt (kV) transmission line will be visible from miles away.
Not only will it lower the value of our homes, it will destroy the scenic views that brought so many of us to this area.
Given that other powerlines, highways, and railroad lines already run along the same geographic area, it seems wrong to despoil Tumacacori Mountain with this unnecessary blemish on the landscape.
Thank you for reconsidering your initial choice.
Best,
[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 6/24/2025

Method Email

Category Other

Issues/Comments

Clark
Can you please provide me with an update as to the status of the proposed TEP lines from the substation south of the Santa Rita subdivision???
Thanks

Response Sent

Good morning [redacted]
Clark is on vacation, so I'll answer for him while he's away.
The latest refined segments are attached from your reference. We are considering interconnecting the line from the Canoa Ranch Substation (Option "A") or from Freeport McMoRan land (Option "B") to our Kantor Substation.
We will present route alternatives at a public meeting in early August. Mailers for the August meeting will be going out within the next few weeks, and we will also send an email update to you and others who have inquired about the project via email or online comment form.
Please let me know if you have any further questions.
Kind regards,
Adriana Mariñez
Siting, Outreach and Engagement Project Manager
Tucson Electric Power & UniSource Energy Services

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/15/2025

Method Email

Category other

Issues/Comments

Thank you for the notice.

If you intend to perform work on said utility on UPRR property, you will need to submit your project to us via the online application portal where you will have to fill out a form and provide project plans, exhibits, aerials, engineering profile pages, etc.

From there we will have our engineer team review and work towards licensing your utility. If this is already existing, the general process will be the same only we ask that you provide a copy of the original agreement documenting the installation of said utility.

See attached for guidance. UPRR does not provide any type of project assistance, we simply review your project as is and ensure it meets our engineering requirements. Homepage link below as well as link to start an application.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/18/2025

Method Email

Category Routing

Issues/Comments

I would like to submit a question to the proposed Santa Cruz Reliability Project North. I have evaluated and reviewed the proposed route, which I received in your July newsletter. My question is: why are you proposing the route to jump over Interstate 19 twice (once west of the existing substation and again at Elephant Head Road? Why not place the project along the east side of Interstate 19? One, you are adding cost by not taking a more direct route along the east side of the Highway. Two, you are going along the side where existing houses are nearer. Since Historic Canoa Ranch is along the east side, there is probably never going to be any type of residential or commercial development along that side of the interstate. I would like a response to my question with regards to your evaluation of my suggestion. I am sure it was looked at and there must be identified reasons as to why it is not being proposed.

[redacted]

Response Sent

[redacted]

Thank you for your question. Yes, UniSource evaluated both the east and west sides of I-19 as possible routes for the proposed transmission line. Ultimately the west side of I-19 was selected despite it being in closer proximity to residential and commercial development. That decision was made because on the east side of I-19, the Historic Canoa Ranch was placed into conservation. Terms of that conservation agreement do not allow new utilities, such as the proposed transmission line.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7Cc0f988a3d97a46b3ff1108ddc646ef59%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638884730153931817%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=PVklzpS8ixDULinvoPhU%2BHY5ZSp%2B7db3vPtSkeimUUk%3D&reserved=0.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/19/2025

Method Online Comment Form

Category Property Value

Issues/Comments

My husband, [redacted]. We attended the meeting on May 20th at the GVR location off of Desert Bell. Our home sits above I19 on the west side of the interstate, just above the frontage road on the west side of the interstate. We object to having transmission lines on either frontage road as it will detract from our view as well as affect of property values. It makes more sense to run the lines parallel to the existing transmission lines out in the desert where fewer existing homes would be affected.
Placing transmission lines along either frontage road will affect homes in many subdivisions that already exist as well as homes in 3 other subdivisions that are in the planning phase south of my home.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration in future analysis as part of the next phase of our planning and siting process. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Thank you for your quick response Clark. Therese photos of the new poles is very helpful. But, still keeping my fingers crossed that Route 4 comes off the list.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/22/2025

Method Online Comment Form

Category Property Value

Issues/Comments

I have commented before and am adding additional comments, specifically regarding the proposed Line 4, which borders my home, as well as all the other homes in my HOA. Bigger transmission lines will reduce property values in my neighborhood, reduce aesthetic appeal, a create a buzzing noise. The National Association of Realtors estimates 10-30%, with other estimates ranging up to 50%. You should offer current market value buyouts to those of us most affected by placing the lines so close to more densely populated areas of Green Valley. Thank-you for the opportunity to comment.

Response Sent

[redacted]

Thank you for continuing to stay engaged in the project and sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/22/2025

Method Online Comment Form

Category Property Value

Issues/Comments

I echo the responses from my neighbors. We cannot afford to have our property values decreased. Please reconsider the transmission line projected for behind the Atascosa Peak homes.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/22/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

Hi, My wife and I are responding to the proposed unisource transmission line in Green Valley. We are strongly opposed to this project being so close to our house which borders Montana Vistas. The noise it will produce and possible unknown hazards to our health makes it objectional, We appreciate your consideration.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/22/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

We live at [redacted] and we are very much against the upgraded pole line running behind our house
It is a health and safety issue for the whole neighborhood

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/22/2025

Method Email

Category Routing

Issues/Comments

We live at [redacted].
We understand that Route 4 of the high-powered transmission towers in Green Valley runs in FRONT of our house. (route 4—will run along S Via Cielo Azul)
Please consider one of your other routes that would have minimal impact to residents, such as along the freeway, away from homes.
We will be attending the meetings in August.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/23/2025

Method Online Comment Form

Category Property Value

Issues/Comments

We live on [redacted] in the Canoa Sierra subdivision and are commenting specifically regarding the proposed Line 4, which borders near our home, as well as all the other homes in my HOA. Bigger transmission lines will reduce property values in my neighborhood, reduce aesthetic appeal, and a create a buzzing noise. The National Association of Realtors estimates 10-30% property value reduction, with other estimates ranging up to 50%. You should offer current market value buyouts to those of us most affected by placing the lines so close to more densely populated areas of Green Valley. Thank-you for the opportunity to comment. Please do not locate the power lines on proposed Line 4.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/23/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

Greetings: I have reviewed the most recent Newsletter and have comments and a request.
First: can you send me a picture of the type of pole that would be used if the project ends up using Route 4 as I understand that the existing poles are not sufficient.
Second: I am sorely disappointed to see that Route 4 is still on the table. I live on Atascosa Peak Dr., and the front of our homes face the existing power lines which I understand from the last Open house meeting would have to be replaced with bigger, noisier and eyesore poles. I have previously expressed my concern that this proposed placement puts the poles and power lines extremely close to my house, and those of our neighbors both in Montana Vista and on Atascosa Peak Dr.
There are major concerns with placing these poles/lines this close to our homes not the least of which are: diminished Property values, fire danger caused by high winds and sparks, quality of life (consistent buzzing, crackling noises), and scarring the beauty of our landscape. With my home in particular and the lot next to my home which I also own, we are downslope from Montana Vista and have water runoff. Currently it does not run towards our house, but the construction is likely to disturb the current water runoff routes, causing flooding where there was none before.
I also don't understand from the Newsletter whether you are still considering Route 5 which is a way to place the lines that avoids my front yard. From the newsletter there is a yellow box in the legend that says "removed option" but it is not clear whether Route 5 is still in the mix since it is a yellow line, and the yellow line appears to run right next to Routes 3 & 4 after it leaves our section.
Bottom line: Route 4 is just simply untenable and unacceptable. If you go that route, I will expect full compensation as it will amount to a taking of my property. Please don't let this move toward the litigious method of solving this problem and I implore you to take Route 4 out of consideration.
Thank you for reviewing and considering this request.

Response Sent

[redacted]

Thank you for sharing your comments and concerns through this comment form, as well as by email. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

Attached is a file I put together that shows where you can see similar poles, without too much of a drive, to those proposed. It also includes photos of what these poles look like. Photos 1 and 2 are examples of what the line would look like if Alternative Route 4 were selected. While Photos 3-5 show the existing line near your home. The new poles would be slightly taller than what exists today near your home, but would be spaced further apart.

To answer your other question, Route 5 (yellow line) is still under consideration.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/23/2025

Method Email

Category *Health and Safety*

Issues/Comments

Hello,
I live at [redacted] and I understand that Route 4 of the high-powered transmission towers in Green Valley would run in FRONT of my house, along S Via Cielo Azul. These towers would be in my FRONT YARD and the unsightliness would severely impact my property value. Additionally, it would affect my quality of life. I've lived near one of these transmission lines before and I purposely moved away from that when I purchased my property here three years ago. When I purchased my home, the builder said nothing about this project. My attraction to this area is the peacefulness, but these proposed transmission lines produce a constant buzzing and crackling sound that increases during high-power consumption periods and when there is moisture in the air (rain, fog, humidity). This would destroy my retirement dream and I would not be able to sell my home.
Additional points to consider:
1. FIRE DANGER: This area experiences high winds that some jokingly call our vortex. There's real concern about wind-driven sparks from one of these towers causing a fire such as what happened in California. These towers would be the tallest structures around in an open area attracting lightning strikes, right next to our homes.
2. WATER RUNOFF ROUTES: Would tower construction disturb the current monsoon water flow routes, potentially causing flooding to residents where none existed before?
3. WILDLIFE: Would this disrupt or harm them? There is a myriad of species that traverse the area. Witnessing their antics contributes to our quality of life.
4. ELF/EMF – Distance decreases the amount of exposure. Although, there is no definitive proof that it contributes to cancer. EMF has been noted as a "possible carcinogen" by the US National Institute of Environmental Health Sciences (NIEHS) and that "it cannot be recognized as entirely safe." Additionally, the International Agency for Research on Cancer (IARC) also agrees with "possible carcinogen." Could those towers be finessed in between houses and S Via Cielo Azul while maintaining the safety setback requirements from the residences AND the road? (S Via Cielo Azul, while a dirt road, is used as a public road by UPS, FedEx, Waste Management, and Montana Vista residents.) Will these physical safety setback requirements noted below, also take into account the ELF/EMF exposures?

Per Arizona code:
HIGH-VOLTAGE ELECTRIC TRANSMISSION LINES
§ 151.160 SETBACKS FOR OCCUPIED RESIDENTIAL BUILDINGS.
(A) High-voltage electric transmission lines shall be set back from the nearest occupied residential building a distance not less than three times the height of the tower. The setback distance shall be measured from the center of the tower base to the nearest point on the foundation of the occupied residential building.
(B) High-voltage electric transmission poles that are visible from residential areas shall have colors that are predominant within the surrounding landscape, such as desert and earth tones. A buffer area 100 feet wide, adjacent to the ultimate right-of-way line, is required and shall be landscaped with mature vegetation.
(Res. R23-04-04, passed 4-18-2023; Ord. O23-04-04, passed 4-18-2023)
§ 151.161 PROPERTY LINES.
All high-voltage electric transmission lines shall be set back from the nearest property line a distance of not less than two and one-half times the height of the tower. The setback distance shall be measured to the center of the tower base.
(Res. R23-04-04, passed 4-18-2023; Ord. O23-04-04, passed 4-18-2023)
§ 151.162 PUBLIC ROADS.

All high-voltage electric transmission lines shall be set back from the nearest public roadway a distance of not less than one and one-half times the tower height, as measured from the ultimate right- of-way line of the nearest public roadway to the center of the tower base.
(Res. R23-04-04, passed 4-18-2023; Ord. O23-04-04, passed 4-18-2023; Ord. O24-12-11, passed 12-3-2024; Res. R24-12-28, passed 12-3-2024)

Please . . . PLEASE consider one of your other routes—a route that would have minimal impact to residents, such as along the freeway, away from homes. Thank you for your time.

Regards,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

With respect to Arizona Code, I'm not sure the source of your citations, but no setback requirements exist. UniSource would obtain right-of-way sufficient to safely construct, operate, and maintain the transmission line. For a 138kV line like we're proposing, this is typically up to 100-feet wide.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/24/2025

Method Online Comment Form

Category Routing

Issues/Comments

Could do a better job helping folks navigate (get to and use) the "interactive map" as the map on the mail out is lacking key information. On the interactive map, find my location feature is inaccurate as my location is a quarter mile off (and with other apps it is usually accurate), and there is no means to correct your own location.
I assume the green line is a proposed route. If so, thank you for placing the route around the Evangelic Free Church (GV, Mission Twin Buttes Rd, far west) as previous??? (red dots) was between the EFC and on my property line.
When the line is created, what will be the impacts on my property? Noise, construction, traffic, wildlife corridors, prohibitions on property on or near the line?

Response Sent

[redacted]

Thank you for the feedback on the Interactive Map, we'll look into it and remedy any faults. Further, we'll discuss how to better communicate the availability and how to use the Interactive Map.

Thank you for sharing your comments and asking your question. We will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I looked up your property address and found two properties listed in Green Valley under your name. One on Mission Twin Buttes Rd, and the other on Avenida de Las Sabinas. Early on in the siting process, we had looked at a possible route between your home on Mission Twin Buttes and the Evangelic Free Church. However, that route segment was eliminated from consideration. The closest routes to your home currently under consideration are Routes 4 and 5. These are both almost two miles from your home. If either of these routes were selected, we would not anticipate any impacts from construction and operation of the line, temporary or permanent, near your home.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/24/2025

Method Online Comment Form

Category Routing

Issues/Comments

I prefer the route from Kantor to the proposed Interconnection Option via Elephant Head Rd and then west of I-19 along Route 4.

Response Sent

[redacted]

Thank you for sharing your comment. We have noted your preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/24/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

I live at [redacted]. I have concerns I need to share about the possibility of new power lines and the effect on our health. Personally, I have an implantable ICD and worry about the lines (EMI) affecting the daily transmission of my heart information to the the cardiac monitoring unit and my Electrophysiologist. I really do hope that the lines are constructed in an area where there are the least number of homes. Thanks for your consideration.

Response Sent

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/25/2025

Method Phone

Category Information Request

Issues/Comments

This is [redacted] , my number is [redacted]. I'd like to register for the presentation on August 5th. If you have any questions give me a call. Thank you.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/25/2025

Method Email

Category Health/Safety

Issues/Comments

I am strongly against the Unisource Energy Services ‘s Santa Cruz Reliability Project proposal to build power poles in our neighborhood in Canoa Sierra Green Valley.
I see absolutely no upside for the neighborhood. I do see many concerns, including what it will do to the aesthetics of our neighborhood, our property values, noise pollution with the humming, and just nature in general. Of course I’m against it.
I will not be at the meeting because like many of my neighbors we are traveling for the season. Yet we are all reaching out to each other to do what we can to oppose moving forward with this project.
Sincerely,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

Acknowledging that you and many of your neighbors may be out of town for the season, in addition to the in-person open house, we are also offering a virtual presentation. If you would like to attend the virtual meeting it will be Thursday, August 7, 2025 from 4:30-5:30 p.m. You can join on Microsoft Teams by clicking the link below, or you can dial in to listen by phone.

Microsoft Teams
Meeting ID: 226 630 125 702 2
Passcode: mg2ys2CZ
Dial in by phone: +1 712-274-3750,,881689883#
Phone conference ID: 881 689 883#

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Response Received

Thank you for your acknowledgement. My hope is that if this project must happen, that it happens on the yet-to-be developed Fairfield Community just south of where Atascotia ends. New homes are being built, or will be built there. New home buyers will see the poles before they buy. Will you please add this to your log of comments and to your considerations?
Thank You
[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/25/2025

Method Email

Category Property Value

Issues/Comments

Please consider eliminating route 4 as an option for this project. Our subdivision is extremely close to this proposed route. Our home is only 45 feet from the line and we routinely work in the yard 5 feet from the line.
We are greatly concerned about the impact on home valuations. Studies have shown that this route would meet the conditions to decrease home values. In addition, these lines make noise, which will impact the serenity of the area.
EMFs are a concern. Many of us have medical issues, such as pacemakers. We are required to stay away from EMFs for safety reasons.
We hope you will look into the alternative routes and select one that is further away from homes. If this route is chosen, we will be forced to move. We hope that you will reimburse homeowners for their loss.
Thank you for your consideration.
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/25/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

I am extremely concerned about having a high voltage line 45 feet from our house. The noise produced by lines such as these will make it very irritating to enjoy our patio and most likely mean we cannot sit outside. In addition, we expect to lose our home value as has been shown in other areas where these lines are installed.
EMFs are an issue for my pacemaker. They have the potential to disrupt proper functioning. I have been advised to stay away from all EMF devices.
I live by your proposed route 4 - [redacted] and hope you will consider one of the alternatives that is not so close to existing homes.

Response Sent

Thank you for your submission. Your comments have been added to the project record for the Santa Cruz Reliability (SCR) Project North.
For the most up-to-date information about the project, please visit the project webpage at https://www.uesaz.com/santa-cruz-reliability/.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/25/25

Method Phone

Category Routing

Issues/Comments

Hello, this is [*redacted*] and I received a mailing about the transmission line and alternatives. And I just wanted to record that my favorite alternatives would be either Route 4, I think it'd be the favorite, or Route 3, those two. Because it seems like if these are above ground lines, they would provide the least disruptions to neighborhoods or to people's views from the line. So I favor lines four or three, once again. Any questions, my name is [*redacted*], number is [*redacted*]. That's . Thank you. Bye.

No return call needed. Comment added to project record.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/25/2025

Method Online Comment Form

Category Property Value

Issues/Comments

As a 21-year resident along Via Cielo Azul, one of the proposed routes for this project, I am opposed to this project for many reasons, including:
1. While it has not been proven that high voltage power lines cause health problems, including cancer in children, it has also not been proven there isn't a link.
2. A decrease in my property's value.
3. An increase in fire danger, and the potential to an increase in my homeowner's insurance.
4. The existing power poles are enough of an eyesore. The last thing I want are my views to be compromised even more.
5. Via Cielo Azul is already a narrow deadend road. I can see this impacting access to the homes on Azul.
6. I live out here because it is, or was, quiet. The constant hum of power lines will ruin the peace and sanctity of my home.
7. Powerline construction and maintenance will adversely affect wildlife and wildlife habitat.
I insist that Unisource look for alternatives that will not impact residents and wildlife.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/25/2025

Method Email

Category Health/Safety

Issues/Comments

Hello:
I reside in the Montana Vista subdivision, which is west of Canoa Ranch. One of the routes that you are considering for the Santa Cruz project will go through the yards of our residents on Calle Uno. These people are already negatively impacted by the mines. It is a slap in the face to further the negative impacts by putting a high transmission through their backyards. Due to complaints from residents east of I-19, you proposed putting it through our neighborhood. Why do we matter less? This neighborhood has been here since 1959, long before Green Valley existed. We have had to adapt to development, loss of water due to the mines and the aesthetics of staring at homes instead of the mountain. We have been tolerant, welcoming and accommodating. This is a bridge too far. We have over 50 children in this neighborhood. The last people that need high transmissions lines in the yard are the very young. Why would you disrupt one of the only places that children can reside in this area? Are you all so focused on getting children out of Green Valley that you do not care? We are not going to take this. We are going to fight back. The children in this neighborhood are relying on us.
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns on behalf of your neighborhood. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/25/2025

Method Email

Category Viewshed

Issues/Comments

Hi,
I'm a full-time resident of Green Valley living on Gloria View Court. I received your mailer yesterday which shows Route 3 of your proposed transmission line running immediately behind my home. A quick map check shows the line approximately 100 yards away, potentially closer visually as much of that distance is a steep hill.
There are many homes like mine along Route 3 which would be affected and so I would like to advocate for Route 2. Judging from Google maps and your information, Route 2 would minimize the number of homes adjacent to the line and reduce the number of homes where the line impacts views of the mountains to the smallest among the 5 proposed paths.
My view of the mountains is one of the main reasons I purchased my home and I am unwilling to have that view marred by power lines. From my home, lines running along Route 3 would be visible to the casual observer, while lines running along Route 2 would require binoculars to clearly identify.
My vote is for Route 2.
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your route preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/26/2025

Method Email

Category Routing

Issues/Comments

Why cross the Interstate Highway twice when there is no apparent need to do so? Please keep the line on the East side of the Highway all the way! Thank you.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comment. We have noted your preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/26/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

I have been following the project since inception and attended two presentations (one at Amado school and the other at East Center in Green Valley). I cannot emphasize enough to stay away from homes! Given that, please remove Route 4 as an option. There are three factors that support the removal of Route 4: 1)There are HOA homes along this route, some estimated at $1M, thus the potential of decreased property values 2) Humongous transmission line is an eyesore; and 3) safety hazard. Please remove Route 4 as an option., Routes 3 and 5 look better at staying away from homes. Thank you. I plan to attend the Microsoft Teams meeting on Thursday Aug 7th. [redacted], Homeowner

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/26/2025

Method Online Comment Form

Category Routing

Issues/Comments

In reviewing the map I like route three going along the west side canoa Road through the elephant head community.

Traveling along the frontage road along I 19 is probably a little crowded now.
This would also help elephant head having more vegetation cleared away with the line being put in.
We have very heavy, dense foliage along Canoa Road.
Live vote is for route three

Response Sent

Thank you for sharing your comments and concerns. We have noted your route preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/27/2025

Method Email

Category other

Issues/Comments

Does the proposed project?
Indicate that the power lines would be above ground.Or below ground?

Response Sent

[redacted]

Thank you for your question.

The proposed transmission line will be built above ground. It costs significantly more to build a transmission line underground than to build the same line overhead. Since our costs are passed along to our customers, we avoid unnecessary expenditures to help keep our rates as affordable as possible.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/27/2025

Method Online Comment Form

Category Routing

Issues/Comments

Has cost studies been done on the 4 proposed routes? If so, what is the cost of each route?

