

NEW APPLICATION

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10
 11 **BEFORE THE ARIZONA POWER PLANT**
 12 **AND TRANSMISSION LINE SITING COMMITTEE**

11	IN THE MATTER OF THE)	DOCKET NO.:
12	APPLICATION OF WILD)	
13	STALLION ENERGY STORAGE)	Case No.
14	LLC IN CONFORMANCE WITH)	
15	THE REQUIREMENTS OF)	
16	ARIZONA REVISED STATUTES,)	
17	SECTIONS 40-360, ET. SEQ., FOR A)	
18	CERTIFICATE OF)	
19	ENVIRONMENTAL)	
20	COMPATIBILITY AUTHORIZING)	
21	THE WILD STALLION ENERGY)	NOTICE OF FILING
22	STORAGE SYSTEM GEN-TIE)	APPLICATION FOR
23	PROJECT LOCATED IN)	CERTIFICATE OF ENVIRON-
24	MARICOPA COUNTY, ARIZONA)	MENTAL COMPATIBILITY

25 Pursuant to A.R.S. § 40-360.03, Wild Stallion Energy Storage LLC (“Wild
 26 Stallion”) files its Application for Certificate of Environmental Compatibility (the
 27 “Application”) for the Wild Stallion Energy Storage System Gen-Tie Project.

28 In accordance with A.R.S. §§ 40-360 through 40-360.13, and A.A.C. §§ R14-2-201
 through R-14-2-219, attached are 8 copies of the Application. The filing fee required by
 A.A.C. § 40-360-09 is also submitted contemporaneously herewith.

1 COPY of the foregoing e-mailed this day to:

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APPLICATION FOR THE

WILD STALLION ENERGY STORAGE SYSTEM GEN-TIE PROJECT

CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY



PREPARED FOR
**ARIZONA POWER PLANT
AND LINE SITING COMMITTEE**

SUBMITTED BY
**WILD STALLION
ENERGY STORAGE LLC**



JUNE 2026

Application
for a
Certificate of Environmental Compatibility
Wild Stallion Energy Storage System Gen-Tie Project

Prepared for:
State of Arizona Power Plant and Transmission Line Siting Committee

Submitted by:
Wild Stallion Energy Storage LLC

June 2026

Case No: _____

CONTENTS

Introduction.....	Introduction-1
Project Overview.....	Introduction-1
Proposed Route.....	Introduction-2
Requested CEC Corridor.....	Introduction-2
BESS Facility Description.....	Introduction-2
Project Substation.....	Introduction-3
Purpose and Need.....	Introduction-3
Proposed Interconnection.....	Introduction-4
Environmental and Public Siting Process.....	Introduction-4
Siting Process.....	Introduction-4
Public Outreach Process.....	Introduction-4
Summary of Environmental Compatibility.....	Introduction-4
Conclusion.....	Introduction-5
Application For Certificate of Environmental Compatibility.....	Application-1
Exhibit A. Location Map and Land Use Maps.....	A-1
Land Use Overview.....	A-1
Exhibit B. Environmental Studies.....	B-1
Introduction.....	B-1
Land Use.....	B-1
Inventory.....	B-1
Jurisdiction and Land Ownership.....	B-2
Existing Land Use.....	B-2
Planned Land Use.....	B-2
Impact Assessment and Results.....	B-4
Literature Cited.....	B-5
Exhibit C. Areas of Biological Wealth.....	C-1
Introduction.....	C-1
Laws and Policies.....	C-1
Methods.....	C-3
Results.....	C-4
Areas of Biological Wealth.....	C-5
Rare and Endangered Species.....	C-7
Assessment of Potential Effects.....	C-12
Areas of Biological Wealth.....	C-12
ESA-Listed and ESA-Candidate Species.....	C-13
Other Special-Status Species.....	C-13
State-Protected Native Plants.....	C-15
Conclusion.....	C-15
Literature Cited.....	C-26
Exhibit D. Biological Resources.....	D-1
Introduction.....	D-1
Methodology.....	D-1
Results.....	D-2

Ecological Setting	D-2
Vegetation Communities	D-2
Plant Species	D-3
Wildlife Species	D-5
Summary of Potential Effects	D-5
Plant Species	D-5
Wildlife Species	D-5
Literature Cited.....	D-11
Exhibit E. Scenic Areas, Historic-Era Sites and Structures, and Archaeological Sites.....	E-1
Scenic Areas and Visual Resources	E-1
Overview.....	E-1
Methodology.....	E-1
Inventory Results	E-5
Impact Assessment Results.....	E-7
Conclusion	E-10
Literature Cited.....	E-11
Historic-Era Sites and Structures and Archaeological Sites.....	E-12
Methodology	E-12
Previous Cultural Resources Projects	E-12
Historic-Era In-Use Structures.....	E-14
Archaeological Sites	E-16
Assessment of Effects.....	E-16
Conclusion	E-17
Literature Cited.....	E-18
Exhibit F. Recreation.....	F-1
Literature Cited.....	F-3
Exhibit G. Conceptual Drawings of Transmission Facilities	G-1
Exhibit H. Existing Plans	H-1
Introduction	H-1
Agency and Stakeholder Outreach	H-1
Exhibit I. Noise	I-1
Audible Noise.....	I-1
Existing Sound Environment.....	I-2
Noise-Sensitive Receptors	I-4
Anticipated Noise During Project Construction	I-4
Anticipated Impacts During Project Operation.....	I-5
Communication Signal Interference.....	I-7
Electric and Magnetic Fields.....	I-8
Conclusion.....	I-10
Literature Cited.....	I-11
Exhibit J. Special Factors	J-1
Introduction	J-1
Project Contact Information	J-1
Public Involvement.....	J-1
Informational Letters	J-1
Project Website	J-1

Social Media Advertisement.....	J-1
In-Person Open House Meeting.....	J-2
Public Comment	J-2

Figures

Figure 1. Project overview.....	Introduction-6
Figure 2. Requested CEC Corridor.....	Introduction-7
Exhibit A-1. Topographic map.....	A-2
Exhibit A-2. Existing land use.....	A-3
Exhibit A-3. Planned land use.....	A-4
Exhibit A-4. Existing sound environment.....	A-5
Exhibit C-1. Wildlife movement area and cattle tanks within the Study Area.....	C-6
Exhibit E-1. CEC Corridor, Study Area, and KOPs.....	E-4
Exhibit G-1. Typical 230-kV tangent self-supporting steel monopole.....	G-2
Exhibit G-2. Typical 230-kV angle self-supporting steel monopole.....	G-3
Exhibit G-3. Typical 230-kV A-frame dead end.....	G-4
Exhibit G-4. KOP 1 photosimulation cover sheet.....	G-5
Exhibit G-5. Photograph from KOP 1 showing existing conditions.....	G-6
Exhibit G-6. Photosimulation from KOP 1 showing the simulated condition with the proposed Project.....	G-7
Exhibit G-7. Photosimulation from KOP 1 showing the simulated condition with the proposed Project, with color overlay.....	G-8
Exhibit G-8. KOP 2 photosimulation cover sheet.....	G-9
Exhibit G-9. Photograph from KOP 2 showing existing conditions.....	G-10
Exhibit G-10. Photosimulation from KOP 2 showing the simulated condition with the proposed Project.....	G-11
Exhibit G-11. Photosimulation from KOP 2 showing the simulated condition with the proposed Project, with color overlay.....	G-12
Exhibit G-12. KOP 3 photosimulation cover sheet.....	G-13
Exhibit G-13. Photograph from KOP 3 showing existing conditions.....	G-14
Exhibit G-14. Photosimulation from KOP 3 showing the simulated condition with the proposed Project.....	G-15
Exhibit G-15. Photosimulation from KOP 3 showing the simulated condition with the proposed Project, with color overlay.....	G-16
Exhibit G-16. KOP 4 photosimulation cover sheet.....	G-17
Exhibit G-17. Photograph from KOP 4 showing existing conditions.....	G-18
Exhibit G-18. Photosimulation from KOP 4 showing the simulated condition with the proposed Project.....	G-19
Exhibit G-19. Photosimulation from KOP 4 showing the simulated condition with the proposed Project, with color overlay.....	G-20
Exhibit H-1a. Example April 2026 Exhibit H letter (1 of 3).....	H-3
Exhibit H-1b. Example April 2026 Exhibit H letter (2 of 3).....	H-4
Exhibit H-1c. Example April 2026 Exhibit H letter (3 of 3).....	H-5
Exhibit H-2a. AZGFD response letter (1 of 4).....	H-6
Exhibit H-2b. AZGFD response letter (2 of 4).....	H-7

Exhibit H-2c. AZGFD response letter (3 of 4).	H-8
Exhibit H-2d. AZGFD response letter (4 of 4).	H-9
Exhibit H-3a. Request for Consultation letter to SHPO and SHPO response (1 of 15).	H-10
Exhibit H-3b. Request for Consultation letter to SHPO and SHPO response (2 of 15).	H-11
Exhibit H-3c. Request for Consultation letter to SHPO and SHPO response (3 of 15).	H-12
Exhibit H-3d. Request for Consultation letter to SHPO and SHPO response (4 of 15).	H-13
Exhibit H-3e. Request for Consultation letter to SHPO and SHPO response (5 of 15).	H-14
Exhibit H-3f. Request for Consultation letter to SHPO and SHPO response (6 of 15).	H-15
Exhibit H-3g. Request for Consultation letter to SHPO and SHPO response (7 of 15).	H-16
Exhibit H-3h. Request for Consultation letter to SHPO and SHPO response (8 of 15).	H-17
Exhibit H-3i. Request for Consultation letter to SHPO and SHPO response (9 of 15).	H-18
Exhibit H-3j. Request for Consultation letter to SHPO and SHPO response (10 of 15).	H-19
Exhibit H-3k. Request for Consultation letter to SHPO and SHPO response (11 of 15).	H-20
Exhibit H-3l. Request for Consultation letter to SHPO and SHPO response (12 of 15).	H-21
Exhibit H-3m. Request for Consultation letter to SHPO and SHPO response (13 of 15).	H-22
Exhibit H-3n. Request for Consultation letter to SHPO and SHPO response (14 of 15).	H-23
Exhibit H-3o. Request for Consultation letter to SHPO and SHPO response (redacted) (15 of 15).	H-24
Exhibit I-1. Corona audible noise for 230-kV transmission line.	I-6
Exhibit I-2. Typical EMF levels for power transmission lines.	I-9
Exhibit J-1a. Representative informational letter sent April 6, 2026 (1 of 3).	J-3
Exhibit J-1b. Representative informational letter sent April 6, 2026 (2 of 3).	J-4
Exhibit J-1c. Representative informational letter sent April 6, 2026 (3 of 3).	J-5
Exhibit J-2. Project website.	J-6
Exhibit J-3. Social media advertisement.	J-7
Exhibit J-4. In-person public open house sign-in sheet.	J-8
Exhibit J-5a. Blank comment form (front).	J-9
Exhibit J-5b. Blank comment form (back).	J-9
Exhibit J-6a. Photograph from the Public Open House April 22, 2026 (1 of 2).	J-10
Exhibit J-6b. Photograph from the Public Open House April 22, 2026 (2 of 2).	J-10
Exhibit J-7a. Open house display board (1 of 8).	J-11
Exhibit J-7b. Open house display board (2 of 8).	J-11
Exhibit J-7c. Open house display board (3 of 8).	J-12
Exhibit J-7d. Open house display board (4 of 8).	J-12
Exhibit J-7e. Open house display board (5 of 8).	J-13
Exhibit J-7f. Open house display board (6 of 8).	J-13
Exhibit J-7g. Open house display board (7 of 8).	J-14
Exhibit J-7h. Open house display board (8 of 8).	J-14

Tables

Table C-1. Federally Listed and Candidate Species Reviewed for Their Potential to Occur in the CEC Corridor and Study Area	C-7
Table C-2. Other Special-Status Species with the Potential to Occur in the Vicinity of the Study Area	C-17
Table D-1. Vegetation Cover Types in the Study Area by Percent of Total Land Cover	D-2
Table D-2. Plant Species Observed During Surveys	D-3

Table D-3. Amphibian and Reptile Species That May Occur in the Project Vicinity D-7

Table D-4. Bird Species That May Occur in the Project Vicinity D-8

Table D-5. Mammal Species That May Occur in the Project Vicinity D-10

Table E-1. Key Observation Point Locations E-3

Table E-2. Contrast and Impact Results Summary E-10

Table E-3. Previous Cultural Resources Projects Intersecting the CEC Corridor E-13

Table E-4. Previously Recorded Historic-Era Sites Within the Study Area E-14

Table E-5. Previously Recorded Historic-Era In-Use Structures Within the Study Area E-15

Table E-6. Previously Recorded Archaeological Sites Within the Study Area E-16

Table H-1. Entities Contacted to Identify Future Plans for Development H-1

Table I-1. Sound Levels of Representative Sounds and Noises I-2

Table I-2. Summary of Ambient Sound Measurements I-3

Table J-1. Comments Received J-2

Attachments

Attachment B-1. Biological Resources Overview for the Wild Stallion Energy Storage System
Project in Surprise, Maricopa County, Arizona (November 2025) Attachment B-1

Attachment B-2. Aquatic Resources Assessment for the Wild Stallion Energy Storage System
Project in Surprise, Maricopa County, Arizona (November 2025) Attachment B-2

Attachment B-3. Cultural Resources Inventory of 28.87 Acres of State Trust Land for the Wild
Stallion Energy Storage System Gen-Tie Project, Maricopa County, Arizona
(November 2025) Attachment B-3

Attachment C-1. USFWS Information for Planning and Consultation (IPaC) System Official
Species List for the Project Attachment C-1

Attachment C-2. AZGFD Arizona Online Environmental Review Tool Report for the
Project Attachment C-2

INTRODUCTION

Pursuant to Arizona Revised Statutes (ARS) 40-360 et seq., Wild Stallion Energy Storage LLC (Applicant) is seeking a Certificate of Environmental Compatibility (CEC) for the proposed Wild Stallion Energy Storage System Gen-Tie Project (Project). The Project is an aboveground, single-circuit 230-kilovolt (kV) alternating current generation tie-line (gen-tie) up to 2 miles in length that would deliver power between the proposed 200-megawatt (MW) / 800-megawatt-hour (MWh) Wild Stallion battery energy storage system (BESS) Facility and the existing Arizona Public Service (APS) Trilby Wash Substation.

The Project would start at the proposed on-site substation (Project Substation), which would be connected to the proposed BESS Facility and extend east to the Trilby Wash Substation, which is adjacent to the west of the Waste Management Northwest Regional Landfill. The gen-tie would be south of Deer Valley Road and would cross Arizona State Trust land and private property primarily in unincorporated Maricopa County, with a small portion extending into the City of Surprise, Arizona.

Planned Project and associated facilities include BESS components enclosed by a perimeter wall, a main power transformer, the Project Substation, electrical infrastructure, the gen-tie, and access roadways. Although the BESS Facility and Project Substation are described in this application for context, the Applicant is seeking a CEC only for the gen-tie.

Wild Stallion Energy Storage LLC is a wholly owned subsidiary of BayWa r.e. Development LLC (BayWa r.e.). BayWa r.e. is a leader in greenfield development and is a fully integrated, utility-scale solar, wind, and battery energy storage developer and service provider.

The Project is included in the Applicant's Ten-Year Transmission System Plans filed with the Arizona Corporation Commission (Commission) on January 31, 2025, and January 30, 2026, on Docket Number E-99999A-25-0006.

PROJECT OVERVIEW

The Project consists of a 230-kV alternating current, single-circuit gen-tie that would extend up to 2 miles between the proposed BESS Facility and the existing Trilby Wash Substation, within an approximately 165-foot-wide right-of-way (ROW). The east end of the Project includes three options for interconnection to the Trilby Wash Substation: options A, B, and C as shown on Figure 1. Option A is up to 1.7 miles long, and options B and C are each up to 2 miles long. At its west end, the gen-tie would connect to the Project Substation, which would be along the BESS Facility's eastern boundary. The Project is needed to deliver power to and from the BESS Facility and would connect the BESS Facility to the regional electric grid.

The Applicant anticipates the Project would require 17 to 20 transmission structures, depending on interconnection location (i.e., option A, B, or C), terrain, turns, and other factors. Transmission structures for the Project would be up to 120 feet high, with spans between structures up to 650 feet. The Project may use a combination of tangent, angle, and dead-end monopoles that would be tapered, multisided, and made of galvanized steel. New access roads would be needed for construction and operation, and temporary staging areas would be needed during construction. The Applicant notes that it may refine minor design characteristics for the Project during its final engineering phase. Representative diagrams of the anticipated transmission towers are included in Exhibit G.

Construction of the Project is anticipated to begin in 2029, with a 1.5- to 2-year construction period. The Project and BESS Facility are anticipated to be completed in 2030. The gen-tie is anticipated to need

a building permit, dust control permit, and stormwater plan review from Maricopa County and a ROW permit from the Arizona State Land Department (ASLD). City of Surprise approvals are anticipated for a minor portion of the gen-tie and are expected to include parcel subdivision, BESS rezoning, a Type 1 Site plan review, a civil construction permit, and a commercial building permit. Additional approvals may be identified as the BESS Facility and Project advance.

Proposed Route

The preliminary proposed route for the Project originates at the Project Substation, anticipated to be near the southeast corner of the BESS Facility site (Maricopa County Assessor's Parcel Numbers 503-80-018D and 503-80-018F) on private property in the City of Surprise. The remaining portions of the preliminary proposed route are on ASLD parcel number 005-001067-00 in unincorporated Maricopa County.

From the Project Substation, the preliminary proposed route for the Project extends east approximately 165 feet (0.03 mile), then south for approximately 650 feet (0.12 mile), then east for approximately 6,270 feet (1.19 miles), then north for approximately 100 feet (0.02 mile), then east for approximately 410 feet (0.08 mile), then north for approximately 450 feet (0.08 mile), then east for approximately 650 feet (0.12 mile), then south for approximately 83 feet (0.02 mile), until terminating at the north side of the Trilby Wash Substation (option B). The final segment of the gen-tie is still under evaluation by the Applicant; therefore, this application includes two additional options for interconnection (i.e., options A and C). For option A, the gen-tie would terminate at the west side of the Trilby Wash Substation. For option C, before the gen-tie reaches the Trilby Wash Substation, the route turns south for up to 460 feet (0.09 mile) and then travels east for up to 1,155 feet (0.23 mile) to interconnect with the Trilby Wash Substation on its south side.

Requested CEC Corridor

The Applicant has included a proposed variable-width corridor for the Project (CEC Corridor) to allow for siting flexibility in consideration of landowners and other utilities in the region. The requested CEC Corridor encompasses the proposed 165-foot-wide ROW but varies from 165 to 433 feet wide, as shown in Figure 2, to provide flexibility during engineering design. The gen-tie route may vary to accommodate potential design changes requested by APS or other utility operators, meet safety standards, and allow adjustments as detailed engineering progresses, but will be fully sited within the CEC Corridor. To accommodate potential routing and interconnection alternatives, the west end of the corridor extends north to the northeast corner of the BESS Facility, and the east end wraps around the north, west, and south sides of the Trilby Wash Substation.

The CEC Corridor is in Sections 19 and 20, Township (T) 4 North (N), Range (R) 2 West (W) and Section 24, T4N, R3W. In total, the CEC Corridor is approximately 80.71 acres, consisting of 3.17 acres (4%) of private property and 77.54 acres (96%) of State Trust lands administered by the ASLD. Most of the CEC Corridor is in unincorporated Maricopa County, with a small portion extending into the City of Surprise, Arizona (see Figures 1 and 2).

BESS FACILITY DESCRIPTION

The BESS Facility is a standalone BESS that would store power from and distribute power to the regional electric grid. The BESS Facility would be located on 20 acres of private land within the City of Surprise in Section 24, T4N, R3W. A building permit, dust control permit, and stormwater plan review from Maricopa County and ROW grant from the ASLD are anticipated to be needed for the gen-tie. City of Surprise approvals are anticipated for a minor portion of the gen-tie and are expected to include parcel

subdivision, BESS rezoning, a Type 1 Site plan review, a civil construction permit, and a commercial building permit. Additional approvals may be identified as the BESS Facility and Project advance.

The BESS Facility is planned as an up-to-200-MW facility that is anticipated to be constructed in a single phase. Construction is anticipated to begin in mid-2029, with a commercial operation date of late 2030. The BESS Facility would have steel enclosures housing electrochemical battery cells, lower-voltage (34.5-kV) collection lines, inverters, and transformers. The enclosures would also have cooling systems and intelligent fire detection systems. Final specifications for the BESS Facility will ultimately be determined by the off-taker requirements, contract terms, procurement considerations, market conditions, and technology availability.

The BESS Facility would provide valuable services to help balance and improve the efficient operation of the larger regional power grid. BESS projects complement energy generation by storing energy when it is plentiful, such as during daytime solar energy production, and distributing it to customers when energy demand is highest. BESS projects can make more energy available over more hours of the day, similar to a traditional power plant. The Project would allow the BESS Facility to be charged from and deliver power to the transmission network to support the regional electric grid.

Project Substation

The Project Substation would be along the eastern boundary of the BESS Facility on private property and would occupy up to 2 acres within the City of Surprise in Section 24, T4N, R3W. Electricity stored by the BESS Facility would travel through lower-voltage (34.5-kV) collector lines to the Project Substation where a power transformer would increase the voltage up to transmission voltage (230 kV) so the power can be delivered to the regional electric grid. During charging, the process works in reverse. The Project Substation would include major equipment, such as power transformers, buses, circuit breakers, disconnect switches, test switches, surge arrester, fuses, a control building, riser structures, security and perimeter fence, and security and emergency lighting.

The Applicant is not requesting authorization for the Project Substation due to the current interpretation of the Commission and the Siting Committee that a substation does not require a CEC under the definition of “transmission line” in ARS 40-360(10). Therefore, the Applicant is describing the Project Substation for contextual purposes only.

PURPOSE AND NEED

The Project is needed to charge the BESS and deliver stored energy from the BESS Facility to the regional electric grid. The Project would allow the BESS Facility to improve power grid reliability and stability, create efficiency in energy use, and facilitate future development of renewable energy projects. Adding energy storage projects meets several objectives at the local, state, and federal levels, including the need for additional energy storage to serve the region. The purpose of the CEC Application is to secure approval for the Project, which would connect the BESS Facility to the regional transmission system at the existing APS Trilby Wash Substation.

The location of the Project has been identified as optimal based on the recognized need to interconnect energy storage systems to local electric utilities, the existence of compatible adjacent and nearby land uses, and its proximity to the existing Trilby Wash Substation. The location minimizes the length of the gen-tie while siting the proposed facilities in an area of compatible land uses.

PROPOSED INTERCONNECTION

To connect the BESS Facility and the Project, APS would make certain improvements to its existing Trilby Wash Substation. The APS improvements for Trilby Wash Substation would include expanding the 230-kV substation along with 230kV line drops, as well as adding associated switches, metering, breakers, and other associated equipment.

The Applicant submitted an interconnection request to APS in September of 2021 and the project was transferred to the transitional cluster by APS in November 2023 to interconnect 200 MW at the Trilby Wash Substation. A Large Generator Interconnection Agreement is expected to be executed with APS in August of 2026.

ENVIRONMENTAL AND PUBLIC SITING PROCESS

Siting Process

The siting process for the Project focused on identifying a reasonably direct route to interconnect the BESS Facility to the APS Trilby Wash Substation with most of the Project paralleling an existing utility transmission ROW. The Applicant sought to minimize landowner and environmental impacts by selecting the most direct route possible, while also considering existing land use and infrastructure, costs, and constructability. The Project was intentionally sited adjacent to existing aboveground transmission line infrastructure to minimize land disturbance and maintain visual consistency with the existing developed infrastructure corridor.

The proposed gen-tie alignment minimizes the number of existing infrastructure crossings and accounts for local terrain and sensitive known resources to the extent commercially possible.

Public Outreach Process

Public outreach for the Project began in April 2026 with an informational letter to stakeholders and landowners within 1 mile of the CEC Corridor, inviting them to attend an in-person open house. The letter also provided a link to the Project website and email, phone, and address information for providing public comments and questions. The Applicant held an in-person open house for the Project on April 22, 2026, in Surprise, Arizona. Additional information regarding public outreach is described in Exhibit J of this Application.

SUMMARY OF ENVIRONMENTAL COMPATIBILITY

The Project is compatible with existing land uses and land management designations in the vicinity, as described further in Exhibit B. Furthermore, the Project would minimally affect the area's natural and human environment. Specifically:

- The Project is not expected to result in significant impacts to wildlife and vegetation, including special-status species. With the proposed minimization measures, the Project is not likely to significantly affect any special-status or non-special-status wildlife or vegetation species (Exhibits C and D). One Endangered Species Act (ESA)-listed species (yellow-billed cuckoo) and one ESA-proposed species (monarch butterfly) may occur within the Study Area. No observations of these two species have occurred during field reconnaissance efforts for the Project to date. Non-ESA-listed special-status amphibian, bird, mammal, and reptile species individuals may also occur in the Study Area. The CEC Corridor intersects one mapped area of biological wealth (a Maricopa County Wildlife Movement area), and the Study Area contains

cattle tanks identified as biological wealth areas. The CEC Corridor is adjacent to a xeroriparian wash corridor (Trilby Wash), which is also identified as an area of biological wealth.

- The Project is compatible with the existing visual landscape of the area. The development of the Project would result in a weak degree of visual contrast and low level of visual impact to the existing low scenic quality of the landscape within the Study Area. The Project would incorporate elements into the landscape that are overall similar to the existing transmission development in the area, with slight differences in form, scale, and texture compared to existing lattice tower transmission development (Exhibit E).
- The Project would avoid or mitigate impacts to historic sites or structures, or archaeological sites. The records review identified that 41.7% of the CEC Corridor has been previously and adequately surveyed for cultural resources (see Exhibit E). No historic properties were identified that intersect the CEC Corridor. Prior to construction, the Applicant will complete a cultural resources inventory of the portions of the final route that have not been previously adequately surveyed to identify and evaluate the cultural resources that may be present. If any historic properties are encountered, the inventory report would provide recommendations on how to mitigate any adverse effects on those historic properties. Additionally, an Unanticipated Discoveries Plan will be developed to support the construction period.
- The Project would not affect recreation, including dispersed recreation. No developed recreational facilities or parks are present within the CEC Corridor, and access to recreational facilities or parks in the vicinity of the CEC Corridor would not be affected (Exhibit F).
- The Project would have minimal noise impacts. Due to the existing sound environment, distance to noise-sensitive receptors, and anticipated noise levels during construction and operation, the Project is consistent with the existing soundscape of the immediate area and is not expected to result in substantial noise-related impacts (Exhibit I).

CONCLUSION

The Applicant is committed to avoiding, where possible, and minimizing, where practicable, environmental impacts and believes the Project is environmentally compatible. The Applicant further believes that the Project is in the public interest because the BESS Facility's contribution to meeting the need for additional energy storage to serve the region outweighs the impact of the Project on the environment and ecology of the state. The Applicant therefore respectfully requests that the Arizona Power Plant and Transmission Line Siting Committee grants, and the Arizona Corporation Commission approves, a CEC for the Project.