Response Sent

[redacted]

Thank you for your question. We are currently completing cost estimates for each of the route alternatives. Unfortunately, I don't have that data quite yet. I may have it available prior to the public meetings next week, if you plan to attend. Route cost will be one of many considerations as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility (CEC). Cost estimates will also be included in the CEC application.

We will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/27/2025

Method Online Comment Form

Category Routing

Issues/Comments

Route 3 is preferred
Route 5 is 2nd choice
The routes east of I-19 should be removed from consideration with Route 2 being the absolute worst route!

Response Sent

[redacted]

Thank you for sharing your comment. We have noted your preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/28/2025

Method Email

Category Viewshed

Issues/Comments

Since I do not know the detailed topology of the area in question, my primary concern would be if/how the lines might obstruct the mountain/valley view for residents to the west of the proposed lines. Therefore, depending on the prior qualification, I would think the line along #19 or Canoa Rd would be the best and most efficient.
Thank you.
Peace,
[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/29/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

Hi, we are concerned about the routing of the Santa Cruz Reliability Project - North. First of all we want to state that we understand that this is an important project and needs to be completed. We own a home on Gloria View Ct in San Ignacio Vistas in Green Valley. Gloria View Ct is the first row of homes above the West Frontage Rd. We bought this home because of it's unimpeded view of the Santa Rita Mountains. We felt the mountain view offset the negative of the noise from I 19. If route 3 is selected the power line will be directly in our line of view of the mountains. We are opposed to the selection of Route 3 as it appears to us that other routes would be less disruptive.
Thank you for your consideration.
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Where can I find the 5 different routes for Green Valley? I did not see them in the video. Could you send me the link to the video again and the link to the map with the five routes proposed for Green valley?
We are unable to be at the meeting, so I appreciate your help.
Thank you.

Additional Response Received

Hi,
I was able to open up the link in your email and locate the map. Thank you for your help.We really appreciate it.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/29/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

My husband and I live in the Canoa Sierra subdivision and have recently become aware of the possibility that one of the routes (4) for the Santa Cruz Project would be basically going through our neighborhood. As I understand it, there would be even larger, more obtrusive power lines than the unattractive ones that already exist. We would like to express our opinion that we are very much against this. The expansion of the existing lines would be a terrible eyesore and detrimentally affect the property values of all our homes. Other reasons include but are not limited to the possibility of wildfires being caused by sparks, the humming noise generated by the lines and possible health problems associated with high intensity power lines. Surely there must be another route or solution that makes sense.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/29/2025

Method Email

Category Health/Safety

Issues/Comments

As a 21-year resident along Via Cielo Azul, one of the proposed routes for this project, I am opposed to this project for many reasons, including:

1. While it has not been proven that high voltage power lines cause health problems, including cancer in children, it has also not been proven there isn't a link.
2. A decrease in my property's value.
3. An increase in fire danger, and the potential to an increase in my homeowner's insurance.
4. The existing power poles are enough of an eyesore. The last thing I want are my views to be compromised even more.
5. Via Cielo Azul is a narrow dead end road. I can see this impacting access to the homes on Azul.
6. I live out here because it is, or was, quiet. The constant hum of power lines will ruin the peace and sanctity of my home.
7. Powerline construction and maintenance will adversely affect residents, along with wildlife and wildlife habitat.

I find it completely unacceptable that Unisource is considering a route where homes are less than 50' away on both sides of the proposed structures. Unisource must look for alternatives that will not impact residents or wildlife.

[redacted]

Response Sent

[redacted]

Thank you for sending this email, along with filling out the comment form.

As I previously responded, we have noted these concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comments in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/29/2025

Method Email

Category other

Issues/Comments

I wish to make my concerns known regarding the possible routing of the project utilizing the frontage access paralleling I-19. Why would this even be a consideration when there is already significant development along this route specifically built to capitalize on the afforded views looking eastwards? Alternative routes appear to be much less intrusive and obviously available to you. Based on the limited mapping available it appears the most westward placement would have the least detrimental effect aesthetically but if there is something even less intrusive that would be a consideration. My understanding is that the mono poles would be 50-70' high and anywhere from 600-1000' apart. Running a line of this capacity would require a minimum of three wires and possibly 5 depending on needs for lightning protection. In my opinion that is an eyesore and should be placed as unintrusively as possible. Please consider that option as many people have invested in their homes here and the views were a very important consideration in selecting their properties. Please be good neighbors and do the right thing.
Sincerely,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/29/2025

Method Phone

Category Property Value

Issues/Comments

Good morning. This is [redacted]. [redacted]. Calling regarding the project for installing power line. We are objecting to the new line being put up on the West Frontage Road in Green Valley because of the fact that this will affect the resale value of our home. We have a view lot here. And it is very important to us that we retain that view for the resale value of our home. We are in our 80s and expect to sell our home in the next few years and we would not like to have this effect the value. Our phone number is [redacted]. We expect to attend the meeting on August 5th at the East Center in Green Valley. Thank you, and we will also send an e-mail to the comments. Thank you, and we hope that you will understand and take action on this message. Bye.

Response Sent

No return call needed. Comment added to project record.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/30/2025

Method Email

Category Property Value

Issues/Comments

As I noted in my recent voicemail, we are requesting that you eliminate the West Frontage Road in Green Valley from consideration of Transmission Line Route Alternatives. Although we are planning to attending the GV public open house on August 5, we would like to go on record now with this OBJECTION.
When we purchased our view lot property at [redacted] 20 years ago, it was with confidence that our investment would help us financially in our older age. The erection of 138kV transmission lines in front of our property that has one of the best views of the Santa Rita Mountains would be extremely detrimental when we must decide to sell our home due to health reasons. We are hopeful that would be several years in the future but since we are already in our 80's, there is no way to anticipate when we would need to move away from this beautiful location. I am attaching excerpts from an article that will better explain our strong concerns regarding the effect of Power Lines on Resale Property Values… especially as it pertains to view lots. I hope you will read the areas highlighted and understand our request about the construction project that is being planned.
Sincerely,
[redacted]

Response Sent

[redacted]

Thank you for the voicemail, the follow up email, as well as the article sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7Ccd9e6c889b34488f344108ddd04540a7%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638895718041081686%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=JcE8PS%2FF5T1nLNJ5QsR0nPWwWV9%2BxuZ0kfRVubtpv48%3D&reserved=0.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/30/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

Please do not select route 4 for the Santa Cruz Reliability project. When I purchased my home three years ago at [redacted] I was not made aware of the possibility of route 4. I accepted living in proximity to the current power lines. I am NOT okay with high-voltage transmission towers. This will destroy my property value. Buyers will not want to purchase, and IF they do, they may not be able to secure FHA funding (https://www.washingtonpost.com/archive/realestate/1990/07/07/fha-sees-risk-to-homes-near-power-lines/492f3097-c024-4a8f-bb3c-210af5bbd32c/).
Additionally, my homeowners insurance company could see the high voltage transmission lines as too risky, due to fire danger, and cancel me. Potential buyers might not be able to secure homeowner's insurance either.
Aside from this financial devastation, my quality of life would suffer. I purchased my home because it is very peaceful here. High voltage transmission lines, buzz and crackle constantly, and especially during high consumption times. The lines also whistle in windstorms. This is a high-wind area, especially during the spring and summer months. The wind typically blows from the south gaining momentum from the open land at the end of Atascosa Peak and S Via Cielo Azul. There is a drastic difference between the winds felt on Music Mountains or Guthrie Peak and what is felt off S Via Cielo. This will increase the fire danger.
When I purchased my home three years ago, I intended on staying here for the rest of my life. Unfortunately, my husband passed away last year and I plan to move closer to family soon, but this project will trap me here. I am at the younger end of the Green Valley population, but I will not be able to recover from this financial loss. PLEASE offer buyouts at market value or choose a route by the freeways. Please.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/30/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

To whom it may concern,
We strongly appose the utility lines through Green Valley, AZ due to the risk of the Green Valley residents being effected by cancer that the utility lines cause and who will pay for the cancer treatments that the residents of Green Valley when they have cancer caused by the utility lines.
We strongly appose the utility lines through Green Valley, AZ due to the view of the mountains being blocked by the utility lines. The view of the mountains id a deciding factor when moving to Green Valley, AZ.
We strongly appose the utility lines through Green Valley, AZ due to our property values being effected negatively. It would cause or property values to decrease.
Thank you for your consideration,
Cheers,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/30/2025

Method Email

Category Routing

Issues/Comments

Please clarify the project.
Are there different routes proposed to chose from
OR
are the phases on the info definetly planned-one line going all the way from Canoa Ranch down, but at three seperate times or phases.
Thank you

Response Sent

Thank you for requesting clarification. I hope to provide a clear explanation in response, but if I don't please respond back and we can arrange a phone call to discuss.

The "Santa Cruz Reliability Project" as its most basic objective, is to provide a second electric transmission line from the regional electric grid in Pima County all the way south to Nogales. The Project, includes three separate phases, each of which is going through its own siting and approval process, and each of which will be constructed independently. To learn about the overall project, I would invite you to visit the overall project webpage at https://www.uesaz.com/santa-cruzreliability/, which contains a short video that illustrates these three project phases.

The "North Phase" of the "Santa Cruz Reliability Project" is the piece of the overall project that involves the Green Valley area. For this phase of the project, there are five (5) separate alternative routes being considered (link to map). Of those 5 separate routes, only one route will be constructed.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/31/2025

Method Email

Category Health/Safety

Issues/Comments

Please eliminate Route 4 as an option for this project for many reasons.
The Atascosa Peak Drive subdivision is extremely close to this proposed route. Our home is only 45 feet from the line and we routinely work in the yard 5 feet away.
EMFs are of great concern. Many of us have medical issues, such as pacemakers. We are required to stay away from EMFs for safety reasons. In addition, these lines make noise, which will impact the serenity of the area.
We are also greatly concerned about the impact on home valuations. Studies have shown that this route would meet the conditions to decrease home values.
We hope you will look into the alternative routes and select one that is further away from homes. If this route is chosen, we will be forced to move.
Thank you,
[redacted]

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/31/2025

Method Online Comment Form

Category Property Value

Issues/Comments

To Whom It May Concern:
I live in Canoa Terrace and the proposed route 3 will negatively impact approximately 200 homes in the Canoa Terrace neighborhood. The homes range in price from $350,000 to $700,000 and this route will devastate real estate values. This is only one neighborhood which will be impacted! Perhaps more important, are disastrous impact on physical and mental health. High-voltage power lines cause cancer and cell disruption. I suppose none of you live near this route! Not in my backyard, of course! We are not ignorant serfs, we will oppose this route Route 3 is far too close to residential developments and will cause irreparable physical, mental, and financial harm.
I understand that additional meetings are a charade, and that route 3 has already been selected. If so, may karma find you when you least expect it.
[redacted]

Response Sent

[redacted]
Thank you for sharing your comments and concerns. I assure you, no route has been selected. We have noted your thoughts for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility (CEC). In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
The route alternatives that will be included in our CEC application, may, or may not include Route 3 as an option for the Arizona Power Plant and Transmission Line Siting Committee to consider in a public hearing.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Mr. Bryner,

Thank you for your response. I have additional questions and comments.

Exposure to high-voltage powers lines cause cancer and cell disruption which can lead to numerous disabilities and death. Non-governmental experts agree with me on this issue. Route 3 is in opposition to five (out of thirteen) of Unisource's own route evaluation criteria: proximity to residential areas, proximity to sensitive noised receptors (schools, health facilities, etc.), impact on designated scenic areas, impact on mountain views from residential areas, and impact on historical and archaeological areas. Thus, according to UniSource's own criteria route 3 should be eliminated.

We are retired and cannot easily relocate due to this monstrous plan. However, we may be forced to do so (along with many others). The proposed Fairfield project in our area (300+ new homes) will be negatively impacted as will tax revenue for the county. Who wants to live near high-voltage power lines and be subjected to constant electrical bombardment?

Will UniSource utilize eminent domain to seize property for this project?

Thank you and best regards,

[redacted]

Response Sent

[redacted]

Thank you for the follow up comments on why Route 3 should be eliminated and for posing the additional question. You are absolutely correct that Route 3 is not perfect, none of the proposed routes are with respect to the evaluation criteria. While it would be ideal to have no impacts associated with the construction of the proposed transmission line, in reality it will have impacts. So, finding the best route for the proposed transmission line is not about avoiding impacts, rather it's about finding a balance between impacts to values important to the community, such as those you've listed, because sometimes avoiding an impact to one resource (i.e. wildlife species) leads to impacts on another (i.e residential).

Over the past year and a half as we've met with the public and conducted studies, we've tried to find that balance. This latest round of outreach to the community is to share those results and learn if we got it right. For Route 3 you've made it apparent that you feel we did not get it right, and I appreciate you letting us know, as well as providing rationale for why. This feedback will help us decide if Route 3 should be carried forward into our application to the State as an option to consider, or if we should eliminate it from consideration. In response to your question regarding use of eminent domain. While UniSource does have the power of eminent domain, it is very rarely used, and only as a measure of last resort. We do our best to find a route with minimal opposition and then to work with individual landowners to minimize private property impacts through design.

Should you have further questions, please continue to reach out.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 7/31/2025

Method Email

Category Routing

Issues/Comments

Hello - to Whom it May Concern,
We own a home at [redacted] just west of I-19. One of the biggest factors in our choosing this particular house was the mountain view from our backyard. If route 3 is chosen for the Santa Cruz Reliability Project, the mountain view, which is part of the value of our home, will be destroyed by the 65- to 85-foot-tall metal poles which will be erected. The I-19 western service road is very close to the eastern most street in the Canoa Terrace subdivision (Painted Canyon Drive), but there are many of us residents who would be looking at our beautiful mountains with huge metal poles marring the view.
We are writing to ask UniSource to eliminate route 3 as a possibility for the Santa Cruz Reliability (SCR) Project and to choose a route that does not affect the value of people's homes/property.
Thank you for your consideration,
[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/1/2025

Method Letter

Category Visual Impacts

Issues/Comments

We have lived in our present location for 10 years, immediately overlooking Southbound I-19. Before that we rented part-time for over 11 years in Green Valley. When we decided to buy a home here and move permanently in 2015, we made a list of what we wanted in our new home. Number one on our list was an unrestricted mountain view. We look at a lot of homes, label "mountain view" by realtors, before we found our home.

Every time someone new comes to our home, they marvel at the view and say it is the best montain view in Green Valley. We take privde in it and make sure that view continues to be inrestricted.

While recognizing the need for progress to serve southern Arizona's electrical needs with reliability, we are not in favor of Route 3 in your current plan. We are likewise very concerned about Route 2. WE can support Route 1 as well as Routes 4 and 5.

We realized that our concern is shared by the residents of other homeowner associations south of us. Their homes have the same or a similar overlook to the mountains . It is unfortunate that you are conducting your meetings and call for input when many residents are not here. Otherwise you would have a much greater number of residents in opposition to Routes 3 and 2.

Sincerely,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/1/2025

Method Phone

Category other

Issues/Comments

Hi my name is [redacted]. I'm really, the reason I'm calling is because, as you might know I am a very old woman. And I cannot read a lot of the stuff I get on the mail. And I want to know what it is that I'm supposed to do? I got something from you, and I don't know what it is, I don't know what to do with it? Please let me know what it is that I'm supposed to do, because you send me this. Please let me know. Thank you very much. My name is [redacted], and you have my number, I'm sure. Thank you.

Response Sent

Left voicemail at 2:30 p.m.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/1/2025

Method Online Comment Form

Category Property Value

Issues/Comments

What is the status of the DOE grant that could fund 40% of this project per an October 2024 article in T D World.
New Transmission Line Project Advances with Potential $75 Million Federal Grant to Enhance Electric Reliability in Santa Cruz County
The funding would support the Santa Cruz Reliability Project, which seeks to upgrade the existing single transmission line to a looped system, improving reliability and increasing capacity to foster economic growth.
This would reduce the higher electric rates this project will incur. Are the Santa Cruz County businesses going to pickup the remaining costs?

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/1/2025

Method Online Comment Form

Category Routing

Issues/Comments

The proposed route for the Santa Cruz Reliability Project North has been adjusted to avoid placing high-voltage transmission lines directly on property owned by The Springs at Santa Rita HOA. The utility companies are considering alternative routes located 50 to 100 yards south of the original proposal, why? When there are vacant lots instead of in the front yards of homes in Canoa Ranch (Estates). The high power transmission lines, aside from an eye sore, noise nuisance, will reduce property values, increase fire insurance premiums, potentially impact green valley electric rates for the benefit of Santa Cruz residents and businesses.

Response Sent

[redacted]

I am writing in response to both comments you submitted through the online comment form.

First off, thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

To address your questions.
Regarding DOE funding, we've submitted additional information and we're waiting to hear back. At this time, it is undetermined if any grant funding will become available for the project.
Regarding who pays for the project. This is a UniSource project, benefitting all UniSource customers in Santa Cruz County, so the costs for the project could be incorporated into UniSource electric rates. UniSource does not provide electrical service in Green Valley, so this project would not impact your bill.
Regarding the location of route alternatives south of The Springs. One of the "opportunities" we look for when siting a new transmission line are existing utility lines. Typically, siting a new line in an existing corridor is less impactful than a new corridor. The alignment south of The Springs was considered because of its location relative to the Canoa Ranch Substation point of interconnection and the existing transmission line. As a result, Alternative Routes 1, 2, and 3, would all parallel the existing line, on the south side of The Springs, furthest from the residential area.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/1/25

Method Email

Category Other

Issues/Comments

We tried to log in via the link provided for the virtual meeting in MS Teams. The ID/Passcode are not accepted.

We called in on the phone number provided and ard now on hold awaiting the meeting organizer. There are at least three residents trying to access the meeting.

Response Sent

I'm sorry to hear you were not able to log in to the meeting.

I'd be happy to schedule a time with you to go over the content of what we covered, hear your concerns, and answer any questions that you may have. Please let me know if that is something that you would be interested in.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Was anyone else able to log on or call in for the meeting?

If at least three of us were unable to log in, perhaps you should schedule another meeting, open to all.

Would you be willing to do that?

Thank you.

Response Sent

Yes, we had many participants in the meeting.

I'm sorry you had difficulties trying to join. Again, I am happy to meet with you, or anyone else who wanted to participate in the virtual meeting, but ran into difficulties. If the three of you copied on this email want to do this at one time, that would be fine. Please let me know when you are available and I will do my best to accommodate your schedule.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

How many people were able to join the meeting VIRTUALLY?

We were attempting to access the meeting from a few minutes prior to the scheduled meeting time, until 15 minutes past the start time.

There's no way to know how many others tried to attend and were blocked.

I urge you to acknowledge the problem and schedule an additional virtual meeting.

Thank you.

Response Sent

We had 15 participants in the meeting. I agree that there is no way to know for sure how many tried to join but were unable, unless they contact me like you have. So far, you are the only one to contact me indicating you had an issue so I don't believe it was a widespread issue.

We won't be scheduling an additional virtual meeting. I'll repeat my previous offer to meet with you individually. We can go over the same materials that were shared in the meeting and I can hear your concerns and answer any questions you may have.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Just to be clear, I use MS Teams, Zoom, and phone conferencing on a regular basis, from the same location I was at when I tried to attend your meeting. The fact that others in completely different locations were also unable to attend confirms that this was not a one-off issue on my end.

I am asking that you schedule another meeting to allow all of our community members access and a time to share our questions and concerns.

Thank you.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/1/2025

Method Email

Category Routing

Issues/Comments

If Route 4 were to be selected, are you replacing the current poles or adding poles?
Route 4 has homes on both sides of the easement while there are other ones that do not.
The best option would be for the poles to be located away from all homes.
[redacted]

Response Sent

If Route 4 were selected we would plan to replace the current poles.

Thanks,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Thank you for your timely response. See you on Aug 5.