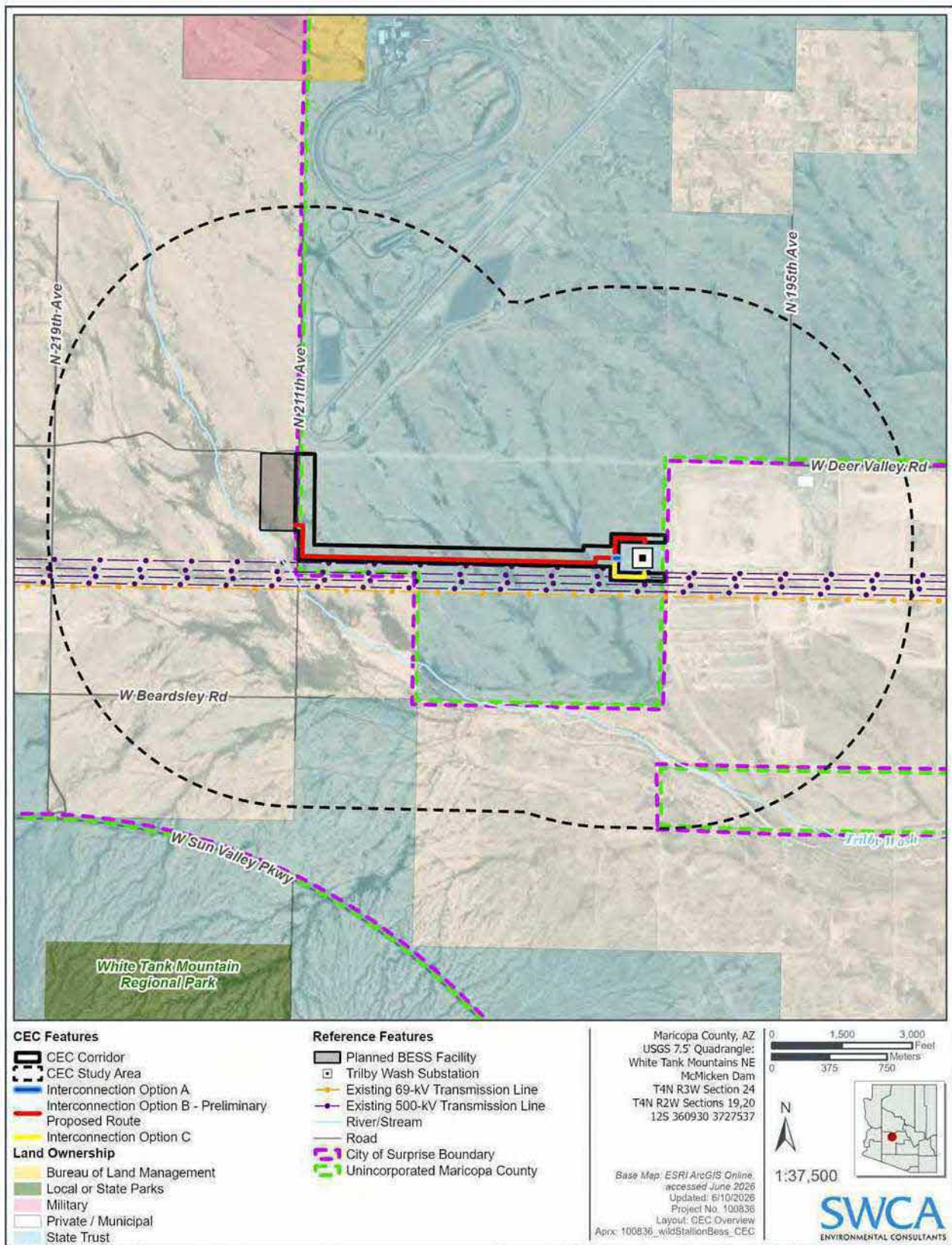


Figure 1. Project overview.

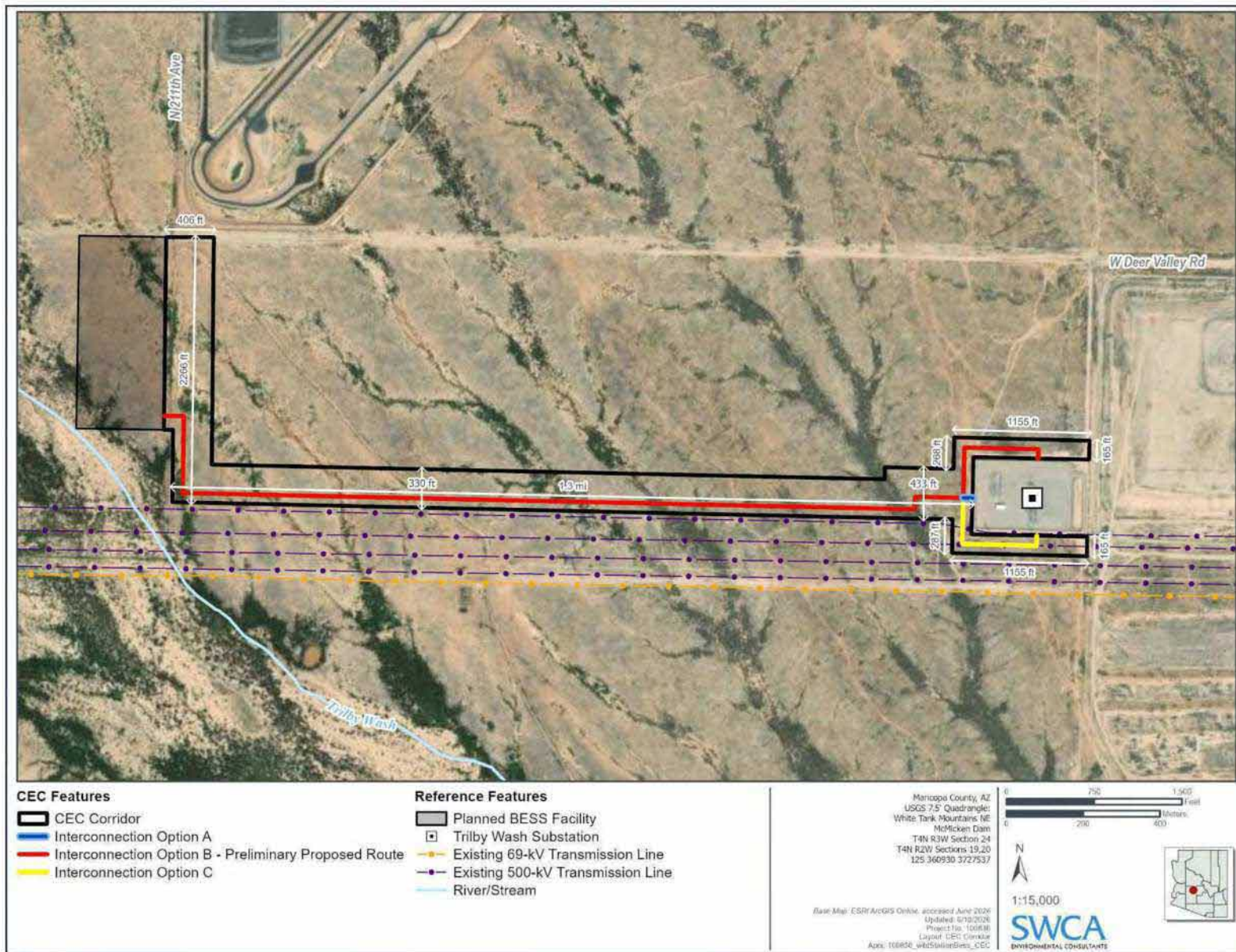


Figure 2. Requested CEC Corridor.

APPLICATION FOR CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY

1. Name and address of the Applicant

Wild Stallion Energy Storage LLC
5901 Priestly Drive, Suite 300
Carlsbad, California 92008

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

Natalie Aiello, Permitting Manager
Wild Stallion Energy Storage LLC
5901 Priestly Drive, Suite 300
Carlsbad, California 92008
(949)393-1904

3. Date on which the applicant filed a Ten-Year Plan in compliance with ARS § 40-360.02, in which the facilities for which this application is made were described

The Project was included in Wild Stallion LLC's Ten-Year Transmission Plans, which were filed with the Arizona Corporation Commission on January 31, 2025, and January 30, 2026, on Docket Number E-99999A-25-0006.

4. Description of the proposed facility, including:

a. With respect to an electric generating plant:

There are no thermal electrical generating plants included as part of the Project.

b. With respect to a proposed transmission line:

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

(1) Nominal voltage:

The nominal voltage for the Project is 230-kV alternating current.

(2) Description of the proposed structures:

Conceptual drawings showing the typical structures are provided in Exhibit G.

(3) Description of proposed switchyards and substations:

Consistent with the positions of the Commission and the Siting Committee that a substation does not require a CEC under the definition of "Transmission Line" in ARS 40-360(10), the Applicant is not requesting a CEC for the Project Substation.

No switchyard is being proposed as part of the Project.

(4) Purpose for constructing said transmission line:

The purpose of the Project is to deliver electrical power to and from the proposed 200-MW BESS Facility, and the Project would connect the BESS Facility to the regional electric grid via the existing APS Trilby Wash Substation for customer use.

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 Project would originate at the Project Substation in Section 24, T4N, R3W.

The Project would traverse Section 24, T4N, R3W and Sections 19 and 20, T4N, R2W.

The Project would end at the Trilby Wash Substation in Section 20, T4N, R2W.

(2) Straight-line distance between such points:

The straight-line distance between the points of origin and termination is approximately 1.3 miles.

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

The final route of the Project is not yet determined. The east end of the Project includes three options for interconnection to the Trilby Wash Substation (options A, B, and C as shown on Figure 1). Option A is up to 1.7 miles long, and options B and C are each up to 2 miles long. At its west end, the gen-tie would connect to the Project Substation, which would be along the BESS Facility's eastern boundary.

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:

The Project ROW would be 165 feet wide. The ROW would be within a 165- to 435-foot-wide CEC Corridor, which is described in more detail below.

(2) Nominal length of spans:

The span lengths between structures would be up to 650 feet. Variation in span length may be needed to meet site-specific engineering requirements including topography.

(3) Maximum height of supporting structures:

The maximum height of the supporting structures would be 120 feet above the ground surface.

(4) Minimum height of conductor above ground:

The minimum height of the conductor above the existing grade would be 60 feet. All clearances would be in accordance with applicable codes and regulations.

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.)

The preliminary estimated cost for the Project is up to \$2,500,000. This estimate is subject to change.

- 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 up-to-2-mile-long Project would connect the Project Substation to the existing APS Trilby Wash Substation (i.e., the point of interconnection) (see Figure 1).

The preliminary proposed route for the Project originates at the Project Substation, which is anticipated to be near the southeast corner of the BESS Facility, on private property (Maricopa County Assessor's Parcel Numbers 503-80-018D and 503-80-018F) in the City of Surprise. The remaining portions of the preliminary proposed route are on ASLD parcel number 005-001067-00 in unincorporated Maricopa County.

From the Project Substation, the preliminary proposed route for the Project extends east approximately 165 feet (0.03 mile), then south for approximately 650 feet (0.12 mile), then east for approximately 6,270 feet (1.19 miles), then north for approximately 100 feet (0.02 mile), then east for approximately 410 feet (0.08 mile), then north for approximately 450 feet (0.08 mile), then east for approximately 650 feet (0.12 mile), then south for approximately 83 feet (0.02 mile), until terminating at the north side of the Trilby Wash Substation (option B). The final segment of the gen-tie is still under evaluation by the Applicant; therefore, this application includes two additional options for interconnection (i.e., options A and C). For option A, the gen-tie would terminate at the west side of the Trilby Wash Substation. For option C, before the gen-tie reaches the Trilby Wash Substation, the route turns south for up to 460 feet (0.09 mile) and then travels east for up to 1,155 feet (0.23 mile) to interconnect with the Trilby Wash Substation on its south side.

The preliminary proposed route for the Project traverses Section 24, T4N, R3W, and Sections 19 and 20, T4N, R2W.

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

The route for the Project is up to 2 miles, depending on determination of the final alignment between options A, B, and C. In total, the requested CEC Corridor is approximately 80.71 acres, consisting of 3.17 acres (4%) of private property and 77.54 acres (96%) of State Trust lands administered by the ASLD.


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 Project would be on private property and Arizona State Trust lands. The Project is in the City of Surprise and unincorporated Maricopa County, Arizona; therefore, the City of Surprise and Maricopa County have jurisdiction over land use. Additionally, the ASLD has jurisdiction over Arizona State Trust lands. The Project is not contrary to land use plans or zoning ordinances for the City of Surprise and Maricopa County.

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.

The Applicant has conducted all studies required to thoroughly evaluate each of the factors included in ARS 40-360.06. The Applicant has evaluated available secondary and field data related to biological resources, visual resources, cultural resources, recreational resources, land use, 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 B, C, D, E, F, H, and I in this application. Other environmental studies completed or planned for the Project are described in Exhibit B.

WILD STALLION ENERGY STORAGE LLC

By: 
Natalie Aiello, Permitting Manager
Wild Stallion Energy Storage LLC

I HEREBY CERTIFY that on this twenty-sixth day of June 2026, I have delivered to the Arizona Corporation Commission eight (8) copies of this Application for a Certificate of Environmental Compatibility.

EXHIBIT A. LOCATION MAP AND LAND USE MAPS

In accordance with Arizona Administrative Code Rules of Practice and Procedure R14-3-219, Exhibit 1, the applicant provides the following location maps and land use information:

*Where commercially available**, 1) a topographic map, 1:250,000 scale, showing any proposed transmission line route longer than 50 miles and the adjacent area; and 2) a topographic map, a scale of 1:62,500, for routes shorter than 50 miles showing any proposed transmission line route and the adjacent area.*

Where commercially available, a topographic map, 1:62,500 scale, of each proposed transmission line route longer than 50 miles 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 an overlay.

***If a topographic map is not commercially available, a map of similar scale, which reflects prominent or important physical features of the area in the vicinity of the proposed site or route, shall be substituted.*

LAND USE OVERVIEW

The following exhibits are required by the Arizona Corporation Commission's *Rules of Practice and Procedure* R14-3-219 to support the land use studies conducted for this Application:

- Exhibit A-1 illustrates topography for the vicinity of the Certificate of Environmental Compatibility (CEC) Corridor and land within 1 mile of the CEC Corridor (Study Area).
- Exhibit A-2 illustrates existing land use within the Study Area.
- Exhibit A-3 illustrates planned land use within the Study Area.
- Exhibit A-4 illustrates the existing noise environment in the vicinity of the Study Area.

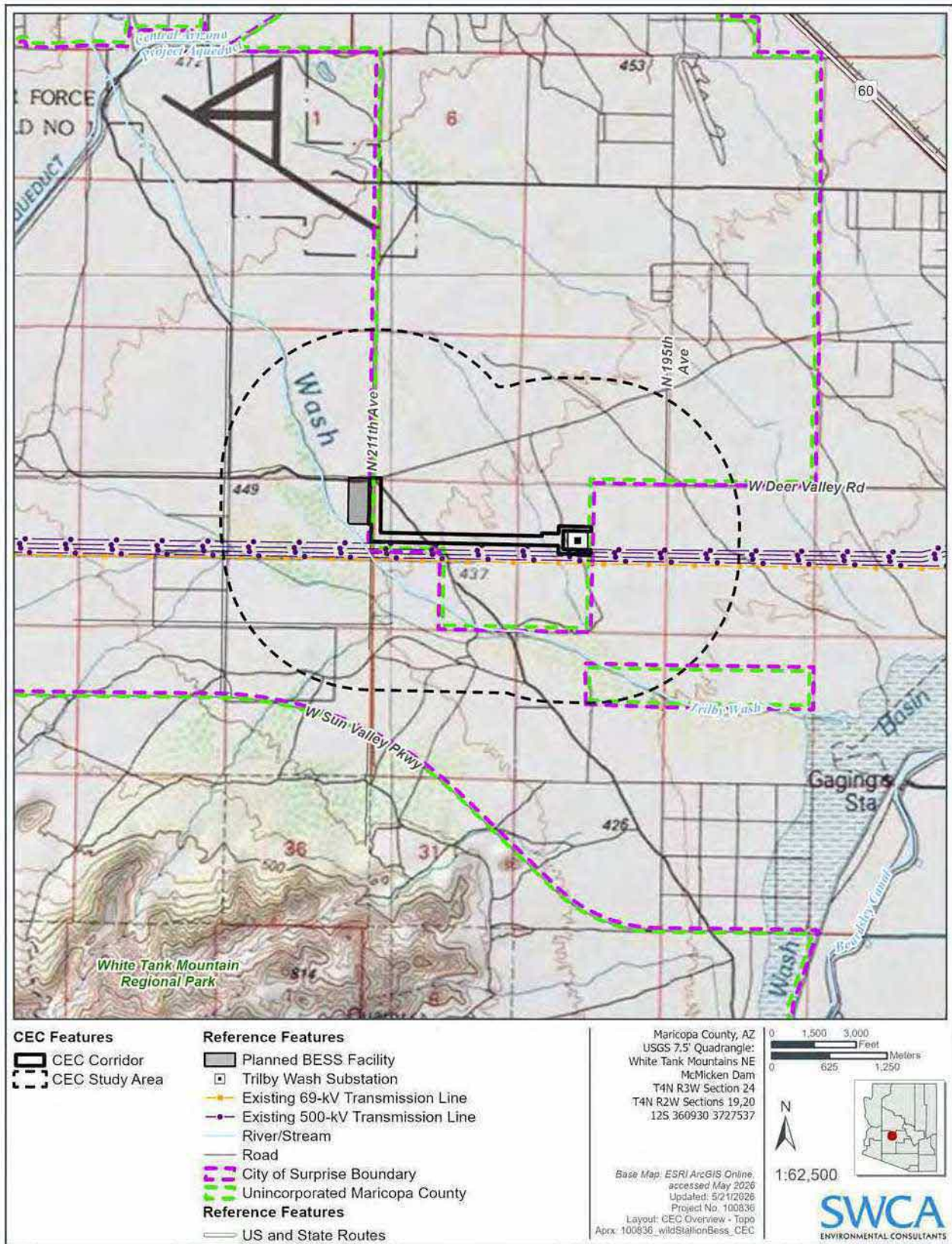


Exhibit A-1. Topographic map.