[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/1/2025

Method Email

Category Viewshed

Issues/Comments

I've reviewed the interactive maps and the proposed routes.
Could a 3D image of the same map be created with elevations included so the impact to views of the mountains and views from residences could be better accessed?
I'd like to save the views of the mountains while maintaining the least amount of visual "clutter" in the area.
The Red Route 3 along Interstate 19, as long as it isn't too tall to block the views of the Santa Rita Mountains would seem to be the best to achieve both of those objectives, as long as the height does not impact the views of the mountains.
I dislike the Green Route 4 as it is directly backing up too many housing developments. If the line needs to run on the W side of I19 I'd prefer either the Red line, as previously stated, or the Yellow route 5, the furthest West of the lines closest to the mines and furthest from the most populated areas.
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

In addition, we have prepared several photographic simulations, based on preliminary designs, of what the project might look like if it were built along different route alternatives. We'll share these photo simulations at the public meeting on August 5th, and they'll also be posted to the project webpage next week, but I have also attached them to this email in response to your inquiry. The map on page 1 of the attached shows the locations of each of these photos and the viewing angles.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/1/2025

Method Email

Category other

Issues/Comments

Please provide a detailed elevation map for your proposed Santa Cruz Reliability Project North. The map needs to show the height and locations of the towers and wires as compared to any nearby residential neighborhood. If this was done, it would assist homeowners to better understand exactly what the end result of the proposed project would look like. You have maps on your website but, for me, the one I want to see the most isn't even offered for viewing. I would assume an elevation map would be done as part of your preliminary engineering designs.
If possible please send me one as soon as possible. (Before your meetings here in Green Valley on the 5th. It should also be avaiiable for viewing at the actual meeting at the GVR East Center and at the Virtual presentation on August 7th.
Thank you for your prompt reply to my request.
[redacted]

Response Sent

[redacted]
Thank you for your request. While we have prepared preliminary designs for each of the 5 route alternatives under consideration, we do not have those designs, including elevations, as a prepared package that could be easily shared. Further, we would not share those at this time because pole locations and designs are too preliminary and will most certainly change.
What I can share with you, and will be shared at our meeting on the 5th, are several photographic simulations that we have prepared from key viewing points. These photo simulations are attached and will be posted to the project webpage next week. Based on your location, I assume the simulations that will be of most interest to you are on pages 4 and 5 of the attached document, from KOP 2. Please note, the map on the first page shows the location of each of these photos and the viewing angles.
I know this is not exactly what you requested, but I hope this helps you get a visual of what the project might look like.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Thank you for your prompt reply. After viewing the maps you enclosed, I have just a few additional questions, they are: (1) what is the minimum set back required from the Interstate I 19 right of way (2) what is the minimum required set back from the West service road; (3) what is height from ground level installation of the towers/wires; (4) what is the right of way required for tower/wire construction and installation? (5) I believe I saw, on a map on your website, that the SCR Sough project (#3) will go through Tumacacori National Historic Park. I would like to know the difference between installations within a National Park and the Canoa Ranch Conservation Park. Wouldn't there be additional requirements getting federal approval for that section of the project? I believe that although previously stated to me in a prior communication, the project could NOT go through the Canoa Ranch Conservation Park. Although, from my research, potentially with a special use permit, it can be

accomplished. Being very familiar with Historic Canoa Ranch, if construction followed the east service road or east of the De Anza trail, the mesquite shrubs (not even native to the area, wouldnt' be greatly missed in a potential construction path.); (6) is there a location on your website where any previous meeting minute notes can be reviewed with regard to this project? (7) does eminent domain play into this project?; (8) homeowners who purchased their properties, that may have the towers/wire interfere with their east facing views, purchased their lots at more of a premium than interior lots in affected subdivisions. Are there any reimbursement to these property owners? ; (8) with the different elevations along the west side of Interstate 19, how does the construction of the towers/poles/wires become affected?: (9) what is the span, in lineal feet, between towers and poles?

Hopefully, these questions can be addressed to me in writing and be addressed at the meeting next week.

Thank you once again for your time,
[redacted]

Response Sent

[redacted]

Thank you for posing your additional questions. I'll answer them one by one, as best I can. Q. What is the minimum set back required from the Interstate I 19 right of way?
If a route were selected parallel to I-19, the line would likely be located within the interstate right-of-way. ADOT has what is designated as a "Clear Zone", that conservatively would require the poles be set back a minimum of 30 feet from the edge of the Frontage Road.
Q. What is the minimum required set back from the West service road?
I believe this was answered in response to question #1.

Q. What is height from ground level installation of the towers/wires?

As I mentioned before, we only have a preliminary design. Typical tower height would be 75-85 feet above ground. The minimum height of the conductor/wire above existing grade would be 25 feet at maximum sag.

Q. What is the right of way required for tower/wire construction and installation?
We would plan on a right-of-way width up to 100 feet wide, based on final design.

Q. I believe I saw, on a map on your website, that the SCR South project (#3) will go through Tumacacori National Historic Park. I would like to know the difference between installations within a National Park and the Canoa Ranch Conservation Park. Wouldn't there be additional requirements getting federal approval for that section of the project?
The Tumacácori National Historic Park is located within the "Study Area" of the SCR South phase of the project. We do not have any route segments under consideration that run through the National Historic Park. If we did, yes there would be additional work required under the National Environmental Policy Act to get approval to build a line in that location.

Q. Is there a location on your website where any previous meeting minute notes can be reviewed with regard to this project?
We do not have meeting minutes posted, but all past presentations and materials are available on the project webpage under the "Outreach Materials" subheading.

Q. Does eminent domain play into this project?
While UniSource does have the power of eminent domain, it is very rarely used, and only as a measure of last resort. We do our best to find a route with minimal opposition and then to work with individual landowners to minimize private property impacts through design.

Q. Homeowners who purchased their properties, that may have the towers/wire interfere with their east facing views, purchased their lots at more of a premium than interior lots in affected subdivisions. Are there any reimbursement to these property owners?
UniSource would not provide compensation to these property owners.
Q. With the different elevations along the west side of Interstate 19, how does the construction of the towers/poles/wires become affected?
It all comes down to maintaining ground clearances. Working with the topography can in some cases reduce the height of poles, and in other cases increase the height of poles in order to maintain the required clearances between the wires and the ground. It can also increase, or decrease, spacing between poles.
Q. What is the span, in lineal feet, between towers and poles?
As I mentioned, we only have a preliminary design. Typical spans are between 600 to 1,000 feet.

Should you have further questions, please continue to reach out.

Thank you,

Clark Bryner, AICP
Manager, Siting, Outreach and Engagement

Tucson Electric Power/UNS Electric Inc.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/2/2025

Method Email

Category other

Issues/Comments

Hi. The May 5th meeting location was stated as Green Valley Library in today's Green Valley Newspaper, page A4. It is listed on your website as GVR East Center.
Which location is correct?
Thank you, [redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/2/2025

Method Email

Category Other

Issues/Comments

Hi
Has the location for the meeting in Green Valley on Tuesday, August 5, 2025.
Your flyer states that the meeting location is at the GVR Rec East Center.
The Green Valley News has an article about the meeting and said the meeting is at the Joyner-Green Library in Green Valley.
Has the location for the 9 a.m. meeting been changed to the library?
Thank you
[redacted]

Response Sent

[redacted]
The correct location is the GVR East Center as noted on our project webpage and on the newsletter.
Thank you for bringing this conflicting information our attention!! We will contact the newspaper to see if they can get the location corrected ASAP.
Thanks,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/3/2025

Method Phone

Category Routing

Issues/Comments

Hi, this is [redacted]. And I just want to voice my opposition to the 2 routes that are west of highway 19. I believe that you can do it out in the desert, where nobody will be as affected as if you ran them on the west side. My husband and I have invested all of our savings into our home, which would be adversely affected by, especially Route 4. Thank you for listening. You can reach me at area code [redacted]. Thank you!

Response Sent

No return call needed.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/3/2025

Method Online Comment Form

Category Routing

Issues/Comments

It would be a more efficient and less disruptive route to find a way of keeping it on the east side of highway 19 rather than crossing the highway twice to get to Amado.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/3/2025

Method Online Comment Form

Category other

Issues/Comments

My vote for the transmission line alternative is Route 1 or 2

Response Sent

[redacted]

Thank you for sharing your thoughts. We have noted your preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/3/2025

Method Phone

Category Property Value

Issues/Comments

Hi, this is Gale Johnson. And I just want to voice my opposition to the 2 routes that are west of highway 19. I believe that you can do it out in the desert, where nobody will be as affected as if you ran them on the west side. My husband and I have invested all of our savings into our home, which would be adversely affected by, especially Route 4. Thank you for listening. You can reach me at area code (541) 408-5200. Thank you!

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/3/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

NO ! Route 3 is a hard NO.
Please remove the route along the west side of I-19 from consideration.
This will destroy views for all neighborhoods west of I-19, decreasing property values, decreasing income from.property taxes, slowing home sales even more than they already are.
In addition, you will be placing lethal objects all along the route. A single car off the highway usually results in a decelerating stop or possibly rollover. This may result in serious injury. A car versus immobile object (at highway speed) results in, at best, serious injury and often results in death.
Adding poles along I-19 is a bad idea all around. It will be costly both in money and lives. That route should be removed from consideration.
It is also disturbing that you are holding your public meetings during a time of year when so many of the area residents are away from Arizona. We will be tremendously impacted, and yet cannot attend in person meetings.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

Acknowledging that you and many of your neighbors may be out of town for the season, in addition to the in-person open houses, we are also offering a virtual presentation. If you would like to attend the virtual meeting it will be Thursday, August 7, 2025 from 4:30-5:30 p.m. You can join on Microsoft Teams by clicking the link below, or you can dial in to listen by phone.

Microsoft Teams
Meeting ID: 226 630 125 702 2
Passcode: mg2ys2CZ
Dial in by phone: +1 712-274-3750,,881689883#
Phone conference ID: 881 689 883#

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/3/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

I have viewed the route alternatives map and recommend route 2 over the others.

Response Sent

[redacted]

Thank you for sharing your thoughts. We have noted your preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/3/2025

Method Email

Category Routing

Issues/Comments

As green valley residents, we are opposed to the route 3 transmission lines.

[redacted]

Response Sent

[redacted]

Thank you for sharing your thoughts. We have noted your preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7C27582bd9ff2f498b42b208ddd361a4c2%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638899138498867453%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=NPq2%2FcI9I2ScvXzyt%2BFB7WuKQSIUtj9O1D2oZbaukdA%3D&reserved=0.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/3/2025

Method Email

Category Routing

Issues/Comments

I am opposed to Route 3 for several reasons but primarily because a transmission line essentially within the Interstate 19 corridor would be a major detrimental intrusion to the current natural viewshed. I recommend Routes 1 or 2 as more suitable locations.

[redacted]

Response Sent

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7C42a1d7892c384bb3579f08ddd3615f05%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638899137352549805%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=JvQs1iRer2AQ8MZyKHvNZ2dtzBcLmVn9YQhwOozbmsc%3D&reserved=0.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/3/2025

Method Email

Category Property Value

Issues/Comments

Please put me down as a big fat NO on proposed route 4. My husband and I have the bulk of our investment in our home which would be adversely affected by route 4. Please take it further out in the desert and help protect our neighborhood. Thank you

Response Sent

[redacted]
Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7C277786b751f3464976b808ddd3631c2d%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638899144802108228%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=z1cAACNZkZLKRgSSHUD2TIyyXDgsPx9K7l7gQuO%2Fsjs%3D&reserved=0.
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/4/2025

Method Online Comment Form

Category Routing

Issues/Comments

I am writing again to say eliminate option #4 utility line. Obviously, no one wants this in their backyard. We the homeowners in Estates at Canoa Ranch, have higher priced homes. Naturally we do not want to see our property values diminish. Line #4 has lots of brush, wildfires scare me. Please remove #4 as an option.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/4/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

Good morning and thank you for the excellent information provided on this project and the opportunity for public input. As Canoa Ranch homeowners, we are opposed to Route Option 3 as it would run the new transmission lines along the West Frontage Road adjacent to our neighborhood and directly in line of sight of our views of the Santa Rita Mountains. We chose the Canoa Ranch neighborhood for those east-facing views of the Santa Rita Mountains, which we enjoy every day. Option 3 would impact quality of life and property values in our neighborhood. Please choose another route for the power lines, thank you.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/4/2025

Method Email

Category Health/Safety

Issues/Comments

As homeowners in the Canoa Terrace neighborhood of Green Valley, my husband and I want to clearly and strongly add our voices in opposition to the proposed transmission lines route that will place the lines on the western frontage road of I-19. We bought our property, in part, because we fell in love with the mountain views and especially our view of Elephant Head. Because there are routes available that take the lines further into uninhabited areas of the desert, we can't fathom why UniSource would even consider building this project so close to beautiful homes; ruining the views, lowering property values, and exposing the residents to potential cancer risk from exposure to the ELF fields.
We strongly urge reconsidering the placement of this project to an area with less impact on the natural beauty of the area, the health and well being of residents, and on the potential for lower property and resale values.
Thank you for your time,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7Cb22744c7f3d3402dcc9d08ddd39db1d5%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638899396417110113%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=T1ipjKb5sRp%2BHO9CnQ7pCEsRhmd0VOzF5UURhMyfHyc%3D&reserved=0.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Property Value

Issues/Comments

We own view property and bigger transmission lines will impact property values. No route 4. Put it in the desert away from development. Tower Specifications

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Property Value

Issues/Comments

I am against the west frontage road route the impact on the view will reduce property values. Residents paid a premium for view homes. It will also reduce buyers to invest in areas impacted by quality of life. My career has been involved in civil infrastructure for 45 years. I am not against infrastructure only here if effects quality of life

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Viewshed

Issues/Comments

Routes 1 and 2 would impact views from the mountains from the Springs neighborhood. NO! NO! NO!

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Viewshed

Issues/Comments

I live next to Canoa Ranch Substation, Springs subdivision. We already have our mountain view spoiled by your poles. We don't want another set of the in our life. Please choose route 4 or 5 to go on the west side of Green Valley

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Viewshed

Issues/Comments

Most importan is not have the line close to my backyard and not impeding on my view of the mountains. My home is next to Route 3 and I encourage you to build along route 2.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Health/Safety

Issues/Comments

Line 4 is 45 feet behind our house. Spouse has pacemaker which is not compatible with powerlines. We already have tall, low voltage lines. When wood poles fell 2-3 years ago the contractor lined by TEP destroyed part of our property and had to pay our claim. Do not want to experience this again

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Wildlife

Issues/Comments

Install line in route as far from neighborhoods as possible. Also, minimize construction and on-goijng impacts on native habitat and wildlife. Prefer route 5, then route 1 and 3rd prefence is Route 2.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Wildlife

Issues/Comments

Wildlife protection. Don't want powerline near my address. Utilize route 1 option only.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Other

Issues/Comments

Keep it on Federal Lands. Do not consider Route 4.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Viewshed

Issues/Comments

Our backyard abutts the proposed route 3. We have a wonderful view of the Santa Rita Mountains which is great, but the noise from traffic along I-19 already disrupts our enjoyment of our setting. adding large poles/towers and power lines along I-19 would (route 3) will further disrupt our view and enjoyment of our backyard. Property values and also ability of our homes will also be affect if Route 3 was used. Eliminate Route 3 as it appears to affect the most homes and resident negatively. Routes 1 and 2 seems to affect a minimal number of homes and seems like the best option. Home values after power line installation. I don't believe that power lines done affect home values negatively, saleability of homes is more difficult.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Viewshed

Issues/Comments

Route 1 or 2. Do not go through neighborhoods. Do not spoil the view.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Property Value

Issues/Comments

Proposed route 3 would be just behind our home concern about property value if built Route 3. Why not Route 1 or 2 no homes and land is flatter

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Health/Safety

Issues/Comments

Pacemaker keeping me alive. Doctor recommends not living so close, must stay away from any EMF. Route 4 too close to property. Last time replaced poles TEP destroyed trees/bushes dropped poles on property. Paid claim to repair damage. Destruction of property values.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Viewshed

Issues/Comments

The route 1 option is, in my view, the least desirable: it would negatively impact stat public lands that is used by residents of Elephant Head, amoung others. Existing powerlines roads are enough... Please rely on existing trhoughways if possible. Routes 2 and 3 seem to the most economicall and least impactful for residents of the area. How often are powerline roads regraded.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category other

Issues/Comments

I live on your proposed route 4. We do not want our neighborhood affected by this project. Put it on Federal landss, not by our neighborhood. I am concerned with health affects of living near powerlines, wven though you don't think that's the case. From the presentation I would favor Route 1 or Route 5 or 2.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Property Value

Issues/Comments

Yes, my property value. I prefer routes 4 and 5.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Paper Comment Form

Category Health/Safety

Issues/Comments

Health issues - studies inconclusive about negative health impact. Money issues - property values will be negatively impacted. Public should see bottom line on money involved with all routes discussed. Transparency. Our wildlife will be impacted. Deer, bobcat, owl, other bird life.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Phone

Category Health/Safety

Issues/Comments

Hi. My name is [redacted]. [redacted]. And I'm calling to say, please, no to the proposed project. We have a sister-in-law who comes to stay, who has a pacemaker. She wouldn't be able to come see us. I have some health issues that would be affected by this also. Please find another place, find some place in the dessert, but do not put it in our community of homes. Yeah, so no, no, no, thank you. Please let me know that you've gotten this. I'm at, [redacted]. Thank you, bye.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Email

Category Viewshed

Issues/Comments

To whom it may concern:
During the aforementioned meeting, I bought up the fact a 200' wide scenic easement exists along at least a portion of your planned route 3 on the west side of I-19 Right-of -Way per subdivision plat. I was told by your representative, he would like to see the document but when I told him I had a copy available on my phone and was willing to show him, he brushed me off and moved on. I had planned on emailing a copy of the recorded plat but, since your representative brushed me off without showing true interest, I will provide you the document number so you can do your due diligence and look up yourselves! The subdivision plat is titled "Canoa Ranch Block 28 recorded November 4, 2004" recorded in Book 59, Page 4, Sequence Number 20042140112 in the Pima County Recorder's Office. There may be similar easements in place on other subdivisions. I would strongly suggest you do your due diligence and investigate. There are other easements located within the scenic easement but they are bound by the scenic easement and utilities are located underground. One of your presenters stated to me prior to the meeting Eminent Domain could be used to gain Right-of-Way for your project but I don't believe the scenic easement can be negated by way of Eminent Domain. I know in the state I practiced land surveying, it cannot be negated without re-platting which requires the agreement of a "super" majority of the subdivision lot owners. I asked for a direct email for your presenter to discuss this but he would not provide saying he would eventually see the information if I sent it to this email address.
I need to make public record that my wife and I, as well as our neighbors, strongly protest installation of any transmission lines along or near proposed route 3! I also stand beside my neighbor's objections to route 4!
I have additional comments as follows:
For background, I am a retired Professional Land Surveyor with 45 plus years of experience in land development and property. I have been involved in many real estate transactions and provided information to property assessors. I strongly disagree with your presenter's statement that erection of the poles and transmission lines will have no affect on property values! They certainly will be affected in the negative! I would be interested to see the credentials of the entity that provided the study you mentioned as well as a copy of this study.
The general feeling I got from other attendees of the meeting was your presentation has actually created mistrust amongst us. Several major concerns (who's responsible for damages in the event the lines start a fire, affect of electromagnetic fields, etc.) were bought up and your team danced around answers without giving a direct answer. Avoiding direct, honest answers adds to the mistrust. We understand the need for the transmission line and towers but the manner you conducted the meeting has created additional tension and, as previously stated, mistrust. One statement your presenter made at the beginning of the meeting: "we didn't expect to see this many attendees at this meeting. We thought you'd all be gone for the summer" was not received as a joke by the residents. We feel this statement was basically an admission you thought the majority would be gone and you could just slide through this process. In my opinion, that statement set the tone and put the homeowners on the defensive!
For future meetings; I would suggest if you hand someone a card at sign in and refer to it as a comment card, it be just that! A comment card is generally used to comment after a meeting about concerns or comments that arose during the meeting. The true purpose of the card was to present questions at the meeting and was not evident until sitting down and reading it. No pens were made available for attendees to fill out your question card (yes, I asked at the sign in table and was told none were available). Only those who had a pen on their person were able to ask a question. This is probably the reason people kept interrupting with questions as they simply were not provided access

to a pen!
I have not been able to attend past meetings due to scheduling issues on my end but plan on becoming heavily involved as this moves forward, either thru any future meetings or approval process through state agencies. I strongly suggest you listen to the objections and concerns some of my neighbors have voiced during this meeting.
Please feel free to reply to this email if you have any questions or comments.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns, along with the information on the scenic easement described in your subdivision plat. I appreciate you bringing this to our attention and providing this information. We will look into it.

I was the presenter at yesterday's meeting. I apologize if my response to your offer to provide further information on the easement came off brash. As you can see, I received the information as promised through the general project email. I would have loved to have gone into a more in depth conversation afterwards, but with over 100 people asking questions we had to keep things moving.

The property valuation study I referenced study I referenced was commissioned by TEP in 2024 by an independent appraiser. You can find the study online, beginning at page 195 of the document at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdocket.images.azcc.gov%2F0000211344.pdf%3Fi%3D1744730914219&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7Caf93302022254e77c8cb08ddd5bf5bc5%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638901740049510005%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=50UxJmu3AlPQR6zr9PzLC6JotFJsCBs%2Fo%2B%2FmlZ8HWNs%3D&reserved=0

We have noted your comments and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

Further, I appreciate your candid feedback on ways to improve the format of our meetings in the future.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7Caf93302022254e77c8cb08ddd5bf5bc5%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638901740049526070%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=snJYCihg18DnzT5iRjXZGPyELogr71xp%2BPzcaGMRvkA%3D&reserved=0.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/25

Method Email

Category Other

Issues/Comments

Hello,

I was at the presentation this morning at the East Center. Just got onto your interactive map and cannot see any detailed info about the proposed new electric lines? it only shows information south of here?

Can you explain to me why? and if I am looking at the map wrong, how do I use it correctly?

Thank you,

[redacted]

Response Sent

Thank you for contacting us to let us know about your troubles with the online map. I could be wrong, but I suspect you inadvertently went to the project page and map for the "South" phase of this same project. Here is a direct link to the correct interactive project map for the "North" phase https://www.uesaz.com/maps/Santa-Cruz-Opportunites-and-Constraints/.

Should this not resolve the issue, please reach out again and we can get on the phone and walk you through access and navigation of the map.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Sent
Good afternoon, [redacted],

Thank you for your email. I wonder if you might have viewed the interactive map for the Santa Cruz Reliability Project South (Amado to Nogales)?

Here is the link to the Santa Cruz Reliability Project North (Green Valley to Amado) interactive map: https://www.uesaz.com/maps/Santa-Cruz-Opportunites-and-Constraints/

(Note that the blue line is the study area, red lines are eliminated segments, and the remaining route options are in orange, green, red, purple, and pink.)

Please let us know if you have any further questions.

Kind regards,

Adriana Mariñez

Siting, Outreach and Engagement Project Manager

Tucson Electric Power & UniSource Energy Services

Additional Notes
(Adriana called her about her email)
I spoke to [redacted] this morning. She was looking at the SCR S interactive map yesterday and found the correct map this morning. She said she was going to print it off to provide to her neighborhood (Montana Vista) and encourage them to weigh in. I pointed her to the PDF map as a better reference. She was appreciative for the call back and complimented the team on a job well done yesterday. She also mentioned that she opposes any route west of I-19 since “humans should be the priority” and there are less people that would be impacted on the east side of the freeway.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Email

Category Property Value

Issues/Comments

This is [redacted]. We live at [redacted]
Please remove Route 3 from consideration. It will destroy our views and decrease our property values. This will decrease property tax income for the county. It also will slow future home sales in the neighborhood.
We are very troubled that you are holding public meetings and comments during the summer months when many of us are away. If it weren't for a few neighbors, we would not have known about your project. We are the ones that would be impacted, yet we have not been notified in a proper,timely manner.
My husband and I say a "hard NO" for Route 3. Please reconsider your options which might not have such a drastic effect on our Green Valley neighborhood.
Kind regards,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

Acknowledging that you and many of your neighbors may be out of town for the season, in addition to the in-person open houses, we are also offering a virtual presentation. If you would like to attend the virtual meeting it will be tomorrow, August 7, 2025 from 4:30-5:30 p.m. You can join on Microsoft Teams by clicking the link below, or you can dial in to listen by phone.

Microsoft Teams
Meeting ID: 226 630 125 702 2
Passcode: mg2ys2CZ
Dial in by phone: +1 712-274-3750,,881689883#
Phone conference ID: 881 689 883#

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Email

Category Health/Safety

Issues/Comments

We live at [redacted].,
My sister-in-law who has a pacemaker visits regularly and cannot be around these type of powerlines!
We are going on record saying NO NO NO.
Thank you!
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Online Comment Form

Category Routing

Issues/Comments

Thank you for the meeting at the GVR East Center today. I did get some questions answered. I am very concerned about this line using route four because of the closeness to homes from a noise, health and property value standpoint. We were told in the meeting it does not affect property value, but it does. We would not have even considered a home with a pole or line near the house. Our friends from WI have told us not to even send them listings with electrical poles nearby or Hwy 19 traffic noise. (they equate both as bad as the other). So, a house may sit and finally sell but how many sales were missed because of these close structures. It would seem routes one, two or five are less intrusive. Route three ruins the few for multiple areas and I imagine will also create traffic issues.
I asked the question before the meeting, "What are the height of the existing poles on route four (45') and the height of the new poles (80-85')". Yet during the meeting the representative kept say the new poles are about five feet taller... Very deceptive. Thank you for your consideration to remove route four.

Response Sent

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

Hello,
Route 4 shows existing transmission line.Will the existing poles be used or be replaced with towers? If towers what will be the height? What additional EMF health exposure will be added to these additional lines? Will this interfere with the existing phone cell towers transmission in the area?
Regards, [redacted]

Response Sent

[redacted]

Thank you for asking these questions. Below are responses.

Q. Route 4 shows existing transmission line. Will the existing poles be used or be replaced with towers?
If Route 4 were selected, the existing poles along Via Cielo Azul would be replaced with new poles (not lattice towers), that would look very similar to those installed today, but slightly taller.
Q. If towers what will be the height?
Again, poles would be installed as opposed to large lattice towers. These poles would vary in height but would generally be between 75-85 feet tall.
Q. What additional EMF health exposure will be added to these additional lines?
EMF decreases quickly with distance, so it depends on where the measurement is from. At ground level, near the edge of the right-of-way it will likely be very similar to what exists today. For more information and sources, I'll refer you to information available on our website at https://www.uesaz.com/electric-and-magnetic-fields/.
Q. Will this interfere with the existing phone cell towers transmission in the area?
No, cell towers are not affected by these transmission lines, in fact, in many locations they are co-located on the same poles.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Hi Clark,

I've looked over all the routes provided by website, and to me, I believe Route One coming out of Canoa Ranch Sub would be the best solution in regards to low impact for the residents in the area. Looks to be the best scenario for installing and providing maintenance & upgrade work that would be eventually

needed. If there are ever any major issues from storms that produce down lines or poles this would be safer for any residents since this mainly a rural.

Regards, [redacted]
Green Valley resident

Response Sent

[redacted]

Thank you for sharing your route preference and rationale. We will consider this as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Hello Clark,

Thank you for the update, great appreciated. Have a good weekend.

Regards

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Email

Category other

Issues/Comments

Hello,

As he was unable to attend the public forum today in Green Valley, please see the attached comments regarding Route 3 from [redacted] regarding Fairfield Homes' rejection of this route.

Response Sent
Please thank Mr. Williamson for his comments on the proposed site route #3. We will add them to our file and also forward to Unisource.

Best regards,

Response Sent

I just wanted to acknowledge receipt of your comments. Thank you for sharing these and we've noted them for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/5/2025

Method Email

Category other

Issues/Comments

Hello,

I was at the presentation this morning at the East Center. Just got onto your interactive map and cannot see any detailed info about the proposed new electric lines? it only shows information south of here?

Can you explain to me why? and if I am looking at the map wrong, how do I use it correctly?

Thank you,

[redacted]

Response Sent

Good afternoon, [redacted]

Thank you for your email. I wonder if you might have viewed the interactive map for the Santa Cruz Reliability Project South (Amado to Nogales)?

Here is the link to the Santa Cruz Reliability Project North (Green Valley to Amado) interactive map:
https://www.uesaz.com/maps/Santa-Cruz-Opportunites-and-Constraints/
(Note that the blue line is the study area, red lines are eliminated segments, and the remaining route options are in orange, green, red, purple, and pink.)

Please let us know if you have any further questions.

Kind regards,

Adriana Mariñez
Siting, Outreach and Engagement Project Manager
Tucson Electric Power & UniSource Energy Services

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Email

Category Health/Safety

Issues/Comments

Thank you for the thorough explanation of the Santa Cruz Reliability Project North at the Green Valley meeting held yesterday, August 5, 2025.
I oppose Route 3. I live in Canoa Terrace subdivision, which is located West of I19, at Canoa Ranch Rd. My street S. Painted Canyon Dr. runs parallel to I19. It is the closest road to I19 West Frontage Road. Our subdivision has 195 homes.
1. The poles for Route 3 would be in our view of the Mountains. Meritage Homes built our subdivision in 2006 and terraced the streets so that many homes would have views of the Mountains in the East.
2. This Route 3 will decrease our property values.
3. This Route 3 is too close to homes on Painted Canyon Dr. The hum of the wires will be constant.
4, The EMF will have a negative impact on our physical and mental health. The average age in our neighborhood is 75 years of age. EMF has a negative impact on the elderly.
5. Route 3 could cause those of us on Painted Canyon Drive to lose our insurance or cause us to need an additional Fire Insurance policy.
6. Some of the Berns behind the houses running parallel to the Frontage Rd. are 50 ft. high. You stated that in some places you would put a pole that is 75 to 85 ft. high on top of the Bern. This would damage the views of more neighborhoods West of us.
In conclusion, I oppose Route 3 for these reasons: Property Value, Health, Insurance, and Views of the Mountains to the East.
Green Valley is a beautiful City. If you run the lines for Route 3 down the West Frontage Rd., it will destroy the beauty of the entire city.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

We attended the Green Valley meeting yesterday and appreciate the information presented. We live on Gloria View Court in San Ignacio Vistas and strongly want route 3 eliminated. Our opinion is to select Route 1 because it has the least affect on Green Valley homeowners.

Response Sent

[redacted]

Thank you for sharing your preference. We will consider this as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

I live in San Ignacio Vistas in Green Valley and strongly oppose Route 3 as it will negatively impact some of the most scenic views in Green Valley and the installation here would create significant risk of traffic crashes and disruption to typical traffic flow. This section of I19 and frontage roads have more than the usual amount of crashes, perhaps related to the age demographic in this area. Routes 1 or perhaps 2 would appear to eliminate the traffic impacts and minimize the scenic view impacts.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

After yesterday's meeting I am still extremely concerned about where these transmission lines will be placed. With Green Valley being a retirement community there are a lot of us with ICDs (implanted cardiac devices). I have an ILR (implanted loop recorder). I need to know that the information is being relayed to my Electrophysiologist everyday. Please keep these lines away from our homes. Our lives may literally depend upon this. My home is on route 4. Thank you. [redacted]

Response Sent

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Online Comment Form

Category other

Issues/Comments

I strongly object to the option that goes to the west of I19 through the Montana Vista neighborhood between Canoa Ranch development and Montana Vista. It makes no sense to place a line here so close to so many residences. Also, the terrain is full of steep washes making construction difficult and costly.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Online Comment Form

Category General/Opposition

Issues/Comments

I am opposed to the route on the west frontage road adjacent to I-19. This will impact my neighborhood (San Ignacio Vistas) as well as several others along this route.
Route closer to the mine or the Santa Cruz River would be my preferred route.
Respectively submitted.
[redacted]

Response Sent

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Online Comment Form

Category Property Value

Issues/Comments

Project Manager:
Thank you for providing information regarding this project at yesterday's public meetings.
I oppose route 3. Route 3 is very close to numerous housing developments composed of thousands of homes. Route 3 will create a health hazard due to the high-voltage and EMF. Yes, I know your experts say there is no health hazard. But non-governmental experts disagree with you. Thus, physical and mental health will be impacted.
Real estate values will be negatively impacted, as well as neighborhood astetics. If you follow the west service road all of Green Valley will have a negative visual appeal. Again, I oppose Route 3.
Thank you,
[redacted]

Response Sent

[redacted]

Thank you again for providing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Thank you for your response. I have additional questions and comments.

Exposure to high-voltage powers lines cause cancer and cell disruption which can lead to numerous disabilities and death. Non-governmental experts agree with me on this issue. Route 3 is in opposition to five (out of thirteen) of Unisource's own route evaluation criteria: proximity to residential areas, proximity to sensitive noised receptors (schools, health facilities, etc.), impact on designated scenic areas, impact on mountain views from residential areas, and impact on historical and archaeological areas. Thus, according to UniSource's own criteria route 3 should be eliminated.

We are retired and cannot easily relocate due to this monstrous plan. However, we may be forced to do so (along with many others). The proposed Fairfield project in our area (300+ new homes) will be negatively impacted as will tax revenue for the county. Who wants to live near high-voltage power lines and be subjected to constant electrical bombardment?

Response Sent

Thank you for the follow up comments on why Route 3 should be eliminated and for posing the additional question.

You are absolutely correct that Route 3 is not perfect, none of the proposed routes are with respect to the evaluation criteria. While it would be ideal to have no impacts associated with the construction of the proposed transmission line, in reality it will have impacts. So, finding the best route for the proposed transmission line is not about avoiding impacts, rather it's about finding a balance between impacts to values important to the community, such as those you've listed, because sometimes avoiding an impact to one resource (i.e. wildlife species) leads to impacts on another (i.e residential).

Over the past year and a half as we've met with the public and conducted studies, we've tried to find that balance. This latest round of outreach to the community is to share those results and learn if we got it right. For Route 3 you've made it apparent that you feel we did not get it right, and I appreciate you letting us know, as well as providing rationale for why. This feedback will help us decide if Route 3 should be carried forward into our application to the State as an option to consider, or if we should eliminate it from consideration.

In response to your question regarding use of eminent domain. While UniSource does have the power of eminent domain, it is very rarely used, and only as a measure of last resort. We do our best to find a route with minimal opposition and then to work with individual landowners to minimize private property impacts through design.

Should you have further questions, please continue to reach out.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Online Comment Form

Category Property Value

Issues/Comments

Please eliminate proposed route #3 from consideration. This route would pose a severe threat to quality of life and property values for those living west side adjacent to rt 19.
Thank you.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Email

Category General/Opposition

Issues/Comments

We live in Green Valley - [redacted] We are voting against any huge power lines above ground
running through any residential area in the town of Green Valley.
[redacted]

Response Sent

[redacted]

Thank you for sharing your comment. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Email

Category Viewshed

Issues/Comments

Well, looks to me that routes 1-3 put the lines in the desert. This will disrupt the views of all the homes looking out at the mountains. These polls are ugly.
Was and is the original megawatt line in now underground if so why not bury the new one. If cost is a factor pass it on to all the customers to absorb rather than mess up the views and environment.
As for choice it appears to me that route #4 would be west of our subdivision and not be in view.
This is how I see it according to the map.
Thank you
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

With respect to the existing 138kV transmission line serving Santa Cruz County, it is overhead and follows close to the same path as the alternative Route 1.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Email

Category Health/Safety

Issues/Comments

Hello, I was at the meeting yesterday in Green Valley and as you are aware many have voiced their dismay about the additional lines in our community that doesn't even benefit Green Valley residents.

I live in The Springs at the corner of [redacted]. My back yard has a lovely rock berm so I see no neighbors to the South. But what I do see is the power lines to the south and power lines and mountains to the southeast. Also, from my back yard I can hear noise from the lines and noise from the Canoa transfer station. My street is one street North of Blue Fox (right behind which the TEP lines were installed along with the Canoa transfer station). From my research, it was originally indicated the poles would not be 60 to 85 feet high and those poles initially placed were not, but, then were later replaced the high poles. Please correct me if I am wrong. Now, it appears that you want to again add onto the Canoa transfer station (Routes 1 and 2) and take a part of our dog park located along The Springs nature path. The currently lines are seriously dangerously close to The Springs property where I live and walk the nature path daily. The addition of more lines would be severely damaging to my health and that of my property. FYI, if a property had become available on Blue Fox I would not have purchased it due to the close proximity of the power lines.

It seems to me the path of the least resistance, as it relates to residents, is Route 5 up by the mine. No further building can take place up in that location. Please take into consideration how the Springs property has already been damaged due to the noise and unsightliness of the currently installed lines and proceed with a different plan.

Thank you for your consideration.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

In response to what was communicated to your neighborhood in the past, I can't comment, because I have no knowledge of that. I will say, as a company we try to be as transparent and communicate our intentions as clearly as possible.

That said, let me correct you and clearly communicate the plans at the Canoa Ranch Substation. If routes 1, 2, or 3 were selected, a new transmission line would be constructed a couple of hundred feet south of the existing line (you can see visual simulations on our webpage). The substation itself would not be expanded. No work would occur within The Springs neighborhood; the dog park and nature path would not be affected in any way.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Email

Category Property Value

Issues/Comments

To whom it may concern,
As a property owner i one of the proposed routes I favor the pink route. It is the only route that will protect property values. While it may interrupt wildlife that should only be minimal since the poles are 100 ft apart. I am willing to pay more for electrical service if the service protects my propertyvalue.
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/6/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

I have reviewed this information that has funneled to us from our POA. Had this not made it to us from our POA, we would have not heard of this project and not had the opportunity to voice our concerns.
I understand power systems and the delivery of power as our world relies upon electricity. One of the benefits of relocating to Green Valley is the views and few power lines to see. We currently see the existing run of power lines that travel North and South and they are quite a distance from our home in Montaña Vista. Adding more power lines not only is visually intrusive, it poses health risks along the areas as there are so many studies indicating this, though no power company will ever admit to it. Adding more power lines to our area and the higher voltage raises even more concerns. I don't even know if we have a vote in this matter and are able to see if there were alternate locations studied that would NOT impact existing homes and people? Has this been done and is or will there be a choice? Why has the new power line in Phase 3 been placed where it has? Budgetary reasons? Are you risking people's wellness over budgetary constraints? I would insist upon seeing further studies, health impacts and environmental impacts of this additional line and upgraded lines. I would be very skeptical as to whom it is that provides such studies as well. This is a MAJOR concern and should not be taken lightly. WE have all seen the cost of progress and the continued disregard for human health and wellness. I hope that all efforts have been put in first place to assure this, but from the location of this high voltage power line, it appears this concern has been overlooked. Also, from the generalized map it is VERY difficult to see the exact locations of the lines, which means that the location can certainly change without anyone really being able to hold any deviations accountable to the designers and installers

Response Sent

[redacted]

Thank you for sharing your comments and concerns.

You posed several questions, so let me answer those:

Q. I don't even know if we have a vote in this matter and are able to see if there were alternate locations studied that would NOT impact existing homes and people?
Public input is very important in our process. We began engaging with the community in early 2024 and have since gone through a comprehensive process where we considered 177 different route segments. Through multiple rounds of evaluation, including public engagement to influence that evaluation, we narrowed down those 177 segments to the 5 route alternatives currently being considered. You can see maps on the project webpage that show all the segments that were considered and the process for narrowing them down.
Q. Has this been done and is or will there be a choice?
A final route will be selected following a public hearing expected to occur in November of this year. We expect to include a preferred route, and at least one alternative route in our application for consideration.
Q. Why has the new power line in Phase 3 been placed where it has? Budgetary reasons? Are you risking people's wellness over budgetary constraints?
Phase 3 of the project is going through a very similar process to determine the best route for the proposed transmission line. Its actually a couple of steps behind Phase 1. No route has been

determined.

We have noted your concerns for consideration as we decide on a preferred route for Phase 1, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Thank you Clark,
I see that you did not address my most important question and that was factoring in the health and wellness of people around those transmission lines.
We were surprised by this project and as I said originally, were not aware of this monumental project until a couple of weeks ago. To me, the power of your company and the communication process was not at the best it could have been since 2024. That tells me that if this is the start of such a project, what else has been missed. Can you see where we are coming from?

Response Received

I'm sorry, I didn't mean to ignore that. I thought it was meant as a comment and not a question.

As you stated, we're likely going to disagree on the health impacts of a transmission line. There have been studies done for years on this, and as we know, you can find a study in support of any conclusion you are after on the internet. However, as a company, we prefer to cite only the most reputable sources. According to this large body of research, there are no confirmed health risks caused by exposure to low-level EMFs. If you'd like to review the sources we're referencing in coming to this conclusion, please visit this webpage: https://www.uesaz.com/electric-and-magnetic-fields/

Nonetheless, we acknowledge the community has concerns about living in close proximity to a high voltage power line. As a result, one of the criteria we used to evaluate routes was proximity to residential areas.

If I've failed to respond to anything else, please let me know.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category other

Issues/Comments

Hello, I attended the 8/5/25 public meeting, and wanted to inquired about an earlier question about cost studies on the 5 routes that I thought be presented at the meeting. Thank you.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category Property Value

Issues/Comments

Hello, I attended the 8/5/25 meeting and just as a comment I wanted to provide a comment about high voltage lines reducing property values since at the meeting it was stated they do not. Admittedly there other factors but:
A 2018 study from the Journal of Real Estate Research found that vacant lots near high-voltage power lines sell for 44.9% less than equivalent lots that aren’t located near power lines. If you take a step back, a lot that is located within 1,000 feet of transmission lines tends to sell for 17.9% less. This was just a quick Google search, also if you talk to realtors they will tell you buyers don't want properties with power lines on, overhead, or near property they want to buy.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category Wildlife

Issues/Comments

Hello, I attended the 8/5/25 meeting and just as a comment I wanted to state I'm concerned about route 4 because of the impact it will have on 2 Canoa Ranch subdivisions (Canoa Sierra and Estates). The area is quiet (I don't like the thought of hum of high voltage power lines in hot, humid or wind or peak hour electrical usage) disturbing wild life that comes thru daily or lives here (javalina, rabbits, quail, toads). As a newer senior community built in Green Valley, we have higher value homes that will be used when we have to transition to assisted living, and am concerned about property values being devalued and/or unable to be sold.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category other

Issues/Comments

Hello, I attended the 8/5/25 meeting, and just as a comment I wanted to state reviewing the routes and listening to the meeting discussion. It appears that routes 1 and 2 are the most favored, 3 had potential too, but apparently there are easements that may interfere with installation. A comment was made about route 1 being the most direct, least impact, and the fact their is a single pole line there with no redundancy to take offline. However, why cant the new double pole lines be run in parallel to have power during installation, and the single line removed after? A waiver can be petitioned for the conservation land as it is just a replacement for what is all ready there. It may be a little more paperwork to ask, but fewer homes, same impact to wild life as to what is there already, the historic Canoa Ranch isn't open M-F 9-5 pm or 24/7. How far apart will the new high voltage lines with double pole arms (sorry don't know official language) be placed? Maybe fewer poles overall? Yes the redundancy might cost a little more, but it would address more concerns and acceptance in the community, plus plan for the future. You said needed a primary route (route 2) maybe less expensive, but also a backup plan (route 1). Just food for thought or make route 1 primary as it would be a win-win for community and Unisource (least disruption). I admit I'm biased as I am not for route 4 for various reasons stated in other emails, but looking for a win-win solution too.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. I received four separate comment forms from you which including several comments and questions. I'll provide a single consolidated response.

First off, we have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comments in our project record that will be submitted to the Arizona Corporation Commission.

You asked about cost studies on the 5 routes. Here are the estimated costs of each route. These costs will be included in our application for a Certificate of Environmental Compatibility for any routes that are included.
Route 1 would cost approximately $17 million
Route 2 would cost approximately $13 million
Route 3 would cost approximately $15 million
Route 4 would cost approximately $28 million
Route 5 would cost approximately $30 million

Regarding route 1, you asked, "However, why can't the new double pole lines be run in parallel to have power during installation, and the single line removed after?" That is a possibility in some areas, however through the built up portion of the Elephant Head community there is not sufficient space between homes to accommodate a second parallel line, which is why the route skirts around the neighborhoods to the east.