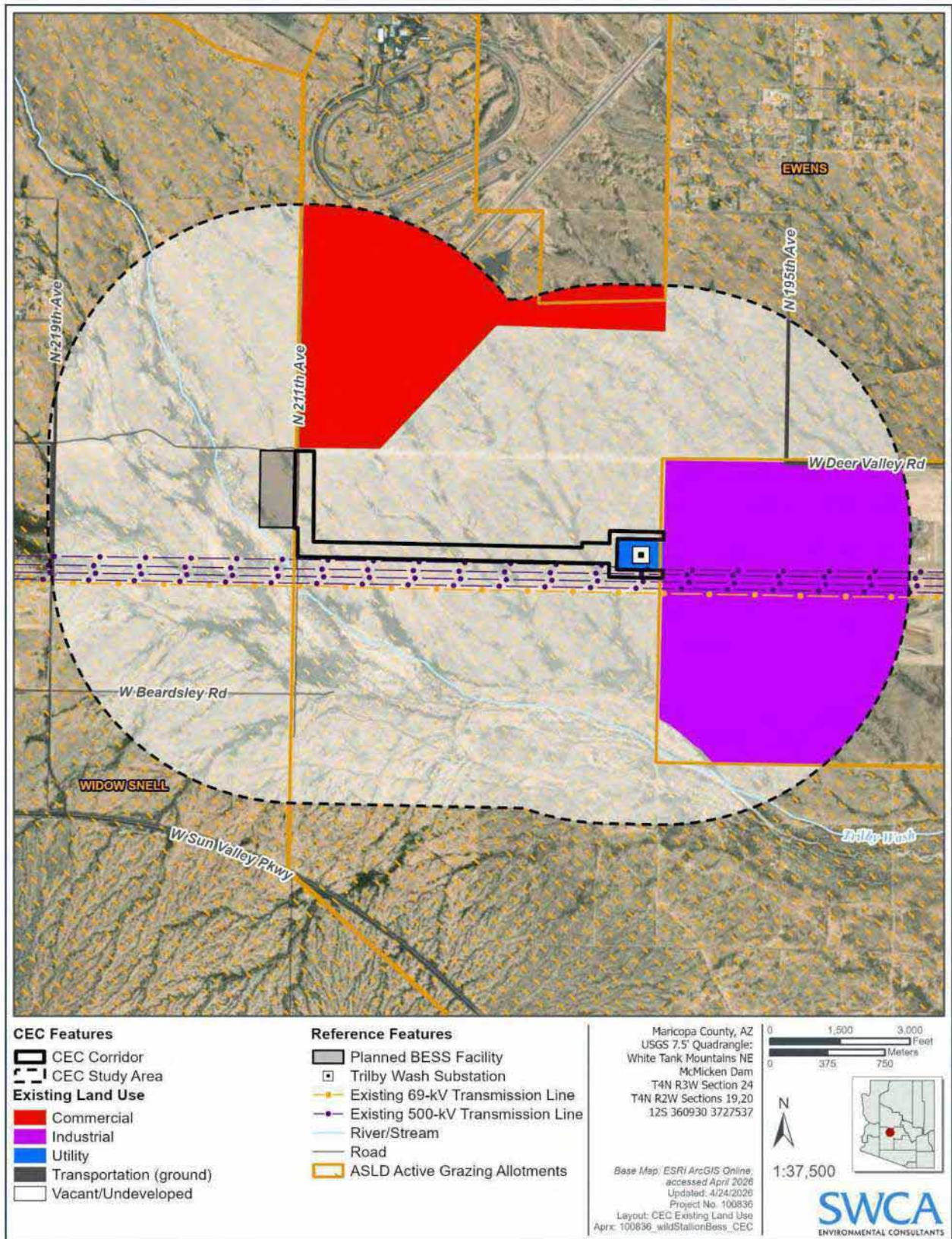


Exhibit A-2. Existing land use.

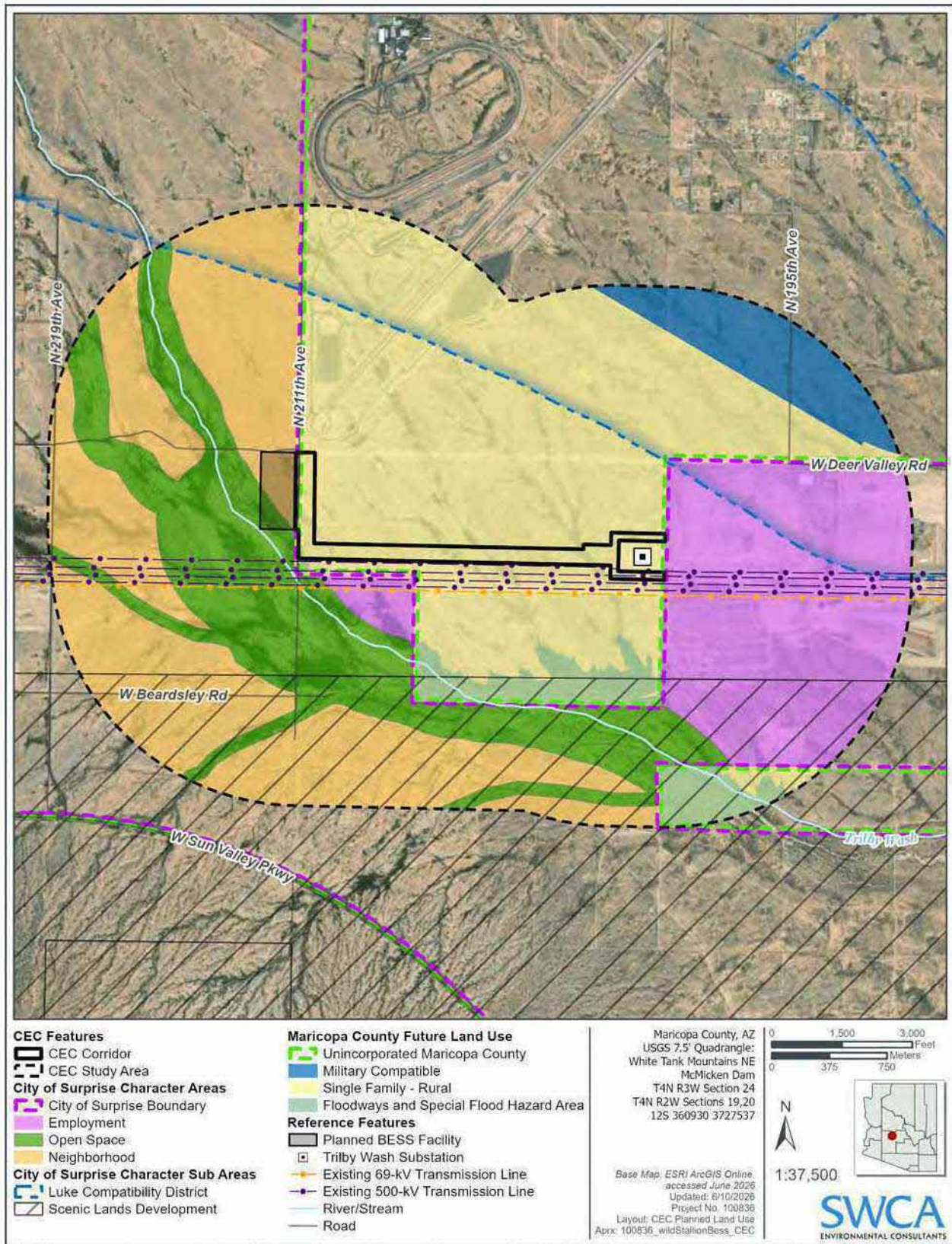


Exhibit A-3. Planned land use.

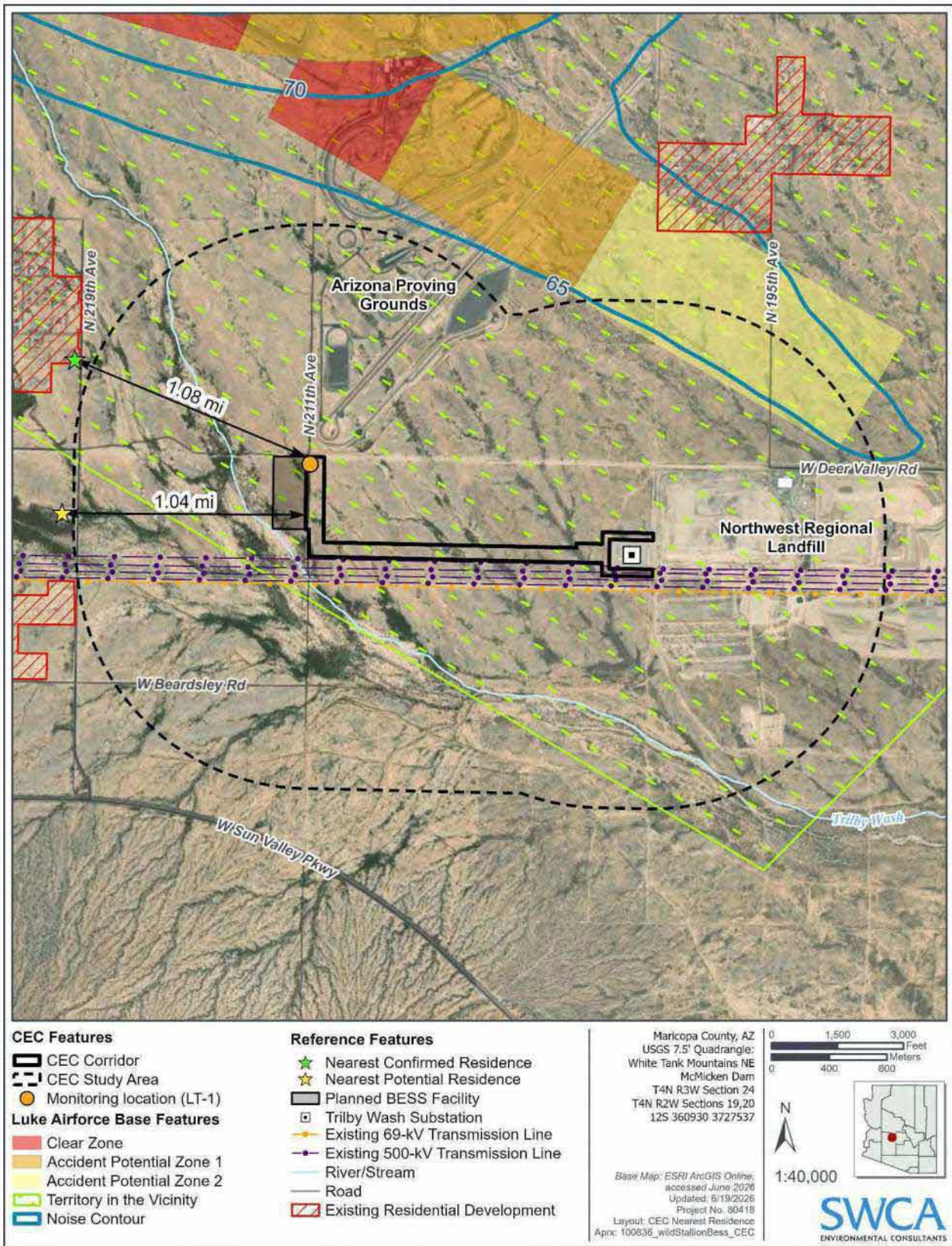


Exhibit A-4. Existing sound environment.

EXHIBIT B. ENVIRONMENTAL STUDIES

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219, Exhibit 1:

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.

INTRODUCTION

SWCA Environmental Consultants was retained by the Applicant to complete environmental analyses for the Project, including the evaluation of land use as well as biological, visual, cultural, and recreation resources within the Certificate of Environmental Compatibility (CEC) Corridor and a 1-mile-radius buffer around the CEC Corridor (hereinafter called the Study Area). This exhibit provides a detailed inventory and evaluation of existing and planned land use within the Study Area. Biological, visual, cultural resources, recreational, and noise evaluations are discussed in Exhibits C, D, E, F, and I.

Also included in this exhibit are the following studies commissioned by the Applicant to support the Project:

- Attachment B-1. Biological Resources Overview for the Wild Stallion Energy Storage System Project in Surprise, Maricopa County, Arizona (November 2025)
- Attachment B-2. Aquatic Resources Assessment for the Wild Stallion Energy Storage System Project in Surprise, Maricopa County, Arizona (November 2025)
- Attachment B-3. Cultural Resources Inventory of 28.87 Acres of State Trust Land for the Wild Stallion Energy Storage System Gen-Tie Project, Maricopa County, Arizona (November 2025)

These studies will be updated as needed depending on the final route and interconnection location.