You asked, "How far apart will the new high voltage lines with double pole arms (sorry don't know official language) be placed?" Whether the poles have two sets of arms (double circuit) or a single set of arms (single circuit) the spacing between poles will be the same, approximately 600-1,000 feet apart.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category other

Issues/Comments

Please provide details on poles to be used if route 4 is selected:
Circumference at base of pole
Width of arms
Height of lowest high voltage arm
Please compare these to current poles, including distance between poles currently.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

Poles and power lines cross a wash on our property. The water flows from Montana Vista across our property to the wash. A flood engineer designed berms and drains to protect our property (without these water surrounded our home up to the stucco in the 2021 monsoon). How do you propose to install poles without impacting the erosion zone and flood mitigating efforts?

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

TEP damaged our property when installing current poles in 2021. We appreciate them taking responsibility and paying us for the damage. However, you are now proposing larger poles in this narrow space. How do you plan to install larger poles without damaging property? Are you considering using eminent domain to take some property?

Response Sent

[redacted]

Thank you for sharing your comments and concerns. I received three separate comment forms from you which include several comments and questions. I'll provide a single consolidated response.

We will include your comments in our project record that will be submitted to the Arizona Corporation Commission.

You asked for details on the poles if Route 4 were selected. Each pole is engineered for its specific location and only a preliminary design has been completed at this stage, but the typical pole would be about 30" in diameter at the base, arms would be 6' in length, with the height of the lowest arm approximately 57 feet above the ground. Since there are many different pole types existing along Route 4 today, its hard to provide an accurate comparison, but the proposed new poles would be very similar to the existing steel poles today.

You asked about washes and drainage and what UniSource would do to ensure flood protection you've installed would not be impacted. If Route 4 is selected, this would be looked at and addressed as part of the detailed design.

You asked about damage that occurred in 2021 while replacing poles and asked how we plan to install larger poles without causing damage. Again, that would be addressed during detailed design, which would also look at the width of right-of-way needed to construct and operate the new line. If additional right-of-way is needed, we would acquire that right-of-way first through negotiations with each land owner and only as a last resort by exercising eminent domain.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

I live on [redacted], Route 3 would go directly behind my house and impact my unobstructed view of the Santa Ritas, I bought the house in 2000 and do not want the line built there.
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project Nort

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category Routing

Issues/Comments

I attended the Unisource meeting in Green Valley and am opposed to the running of lines on the west side of I19. Routes on the East side of I19 make more sense,in that they effect fewer home and property owners. Therefore I support routes 1 or 2 only. I've seen the taller towers used in the power upgrade and they are much more of an eye sore than the shorter towers.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category Routing

Issues/Comments

Santa Cruz Reliability Project North
Interactive Map will not load
Alternative route that runs east of I-19 would more desirable and more direct

Response Sent

[redacted],

Thank you for letting us know about the interactive map. We will look into it to ensure everything is configured properly.

We have noted your preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Online Comment Form

Category Health/Safety

Issues/Comments

I am a cancer survivor and do not need the added risk of having route 4 added to my health hazards as the line runs directly behind my house on Atascosa Peak Drive
Also javelinas, coyotes, rabbits and gila monsters come through my yard regularly so wildlife would be endangered

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Email

Category Wildlife

Issues/Comments

If you are eliminating routes based on wildlife concerns, then route 4 should definitely be ruled out. We have numerous coyote, javelina deer and twice gila monsters have been removed from our property(protected species).
[redacted]

Response Sent

Thank you for sharing your comments and concerns. We have noted your concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Thank you for your response.

Other than property values (which is extremely important), the area behind our homes has a lot of brush, being close to high powered lines is concerning due to wildlife risk.

Please consider the option on the East side of I-19, near the former hospital. (Fewer homes)

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Email

Category Routing

Issues/Comments

Questions and comments following the August 5 open house:

1. Route 2 appears to me to be the least intrusive option from the stand point of the lower number of residential areas affected, environment such as animals, birds plant life etc. and mountain views. From a cost standpoint point it is the shortest line from the Canoa Ranch Substation and doesn't require a switching station/ interconnection option. I cant tell but there may be existing power infrastructure along the roads it would parallel which could reduce costs.
2. You will not convince people that power lines are not fire hazard. In fact I believe making that claim undermines the credibility of the information given by Unisource. There is too much evidence that power lines started or contributed to fire disasters in recent years. People in the area are experiencing denial of or higher insurance rates because of increased fire hazard in general.
3. As best I could hear one of the representatives stated that this project wouldn't affect electric rates in Green Valley as Unisource has no connection to TEP. An online search states that they are sister companies. Another statement undermining credibility.
4. What is the projected cost for each route? Is there an amount budgeted for the project? What is the budgeted amount?

I live near Route 4. The main effects of this route on me are fire hazard, property value, insurance, esthetics (I find the existing lines near Atacosta ugly and they obstruct a clear view.) I believe cthere would be a lot of disruption to quality of life and decreasing property values in numerous communities in the area during construction and in the future if Route 4 were chosen.

.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I appreciate very much the feedback on how we can better communicate with the community in a credible way. That is truly our desire.

Let me respond to a couple of your questions and comments:

You are correct about TEP and UniSource. We are sister companies under the same parent company, UNS Energy. However, each company is regulated separately, with rates set by the Arizona Corporation Commission separately. As a result, none of the expenses associated with the Santa Cruz Reliability Project will, or even could, be paid for by customers in Green Valley.
Here are the estimated costs of each route. The budget for the project will be determined based on the route that is approved. These costs will be included in our application for a Certificate of Environmental Compatibility for any routes that are included.

Route 1 would cost approximately $17 million
Route 2 would cost approximately $13 million
Route 3 would cost approximately $15 million
Route 4 would cost approximately $28 million
Route 5 would cost approximately $30 million

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Email

Category Property Value

Issues/Comments

Hello,
My husband and I live in the Montana Vista neighborhood, on the West side of Calle Siete. According to your maps, it appears your lines take a western directional turn very near our property. We have beautiful, unobstructive views and quiet. We're opposed to your proposed invasion of our community. We don't want our property values to fall. We don't want to look at your poles and wires. We don't want you here.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Email

Category Health/Safety

Issues/Comments

Dear Sirs,
While many of us understand the need for expansion of power in Arizona, there are concerns regarding Unisource' route plans.
1. Health.
For example, Route 4 plans show the high- power line near homes, exposing them to electromagnetic fields than are only feet from our front yards. One argument might be that these lines are too far away to harm people. There are ample reports that 100 to even 700 feet is unhealthy to humans. Our house might be slightly over a hundred feet (or less), the yards we work in are less than 10 feet from the line.
Also many people I know walk or ride bikes on the road below the proposed lines.
2. Home values/resale.
Then of course, there are concerns the lines will have a negative impact on resale of our property. Studies show power lines affect resale and buyer appeal. The closer they are, the less appeal.
I know I and others I talk to, would never buy a home near high power lines.
3. Impact on Community/astetics
In some ways, related to number two, many of us wonder why high power lines must run near homes when Arizona is known for wide-open spaces. Route 4 runs along a number of developments -- Montana Vista, Estates at Canoa Ranch, and Canoa Northwest, San Ignacio Vistas, San Ignacio Ridge Estates, to name a few. This has negative appeal community wide.
4. Fire risk. Insurance.
As recently seen in California, power lines increases risk of fire. Route 4 lost a string of of power poles two years ago. We have high winds and do not wish increased risk of fire, or higher insurance. It make no sense to us why route 4 would be selected to run through or around so many HOAs.
Thank you for your attention to this matter.
[redacted]

Response Sent

[redacted]

Thank you for sharing your concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Email

Category other

Issues/Comments

Hello,
What is the url for login to the Virtual Presentation today?
[redacted]

Response Sent

Here it is:

Microsoft Teams
Meeting ID: 226 630 125 702 2
Passcode: mg2ys2CZ
Dial in by phone: +1 712-274-3750,,881689883#
Phone conference ID: 881 689 883#

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/7/2025

Method Phone

Category other

Issues/Comments

Hi, my name is [redacted]. I used the information provided in the e-mail for the virtual meeting on August 7th at 4:30 for the Santa Cruz Project. And the meeting ID is invalid. I tried calling the phone number provided, the phone number is invalid. I am a property owner, and one of two that are neighbors, that we both plan to call in because we're at a distance currently. I'm a little disappointed that this was not active so that I could participate. I will call back tomorrow during daytime hours to speak with somebody. My phone number is [redacted], again [redacted]. It's 4:43 on the 7th of August. Thank you so much. Take care. Bye bye.

Response Sent

I spoke to [redacted] and she conferenced me in with her neighbor [redacted]. They both tried to join the virtual meeting held yesterday, but were unable to join. I apologized and expressed that we had many attendees on, but not sure why it was invalid for them. I offered to meet with them at a time convenient to them and go over the materials that were shared in the virtual meeting and discuss their questions and concerns. We agreed on Monday, August 11th at 2:30pm Arizona time. I committed to sending them a MS Teams invite by email to [redacted] and [redacted]. The email calendar invitation was sent immediately after we spoke.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/8/2025

Method Email

Category General/Opposition

Issues/Comments

We would like to express our disapproval with any power lines that go through or near The Springs HOA.
Sincerely,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comment. We have noted this for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/8/2025

Method Online Comment Form

Category Wildlife

Issues/Comments

The proposed Line 4 is of utmost importance to me and my husband. We live on Atascosa Peak Dr and just this morning starting our early morning walk a herd of javelina with babies came down the existing power line trail. I believe if there were a buzzing from new poles the wildlife would be chased out of the area.
We are very concerned about our home insurance. We've already been cancelled from a 30 year relationship with USAA because we moved into a 'wildfire area'. These larger poles, after all the California fires, would bring great concern to us.
We are extremely concerned about the devaluation of our property. This is what we had hoped would be our last home for the rest of our lives, but this project could change our lives. Please don't use the proposed Line 4 for your project.

Response Sent

[redacted]

Thank you for expressing your concerns. We have noted these, together with your other comments, for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/8/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

I am adamantly against Route 3 along west Frontage Road. This route will neagatively impact the views of MANY homeowners and reduce home values significantly.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/8/2025

Method Phone

Category routing

Issues/Comments

Yes, I live in Green Valley and I'm responding to the proposal for the power grid. And if I had to support one, it would be Route 1, and I would certainly oppose Route 3 and 4.
Thank you very much.

Response Sent

No response needed.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/9/2025

Method Email

Category Viewshed

Issues/Comments

I strongly disagree with the selection of route number 3 for your new transmission lines to Santa Cruz county. As a property owner in Canoa Terrance, I am concerned for my views, property values, and safety which would all be compromised by locating the new, high voltage, transmission lines next to our existing residential community!
I strongly suggest you construct the new power line on land in the least developed areas and not next to an established residential community!
[redacted]
Sent from my iPad

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/9/2025

Method Email

Category Routing

Issues/Comments

This map indicates the route of Camino de la Canoa (also called Canoa Road in your previously provided maps/information. I believe a route along this road would be the best for all parties involved. (Camino de la Canoa is to the right of the GVR Pickleball Center and the Canoa Preserve Park.)

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/9/2025

Method Email

Category Routing

Issues/Comments

This map continues to show the path/direction/location of Camino de la Canoa (first indicated in Map #3, already sent to you.). It also indicates the location of Historic Canoa Ranch, which is located just to the left center of the map and to the immediate right of Interstate 19. I support the location of Route 2 with Route 1 being the secondary proposed location. Routes numbered 3, 4 and 5 should be eliminated from consideration.
Please let me know that you have received 4 emails from me, each one containing a map for your review.
Thank you
[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/9/2025

Method Email

Category Routing

Issues/Comments

Map 2 represents the four dwellings at the east end of Marquita Street. It indicates the approximate distance to the west side of the service road.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/9/2025

Method Email

Category Routing

Issues/Comments

Good afternoon,
To whom it may concern,
I am a resident of Canoa Terrace in Green Valley, AZ and strongly appose Route 3 of the proposed Power lines along the west side frontage road to Santa Cruz County siting the view of the Santa Rita mountains being obstructed by the poles and power lines along with the possible health risks associated with the power lines and the impact on our property and resale values. Routes 1 and 2 would be much more favorable and much, much less of a negative impact on the residents of Green Valley. All of the Residents of Green Valley strongly appose the proposed Route 3 power lines/poles to Santa Cruz County.
Please take serious consideration of the concerns of the residents of Green Valley, AZ.
Thank you for your time and consideration.
Cheers,
Concerned resident of Canoa Terrace Green Valley, AZ

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/9/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

My wife and I live in Green Valley, AZ. We prefer options 1 and 2 over options 3, 4 and 5. Option 3 would be more visually impactive than options 1 and 2 to far more people, including residential properties. Options 4 and 5 contain segments that cross desert lands that are minimally developed, as opposed to options 1 and 2 which are generally located in areas already impacted with numerous powerlines, large wells and other infrastructure.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/9/2025

Method Email

Category other

Issues/Comments

Please accept this letter (and accompanying maps…..several in another email, as the file was too big to send in one email.)

[redacted]

Having held many public participation processes in my past work life, I fully understand the process initiated by Unisource Energy Corporation. I did have the opportunity to attend the public meeting held on August 5, 2025, at the East Center in Green Valley, Arizona. I have also reviewed your website, the various options discussed and have completed personal research into the development, construction and impact of the project on our environment.

It is my understanding that you intend to hold another public meeting in November 2025. As heard during the 8/5/25 meeting, many Green Valley residents do not reside here full-time and are probably unaware of the proposed Santa Cruz Reliability Project North. I would like to recommend that a larger segment of the Green Valley population be notified if possible. I also recommend having better elevations prepared in particular to any relation to dwellings that could be in the path.

Additionally, based on the information I have gathered, I would like to make the following comments/statements:

1. According to generally acceptable guidelines, 700-1,000 feet is best for a safe distance from the nearest house. Here is one site I found discussing the impact of proximity of power lines to the value of a house. https://www.fastexpert.com/blog/should-i-buy-a-house-near-power-lines/ Homeowners purchased homes just west of Option Route 3 at a premium. In fact, Realtors, sellers and purchasers understand they pay a premium for their views.

Note: at one time, I lived in one of the houses that would probably be just below a proposed transmission lines (aka here as "lines".). In fact, you sent me a photo. You stated in the meeting, that due to the land elevations on the west side of Interstate 19, towers would be located on the high points. This is in reference to Option Route 3 (red colored route on your Map. Also identified as KOP 2 – Facing Southeast Showing Route Alternative #3 on a preliminary photo.)

2. Here is another reference to the effect of lines to dwellings: https://www.tandfonline.com/doi/abs/10.1080/10835547.2018.12091490 I think it would be best if Unisource representatives understand the real impact to residential dwellings and their occupants.

3. If you want to stay on your timeline, if not already initiated, you need to start your Environmental Review Process in order to receive a certificate of environmental compatibility. It is also my understanding, that Unisource has been involved in past (possibly current) legal matters where Unisource sought to obtain exemptions from the Arizona Corporation Commission (ACC). I would like to ask for a copy of your certificate of compatibility, if/when one is available.

4. Although I do not remember if this was mentioned at the meeting or not, but Unisource may have sought rate hikes for previous projects. There should be no rate hikes for Pima County. Although, I would prefer no rate hikes for Santa Cruz County (your service area) either, they are the beneficiaries of the project.

5. I do not specifically recall if someone at the meeting inquired about following the railroad

tracks. I have found that this is possible, not necessarily recommended. (this is called Corridor Sharing.) Has Unisource received any variances from Pima County for this project yet? Has Unisource researched this option?

6. I understand that a lot of people believe that the lines could effect their health. As someone with a neurological implant, my research indicates that high-powered transmission lines could possibly affect implants through interference.

Based on my research and comments, I would support proposed Route 1 or 2. The other routes (3, 4 and 5) should be eliminated from consideration. Also, Route 2, which follows Camino de la Canoa (aka Canoa Rd on your route alternative map) appears to be completely out of the Historic Canoa Ranch area. For me, Route 2 makes the best sense with having the least impact on any residential dwellings and having a more direct approach to connecting with the Kantor Substation.
I am attaching a some simple GIS maps I made to get a better view of your project.

The picture below represents the approximate distance from the easterly dwellings in the Canoa Terrace Subdivision from the west edge of the west service road.

Response Sent

[redacted]

Thank you for providing your well thought/researched comments and maps. I received all four emails. We have noted your route preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comments in our project record that will be submitted to the Arizona Corporation Commission.

Let me address a few of your points where a response seems warranted. Let me first clarify that the meeting in November will actually be a public hearing vs a regular meeting like those we've been having. But yes, there will be opportunity for public comment, but it will be a very different type of meeting and will extend for several days. If you're interested you can learn more about that process here https://azcc.gov/arizona-power-plant.

We have conducted many environmental reviews and we have already started compiling our application for a Certificate of Environmental Compatibility (CEC). We plan to file the application in September. We will post the application to our project webpage. We will also send you a notice when it is available for review.

To your point about UniSource seeking an exemption. We filed for what is called a "Disclaimer of Jurisdiction" for the addition of four new generating units at an existing generation station near Kingman, AZ. This is not an exemption, rather a way to seek formal clarification on if a CEC is required for the project or not. We received the Disclaimer, meaning the project did not require a CEC. That ruling was challenged in court. For the Santa Cruz Reliability Project the law is very clear that it requires that we obtain a CEC before we can construct.

If this project results in a rate increase it will only be for UniSource customers. There will be not rate increase for folks in Pima County as a result of this project.

Yes, we researched paralleling the railroad. One of the primary things we look for when siting a new transmission line are existing linear facilities (other utilities, major roads, railroads, etc.). However, this was ruled out early on because the railroad won't grant a parallel easement for the facilities on their land and land adjacent to the railroad that is not owned by the railroad is on the Pima County Conservation Area. While we don't have a signed agreement with Pima County to cross the conservation area, we

have made substantial progress, and feel we will be able to cross through the conservation area on the very northern edge.

Again, I appreciate the time you put into providing your comments. I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/9/2025

Method Email

Category other

Issues/Comments

To: UniSource
Thank you for the virtual information meeting on August 7th. It was very informative and gave me a perspective on the project.
I would like to add my voice to the people objecting to Route 3. My wife and I just purchased a home in Canoa Terrace. We spent a substantial amount to buy the home and considered the acquisition to be a part of our investment portfolio. One of the main reasons for purchasing the home we did was because of the wonderful views we have of the Santa Rita Mountains. I am concerned that the power lines will affect our view and affect the value of our home investment.
Looking at the five routes you have narrowed down to, I just think one of the other routes would be less obtrusive for other home communities. I especially think routes 1 and 2 make more sense.
I asked this question during the meeting and heard your response. However, my belief is that using the existing route would make the most sense. I know that you have to utilize the Green Valley station. I just think if you run the new line next to the existing line you will have less resistance to the new proposed routes. You could put up new towers that would hold both the new line and the future replacement line. I believe that it is just common sense to me. However, I admit I do not pretend to know the "big" picture.
Thanks for considering my insight. Please feel free to contact me with any questions.
[redacted]

Response Sent

[redacted]

Thank you for sharing your thoughts and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/9/2025

Method Email

Category Routing

Issues/Comments

DO NOT SELECT ROUTE 3 or 4 FOR YOUR NEW TRANSLATION LINE!
This email is to express my serious concerns of possibly selecting either route number 3 or 4 (as described at your meeting in the East center earlier this week) for your new transmission lines to Santa Cruz county. Neither of these routes should be considered because of their close proximity to developed housing which would compromise our views, property values, and safety! Run the lines through the mostly undeveloped alternative routes!
[redacted]

Response Sent

[redacted],
Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.
I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at
Thank you,
Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/10/2025

Method Email

Category Viewshed

Issues/Comments

We have had 2 homes in Canoa Ranch...we have paid lot premiums to have superior views of the mountains...we feel that Route 3 is NOT the answer! Route 1 or route 2 would be much preferred compared to Route 3...obviously the majority of homes are on the West side of I-19...it makes sense to choose Route 1 or Route 2 and not ruin the Canoa Ranch views...there aren't any subdivisions on the East side of I-19 across from Canoa Ranch! Route 1 would severely impact homeowners in Canoa Ranch...thank you for your time.

[redacted]

Response Sent

[redacted]

Thank you for sharing your thoughts and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/10/2025

Method Email

Category Viewshed

Issues/Comments

To Whom It May Concern,
As a homeowner in Canoa Ranch I am opposed to the unsightly poles placed in view of the mountains, Route 3 stinks for us. The implementation of Route 3 would severely compromise these views, directly impacting the
aesthetic and market value of the properties. This not only affects our investment but also the future homeowners and the overall desirability of the community.
After reviewing the proposed routes, I strongly urge consideration of Route 1 as the most favorable alternative. Route 2, while less ideal than Route 1, would still be significantly preferable to Route 3.
Thank you for your consideration.
[redacted]

Response Sent

[redacted]

Thank you for sharing your thoughts and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/11/2025

Method Email

Category Health/Safety

Issues/Comments

We appreciate the chance to give our input on such an important decision. We are unable to attend meetings at this time. Since we are unable to attend, I have done some research on the project.

In your video it is stated that the lines will be 138kV. According to the info that I found, these are considered High Voltage power lines and are linked to diseases in humans. Below you will find a few of the many studies I read related to this topic.

The Internal Medical Journal, 2007-out of 850 lymphoma, leukemia, and related conditions researchers from the University of Tasmania and Britian's Bristol University found:
living for prolonged periods of time near High Voltage power lines increases the risk of these conditions later in life : brain tumors, leukemia,birth defects, and lymphoma.