LAND USE

Inventory

The methodology used for this land use inventory included field verification and a review of desktop data, such as maps, aerial imagery, general plans, and other supportive documents, including the Maricopa County *Vision 2030 Comprehensive Plan* (Maricopa County 2016), the *White Tank Grand Avenue Area Plan* (Maricopa County 2023), Maricopa County zoning ordinance (Maricopa County 2025), the *Surprise 2040 General Plan* (City of Surprise 2024), the City of Surprise zoning ordinance (City of Surprise 2025), the Arizona State Land Department (ASLD) parcel viewer (ASLD 2026), and the Bureau of Land Management ePlanning website (Bureau of Land Management 2026). The inventory also included communication with government agencies, municipalities, and other interested parties within the Study Area to gather information regarding further development plans or known development projects. Additional information regarding coordination with these entities can be found in Exhibit H.

Jurisdiction and Land Ownership

The CEC Corridor and Study Area are within the City of Surprise and unincorporated Maricopa County, Arizona. Lands within the CEC Corridor and Study Area are privately owned or are Arizona State Trust lands administered by the ASLD, as shown in Exhibit A-1.

Existing Land Use

The primary existing land use within the Study Area is vacant/undeveloped. Other land uses in the Study Area include commercial, industrial, transportation, and utility. Overall, the Study Area can be described as rural in character with industrial and commercial uses. The CEC Corridor is limited to vacant/undeveloped and transportation. The existing land uses within the Study Area are displayed on Exhibit A-2 and described in detail below.

Commercial – One commercial facility, the Ford Arizona Proving Grounds (a private automotive testing area), intersects the northern portion of the Study Area and is adjacent to the north of the CEC Corridor.

Industrial – The Waste Management Northwest Regional Landfill is the only industrial facility within the Study Area and is east of the CEC Corridor.

Transportation – Transportation uses within the Study Area are associated with regional and local roadways such as Deer Valley Road, 195th Avenue, 211th Avenue, and 219th Avenue, as well as other unnamed, unpaved roads.

Utility – Utility uses within the Study Area include the Arizona Public Service Trilby Wash Substation, which is the point of interconnection for the Project. Existing 69-kilovolt and 500-kilovolt transmission lines run parallel to the south side of the CEC Corridor.

Vacant/Undeveloped – Numerous large tracts of undeveloped land are present within the Study Area. Undeveloped land within the Study Area is primarily State Trust land with a small portion of private land. Additionally, two active grazing allotments are present, leased by Ewans and Widow Snell. Trilby Wash and its associated Federal Emergency Management Agency–designated regulatory floodway traverse the Study Area, running generally southeast to northwest. The wash and floodway are south and west of the CEC Corridor.

Planned Land Use

Planned land uses within the Study Area are mapped on Exhibit A-3 and can generally be characterized as rural with employment and neighborhood uses. The Maricopa County Comprehensive Plan and the White Tank Grand Avenue Area Plan identify land use designations to guide decision-makers when planning and managing land development (Maricopa County 2016, 2023). The City of Surprise General Plan identifies character areas, which are designations that give general guidelines on how a part of the city may develop. The character areas have been used to determine general planned land uses within the city (City of Surprise 2024).

Maricopa County identified portions of the Study Area within the Military Compatible, Single Family – Rural, and Floodways and Special Flood Hazard Areas future land use designations. The CEC Corridor only overlaps with the Single Family – Rural designation (see Exhibit A-3). Military Compatible is defined as “areas within the High Noise or Accident Potential Zones” in order to ensure that “future development is compatible with the high noise or accident potential generated by these military facilities that may have an adverse effect on public health and safety” (Maricopa County 2016:39). The Single

Family-Rural land use designation is defined as areas with a “density of 1 dwelling unit or less per gross acre” (Maricopa County 2016:49). Floodways and Special Flood Hazard Areas are defined as “areas vulnerable to flooding during significant rain events, most notably in the Federal Emergency Management Agency’s 100-year floodplain” (Maricopa County 2016:83).

Maricopa County identifies a goal to be “a leader in alternative energy research and development” in both the Maricopa County Comprehensive Plan and the White Tank Grand Avenue Area Plan (Maricopa County 2016:105, 2023:87). The Project would allow the proposed BESS Facility to store excess energy when not needed and supplement the power supply during times of high demand, thereby improving power grid reliability and creating efficiency in energy delivery. Maricopa County also identifies a goal to “support land use compatibility within the High Noise or Accident Potential Zone of Luke Air Force Base” in the Comprehensive Plan (Maricopa County 2016:47) and a policy to “continue to comply with military airport or ancillary military facility ARS policies” in the White Tank Grand Avenue Area Plan (Maricopa County 2023:36). The Study Area and CEC Corridor are within the “Territory in the Vicinity” of the Luke Air Force Base. The northeast corner of the Study Area intersects Accident Potential Zone 2, but the CEC Corridor does not overlap any High Noise or Accident Potential Zone (see Exhibit A-4). Compatible land uses are only specified for the designated Clear Zone, Noise Zones, and Accident Potential Zones for the Luke Air Force Base (Arizona Department of Commerce 2003). Therefore, the Project is compatible with the goals and policies in the Maricopa County Comprehensive Plan and the White Tank Grand Avenue Area Plan.

The City of Surprise identifies Neighborhood, Employment, and Open Space character areas within the Study Area. The westernmost edge of the CEC Corridor is in the City of Surprise Neighborhood character area; no Employment or Open Space character areas are in the corridor (see Exhibit A-3). The Neighborhood character area is primarily intended for residential development but can “also be supported by locally oriented commercial and public facility uses, including but not limited to schools, community facilities, police substations and or fire stations, and can range from established to emerging and urban to rural in nature” (City of Surprise 2024:58). The Employment character area is intended for economic and business development opportunities “that generate employment such as research/development/hi-tech parks, corporate campuses or business parks, manufacturing/processing facilities, distribution centers, medical campuses, and office/industrial flex spaces” (City of Surprise 2024:72). The Open Space character area is “intended to be preserved for natural areas, conservation areas and/or trail and other regional recreational facilities” and is “primarily designated in mountainous areas, along designated floodways, riparian areas, and along significant desert wash and other drainage corridors” (City of Surprise 2024:80).

The northeast portion of the Study Area intersects the City of Surprise Luke Compatibility District, which requires land uses to be military compatible, as identified in Arizona Revised Statutes 28-8481 (Maricopa County 2023). Compatible uses identified include transportation, communications, and utilities (Arizona Department of Commerce 2003; Arizona State Legislature 2026). The southern portion of the Study Area intersects the Scenic Lands Development area, which identifies areas “of unique and scenic qualities that are only found in these natural settings” (City of Surprise 2024:89). The Luke Compatibility District and Scenic Lands Development areas are outside the CEC Corridor (see Exhibit A-3).

The City of Surprise identifies a goal to “utilize a systems approach to sustainability,” which includes the initiative that new growth “will be guided through the use of more defined and efficient development practices, seeking to support the City’s efforts to reduce its overall reliance on non-renewable resources” (Goal 6.2) (City of Surprise 2024:170). Additionally, policy 3 under Goal 6.2 is to “develop and implement Citywide strategic energy planning that includes initiatives such as . . . pursuing opportunities for local energy supply management” (City of Surprise 2024:170).

In March 2026, the Applicant sent letters to the relevant jurisdictions to provide Project information and request new or additional information on plans or planned developments within the Study Area. Exhibit H provides a copy of the letter, written responses, and other correspondence from relevant jurisdictions.

Impact Assessment and Results

Land use impacts may be defined as restrictions on a land use that would result from the construction or operation of the Project or incompatibility with existing land use plans. Typically, restrictions on a land use would result from right-of-way or easement acquisition across a property.

The Project would be on ASLD-administered land and private land and would parallel existing linear features (i.e., existing transmission lines and rights-of-way) to the extent practicable. In total, the CEC Corridor encompasses approximately 80.71 acres, consisting of 3.17 acres (4%) of private property and 77.54 acres (96%) of ASLD-administered lands. The Project would cross parcels with existing vacant/undeveloped and transportation land uses, which are compatible with the Project. The planned land use in the CEC Corridor is primarily the Maricopa County Single Family – Rural land use category, with the westernmost edge in the City of Surprise Neighborhood character area.

The Project is compatible with the overarching goals of the Maricopa County Comprehensive Plan and the White Tank Grand Avenue Area Plan (Maricopa County 2016, 2023), which include supporting leadership in encouraging efficient and cost-effective infrastructure expansion, guiding rational and coordinated land development patterns, and ensuring that infrastructure and utilities are adequate to accommodate growth in areas such as the White Tank Grand Avenue planning area.

The Project is also compatible with the City of Surprise General Plan goals, which emphasize applying a coordinated, systems-based approach to sustainability, guiding new growth through efficient development practices that reduce reliance on nonrenewable resources, and advancing strategic energy planning that expands opportunities for local energy supply management (City of Surprise 2024).

Because the Project would improve power grid reliability while contributing jobs and economic investment to the region, it is consistent with the goals and policies of the Maricopa County Comprehensive Plan, the White Tank Grand Avenue Area Plan, and the City of Surprise General Plan.

The Study Area includes areas zoned by Maricopa County as RU-43 (rural with lot area minimum of 43,560 square feet) and RU-190 (rural with lot area minimum of 190,000 square feet) (Maricopa County 2025, 2026). The Study Area also includes areas zoned by the City of Surprise as RR (Residential Rural), PAD (Planned Area Development), and I-3 (Heavy Industrial) with a PUD (Planned Unit Development) overlay (City of Surprise 2025, 2026). The CEC Corridor is primarily RU-43, with a small area of RU-190 along the western edge. The CEC Corridor is not zoned by the City of Surprise. The RU-43, RU-190, RR, PAD, and I-3 zoning designations include permitted uses for utilities including substations and transmission lines (Maricopa County 2025, City of Surprise 2025). Therefore, the Project is compatible with the existing Maricopa County and City of Surprise zoning districts and land uses and designations.

LITERATURE CITED

- Arizona State Legislature. 2026. 28-8481: Planning and Zoning; Military Airport and Ancillary Military Facility's Operation Compatibility; Compliance Review; Penalty; Definitions. Arizona Revised Statutes. Available at: <https://www.azleg.gov/ars/28/08481.htm>. Accessed March 2026.
- Arizona State Land Department (ASLD). 2026. ASLD's parcel viewer. Available at: <https://gis.azland.gov/>. Accessed March 2026.
- Bureau of Land Management. 2026. BLM National NEPA Register. Available at: <https://eplanning.blm.gov/eplanning-ui/home>. Accessed March 2026.
- City of Surprise. 2024. *Surprise 2040 General Plan*. Available at: <https://content.civicplus.com/api/assets/c347f6a6-d821-4f50-b825-b29c89138c53?scope=all>. Accessed March 2026.
- . 2025. Surprise zoning ordinance. Available at: https://library.municode.com/az/surprise/codes/municipal_code?nodeId=PTIILADEOR_CH106ZOUSST_ARTIIREZODI_S106-2.2RURERR. Accessed March 2026.
- . 2026. Development & Zoning Maps. Available at: <https://surpriseaz.gov/267/Development-Zoning-Maps>. Accessed April 2026.
- Maricopa County. 2016. *Vision 2030 Comprehensive Plan*. Available at: <https://www.maricopa.gov/ArchiveCenter/ViewFile/Item/6126>. Accessed March 2026.
- . 2023. *White Tank Grand Avenue Area Plan*. Available at: <https://www.maricopa.gov/ArchiveCenter/ViewFile/Item/6121>. Accessed March 2026.
- . 2025. *Maricopa County Zoning Ordinance*. Available at: <https://www.maricopa.gov/DocumentCenter/View/4785/P-18---Zoning-Ordinance-PDF?bidId=>. Accessed March 2026.
- . 2026. Planning & zoning (Plan-Net) Map. Available at: <https://www.maricopa.gov/6674/Planning-zoning-Plan-Net-Map>. Accessed April 2026.

EXHIBIT B – ATTACHMENT B-1

Biological Resources Overview for the Wild Stallion Energy Storage System Project in Surprise, Maricopa County, Arizona (November 2025)

TECHNICAL MEMORANDUM

To: Natalie Aiello
Central Permitting Manager
Wild Stallion Energy Storage LLC
Submitted via email: natalie.aiello@bayway-re.com

From: Tyler Loomis, Biologist

Date: November 14, 2025

Re: **Biological Resources Overview for the Wild Stallion Energy Storage System Project in Surprise, Maricopa County, Arizona / SWCA Project No. 100836**

INTRODUCTION

Wild Stallion Energy Storage LLC, contracted SWCA Environmental Consultants (SWCA) to conduct a biological resources and habitat assessment survey for the Wild Stallion Energy Storage System Project (project). The project area consists of approximately 20 acres of privately owned land and 27 acres of Arizona State Land Department (ASLD)-administered land (collectively, the project area) in the city of Surprise, Maricopa County, Arizona (Figure 1). The project area consists of partially disturbed desert in Section 24, Township 4 North, Range 3 West, and Section 19 and 20, Township 4 North, Range 2 West in and Salt River Baseline and Meridian, as indicated on the McMicken Dam, Arizona and the White Tank Mountains NE, Arizona U.S. Geological Survey (USGS) 7.5-minute quadrangle (Figure 2) (USGS 2025). The approximate center point of the project area is 33.67611,-112.50166.

SWCA prepared this biological resources overview report to document the project's possible impacts to plants and wildlife with regard to the Endangered Species Act (ESA) of 1973 (16 United States Code [USC] 1531 et seq.); Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703–712); Bald and Golden Eagle Protection Act (BGEPA) of 1940, as amended (16 USC 668–668d or 50 Code of Federal Regulations [CFR] 22); Arizona Department of Agriculture (AZDA)-administered Arizona Native Plant Law (ANPL) (Arizona Revised Statutes 3-904); and AZDA noxious weed regulations (Arizona Administrative Code R3-4-245).

METHODS

SWCA submitted a query for the project area through the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online database (USFWS 2025a) (Appendix A). The query results identify species with historical or potential ranges in the project vicinity that are listed as endangered or threatened under the ESA; experimental, non-essential populations of a listed species; and species that are candidates or proposed for listing as threatened or endangered. SWCA also accessed the Arizona Heritage Geographic Information System (AZHGIS) Online Environmental Review Tool (ERT) database (Arizona Game and Fish Department [AZGFD] 2025a) for additional information on ESA-listed species, as well as state-identified sensitive species and special areas.

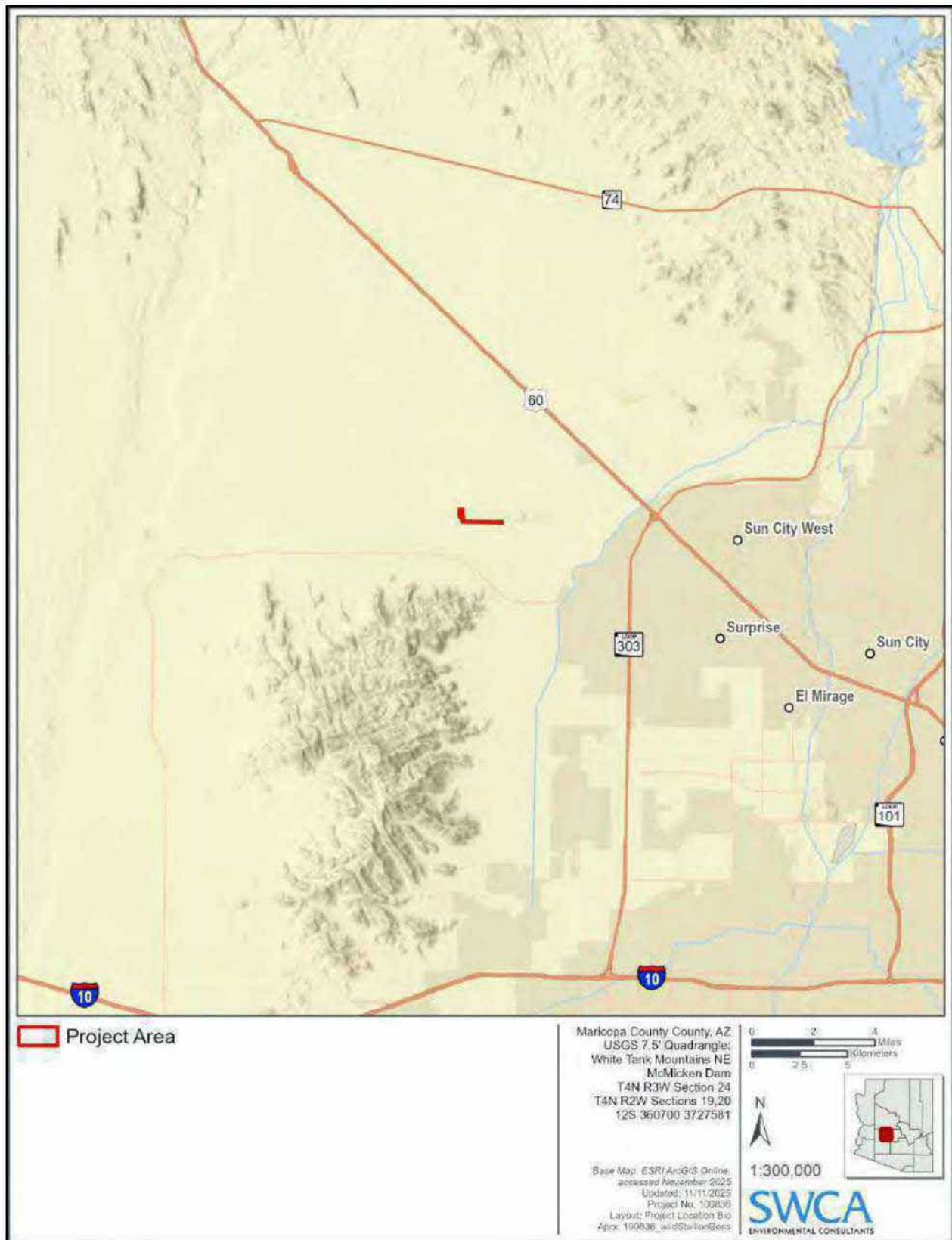


Figure 1. General location of the project area.

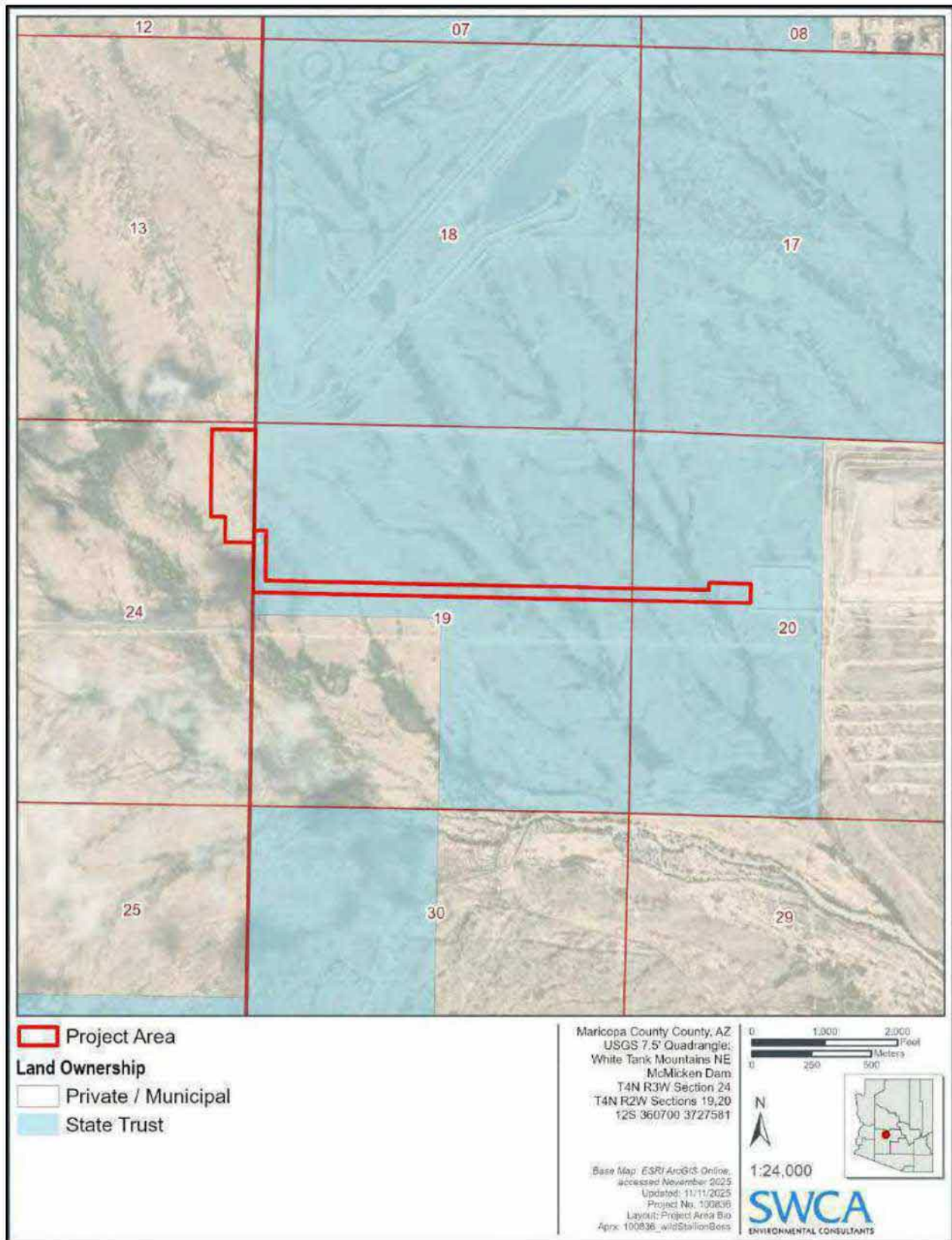


Figure 2. Project area map.

The ERT provides information on the potential presence of Species of Greatest Conservation, a non-regulatory category identifying conservation priorities. The ERT response document and receipt are provided in Appendix B.

SWCA biologists Tyler Loomis and Kryschiana Dubois visited the project area on October 29, 2025, and November 5, 2025, to collect the data necessary to complete this biological resources overview. The primary objective of the site visit was to evaluate vegetation and other habitat features considered important to special-status plant and wildlife species with the potential to occur in the project area, in accordance with the federal and state biological regulations cited above. All plant and wildlife species observed during the site visit were documented. This site visit did not include any species-specific or systematic surveys for protected biological components.

Vegetation was classified to the community level according to *Biotic Communities: Southwestern United States and Northwestern Mexico* (Brown 1994). The Natural Resources Conservation Service PLANTS database was used for plant naming conventions (Natural Resources Conservation Service 2025). Federally listed plants are referred to by the nomenclature used by the USFWS (2025a). Noxious weeds are referred to using the AZDA (2025a) nomenclature.

RESULTS

Ecological Overview

The project area consists of partially disturbed desert within the city of Surprise. The project area is east of the intersection of West Deer Valley Road and North 219th Avenue. The project area is generally flat except for several washes that cross the project area. The project area is approximately 2.5 miles north of the White Tank Mountains, 10 miles west of the Agua Fria River, and 10 miles east of the Hassayampa River. The elevation of the project area is approximately 1,418 to 1,460 feet above mean sea level (amsl) (USGS 2025). Overall, the slope across the project area is calculated at approximately 1.5% (Google Earth 2025).

Land use in the vicinity of the project includes residential housing, the Ford Arizona Proving Grounds, construction projects, a landfill, the Sun Valley Parkway, and the Central Arizona Project Canal (Google Earth 2025).

No broadleaf deciduous riparian vegetation communities (i.e., communities containing cottonwood [*Populus* spp.], willow [*Salix* spp.], or ash [*Fraxinus* spp.]) were observed in the project area.

No suitable bat roost sites (e.g., natural caves, mine features, buildings, palm trees) are present in the project area.

Vegetation

The project area supports vegetation characteristic of the Arizona Upland subdivision of the Sonoran desertscrub biotic community (Brown 1994).

Native plant species observed in the project area included desert globemallow (*Sphaeralcea ambigua*), desert horsepurslane (*Trianthema portulacastrum*), carelesslyweed (*Amaranthus palmeri*), fringed amaranth (*A. fimbriatus*), creosote bush (*Larrea tridentata*), blue paloverde (*Parkinsonia florida*), candy barrelcactus (*Ferocactus wislizeni*), Engelmann's hedgehog cactus (*Echinocereus engelmannii*), velvet mesquite (*Prosopis velutina*), Christmas cactus (*Cylindropuntia leptocaulis*), triangle bur ragweed (*Ambrosia deltoidea*), weakleaf bur ragweed (*A. confertiflora*), manybristle chinchweed (*Pectis papposa*), Arizona poppy (*Kallstroemia grandiflora*), spiderling (*Boerhavia* sp.), water jacket (*Lycium andersonii*),

brittlebush (*Encelia farinosa*), tobosa grass (*Pleuraphis mutica*), desert thorn-apple (*Datura discolor*), Devil's spineflower (*Chorizanthe rigida*), needle grama (*Bouteloua aristidoides*), doubleclaw (*Proboscidea parviflora*), and bigseed alfalfa dodder (*Cuscuta indecora*).

Nonnative plant species observed in the project area included Saharan mustard (*Brassica tournefortii*), cheeseweed mallow (*Malva parviflora*), jimsonweed (*Datura stramonium*), Bermudagrass (*Cynodon dactylon*), Johnsongrass (*Sorghum halepense*), and redstem stork's bill (*Erodium cicutarium*).

Wildlife

Twelve avian species were documented within the project area during the site visit: house finch (*Haemorhous mexicanus*), mourning dove (*Zenaida macroura*), gilded flicker (*Colaptes chrysoides*), common raven (*Corvus corax*), verdin (*Auriparus flaviceps*), black-throated sparrow (*Amphispiza bilineata*), yellow-rumped warbler (*Setophaga coronata*), white-crowned sparrow (*Zonotrichia leucophrys*), rock wren (*Salpinctes obsoletus*), red-tailed hawk (*Buteo jamaicensis*), Abert's towhee (*Melospiza aberti*), and Lawrence's goldfinch (*Spinus lawrencei*).

Other wildlife or sign of wildlife observed within the project area during the site visit were coyote (*Canis latrans*).

Federally Listed Species

The ESA specifically prohibits the "take" of listed endangered wildlife species and listed threatened wildlife species if a 4(d) rule was implemented. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct." Destruction of ESA-listed plants on non-federal lands may not be prohibited under the ESA. However, prohibitions against the destruction or removal of ESA-listed plants do apply on federal lands and for federal actions, and state or local regulations may also provide protections. The ESA also prohibits the unpermitted possession and transport of ESA-listed plants.

Species Evaluation

The potential for occurrence of each species was summarized according to the categories listed below. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided. Potential for occurrence categories are as follows:

- *Known to occur* – The species has been documented in the project area by a reliable observer.
- *May occur* – The project area is within the species' currently known range, and vegetation communities, soils, etc. resemble those known to be used by the species.
- *Unlikely to occur* – The project area is within the species' currently known range, but vegetation communities, soils, etc. do not resemble those known to be used by the species; or the project area is clearly outside the species' currently known range.

Species listed under the ESA by the USFWS were assigned to one of three categories of possible effect, in accordance with the following USFWS recommendations:

- *May affect, is likely to adversely affect* – The proposed project is likely to adversely affect a species if 1) the species occurs or may occur in the project area and 2) any adverse effect on listed species may occur as a direct or indirect result of the proposed action or its interrelated

or interdependent actions, and the effect is not discountable, insignificant, or beneficial.¹ In the event that the overall effect of the proposed action is beneficial to the listed species but also is likely to cause some adverse effects, the proposed action “is likely to adversely affect” the listed species.

- *May affect, is not likely to adversely affect* – The project is not likely to adversely affect a species if project activity effects on a listed species are expected to be discountable, insignificant, or completely beneficial.
- *No effect* – The project will have no effect (including effects that may be beneficial, insignificant, or discountable) on a species. A “no effect” determination is made for species considered unlikely to occur (range or vegetation is inappropriate, no records of occurrences, etc.).

Species that are proposed or candidates for listing and experimental, non-essential populations of listed species that are treated as proposed by the USFWS were assigned to one of two categories of possible effect, in accordance with the following USFWS recommendations:

- *Not likely to jeopardize the continued existence of the species* – The project would not be reasonably expected to, directly or indirectly, reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.
- *Likely to jeopardize the continued existence of the species* – The project would reasonably be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.

Of the five ESA-listed species listed for the project area in the USFWS IPaC report (USFWS 2025a) (see Appendix A), only one, monarch butterfly (*Danaus plexippus*) (monarch), a proposed threatened species, has the potential to occur in the project area and is discussed below. The remaining four species listed for the project area by the USFWS do not have the potential to occur in the project area (Table 1). The project area is clearly beyond the known geographic or elevational range of these species, does not contain vegetation or landscape features known to support these species, or both.

The USFWS IPaC report lists no proposed or designated critical habitat for ESA-listed species within the project area (USFWS 2025a, 2025b).