The Californai Department of Health-2002 Evaluation of Possible Risks from EMF(electromagnetic fields) from power lines, etc.report concluded:
EMF's were responsible for the increase in childhood leukemia, adult brain cancer, Lou Gehrig's disease, and miscarriages.

The Environmantal Protection Agency cautions citizens:
"There IS a reason for concern", and advises "Prudent AVOIDANCE of High Voltage power lines".

For these reasons, we are opposed to having the transmission lines along W Frontage Road (route 3) where many residents live and travel.

The beautiful environment would also be marred by the sight of the transmission poles.There seems to be a lot of vacant land where, we believe, the lines can be established. Option/route 1 would be our choice.

There are many concerns from the community, and we thank you for listening to us.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Where can I find the 5 different routes for Green Valley? I did not see them in the video. Could you send me the link to the video again and the link to the map with the five routes proposed for Green valley? We are unable to be at the meeting, so I appreciate your help.
Thank you.

Response Received

Hi,
I was able to open up the link in your email and locate the map. Thank you for your help.We really appreciate it.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/11/2025

Method Email

Category Viewshed

Issues/Comments

I am a home owner in the Canoa Terrace neighborhood in Green Valley, AZ. I vehemently oppose the placement of the new transmission lines along Route #3 if the lines are placed on the WEST side of I-19. It is my understanding that the lines would be placed on the WEST side of I-19 because the EAST side "berms" cannot support the lines? If place on the WEST side of I-19 (based on current track) that would mean they are being placed directly in my backyard - which is unacceptable. Furthermore, these unsightly lines would RUIN our current view of the Santa Rita Mountains (a main reason we purchased a home in this neighborhood) but the long-term damage and noise is unacceptable.

I ask that you seriously consider finding a way to place the transmission lines on the EAST side of I-19 in order to preserve the view and integrity of our beautiful neighborhood, not to mention the value of our homes.

I understand the requirement for these new transmission lines, but would like to ask that find a solution to place/construct these lines on the EAST side of I-19 in consideration of us who reside in the Canoa Terrace neighborhood.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/11/2025

Method Email

Category Viewshed

Issues/Comments

Dear Unisource Energy,
I'm contracting you as a homeowner in Canoa Terraces subdivision. I have the following concerns with the Route 3 San Cruz Reliability project NW.
1. As a homeowner with a beautiful view of the Santa Rita Mountains, I'm very concern that your 138kv 80 foot tower height will destroy my beautiful view. I believe this would severely reduce my property value!
2. I'm very concerned on EMF (Electricmagnetic field) radiation from this high voltage powerline. My home is on the Eastside of Canoa Terraces. It is not clear from your proposed route map how Route 3 towers and lines will be run in a right-of-way. I lost my previous wife to cancer, so this concern is important to me.
3. I go for daily walks at Canoa Ranch pond, which now has the desert pupfish and Gila chub listed endangered species fish. There is concern about sediment and possible predator birds impacts from the construction pads, access roads, and powerlines with this Proposed Route 3.
Consider another route.
And lastly, I was unable to call-in on the public meeting last Thursday, along with fellow homeowners who are snowbirds like myself. Very disappointing, which I intend on letting county and state deciding officials know about your poor public outreach to absent homeowners on this project.
Sincerely,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I'm sorry that you tried, but were unable to join the virtual meeting last week. I believe you were copied on several communications regarding this matter between myself and Ms. Noreen Light. I'll again extend my invitation to meet with you to review the contents of the presentation, hear your concerns, and answer any questions that you may have.

If you are interested, please let me know when you are available and I will do my best to accommodate your schedule.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/11/2025

Method Online Comment Form

Category other

Issues/Comments

I live in the Estates at Canoa Ranch at the end of W Bassett Peak Drive, where proposed Route 4 would replace the current lines and poles on Azul (at our HOA boundary)with more lines and bigger poles. I have a question about the lines and also one about the poles.
1. The lines. My understanding is that a transmission line is composed of 3 separated wires; thus,for each transmission line added to the route, 3 more wires will be placed on the poles. So, if 2 more transmission lines are placed on Route 4, I will be looking at 6 more wires than I am seeing now on the existing power line. 3 more transmission lines means 9 more wires, etc. Is that correct?
2. The poles. What is the capacity of these new poles? I'm assuming Santa Cruz county's demand will increase and that additional transmission lines beyond those currently proposed will be needed in the future. How many more transmission lines, after the additions proposed now for Route 4, are these new poles designed to handle? Will the poles be at capacity when/if the currently proposed route is installed? My concerns here is whether the next iteration will likely involve another pole replacement and the visual impact of more wires.
Thanks for responding. I appreciate the time you folks have taken to hold information sessions and encourage public participation.

Response Sent

[redacted]

Thank you for continuing to stay engaged in the project and asking these additional questions. I will respond in order:

You are correct that a circuit consists of 3 wires. In the case of the existing line along Via Cielo Azul, there are two circuits on those poles today, one distribution (13.8kV) and one sub-transmission (46kV), plus an overhead ground wire (very top of poles). If Route 4 were selected, we would move the distribution circuit underground or reroute it, and then we would rebuild the line with slightly larger poles. These poles would support a 46kV circuit (3 wires), a 138kV circuit (3 wires), and an overhead ground wire. So you would actually have the same number of wires as you have today, but three of them would be energized at a higher voltage.
The poles we typically use are designed to support two circuits. In the case of Route 4, the space for both circuits would be used by the 46kV and 138kV circuits. So yes, they would be at capacity. We anticipate this project, as designed, will meet both the reliability needs of Santa Cruz County, as well as the reasonably foreseeable future needs of the County.

We have noted your questions and our responses and will include them in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts, comments, and questions. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/11/2025

Method Email

Category Property Value

Issues/Comments

As home owners on Painted Canyon Drive we are opposed to the Route 3 proposal. We paid a premium for our lost for its mountain view. Route 3 will devalue our property by a significant amount, as well as all others on our street. Likewise all of the 200+ lots in Canoa Terrace will be affected by this route, not to mention the development being planned just to the south of us by Fairfield Homes. What is even worse is now that some poles will have to be put up on the berms we possibly will have a pole literally in our backyard.
Route 1 is the bast alternative, however route 2 is more favorable than route 3.
I strongly urge you to consider an alternative route.

Response Sent

[redacted]

Thank you for sharing your thoughts and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7Cf412c3feb1e04753e24b08ddd90ece35%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638905379789810910%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=1cjgpjU%2FtdsKa81T0RN4LocJvbs4ssXw7JcXFpPEYv0%3D&reserved=0.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/11/2025

Method Email

Category Routing

Issues/Comments

First of all, thank you to those who came to Green Valley on August 5th to get our input on the proposed routes for your new power lines. Your crew was professional and very patient. Kudos to all of them.
Based on the comments at that meeting, I think everyone there was very much opposed to both routes 3 and 4. As residents of Canoa Terrace, my concern is specifically with route 3 and the potential impact it could have on our mountain views and property values. I'm also concerned about the proximity of the lines and potential health issues. Route 1 would be my first choice.
Again, thanks for listening. We appreciate it.
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/12/2025

Method Email

Category Viewshed

Issues/Comments

I attended the event at East Center. No one wants these poles in their front yard, back yard or interfering with their view. Why not put them by the railroad tracks or the mine tailing area Thanks for listening.

[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7Cbed482942d6e42f929f808ddd9e55e42%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638906301330627558%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=Ft0RHgjfgxe3FqcPCCMq2%2B9xadkbnpiUmdNEsDq88Ng%3D&reserved=0.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/12/2025

Method Email

Category Routing

Issues/Comments

I am a home owner in Canoa Terraces. I would like to voice my preferences for the route of the power line that will serve Santa Cruz Co.
I think routes 1, 2 or 5 would be the preferred to other routes.
Thank you,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comment. We have noted your preference for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/12/2025

Method Email

Category Property Value

Issues/Comments

Please take these arguments into account.

Reasons why route #4 should not be selected:
Property values: At the August 5 public meeting, Unisource said the high-voltage lines would not affect property value. Question: What/who is your source for making this declaration? Here a couple sources that say otherwise and local realtors could probably add to this: https://www.texasoilandgasattorneyblog.com/how-utility-lines-may-effect-property-values/ and https://www.wsj.com/articles/the-electrifying-factor-affecting-your-propertys-value-1534343506
Perception is everything. Just as my neighbors and I are concerned about the unsightliness, noise, property value, insurability, and safety, potential buyers would be, too. My own experience: Four years ago I lived 3/4 acre from a high-voltage tower that loomed on a hill behind my house, but from the driveway it appeared closer because it could be seen towering above the home. When listing, the realtor warned me that 50 percent of the market wouldn't be interested because of the tower. He was right. In the driveway, buyers couldn't see the tower's distance from the home, so many turned around upon arriving. Others toured the property, loved it, EXCEPT, per the realtor, "they did not like the humming that could be heard in the backyard." Homes will take longer to sell, and that could translate into selling below market value. Also worth noting: senior citizens use their equity to help pay for assisted living, or to move closer to their children, so this loss of equity shouldn't be taken lightly. As seniors, we cannot start careers again to recoup those losses.
Noise pollution and quality of life: Constant humming and buzzing, which gets louder when there's moisture in the air and during high-consumption periods. The lines can also whistle during high winds. This will ruin our tranquil setting and possibly make patios unusable. Not all seniors are hearing impaired.
Homeowners insurance: High-voltage power lines caused several fires in California. The possibility exists that our insurance carriers could deem us high risk and cancel our policies, or substantially raise our rates. Some examples of powerline fires: On Saturday (Aug 9), Green Valley News printed an article about a recent brush fire in Sahuarita that was caused by a downed power line. (Source: https://www.gvnews.com/news/local/srfd-tackles-tuesday-brush-fire/article_29fc92cb-119c-4cf3-871d-3145b912007f.html) Another recent event: "South Carolina lightning strike causes frightening transformer explosion" (Source: https://www.foxweather.com/extreme-weather/south-carolina-lightning-strike-explosion-video-mount-pleasant-august-2025)
Erosion and water flow: Question: would the new poles go EXACTLY where the current ones are? Will you add additional poles, too? This construction will disrupt the terrain and could create new pathways for water to flow during monsoons, potentially across our properties. I have made a significant investment in routing monsoonal gushes around my property and do not wish to have this compromised. Question: Will Unisource be financially liable for construction-induced damages?
Recreation: Walkers, ATVers use S. Via Cielo Azul. People would be recreating under the high-voltage lines.
Wildlife: There is a large squadron of Javelina, at least 15, sometimes more, that moves south along S. Via Cielo Azul every morning. Additionally, we have mountain lions, coyote, rabbits, deer, Colorado Toads, Bobcat, owls, Gila Monsters, and Desert Tortoise (I watched a large, desert tortoise cross my driveway and head towards S. Via Cielo Azul).
Safety and EMF (electromagnetic frequency): Below are three excerpts, two are from EPA.gov. The third excerpt is from The National Library of Medicine, dated Aug 5, 2017.

Excerpt #1:
“Multiple agencies within the federal government regulate EMF. The agency that sets standards forEMF depends on the frequency of the EMF. However, in the United States, there are no federal standards limiting electromagnetic fields from power lines and other similar sources. Some states set standards for the width of right-of-ways under high-voltage transmission lines because of the potential for electric shock.”
(Source: https://www.epa.gov/radtown/electric-and-magnetic-fields-power-lines)

Excerpt #2:
“If you are concerned about possible health risks from electric and magnetic fields, you can:

o Increase the distance between yourself and the source. The greater the distance between you and the source of EMF, the lower your exposure.
o Limit the time spent around the source. The less time you spend near EMF, the lower your exposure.”
(Source: https://www.epa.gov/radtown/electric-and-magnetic-fields-power-lines)

Excerpt #3 – The “Effects of electromagnetic fields exposure on the antioxidant defense system”
“Conclusion
The biological effect of exposure to EMF is a subject of particular research interest. The results of the recent studies not only clearly demonstrate that EMF exposure triggers oxidative stress in various tissues, but also that it causes significant changes in levels of blood antioxidant markers. Fatigue, headache, decreased learning ability, and cognitive impairment are among the symptoms caused by EMF. The human body should therefore be protected against exposure to EMF because of the risks this can entail . . . . “ (source: https://pmc.ncbi.nlm.nih.gov/articles/MC6025786/)

100 feet mitigates electric shock hazards, but since there's no federal standard limiting EMF fields from power lines--which do fluctuate during high consumption periods--and we cannot control our distance, nor limit our time spent around them, because we would live under and/or close to them. In light of the EPA and National Library of Medicine sources, the safety is questionable. The argument made at the August 5 Unisource public meeting is that we are probably exposed to more EMF from our household appliances. Maybe. But the high-voltage lines, which penetrate walls, would be additive exposure—oxidative stress—especially if they are just 100 feet from homes. Thank you for your time.

Regards,

[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/13/2025

Method Online Comment Form

Category routing

Issues/Comments

I would say this is being done more for South 32 and not the residential customers in Santa Cruz County. Out rates are outrageous now and with these proposed upgrades only increase our bills even more.

Response Sent

[redacted]

Thank you for sharing your comment. We will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

The Santa Cruz Reliability Project is proposed for the benefit of ALL customers in Santa Cruz County. This includes all residential, commercial, and industrial customers of which South 32 is included. That said, no single customer, or customer class, is driving the need or requirement for this project. It is possible that project costs could be incorporated into UniSource electric rates. However, we can't speculate about how the project might impact customer bills at this time, it's too early to say.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/13/2025

Method Email

Category Routing

Issues/Comments

As a resident of southern Green Valley in the Canoa Ranch Vistas neighborhood West of I-19 within the Canoa Ranch Master Community Association, I severely object to proposed Routes 2, 3, and 4 for the Santa Cruz Reliability Project North.

The most objectionable routes are #3 and #4 which pass along the most houses. Route #3 is along the West Frontage Road where the right of way between the raised banks and the roadside is often too narrow to accommodate the transmission line poles. Installing the poles into the raised banks or berms directly is troublesome - placing the lines too close to houses and interfering with the structural integrity of the berms themselves (requiring slope stability analysis to mitigate erosion and landslides). These transmission lines and poles will negatively impact scenic views of the Santa Rita Mountains and lower property values.

The preferred route is # 1 which is furthest East from I-19 and passes by fewer houses and does not need to cross I-19.



Response Sent



Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/14/2025

Method Email

Category Routing

Issues/Comments

To Whom It May Concern,
I am writing to express my concerns regarding the proposed Route 3 of the Transmission Line Project for Santa Cruz Reliability. As a homeowner along this proposed route, I purchased this property because of the unencumbered view of the Santa Rita Mountains that enhance the value and appeal of my property. The implementation of Route 3 would severely compromise these views, directly impacting on the aesthetic and market value of my property, as well as my neighbors that enjoy the same benefit. This not only affects my property value but the overall attractiveness of our neighborhood. After reviewing the proposed routes, I strongly urge consideration of Route 1 as the most favorable alternative. Route 2, while less ideal than Route 1, would still be significantly preferable to Route 3. I respectfully request that you take this perspective into account during your decision-making process.
Regards
[redacted]

Response Sent

Good morning,

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Kind regards,

Adriana Mariñez
Siting, Outreach and Engagement Project Manager
Tucson Electric Power & UniSource Energy Services

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/16/2025

Method Email

Category routing

Issues/Comments

I am writing to express my opposition to the proposed Route 3 Transmission Line project currently under consideration. As a resident of Canoa Ranch, I am deeply concerned about the negative impact Route 3 would have on our community, particularly in terms of property values and the preservation of our natural landscape.
Route 3 would significantly impair the mountain views that define the character and appeal of our area. These views are not only a source of daily enjoyment for residents but also a key factor in maintaining property values. The introduction of large transmission structures along this route would disrupt the scenic beauty and tranquility that make our community unique.
I respectfully urge you to consider Route 1 as an alternative for this project.
Sincerely,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/17/2025

Method Email

Category General/Opposition

Issues/Comments

Location of powerlines.

Route 3 of the purposed new lines for Santa Cruz County would be a disaster for our neighborhood. Our community already has to contend with the ugly scar of the new mine on the mountains, plus the ever increasing noise from the highway.
Giant poles and lines would be the death nell of our community. Homes here already sit on the market for 2 plus years at times. Please, Please, Please! Do not even consider route 3. It is the worst option!
One more thing to consider, that will also affect us is the purposed Highway 11 project.
Another pain in the butt thing for us to deal with! Just pretend you live here.....

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted these for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/18/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

Greetings,
We live in Montana Vista, and do NOT want these high power lines in our neighborhood, route five is a hard NO. If you must run them thru Green Valley, please use the routes on the east side of I19. looks like the fewest humans will be impacted.

Response Sent

[redacted]

Thank you for sharing your comments and concerns. We have noted your preference and concerns for consideration as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/19/2025

Method Email

Category Viewshed

Issues/Comments

Unisource Energy To Whom It May Concern:
My husband and I reside in Canoa Terrace, a subdivision located near the I-19 Frontage and Canoa Ranch Roads. We are full-time, permanent homeowners who purchased our property seven years ago for two reasons:
1. The spectacular view of the Santa Rita Mountains;
2. Easy, attractive access to Canoa Terrace.

The proposed transmission lines - most specifically Route 3 - would negatively and permanently impact our desirable mountain views and, therefore, our home's market value and resale potential. Therefore, we strongly oppose Route 3 as a possibility for the Santa Cruz Reliability Transmission Line Project.
We are aging retirees who invested a significant amount of money to purchase our home. We are anxious to retain our beautiful mountain view and the financial investment we made in Canoa Terrace.
Thank you for your time and thoughtful consideration of our concerns and those of other homeowners as well.
Regards,
[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/19/25

Method Email

Category Other

Issues/Comments

Hello,

Please see additional comments from [*redacted*] regarding the Santa Cruz Reliability Transmission Line Project. We appreciate your consideration as decisions are being made.

Inclusion

To Whom It May Concern,
On August S, 2025, I wrote to express my concerns regarding the proposed Route 3 of the Transmission Line Project for Santa Cruz Reliability. Since the community meeting held that day, I have heard from many additional homeowners in our Canoa Ranch Estates community. They have shared their concerns about the proposed Route 4, which would run directly along their front entries and front yards. I share their objections and would like to formally express my opposition to Route 4 as well.

In addition to my previous objection to Route 3, I believe Routes 1 and 5 would be more suitable alternatives. These routes are farther from The Estates at Canoa Ranch community and align better with our development at Canoa Ranch Block 27S and future development in The Estates at Canoa Ranch.

I respectfully request that you take this additional perspective into account during your decision-making process. Should you require further information or wish to discuss this matter, please feel free to contact me at [*redacted*].

Thank you again for your time and consideration.
Sincerely,
[*redacted*]

Response Sent

Thank you for sharing these additional comments. We too have received many comments from the community regarding Route 4. We will take all of these comments and concerns into consideration as we make a decision on which route options to include in our application for a Certificate of Environmental Compatibility.

As before, we will include your letter in our project record that will be submitted to the Arizona Corporation Commission.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/19/2025

Method Email

Category routing

Issues/Comments

Hi Clark,
I've looked over all the routes provided by website, and to me, I believe Route One coming out of Canoa Ranch Sub would be the best solution in regards to low impact for the residents in the area. Looks to be the best scenario for installing and providing maintenance & upgrade work that would be eventually needed. If there are ever any major issues from storms that produce down lines or poles this would be safer for any residents since this mainly a rural.
Regards, [redacted]

Response Sent

[redacted]

Thank you for sharing your route preference and rationale. We will consider this as we decide on a preferred route, along with alternative routes to include in an application for a Certificate of Environmental Compatibility. In addition, we will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/20/2025

Method Email

Category Other

Issues/Comments

Are there plans to have another public meeting before the final route is selected ?

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/20/2025

Method Letter

Category Visual Impacts

Issues/Comments

Dear Unisource,

We live at [Redacted Address] in Green Valley. We do understand that with a growing population, infrastructure has to grow and improvel. There are several routes where the power lines are shown to be possible. The only route that seems to block or interfere with hundreds of residents' sight lines is Route 3. We all purchased with the mountain view of the Santa Rita mountains. To run or imlement Route 3 would drastically cut access to hthis view. The others, like Route 1, would affect the least view (the mine). We are strongly asking you to take route 3 off the table as was done with the stations at Quail Creek.

Sincerely

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/21/2025

Method Letter

Category Visual Impacts

Issues/Comments

I wrote to you previously. This time I am forwarding a letter from a neighbor that appeared in the August 20 issue of the Green Valley News. It raises yet another dimension of the issue that Green Valley residents face regarding your option 3.

Sincerely,

Enclosure: page of Green Valley News with letter by {redacted name}

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/21/2025

Method Email

Category General/Opposition

Issues/Comments

Hi
I live on [redacted]. The berms behind Painted Canyon and I19 are very unstable and would not hold the weight of the Electric poles. Whenever it rains, ADOT is out on the West Service Road shoveling the soil off the frontage road. On the West Frontage Rd., going South from Canoa Ranch Rd. to Amado, there is significant erosion on the berms.
The berms are not an option for the electric poles.
Route 3 must be eliminated.
Concerned citizen,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns.

I'm getting ready to send an email out this morning announcing the preferred route, but I'll break the news to you now. WE HAVE ELIMINATED ROUTES 3. 4, AND 5 FROM CONSIDERATION. Route 2 will be our preferred route, and Route 1 an alternative route included in our application for a Certificate of Environmental Compatibility.