MONARCH BUTTERFLY

On December 12, 2024, the USFWS proposed listing the monarch under the ESA as a threatened species with a 4(d) rule for take exceptions (USFWS 2024). Although this species is not yet officially listed under the ESA, this report addresses the species in the event that the project activities that have the potential to affect the species have not been completed prior to final listing.

The USFWS also proposed to designate critical habitat on the western populations’ wintering grounds in coastal California, totaling approximately 4,395 acres across seven counties.

¹ Beneficial effects are positive effects without any adverse effects on the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not 1) be able to meaningfully measure, detect, or evaluate insignificant effects or 2) expect discountable effects to occur.

Biology and Habitat

Monarchs are globally distributed throughout 90 countries, islands, and island groups, with the two largest migratory populations being east and west of the Rocky Mountains in North America (USFWS 2020a). These two populations are well-known for their long-distance migrations and represent the historical and current core of the species, the ancestral lineage of the species, and a unique source of genetic and ecological diversity (USFWS 2020a). Long-term declines in abundance at overwintering sites have been observed for both North American populations, which have generally been declining over the past two decades (USFWS 2020b). USFWS identified the major threats to the monarch as habitat loss, in particular the availability, distribution, and quality of milkweed (primarily *Asclepias* spp.) and nectar resources; introduction of invasive plant species that could replace suitable native vegetation; insecticide and pesticide exposure; and climate change.

Within the continental United States, monarchs occur in at least three populations: the western and eastern migratory populations with the Rocky Mountains acting as the general divider, and a non-migratory population in south Florida. The North American migratory populations begin migrating in the fall to their respective overwintering sites, with most flying south to the mountainous regions of central Mexico or to groves along the California coast and northern Baja California (USFWS 2020a). In early spring (February–March), surviving monarchs break diapause and begin the breeding season by mating at the overwintering sites before dispersing (USFWS 2020a). Adult monarchs require a diversity of blooming nectar resources to feed on throughout their migration routes and breeding grounds from spring to fall and require milkweed embedded within a diverse nectar habitat for egg laying and larval feeding (USFWS 2020a).

In Arizona, monarchs are present and seasonally abundant, having been recorded in every month of the year when seasonal temperatures are conducive, and have been documented overwintering at riparian locales (Morris et al. 2015). They often occur near riparian areas or other locations that contain water, including around ciénegas, creeks, washes, roadside ditches, and irrigated gardens (Morris et al. 2015). Monarchs favor riparian areas and rivers for migration (Morris et al. 2015). No milkweed species were present in the project area at the time of the field visit. The project area contains species of flowering plants that can provide nectar for adult monarchs. Nearby landscaped and roadside habitats often contain higher densities of plants as a result of increased moisture.

Recent sightings of monarchs and milkweed have been recorded in the project area vicinity; a monarch was recorded approximately 20 miles southwest of the project area, and a milkweed plant was recorded approximately 7.5 miles southeast of the project area (Western Monarch Milkweed Mapper 2025). Monarchs are unlikely to be present for breeding as preferred milkweed host plants (*Asclepias* spp.) were not observed in the project area during the site visit, which occurred during the primary growing season for milkweeds in the Sonoran Desert. Monarchs may be present as transients during migration or as occasional individuals passing through the project area en route to larval food plants or nectar resources.

Impacts

Potential impacts to monarchs from project construction would stem from surface disturbances, including activities such as vegetation removal, vegetation damage, and grading, which could reduce foraging habitat and result in additional energy expenditure as the species seeks resources elsewhere.

Determination of Impact

If project activities occur during the time of year when monarchs are present at lower elevations in Arizona, including seasons when reproduction may be attempted, the project may impact individual monarchs, but it is *not likely to jeopardize the continued existence of the species*. Under the proposed rule,

activities related to vegetation and land management, including removal of milkweed or nectar plants, are exempted from take prohibitions if the activity does “not result in conversion of native or naturalized grassland, shrubland, or forested habitats.” Because the project would result in the conversion of native shrubland, this take exemption may not apply to the project as currently proposed. Additionally, these prohibitions on take only apply to take of individual monarch butterflies (adults, pupae, larvae, or eggs) during activities not exempted from take and do not provide direct protection under the ESA to monarch butterfly habitat (USFWS 2024). The USFWS may revise the proposed special rule prior to finalizing the listing rule in response to public comments. If project activities have not been completed prior to finalization of the proposed listing rule, additional guidance, and measures to achieve compliance with the ESA, may be required.

Other Special-Status Species

The AZHGIS ERT database query indicated that four special-status species—Sonoran desert tortoise (*Gopherus morafkai*), Sonoran desert toad (*Incilius alvarius*), flammulated owl (*Psiloscoops flammeolus*), and regal horned lizard (*Phrynosoma solare*)—have been documented within 3 miles of the project area (AZGFD 2025a) (see Appendix B). The flammulated owl is uncommon and sporadically reported during migration in the Phoenix area. The remaining species may occur because the project area contains suitable habitat and is within the range of these species (AZGFD 2025b). In the event that a Sonoran desert tortoise is observed in the project area during construction, AZGFD *Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects* (Appendix C) should be followed (AZGFD 2014).

The results of the AZHGIS ERT database query indicate that suitable habitat for 48 Species of Greatest Conservation Need—30 avian species, three amphibian species, 12 mammal species, and three reptile species—has been modeled within the project area (see Appendix B).

The ERT database query indicated the presence of one special area that intersects the project area, the White Tank Mountains – Trilby Wash – Beardsley Canal Maricopa County Landscape Wildlife Movement Area (AZGFD 2025a). Wildlife movement areas are not statutorily protected but may be given consideration by state and local permitting agencies during the permitting process of some projects.

Migratory Bird Treaty Act

Nearly all native birds, including their nests and eggs, are protected under the MBTA on all lands. The MBTA prohibits anyone without a permit from “take” of native birds, their parts, eggs, or nests. “Take” is defined by the MBTA as

to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof.

Western burrowing owls are protected under the MBTA but require a species-specific approach, as discussed below. If individuals, nests, or eggs of any other MBTA-protected species are present in the project area and cannot be avoided, they must be relocated before construction begins, which would require an MBTA permit from the USFWS; however, Section 1 of the Interim Empty Nest Policy of USFWS Region 2 states that if the nest is completely inactive at the time of destruction or movement, a permit is not required. If an active nest is observed before or during construction, measures should be

taken to protect the nest from destruction and to avoid a violation of the MBTA. In central Arizona, some bird species are multi-clutch species, which means that they nest multiple times during the nesting season, generally mid-February through late September, depending on the species and habitat. Most raptor species nest from January through late June (Corman and Wise-Gervais 2005).

Suitable habitat is present for burrowing owls within the project area (AZGFD 2025b). In the event that burrowing owls and active burrows in the project area cannot be avoided with at least a 100-foot buffer, the burrowing owls may be relocated by Wild at Heart, a raptor rescue organization that provides capture, care, and relocation services. Wild at Heart holds the necessary permits from the USFWS and AZGFD to conduct owl relocation activities. The project proponent will also need a project-specific USFWS special purpose permit for burrowing owl relocation. If a burrowing owl is observed on-site, the *Burrowing Owl Project Clearance Guidance for Landowners* (Arizona Burrowing Owl Working Group 2009) should be followed to avoid affecting the species (Appendix D).

Bald and Golden Eagle Protection Act

Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are protected under both the MBTA and the BGEPA on all lands (public or private). The BGEPA prohibits anyone without a permit from taking eagles, their parts, eggs, or nests. “Take” is defined by the BGEPA as “to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.” The BGEPA definition of “take” differs from the definition in the ESA in that it does not include habitat destruction or alteration, unless such damage “disturbs” an eagle. “Disturb” is defined as “to agitate or bother to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (50 CFR 22.6).

Bald eagles are found typically in association with water, and a small resident population nests and breeds from December to June throughout the state of Arizona. Migratory individuals also winter throughout the state (Southwestern Bald Eagle Management Committee 2025). Golden eagles nest primarily on rock ledges or cliffs and occasionally in large trees at elevations ranging up to 10,000 feet amsl (AZGFD 2025b). Golden eagles are typically found in mountainous regions of open country, prairies, arctic and alpine tundra, open wooded areas, and barren areas (AZGFD 2025b). Both bald and golden eagles are carnivores. Bald eagles primarily eat fish, but they will also eat birds, amphibians, reptiles, small mammals, and carrion (i.e., dead animals), including the carcasses of large mammals (e.g., cows, elk, deer) (Southwestern Bald Eagle Management Committee 2025). Golden eagles feed mainly on small mammals and invertebrates, carrion, and other wildlife (AZGFD 2025b).

The project area does not contain suitable habitat for bald eagles or golden eagles. Bald eagles and golden eagles may pass over the project area to reach suitable habitats, but they are unlikely to use the project area for foraging or nesting. Therefore, the project will likely have no effect on bald eagles or golden eagles.

Arizona Department of Agriculture Arizona Native Plant Law

Native plants protected under the ANPL are classified as follows: Highly Safeguarded, Salvage Restricted, Salvage Assessed, or Harvest Restricted. Highly Safeguarded native plants are those species for which removal is not allowed except with an AZDA scientific permit; no collection of these plants is allowed. Salvage Restricted native plants are those plants for which a salvage permit is required; collection is allowed only with a permit. The Salvage Assessed category includes native plants for which a salvage permit is required for removal. The Harvest Restricted category consists of native plants that are

protected because they are subject to excessive harvesting or overcutting because of the intrinsic value of their by-product, fiber, or woody parts, and a harvest permit is required.

Under the ANPL, the AZDA requires the submittal of a Notice of Intent to Clear Land if the destruction of a protected plant species is anticipated to occur (AZDA 2025b). This requirement is applicable on all land within the state of Arizona, including privately owned lands. The only exception to this law is for plant removal on federal and Tribal lands, in which case the federal land management agency or the Tribe must be contacted directly for guidance on their requirements for native plants.

Six plant species documented in the project area—blue paloverde, velvet mesquite, Engelmann’s hedgehog cactus, water jacket, Christmas cactus, and candy barrelcactus—are protected under the ANPL.

Arizona Department of Agriculture Noxious Weed Regulations

The AZDA defines three classes of noxious weeds in the state of Arizona (AZDA 2025a):

- Class A is categorized as a species of plant that is not known to exist or that is of limited distribution in the state and is a high-priority pest for quarantine, control, or mitigation.
- Class B is categorized as a species of plant that is known to occur but that is of limited distribution in the state and may be a high-priority pest for quarantine, control, or mitigation if a significant threat to a crop, commodity, or habitat is known to exist.
- Class C is categorized as a species of plant that is widespread but may be recommended for active control based on risk assessment.

Two restrictions have been developed to control noxious weeds in the state. First, no Class A, B, or C noxious weed or commodity infested or contaminated with a Class A, B, or C noxious weed can be admitted into the state unless otherwise authorized by the Associate Director. Second, the AZDA may quarantine and abate an area infested or contaminated with a Class A or Class B noxious weed if it has been determined by the Associate Director that an imminent threat to agriculture or horticulture exists.

Two AZDA-listed noxious weeds were identified in the project area during the site visit: Saharan mustard and Johnsongrass. Saharan mustard is listed as a Class B noxious weed, while Johnsongrass is listed as a Class C noxious weed. More information is available on the AZDA noxious weeds website (AZDA 2025a).

LIMITATIONS AND WARRANTY

Within the limitations of schedule, budget, and scope of work, SWCA warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species’ listing status in effect at the time this evaluation was performed, as outlined in this technical memorandum.

The results and conclusions of this technical memorandum represent the best professional judgment of SWCA scientists and are based on information provided by the project proponent and on information obtained from agencies and other sources during the study. No other warranty, expressed or implied, is made.

Table 1. Federally Listed Species Evaluation for the Project Area

Common Name (Scientific Name)	USFWS Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect†
California least tern (<i>Sterna antillarum browni</i>)	E	Forms nesting colonies on barren to sparsely vegetated areas. Nests in shallow depressions on open sandy beaches, sandbars, gravel pits, or exposed flats along shorelines of inland rivers, lakes, reservoirs, and drainage systems at elevations below 2,000 feet amsl. Found in Maricopa, Mohave, and Pima Counties.	Unlikely to occur. Suitable habitat for this species is not present in the project area.	No effect.
Gila topminnow (including Yaqui) (<i>Poeciliopsis occidentalis</i>)	E	Occurs in small streams, springs, and ciénegas at elevations below 4,500 feet amsl, primarily in shallow areas with aquatic vegetation and debris for cover and without invasive aquatic predators. In Arizona, most of the remaining natural populations are in the Santa Cruz River system. Reintroductions for conservation purposes have occurred, and artificial populations for mosquito control are present in some urban areas.	Unlikely to occur. There are no permanent water sources suitable for this species in or adjacent to the project area.	No effect.
Monarch butterfly (<i>Danaus plexippus</i>)	PT	A migratory species found in a variety of habitats; monarchs require milkweed (subfamily Asclepiadoideae) for breeding. During fall migration in Arizona, monarchs favor nectar from native plants including sunflowers (<i>Helianthus</i> spp.), rabbitbrush (<i>Chrysothamnus</i> spp.), desertbroom (<i>Baccharis sarothroides</i>), sweetbush (<i>Bebbia juncea</i>), thistles (family <i>Asteraceae</i>), mule-fat (<i>Baccharis salicifolia</i>), milkweeds, and a variety of other native and garden plants. Populations in Arizona can migrate either to California or Mexico for winter or may overwinter in the low deserts in California or Arizona. In the southwestern United States, migrating monarchs often occur near water sources (e.g., rivers, creeks, riparian corridors, roadside ditches, and irrigated gardens). In the low deserts of Arizona, monarchs breed primarily in late August through early September.	May occur. See Federally Listed Species section.	Not likely to jeopardize the continued existence of the species. See Federally Listed Species section.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	E	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood, willow, boxelder (<i>Acer negundo</i>), saltcedar (<i>Tamarix</i> spp.), Russian olive (<i>Elaeagnus angustifolia</i>), buttonbush (<i>Cephalanthus</i> spp.), and arrowweed (<i>Pluchea sericea</i>) are present. Nests are found in thickets of trees and shrubs, primarily those that are 13 to 23 feet high, among dense, homogeneous foliage. Habitat occurs at elevations below 8,500 feet amsl.	Unlikely to occur. There is no suitable habitat for this species in the project area or vicinity.	No effect.
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	T	Typically found in riparian woodland vegetation (cottonwood, willow, or saltcedar) at elevations below 6,600 feet amsl. Dense understory foliage appears to be an important factor in nest site selection. The highest concentrations in Arizona are along the Agua Fria River, San Pedro River, upper Santa Cruz River, and Verde River drainages and Cienega and Sonoita Creeks.	Unlikely to occur. There is no suitable habitat for this species in the project area or vicinity.	No effect.