We will include your comments in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/21/2025

Method Email

Category Property Value

Issues/Comments

Hello Clark:
I am aware that you have been communicating with the Board members of the Montana Vista community, most specifically [redacted]. I assume she made you aware that this community is nothing like the other communities in Green Valley. We do not have a proper HOA and a majority of people are below 55, to include 50+ children. We have a property owner's association (POA), which exists solely to collect funds to maintain our roads. While these are Pima County's roads, they refuse to maintain them. It falls on us to maintain our own roads, which generally means they are passable at best. There are times of the year when the road borders on impassable. The quality of the road depends on how much money the residents contribute. We cannot legally compel residents to contribute to road maintenance because they are not our roads. We pay taxes to maintain these roads so many feel like paying again is wrong. It is wrong, but this neighborhood has been here since 1959 and nothing we have done has changed it. So, we maintain our own roads because it is a safety issue.
Today, we saw several large line trucks head out the gate into State of AZ land. This is public land set aside for recreational use. We use that land to off road, hike, camp, hunt and recreate. The trails through that land, which cross mine land, are very rough and not conducive to line trucks. Are you trying to ascertain if Route 5 is feasible? Yesterday, we were advised by the mine liaison that no agreement has been signed for you to utilize their land. Nobody lives out there so there is no reason for line trucks to be out on State of AZ land. Since this has never, ever happened before, residents are assuming it was Unisource. This creates a couple of issues for our community. Given that we maintain these roads, using Via Montana Vista as an access point for Route 5 is going to be an issue. Residents are going to be furious if these huge trucks are using our roads. We already struggle to keep these roads passable. We also have concerns about the environment and recreational land. In order to get your trucks in there, you will need to build an actual road, which will destroy pristine desert. It also creates a safety risk due to the volume of children that recreate on that land. For the kids that reside here, it is their backyard. To access that land, you will be using roads that are heavily used by those on horseback, those in side by sides, kids on bikes and pedestrians. These are dirt roads; we are in a constant battle to keep the children in this community safe.
We would like to know if you have a plan to mitigate these issues. It is of great concern to residents due to safety and the cost of road maintenance. We have asked Pima County to consider helping with the roads, given that you clearly plan to use them for Route 5. We have also asked the State of AZ to weigh in on the impact of using recreational land to access the power line project. We cannot sit by and do nothing. We cannot get anyone to tell us a plan for mitigating the issues created by Route 5's impact on our community. We also cannot get anyone to explain what happens to those residing on Calle Uno. Your line appears to go through their land. They would like to know if you plan on using eminent domain? In the absence of information, residents are now thinking they should get an attorney. The meeting was informative, but there was still no plan to address these issues. We know so little that people are filling the information void with anger, rumor and fear. Seeing the line trucks using our roads today only served to enrage residents. Please consider shedding light on these issues so that residents do not take this to a level that might not be necessary. Even if the plan is not firm, the knowledge that there is an actual plan would really help. We cannot have dozens of line trucks using our roads to the detriment of our safety and our finances. Right now, the feeling is that Unisource is going to do whatever they want with no intention of taking these issues under consideration.
Thank you for your time.
[redacted]

Response Sent

[redacted]

Thank you for reaching out with your concerns. While I can't say for certain whose line trucks were in your area, I can confirm that UniSource was not doing any reconnaissance to determine the viability of Route 5. In addition, neither TEP nor UniSource has any facilities on the west side of Montana Vista so would have no reason to be there. It is possible that Trico was there doing some maintenance.

To alleviate any further concerns, let me communicate that WE HAVE ELIMINATED ROUTE 5 FROM CONSIDERATION. I expect to send an email out later today or tomorrow announcing the preferred route and any alternatives that we plan to move forward with in an application for a Certificate of Environmental Compatibility.

We will still plan to include your comment and concerns in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts, comments, or questions. For the latest updates on the project, I invite you to visit the project webpage at https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.uesaz.com%2Fsanta-cruz-reliability-north%2F&data=05%7C02%7CSantaCruzReliabilityNorth%40tep.com%7Cce015fe0bee54f019b0408dde0d9e5d4%7C04339cb4c4c54d63b960759c4de7f4e1%7C0%7C0%7C638913948649411260%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=Dt6J6lx%2F7RJeEvoDPKp1kiBSYvVg6MgwX0albzFv3fY%3D&reserved=0.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

Response Received

Thank you so very much. That is great news. It will be very well received by the residents. I appreciate you taking the time to relay this information. I have been fielding concerns about the impact of power lines on kids and horses for weeks. I hope to never, ever receive another scientific study on the impact of power lines on kids and horses. I am ready to move on!

While the assumption was that it was Unisource, we also reached out to the mine. It's never happened before so we did assume it was Unisource, but we contacted the mine liaison in the event it was them. They are not supposed to be using our roads, but we try to be good neighbors and only complain when it's done several times. If it was not Unisource, it had to be the mine because nobody lives out there.

Thank you again. You are about to make everyone's day!!!!

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/21/2025

Method Email

Category Routing

Issues/Comments

As a resident of Canoa Ranch Vistas, Route 3 would create a NEGATIVE and EVERLASTING IMPACT to our property values
And surrounding area. Route 1 is the best choice it runs nearby the existing line feeding power to Santa Cruz County and
Is planned for replacement upgrade following this project.
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns – I received both of your emails. We have noted your preference and concerns which are shared by many in the community. That said, while we do not plan to have another meeting, we have eliminated Route 3 from consideration.

I expect to send an email out later today or tomorrow announcing the preferred route and any alternatives that we plan to move forward with in an application for a Certificate of Environmental Compatibility.

We will include your comments in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/21/2025

Method Email

Category Property Value

Issues/Comments

I have sent several emails to email address scrnorth@uesaz.com and have not received a response. If route 3 is chosen it will adversely affect my property values and ability to sell my property when the time comes.
I currently have unobstructed views of Santa Rita Mountains so my view would greatly be affected. Please reconsider this route as well as routes 4 and 5. Please keep the transmission line out in the desert where it will affect fewer residents.
Regards,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns – I have record of responding to one of you emails in June, so I'm sorry to hear it was not received, I do hope you receive this response.

I'm getting ready to send an email out this morning announcing the preferred route, but I'll break the news to you now. WE HAVE ELIMINATED ROUTES 3. 4, AND 5 FROM CONSIDERATION. Route 2 will be our preferred route, and Route 1 an alternative route included in our application for a Certificate of Environmental Compatibility.

We will include your comments in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/21/2025

Method Email

Category routing

Issues/Comments

To Whom It May Concern:
I am writing in opposition to Route number 3 for the above mentioned project. I oppose this route for many reasons: economics, health, esthetics, and property values. I am sure that you have information regarding the ROW of the south frontage road. However, this area is very narrow in places and you will place the poles on top of the "berms". This location will place the high voltage lines very close to residences. This is a great health hazard. In addition, the berms are subject to erosion which creates a potentially dangerous situation and additional maintenance work for your company.
Thank you,
[redacted]

Response Sent

[redacted]

Thank you for sharing your comments and concerns.

I'm getting ready to send an email out this morning announcing the preferred route, but I'll break the news to you now. WE HAVE ELIMINATED ROUTES 3. 4, AND 5 FROM CONSIDERATION. Route 2 will be our preferred route, and Route 1 an alternative route included in our application for a Certificate of Environmental Compatibility.

We will include your comments in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/21/2025

Method Phone

Category routing

Issues/Comments

Hi my name is [redacted], and I'm calling to confirm that Route 3 has been removed from the Santa Cruz Reliability Project North scope of work.
I heard that today, I saw it in an e-mail, but I would actually like to have a phone call back to talk about it. My number is [redacted]. Thank you.

Response Sent

[redacted] just wanted to confirm that it really was true and Route 3 had been eliminated from consideration. I confirmed this for her and shared that Routes 3, 4, and 5 had all been eliminated. That Route 2 was identified as the preferred, with Route 1 as an alternative. I shared with her the next steps in the process. She was very pleased with this announcement.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/22/2025

Method Email

Category Routing

Issues/Comments

[redacted]

Please choose Route 1 for Santa Cruz Reliability.
Route 2, and particularly Route 3, are both too near existing homes and would severely impact the SI 19 frontage road.

[redacted]

Response Sent

[redacted]

Thank you for submitting your comment. Earlier today I sent out the following email to those who had asked to be included on our project email list.

****
UniSource Energy Services is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

In early 2024, UniSource began a comprehensive planning and siting study for the first phase of the Santa Cruz Reliability Project, to identify the best routes to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County. Following 20 months of study, which included 9 public meetings attended by hundreds of individuals who provided over 300 written comments, UniSource has identified the routes that will be included in an application for a Certificate of Environmental Compatibility (CEC). The previously announced Route 2 was identified as the Preferred Route, while Route 1 was identified as an Alternative Route. Routes 3, 4, and 5 have been eliminated from consideration. Please see the attached map.

UniSource plans to file a CEC application in mid-September and a public hearing before the Arizona Power Plant and Transmission Line Siting Committee is tentatively scheduled for November 3-7, 2025. Once the application has been filed, and the hearing date is confirmed, UniSource will communicate further details by mail, email, and on the project webpage.

Should you have any questions or comments, please send an email to scrnorth@uesaz.com or call our project information line at 1-520-917-6635.

We appreciate your engagement in this important energy project.
****

We will include your comment in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/22/2025

Method Email

Category Other

Issues/Comments

Please add me to your email list.
[redacted]
Thank you
[redacted]
Sent from mobile device

Response Sent

Happy to do that [redacted]. I sent out an email update earlier today to those from the public who had provided us their email address. I know Teresa Bravo plans to get a similar email out to public officials. Here are the contents of the public email that was sent out this morning, along with the attachment.

****
UniSource Energy Services is preparing plans for new transmission facilities to improve the reliability and resiliency of the electrical transmission system serving Santa Cruz County.

In early 2024, UniSource began a comprehensive planning and siting study for the first phase of the Santa Cruz Reliability Project, to identify the best routes to build a new 138 kilovolt transmission line to connect its Kantor Substation in Santa Cruz County to the regional electric grid in Pima County. Following 20 months of study, which included 9 public meetings attended by hundreds of individuals who provided over 300 written comments, UniSource has identified the routes that will be included in an application for a Certificate of Environmental Compatibility (CEC). The previously announced Route 2 was identified as the Preferred Route, while Route 1 was identified as an Alternative Route. Routes 3, 4, and 5 have been eliminated from consideration. Please see the attached map.

UniSource plans to file a CEC application in mid-September and a public hearing before the Arizona Power Plant and Transmission Line Siting Committee is tentatively scheduled for November 3-7, 2025. Once the application has been filed, and the hearing date is confirmed, UniSource will communicate further details by mail, email, and on the project webpage.

Should you have any questions or comments, please send an email to scrnorth@uesaz.com or call our project information line at 1-520-917-6635.

We appreciate your engagement in this important energy project.
****

Please let us know if you have any questions, or would like a briefing to update you on the project and next steps.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/22/2025

Method Online Comment Form

Category routing

Issues/Comments

I am writing to encourage the choice of ROUTE 1 for the transmission lines. Route 2, and particularly Route 3, are both too intrusive to existing homes and too high to retain property values.
Thank you,
[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/22/2025

Method Online Comment Form

Category Viewshed

Issues/Comments

Hello, we are residents of Montana vista on Do's. Route 5 is a hard no for us. Our views and our neighbors will be negatively impacted. Thank you

Response Sent

[redacted]

Thank you for sharing your comments and concerns.

I'm getting ready to send an email out this morning announcing the preferred route, but I'll break the news to you now. WE HAVE ELIMINATED ROUTES 3. 4, AND 5 FROM CONSIDERATION. Route 2 will be our preferred route, and Route 1 an alternative route included in our application for a Certificate of Environmental Compatibility.

We will include your comments in our project record that will be submitted to the Arizona Corporation Commission.

I hope you will continue to stay engaged in the project and continue to provide your thoughts and comments. For the latest updates on the project, I invite you to visit the project webpage at https://www.uesaz.com/santa-cruz-reliability-north/.

Thank you,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/22/2025

Method Email

Category other

Issues/Comments

Thank you, I will be here to assist you in the application process if this project encroaches on UPRR right of way or is within 30 feet from centerline of nearest track.

All projects that impact UPRR and involve a utility being installed must be submitted to us via our online application portal.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/22/2025

Method Email

Category routing

Issues/Comments

Does the map show the present route, I don't find it.
Please tell me where the present one is.
[redacted]

Response Sent

The existing line is marked with a gray line on the map. I've called in out on the attached. Please let me know if you have further questions.

Thanks,

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/23/2025

Method Email

Category other

Issues/Comments

Thank you for all of your transparency.
[redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/26/2025

Method Paper Comment Form

Category Routing

Issues/Comments

As residents of Canoa Ranch Vistas in Green Valley - We, the undersigned, severely object to proposed Route 3 for the Santa Cruz Reliability Project North. These transmission lines and poles will negatively impact scenic views of the Santa Rita Mountains and lower property values. Routes 3 and 4 pass closest to the most houses. The preffed route is #1 which is furthest East from I-19, passes by fewer houses, and does not cross I-19.

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/26/2025

Method Letter/Petition

Category Visual Impacts

Issues/Comments

Header: Canoa Ranch Vistas PETITION AGAINST Proposed Transmission Line Route #3 for the Santa Cruz Reliability Project North

Subheader: As residents of Canoa Ranch Vistas in Green Valley – We, the undersigned, severly object to the proposed Route 3 for the Santa Cruz Reliability Project North. These transmission lines and poles will negatively impact scenic views of the Santa Rita Mountains and lower property values. Routes 3 and 4 pass closest to the most houses. The preferred route is #1 which is furthest East from I-19, passes by fewer houses, and does not cross I-19.

[Total of 46 signatories; redacted]

SANTA CRUZ RELIABILITY PROJECT NORTH– COMMENTS

Comment Date 8/28/2025

Method Email

Category Routing

Issues/Comments

Hi Clark:

Based on my conversations with you it's my understanding that the selected route will be placed on the south side of the substation. Just confirming that. Thanks.

[redacted]

Response Sent

[redacted]

Yes, you are correct. Either of the routes that are still being considered would interconnect with the Canoa Ranch Substation on the south side and exit to the east, but still on the south side of the existing transmission line.

Thank you confirming your understanding. Should you have further questions, please don't hesitate to reach out.

Clark Bryner, AICP
UNS Electric Inc. – Santa Cruz Reliability Project North

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EXHIBIT J-18

NEWS ARTICLES

https://www.nogalesinternational.com/news/unisource-proposes-new-transmission-line-for-scc/article_8344b055-b432-4a76-99dc-f6coffae1c36.html

UniSource proposes new transmission line for SCC

Green Valley News
Mar 25, 2025



A UniSource map depicts where the new transmission line would travel through.

UniSource graphic

Gift this article

UniSource Energy Services – sister company to Tucson Electric Power – held two public meetings on March 20 to collect input on a proposed transmission line that could run through Green Valley to serve customers in Santa Cruz County. Here are details of the plan, called the Santa Cruz Reliability Project North.

What kind of line is it?

It's a 138 kilovolt (kV) transmission line, which uses weathering steel monopoles 75 to 85 feet tall.

Why is it necessary?

In February 2023, a prolonged power outage affected 20,000 UniSource customers in Santa Cruz County, shutting down schools, businesses, health clinics and government offices. The culprit: a UniSource equipment failure that affected the lone 138-kilovolt transmission line connecting the county to the regional power grid. There was a similar outage in summer 2024.

Currently, the county is served by one transmission line with no backup. This project would add a second line that would immediately take the load in the event of an outage, leaving nobody without power. The project increases the reliability and resiliency of power delivery in Santa Cruz County.

Customers in Santa Cruz County also are served by a 46kV line, but its capacity is not sufficient to serve all customers under peak load conditions.

Where would the new line go in?

The line would run from a TEP substation in Pima County to the UniSource Kantor Substation just southeast of Amado in Santa Cruz County.

The line could connect at one of four potential locations under consideration, including:

• Canoa Ranch Substation northeast of the former Green Valley hospital, south of The Springs subdivision.

• Green Valley Substation, east of Continental Road/South Nogales Highway and East Whitehouse Canyon Road.

• A vacant area west of South Camino del Sol and West Duval Mine Waterline.

• A vacant area east of Interstate 19 and West Calle Arroyo Sur.

When would the line go in?

The Arizona Corporation Commission must approve a Certificate of Environmental Compatibility (CEC) before construction of the line can begin. UniSource plans to file the CEC application this fall. That application would then be reviewed by the Arizona Power Plant and Transmission Line Siting Committee in a public hearing.

UniSource's goal is full approval by the beginning of next year. The company would complete the project in 2028.

What concerns were raised during Thursday's meeting in Green Valley on Phase 1?

Residents most often mentioned the potential for impeded views and a negative effect on property values.

UniSource said it will make every effort to consider input from residents and others in the area when identifying potential routes for the line.

This is Phase 1 of a three-phase project. What are the other phases?

Phase 2 upgrades a 27.5-mile segment of UniSource's existing 138-kilovolt (kV) transmission line, and builds a new 138 kV transmission line in Nogales between the existing Valencia Substation and the proposed Gateway Substation on the west side of Nogales.

It is expected to be in service by 2029. For more information, go to: www.uesaz.com/nogales-tap-to-kantor-upgrade/

Phase 3 would include construction of the proposed Gateway Substation about two miles west of UniSource's existing Valencia Substation in Nogales. A new transmission line would be constructed from the expanded Kantor Substation near Amado to the Gateway Substation, and from the Gateway Substation to the Valencia Substation, completing the looped transmission system serving Santa Cruz County. Public meetings will be held but no dates have been set yet.

Where can I get more information?

www.uesaz.com/santa-cruz-reliability-north

Green Valley homeowners' association raises concerns over TEP-Unisource power line project

The Springs at Santa Rita says Santa Cruz County connection line will disrupt nature preserve and dog park while lowering property values



By: Joel Foster

Posted 6:08 PM, Apr 08, 2025 and last updated 12:11 PM, Apr 10, 2025

Correction: The video above references the project run by Tucson Electric Power (TEP). The project is run by Unisource Energy Projects, a sister company of TEP.

A proposed energy infrastructure project by Unisource Energy Projects, a sister company of Tucson Electric Power (TEP), is drawing concern from residents of a Green Valley neighborhood who fear it could disrupt cherished community spaces and diminish property values.

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The project, dubbed the Santa Cruz Reliability Project North, is aimed at bolstering energy reliability for Santa Cruz County by creating a second transmission connection from the Kantor substation to Pima County's grid, may place new power lines and service roads on the 26-acre property owned by The Springs at Santa Rita Homeowners Association. Unisource installed similar infrastructure on the property 16 years ago, including a substation and overhead lines.

While residents support the mission to improve regional energy reliability, many are opposed to the possible placement of additional infrastructure on their community land.

"Everyone here really supports the idea—no one should be without electricity, especially first responders," said Bruce Grieshaber, Board President of The Springs HOA. "But the problem is with the how and there are a number of unintended consequences that can occur that could be pretty severe."

Grieshaber says that the HOA's dog park and nature trail would be upended due to service roads needing to be built for TEP and Unisource to complete the

project. He also mentions the project's impact on property values, with mountain views being obstructed by power lines and poles.

The dog park and walking trail are more than neighborhood amenities. They are vital parts of the community's lifestyle and even connect to the historic Anza Trail, offering public access and recreational space for both residents and visitors.

"I walk my dog here twice a day," said resident Betty Briggs. "It's part of our life. I love it, and I don't want to lose it."

Briggs says the previous TEP substation construction was enough for the community to bear. "I don't feel like we should be encroached on," she said. "We've already got these other poles. Fine, we understand the need, we need power, I'm for power. But I want them to find another way."

Another resident, Sandie Stone, remembers the installation of the existing infrastructure and worries about a repeat of that experience. "They kept us informed, but once we saw the size of the poles, it hurt. And it hurts again," she said. Stone suggests that the utility consider building a new substation elsewhere to avoid encroaching further on the HOA's land.

Aside from the physical impacts, residents also voiced concerns about wildfire risk associated with high-voltage power lines and how the project could affect property values in the long term.

The HOA is a Firewise community, meaning that residents take proactive precautions to prevent wildfire spread, such as clearing brush that could serve as fuel loads for wildfires.

WATCH BELOW | Green Valley community ramps up wildfire prevention efforts ahead of fire season



Grieshaber says the project will "dramatically reduce" a "pretty decent" buffer zone between the property and the TEP substation. This could both pose a fire risk and further spoil the natural character of the land, according to Grieshaber.

TEP/Unisource spokesperson Joseph Barrios emphasized that the project is still in the planning phase and no final decisions have been made. "This is exactly the kind of feedback we want and need to hear from residents," Barrios said. "If the project were located there, we'd be more than happy to meet and talk with them again. Ground disturbance would be minimal."

TEP and Unisource have been holding community meetings throughout Green Valley over the past months, visiting the Springs at Santa Rita in March to hear residents' feedback. Barrios says another meeting is planned for sometime in May.

The utility is currently considering three additional location options beyond the Springs at Santa Rita site. Barrios says the companies also have about 170 different segments that can be put together in different ways to make the connection between Santa Cruz and Pima Counties.

“Over the next couple of months, we’ll try to eliminate the less favorable segments,” Barrios said. “We hope to identify some preferred routes by the end of summer.”

Unisource offers an interactive map to show the various routes under consideration.

By fall 2025 TEP and Unisource hope to gain approval for a certificate of environmental compability, reviewed by the Arizona Power Plant and Line Sighting Committee. If the certification is approved, the project will need approval by the Arizona Corporation Commission.

If approved, construction is slated to begin sometime in 2027, with the lines looking to be ready by 2028.

Barrios says TEP and Unisource want to hear more from the community about potential challenges that may lie ahead.

“We understand there are folks who either live in the area or work in the area, and they may have insight that’s not immediately available to us,” he said. “That’s why we go through this process, like having these public meetings and reaching out to the public. If there is information they think we need to consider, we ask them to tell us about that.”

——

Joel Foster *is a multimedia journalist at KGUN 9 who previously worked as an English teacher in both Boston and the Tucson area. Joel has experience working with web, print and video in the tech, finance, nonprofit and the public sectors. In his off-time, you might catch Joel taking part in Tucson's local comedy scene. Share your story ideas with Joel at* ***joel.foster@kgun9.com****, or by connecting on* Facebook, Instagram *or* X.

https://www.nogalesinternational.com/community/briefs-unisource-hosts-open-houses-for-transmission-line-project/article_7886a013-97df-4658-aa75-ec6503d349a4.html

Briefs: UniSource hosts open houses for transmission line project

May 7, 2025



A UniSource map depicts where the new transmission line would travel through.

UniSource graphic

Gift this article

Over the next two weeks, UniSource Energy Services will hold two in-person meetings with Santa Cruz County residents, as well as a separate virtual session, to collect input for a proposed 138-kilovolt transmission line.

The effort – named the Santa Cruz Reliability Project – aims to bolster the energy grid and marks the last of a three-phase undertaking to improve transmission service in the area. Currently, county residents are served with one transmission line without a backup, the Green Valley News reported. What's more, the existing 46-kilovolt line is not able to serve all UniSource customers during high periods of demand.

As part of the project, GVN reported that the transmission line would run from a Pima County Tucson Electric Power Substation to a UniSource Kantor Substation located southeast of Amado within the Santa Cruz County boundary.

The company is proposing connecting the line at one of four separate locations:

• the Canoa Ranch substation northeast of the former Green Valley hospital, south of The Springs subdivision

• the Green Valley substation, east of Continental Road/South Nogales Highway and East Whitehouse Canyon Road

• a vacant area west of South Camino del Sol and West Duval Mine Waterline, and

• a vacant area east of Interstate 19 and West Calle Arroyo Sur.

UniSource already held two public meetings in Green Valley and Amado to collect input from local residents.

The upcoming in-person meeting in Tubac will be held from 1 p.m. to 3 p.m. on May 13 at the Tubac Community Center's Long Room, located at 50 Bridge Road. The in-person meeting in Rio Rico will be held from 5 p.m. to 7 p.m., also on May 13, at the Rio Rico High School"s cafeteria, located at 590 Camino Lito Galindo.

The virtual open house is scheduled to take place between 4 and 5 p.m. on May 21. The meeting link will be published at: uesaz.com/santa-cruz-reliability-project-south/

NHS student named in state nonprofit's 18 under 18 awards

Pamela Carbajal, a 17-year-old Nogales High School student, was named a recipient for the 2025 18 under 18 Awards, organized by nonprofit Junior Achievement of Arizona.

The awards aim to give outstanding youth recognition for their work as leaders, role models and innovators in their respective communities.

“Each year, we are inspired by the remarkable ways our students excel – both in the classroom and in their communities,” said Katherine Cecala, CEO of Junior Achievement of Arizona, in a news release.

Carbajal’s leadership extends into her role as a Cadet Lieutenant Colonel leading a unit of 131 cadets under the Air Force Junior Reserve Officer Training Corps, according to the news release.

“My friend invited me to ROTC and I never thought I would end up a leader within the organization,” Carbajal said in a statement. “I have learned so much from my leadership roles. It’s made me empathic, resilient and improved my decision-making skills.I highly recommend that students find something they are passionate about and get involved in their community.”

She also serves in a leadership role with the Corps’ Honors Society, MESA (Mathematics, Engineering, Science Achievement), and her church youth group, according to the news release

“Pamela is a dynamic and compassionate leader who demonstrates leadership skills through her involvement in school, the community and her church,” the news release reads. “Additionally, she’s proud of her heritage and enjoys performing with the Mariachi Apache, using music as a tool to give back to her community.”

~ Nogales International

Are there alternative approaches?

Several residents also inquired about the possibility of building the new transmission line underground in an effort to mitigate wildfire risks that could arise from faulty electrical lines.

But Ortiz shut down the prospect, saying that option was not on the table.

“It is not a part of the project that we are proposing,” he said.

Ortiz noted that the cost of constructing an underground transmission line would be about six times higher – a price that would likely ultimately be passed on to customers. But he added that the proposed structures would still be relatively safe.



Attendees raised questions and concerns regarding a newly proposed transmission line that aims to provide electric reliability for customers in Santa Cruz County.

Photo by Daisy Zavala Magaña

“The Corten steel transmission line structures, they are much taller and they're less susceptible to some of the things that would cause fires. So most fires are caused by distribution lines – things that are wood, coals, lower to the ground,” he said.

Responding to another question, Ortiz said another alternative would be generating power locally, as opposed to building a new transmission line. But he said that would also be a much more costly option.

Barrios, the spokesman, added: “I think what we're looking to do is to create a resource and to create conditions that are like conditions that we have in other parts of our service territory.”

Decades-long matter

It’s not the first time a second transmission line has been on the table for Santa Cruz County.

The City of Nogales filed a complaint with the Arizona Corporation Commission in 1998, claiming that Citizens Utilities Company, which supplied power to local residents at the time, did not provide reliable service for its customers.

Citizens filed a joint application alongside Tucson Electric Company to build a second transmission line in 2001. But the proposal was met with several challenges: the project was not cost-effective, many people were against it, and officials never came to an agreement over the best location for the line. Two years later, UniSource acquired Citizens and invested into existing infrastructure to improve reliability, Ortiz said.

UniSource reassessed the need for the additional transmission line in 2012 and determined it wasn’t necessary, company representatives said this week. That was until February 2023, when a hardware failure in the sole transmission line caused a countywide power outage.

“That re-emphasized the need for a second transmission line,” Ortiz said.

At the time, Ortiz explained, the company experienced a “perfect storm” of issues. It had lost power to the 46-kilovolt transmission line that powers the Tubac area because they were doing construction and maintenance at a substation. Additionally, they were unable to start up generation from the Valencia Substation in Nogales.

“And so when that power dropped, everybody in the county lost power for about 16 hours,” he said.

Addressing mitigation efforts, Barrios said UniSource is continually working to analyze and replace equipment.

“If something looks damaged or shows signs of decay, we prioritize that work and replace it as quickly as possible,” he said. “There are always outages, because no system anywhere in the world is perfect. So we do have outages. Compared to many other utilities, our reliability is actually pretty high.”

What’s next?

UniSource has determined a study area where officials will identify options for transmission line routes. The area runs from the northern edge of the Santa Cruz County line, and south to the U.S.-Mexico border.

But Ortiz noted that residential areas and conservation easements could present additional challenges. Narrowing down route options is still part of the pre-analysis portion of the project. Other elements of this stage include field visits, identifying constraints and opportunities, outreach and development of preliminary segments.

The next portion of the process will involve research and collection of data, such as cultural resource surveys, biological surveys and visual analyses. After that, the company will move onto its next phase of assessing suitability and refining segments.

"The next time we come to you, we’ll be showing you the results of that suitability assessment,” Ortiz said.

Green Valley HOA wins battle to protect property from power line project

TEP/Unisource eliminates route taking place on Springs at Santa Rita HOA, saving trails, dog run



By: Joel Foster



Posted 5:00 AM, Jun 05, 2025 and last updated 5:00 AM, Jun 05, 2025

GREEN VALLEY, Ariz. (KGUN) — A Green Valley homeowners association is claiming a small but significant victory after months of pushback against a proposed energy project by Tucson Electric Power (TEP) and UniSource Energy Services.

The utility has agreed to eliminate a route option that would have placed high-voltage transmission lines directly on property owned by The Springs at Santa Rita HOA.

Back in April, residents of The Springs sounded the alarm after learning that their dog park, walking trails and a connection to the historic Anza Trail were at risk under one of three proposed routes for the Santa Cruz Reliability Project North.

The project aims to bolster energy reliability in Santa Cruz County by connecting the Kantor Substation to Pima County's electric grid.

While the mission is widely supported, the "how" quickly became the sticking point for residents.

"I'd like them to sort it out and don't use our property," said Betty Briggs, a Springs resident who walks her dog on the trails daily. "We've already got poles and a substation here. We understand the need for power, but we don't want to lose more of our open space."

The HOA's 26-acre property already houses a TEP substation and overhead lines installed over 16 years ago. The new proposal would have added transmission infrastructure and service roads, cutting through community-used spaces and potentially damaging mountain views and property values.

But persistent organizing paid off. At a community meeting in May hosted by TEP and UniSource at the Las Campanas Center, residents packed the room, many from The Springs specifically.

“There were 65 seats and 65 butts in those seats,” said Bruce Grieshaber, board president of the HOA. “The whole front row was from The Springs.”

TEP and UniSource responded by announcing they would move the potential route 50 to 100 yards south of The Springs property, removing the HOA’s land from the shortlist of options under active consideration.

Unisource is eyeing two primary options in Green Valley, one west of I-19 and one east. Other options located closer to Sahuarita were also removed from consideration.

Grieshaber praised the utility companies for their responsiveness and transparency, saying they “answered every question and stayed until every question was answered.”

Still, concerns remain. The final path for the transmission lines has yet to be determined. According to TEP, more than 170 possible route segments are still under evaluation. The company hopes to narrow down preferred routes by the end of summer and will continue to gather public input along the way.

“There are still a lot of options that are still on the table,” said Grieshaber. “I’m going to praise them when praise is due—and I’m going to keep the pressure on to make sure it stays away from our homes, if possible.”

In a statement, UniSource acknowledged that feedback from The Springs HOA and Green Valley residents has played a critical role in shaping the process. The company released the following statement:

When we need a new electric transmission line, we work to find the best possible route by considering all possibilities. We evaluate possible routes

based on environmental and land use considerations, along with local community values.

What you're seeing is the process at work. The Springs HOA, along with many others in the Green Valley area have been very engaged in the process, and their input really does make a difference.

The route selection process is ongoing, and a route has yet to be selected. We encourage the community to stay engaged and to continue to help us find the best route for this new transmission line so that we can provide reliable energy to homes and businesses in Santa Cruz County.

UniSource plans to apply for a Certificate of Environmental Compatibility in fall 2025, with regulatory review expected from the Arizona Power Plant and Line Siting Committee and eventual approval required from the Arizona Corporation Commission.

If approved, construction could begin in 2027, with the new transmission lines up and running by 2030.

Residents can view updated route proposals on UniSource's interactive map and are encouraged to continue sharing their feedback through the company's public outreach channels.

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https://www.gvnews.com/news/local/decision-time-gv-residents-want-to-know-where-powerline-is-going/article_a64a3dba-2b7c-463e-998c-2dbffd40a080.html

FEATURED

Decision time: GV residents want to know where powerline is going

By Jorge Encinas jorge.encinas@gvnews.com
Aug 5, 2025



UniSource spokesman Joe Barrios, left, and siting manager Clark Bryner field questions at GVR's East Center on Tuesday.

Jorge Encinas Green Valley News

About 150 people filled a GVR East Center meeting room Tuesday for an open house on a transmission powerline project to boost reliability in Santa Cruz County. Most opposed two potential routes near homes on the western side of Green Valley.

Interactive map

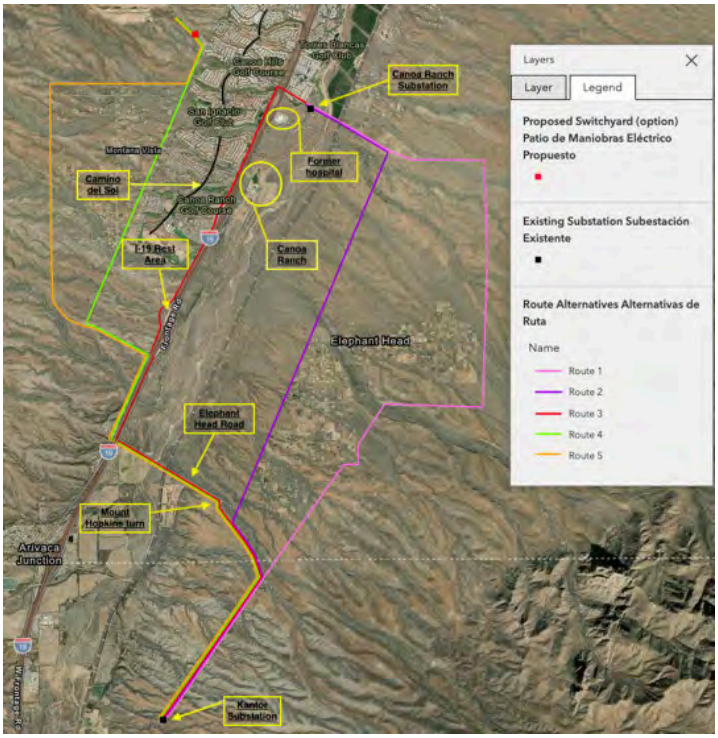
An online map shows five proposed routes, substations and location of homes: **bit.ly/4mvD4X7**

UniSource Energy Services, sister company to TEP, has five possible routes for the Santa Cruz Reliability Project that are in the final phase of the siting process, which started in early 2024. UniSource plans to submit its Certificate of Environmental Compatibility application to the state in September, with an Arizona Power Plant and Transmission Line Siting Committee meeting likely coming in November.

UniSource spokesman Joe Barrios told the Green Valley News they haven't identified a preferred route, but if UniSource selects one it would be submitted with the September application.

"I don't think we're far enough along to know exactly what we're going to present," he said after the meeting. "What I mean is, we've had cases before where we identified routes and then we approached the commission and said, 'We'd be comfortable with any of these things. What is your preference?'"

Barrios said the route decision is ultimately up to the Arizona Corporation Commission. UniSource said an ACC open meeting would likely happen in the first quarter of 2026.



UniSource siting, outreach and engagement manager Clark Bryner told the audience that phase one construction would be done in 2028, with phase two in 2029, and phase three in 2030.

The SCRP is split into three phases: SCRP North, Nogales Tap to Kantor Upgrade and SCRP South. Green Valley is in the SCRP

Five proposed routes for a 138-kilovolt transmission line that will run through Green Valley to act as a second line connecting Santa Cruz County to the Western U.S. power grid.

UniSource, Green Valley News

North portion, which is the first phase. The overall SCRP is expected to reduce power-outage frequency and duration in Santa Cruz County by enabling UniSource to supply energy from more than one direction. SCRP North would expand the Kantor Substation near Elephant Head and begin the process of converting the current radial line configuration to a looped transmission system.

UniSource reported it would expand the Kantor Substation's property boundary by about 20 acres, with improvements allowing for maintenance without interrupting circuit operations.

Bryner said SCRP was needed since Santa Cruz County is at the end of the grid in the Western United States. He said adding a second 138-kilovolt line through Pima County was the only option since Santa Cruz County has no connection points west or east. He added a connection south of Santa Cruz County was not an option since Mexico has its own power grid.

"We can't take this line out of service to rebuild it until we have a second source coming in," Bryner said. "So once we have that second source coming to Kantor, we can then take this line out of service — rebuild it because it's kind of a pinch point on the system today."

Rebuilding an existing 27.5-mile-segment of transmission line from Vail to Kantor is slated for the second phase.

GV residences

Three of the five routes run near homes in west Green Valley south of West Duval Mine Waterline access road. One route would go south on the frontage road west of Interstate 19. Two more routes would go south on South Cielo Azul, with one breaking west just north of Montana Vista. That route would continue west and then head south again after clearing Montana Vista.

A major concern among the audience members were impacts to their property values and scenic views.

Bryner acknowledged during the open house that the majority of the crowd opposed routes three and four, which passed more homes along South Via Cielo or the frontage road than the other three routes. But he said all the routes had pros and cons that would be factored into a

final decision.

UniSource took question cards from the audience, with one person asking who would bear the costs for the second transmission line and associated upgrades. Bryner said costs would fall on UniSource customers, who live in Santa Cruz County. He said Green Valley customers fall under Tucson Electric Power and would not see rate increases.

Another audience member asked why UniSource couldn't bury the transmission lines instead of using overhead lines. UniSource plans to use overhead lines due to increased costs with staff telling the audience burying them could run 10 times or more the cost to run them overhead.

"We do install distribution lines underground, those are lower voltage," Barrios said. "It's a much less complicated process to install a distribution line in some conduit — we dig a trench and it's just less complicated."



About 150 people showed up to GVR's East Center for the UniSource open house on its Santa Cruz Reliability Project North 138-kilovolt transmission line routes.

Jorge Encinas Green Valley News

He said transmission lines like the 138-kilovolt line needed to carry power to Santa Cruz County come with more complications from heat production and expense from depth and conduit and powerline materials when burying them. Barrios said the reliability is comparable for overhead and underground.

"But there is an impact on customer bills because when you pay your bills, what are you paying for? You're paying for the system that provides service to your home or business," Barrios said. "So this would have a significantly larger impact on the customers that would have to pay for this line."

Barrio's explanation was met with audience members calling out that it was "reasonable" and "We're not paying them."

The audience also had concerns about safety.

UniSource plans to use steel monopoles at 75 to 85 feet tall and spaced 600 to 1,000 feet apart. One audience member asked how they would handle storms. Bryner said he isn't aware of any of the steel poles failing or falling over and an engineer said they can withstand 95 mph wind.

Some portions on routes also have lower voltage lines and poles already on them. UniSource plans to replace them with new poles about five to 10 feet taller and keep the lower voltage lines on them. UniSource will keep the lower-voltage poles as if those portions don't change with the 138-kilovolt addition.

When it comes to electric and magnetic fields, or EMF, Barrios said "no" to a question on whether there are health concerns with high-power lines near homes, adding that is based on decades of scientific research by the CDC, universities and others.

"They've essentially said there are no proven health risks that come from EMFs associated with transmission lines," Barrios said. "Of course, if this is energized equipment, there is a basic safety concern that you should always be careful around energized equipment."

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Green Valley community concerned over power line project

Residents oppose routes that would cross residential areas due to health and safety issues



By: Joel Foster

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GREEN VALLEY, Ariz. (KGUN) — A new project aimed at improving energy reliability in Santa Cruz County is facing backlash from some Green Valley residents who say the plan could put their homes, health and financial security at risk.

On Tuesday, Unisource Energy Services hosted a public hearing at the East Center in Green Valley, where dozens of concerned community members gathered to speak out against several proposed routes for the Santa Cruz Reliability Project North.

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The project would connect Santa Cruz County to the energy grid in Pima County through new high-voltage transmission lines, a move Unisource says is essential to meet the present and future energy needs of the area.

“We’re trying to connect customers in Santa Cruz to the energy grid in Pima County,” said Joseph Barrios, spokesperson for Tucson Electric Power, which manages Unisource. “There are really only so many options in terms of where and how we can do that.”

Unisource presented five potential routes for the lines. But the most controversial options, routes 3 and 4, would cut through residential areas of Green Valley, sparking strong objections from residents.

“I am on route 4. I am five feet from where the poles are right now,” said Carol Zychowski, whose home was damaged in 2021 when a pole fell on her property. “How are they, with larger poles on two sides, going to go in without damaging our property?”

Zychowski also raised serious health concerns, saying electromagnetic frequencies from the transmission lines could interfere with her pacemaker.

“I’m not to be under EMFs. It could stop keeping my heart beating. If it stops, I’m gone,” she said. “To take our property and to have to worry, to either sell or kill me, that’s not okay.”

Other residents, like Georgia and Robert Puttock, are especially concerned about route two, which would place poles directly in front of their home, potentially decreasing its value as they plan for future care.

“We know that sooner rather than later, we will sell our home so that we can go to probably assisted living,” said Georgia. “But the property values will be impacted by that power line. For us, this was an investment for our life.”

In the morning meeting, route 1 appeared to have more support from the audience. The route runs east of I-19 and cuts through fewer residential areas.

At one point, a participant asked that anyone raise their hand who supported the first option. About three-quarters of the room raised their hands.

Unisource planned two forums on Tuesday, with the second at Amado’s Sapori Elementary School in the evening. The company will also hold a virtual presentation on Thursday, August 7.

Unisource says public feedback will play a key role in determining the preferred route.

“We will consider all that as we try to identify a preferred route,” Barrios said.

Barrios urged Green Valley residents to publicly submit any statements of support or opposition by emailing scrnorth@uesaz.com or calling 520-917-6635. He says these statements will be analyzed by approval authorities.

The company plans to file an application with the Arizona Power Plant and Transmission Line Siting Committee in September. From there, the proposal will move to the Arizona Corporation Commission for final approval. If greenlit, construction is expected to begin in 2028.

Barrios says community members will be able to submit comments throughout the approval process, including the Arizona Power Plant and Transmission Line Siting Committee Hearing.

You can learn more about the Santa Cruz Reliability Project North and view all five proposed routes by visiting the project's website.

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Joel Foster *is a multimedia journalist at KGUN 9 who previously worked as an English teacher in both Boston and the Tucson area. Joel has experience working with web, print and video in the tech, finance, nonprofit and the public sectors. In his off-time, you might catch Joel taking part in Tucson's local comedy scene. Share your story ideas with Joel at* ***joel.foster@kgun9.com****, or by connecting on* Facebook, Instagram *or* X.

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