Notes: Unless otherwise noted, the information in the table is based on species documents from the AZGFD Natural Heritage Program (AZGFD 2025b), USFWS Environmental Conservation Online System (USFWS 2025c), and *Arizona Breeding Bird Atlas* (Corman and Wise-Gervais 2005).

* USFWS status definitions:

E = endangered. An animal or plant species in danger of extinction throughout all or a significant portion of its range.

PT = Proposed Threatened. A species the USFWS has determined is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

T = threatened. An animal or plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

† Determination of effect is provided for feasibility purposes only.

LITERATURE CITED

- Arizona Burrowing Owl Working Group. 2009. *Burrowing Owl Project Clearance Guidance for Landowners*. Available at: https://www.blm.gov/sites/blm.gov/files/documents/files/PDO_08c.pdf. Accessed October 2025.
- Arizona Department of Agriculture (AZDA). 2025a. R3-4-245. Noxious weeds. Available at: <https://agriculture.az.gov/pestspest-control/agriculture-pests/noxious-weeds>. Accessed October 2025.
- . 2025b. Native plants. Available at: <https://agriculture.az.gov/plantsproduce/native-plants>. Accessed October 2025.
- Arizona Game and Fish Department (AZGFD). 2014. Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects. Available at: https://azdot.gov/sites/default/files/2019/06/desert_tortoise_guidelines.pdf. Accessed November 2025.
- . 2025a. Arizona's Online Environmental Review Tool. Available at: <https://ert.azgfd.gov/content/home>. Accessed October 2025.
- . 2025b. AZ Natural Heritage Program, Heritage Data Management System. Available at: <https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/cooperative-programs/az-natural-heritage-program/>. Accessed October 2025.
- Brown, D.E. (ed.). 1994. *Biotic Communities: Southwestern United States and Northwestern Mexico*. Salt Lake City: University of Utah Press.
- Corman, T.E., and C. Wise-Gervais. 2005. *Arizona Breeding Bird Atlas*. Albuquerque: University of New Mexico Press.
- Google Earth. 2025. Aerial imagery for project area. Available at: <https://earth.google.com>. Accessed October 2025.
- Morris, G.M., C. Kline, and S.M. Morris. 2015. Status of *Danaus plexippus* population in Arizona. *Journal of the Lepidopterists' Society* 2(69):91–107.
- Natural Resources Conservation Service. 2025. PLANTS database. Available at: <https://plants.usda.gov>. Accessed October 2025.
- Southwestern Bald Eagle Management Committee. 2025. Natural history of the bald eagle. Available at: <http://swbemc.org/bio.html>. Accessed October 2025.
- U.S. Fish and Wildlife Service (USFWS). 2020a. *Monarch (Danaus plexippus) Species Status Assessment Report, version 2.1*. Available at: <https://www.fws.gov/sites/default/files/documents/Monarch-Butterfly-SSA-Report-September-2020.pdf>. Accessed October 2025.
- . 2020b. Endangered and Threatened Wildlife and Plants; 12-Month Finding for the Monarch Butterfly. *Federal Register* 85(243):81813–81822. Available at: <https://www.govinfo.gov/content/pkg/FR-2020-12-17/pdf/2020-27523.pdf>. Accessed October 2025.

- . 2024. Endangered and Threatened Wildlife and Plants; Threatened Species Status With Section 4(d) Rule for Monarch Butterfly and Designation of Critical Habitat. *Federal Register* 89(239):100662. Available at: <https://www.federalregister.gov/documents/2024/12/12/2024-28855/endangered-and-threatened-wildlife-and-plants-threatened-species-status-with-section-4d-rule-for>. Accessed October 2025.
 - . 2025a. Information for Planning and Consultation (IPaC). Available at: <https://ipac.ecosphere.fws.gov/>. Accessed October 2025.
 - . 2025b. USFWS Threatened & Endangered Species Active Critical Habitat Report. Available at: <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>. Accessed October 2025.
 - . 2025c. Environmental Conservation Online System (ECOS). Available at: <https://ecos.fws.gov/ecp/>. Accessed October 2025.
- U.S. Geological Survey (USGS). 2025. Topographic Maps. Available at: <https://www.usgs.gov/programs/national-geospatial-program/topographic-maps>. Accessed October 2025.
- Western Monarch Milkweed Mapper. 2025. Sightings map. Available at: <https://monarchmilkweedmapper.org/app/#/combined/map>. Accessed October 2025.

APPENDIX A

USFWS IPaC Project-Specific Species List

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.

Location

Maricopa County, Arizona



Local office

Arizona Ecological Services Field Office

☎ (602) 242-0210

📠 (602) 242-2513

9828 North 31st Ave

#c3

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 species¹ 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 Fisheries²).

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.

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

Birds

NAME	STATUS
California Least Tern <i>Sternula antillarum browni</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> 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	Endangered
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Gila Topminnow (incl. Yaqui) <i>Poeciliopsis occidentalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1116	Endangered

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> 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	Proposed Threatened

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.

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-incident-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 <i>Haliaeetus leucocephalus</i> 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

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 (|)

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.

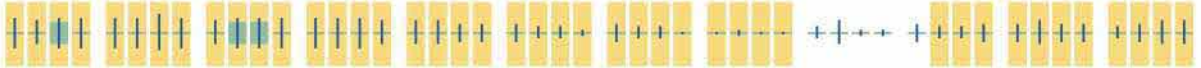
Survey Timeframe

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.

■ probability of presence ■ breeding season | survey effort - no data

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Bald Eagle
Non-BCC
Vulnerable



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?

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.

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-incident-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 <i>Recurvirostra americana</i> 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
Bald Eagle <i>Haliaeetus leucocephalus</i> 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
Costa's Hummingbird <i>Calypte costae</i> 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	Breeds Jan 15 to Jun 10
Gila Woodpecker <i>Melanerpes uropygialis</i> 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	Breeds Apr 1 to Aug 31

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 (|)

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.

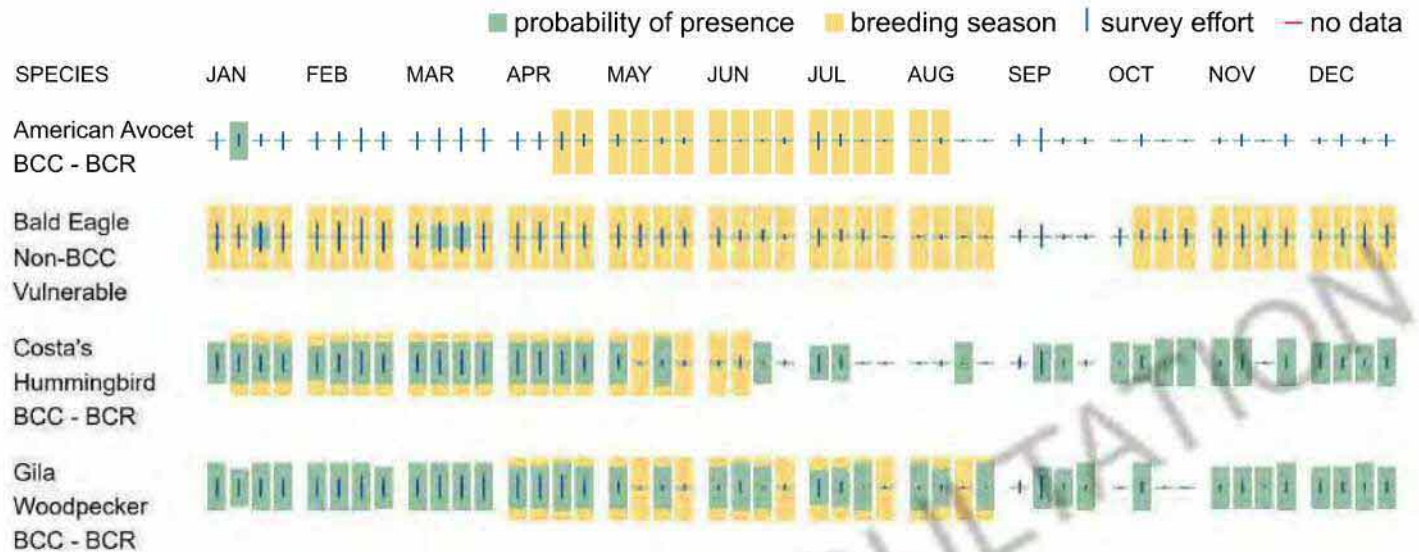
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.



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?

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

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:

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.

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](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

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 tubercid 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.

APPENDIX B

AZHGIS Online Environmental Review Tool Results

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:

Wild Stallion BESS

Project Type:

Energy Production/Storage/Transfer, Energy Storage, Battery Energy Storage System (BESS) - (new)

Project ID:

HGIS-26551

Project Description:

proposed project area for new BESS and Gen-tie line

Contact Person:

Tyler Loomis

Organization:

SWCA

On Behalf Of:

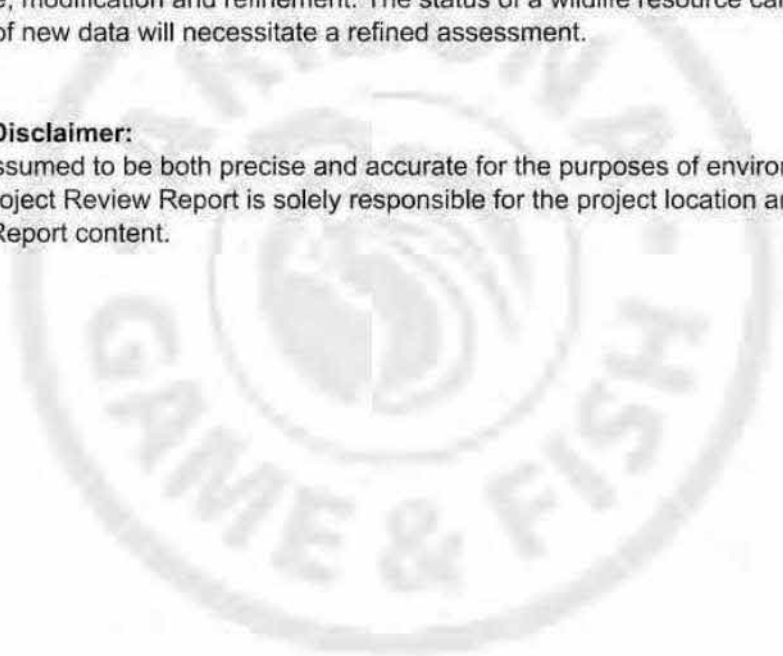
PRIVATE

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.

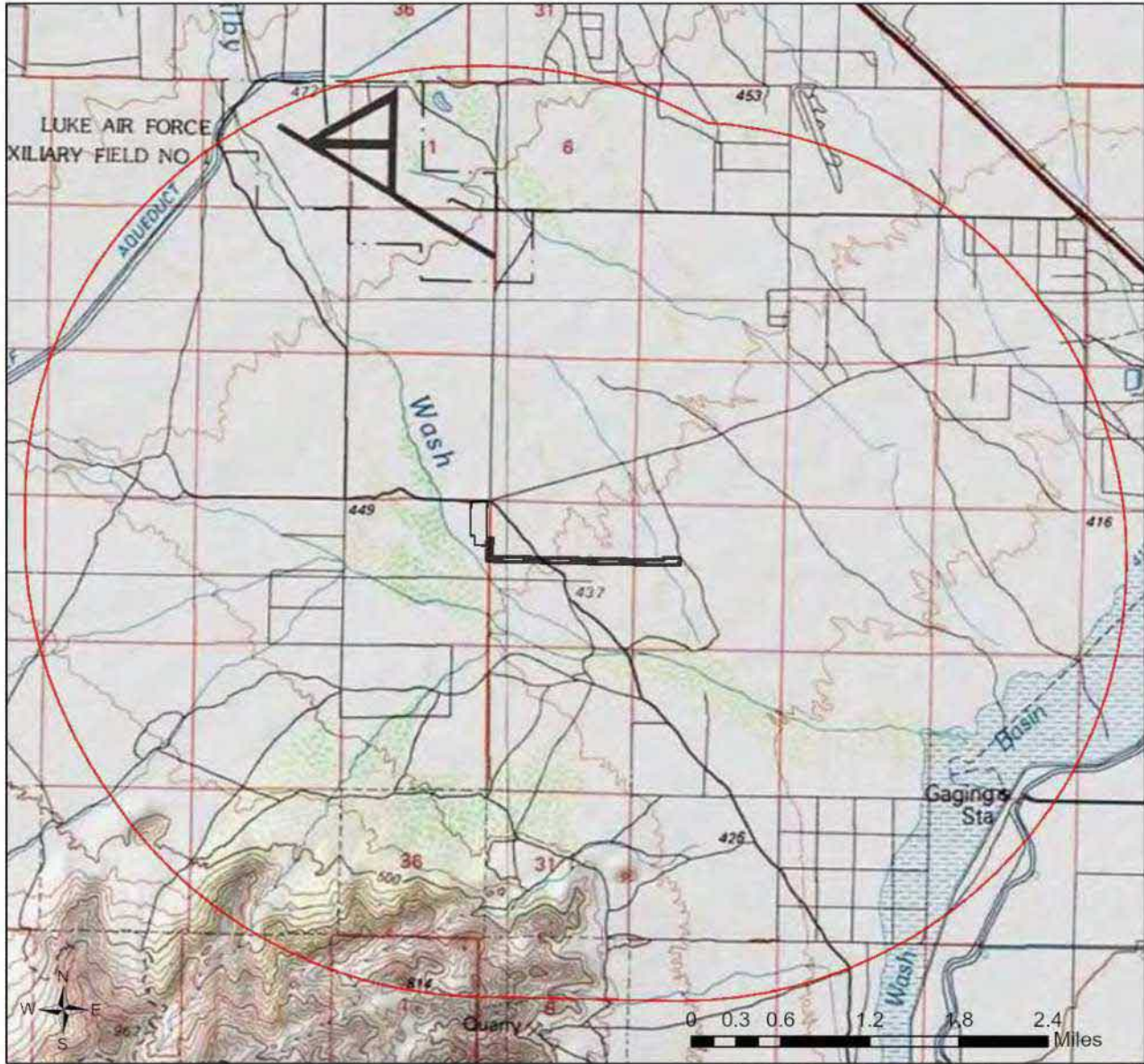


Recommendations Disclaimer:

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.

Wild Stallion BESS

USA Topo Basemap With Locator Map



- Buffered Project Boundary
- Project Boundary

Project Size (acres): 42.54

Lat/Long (DD): 33.6760 / -112.5017

County(s): Maricopa

AGFD Region(s): Mesa

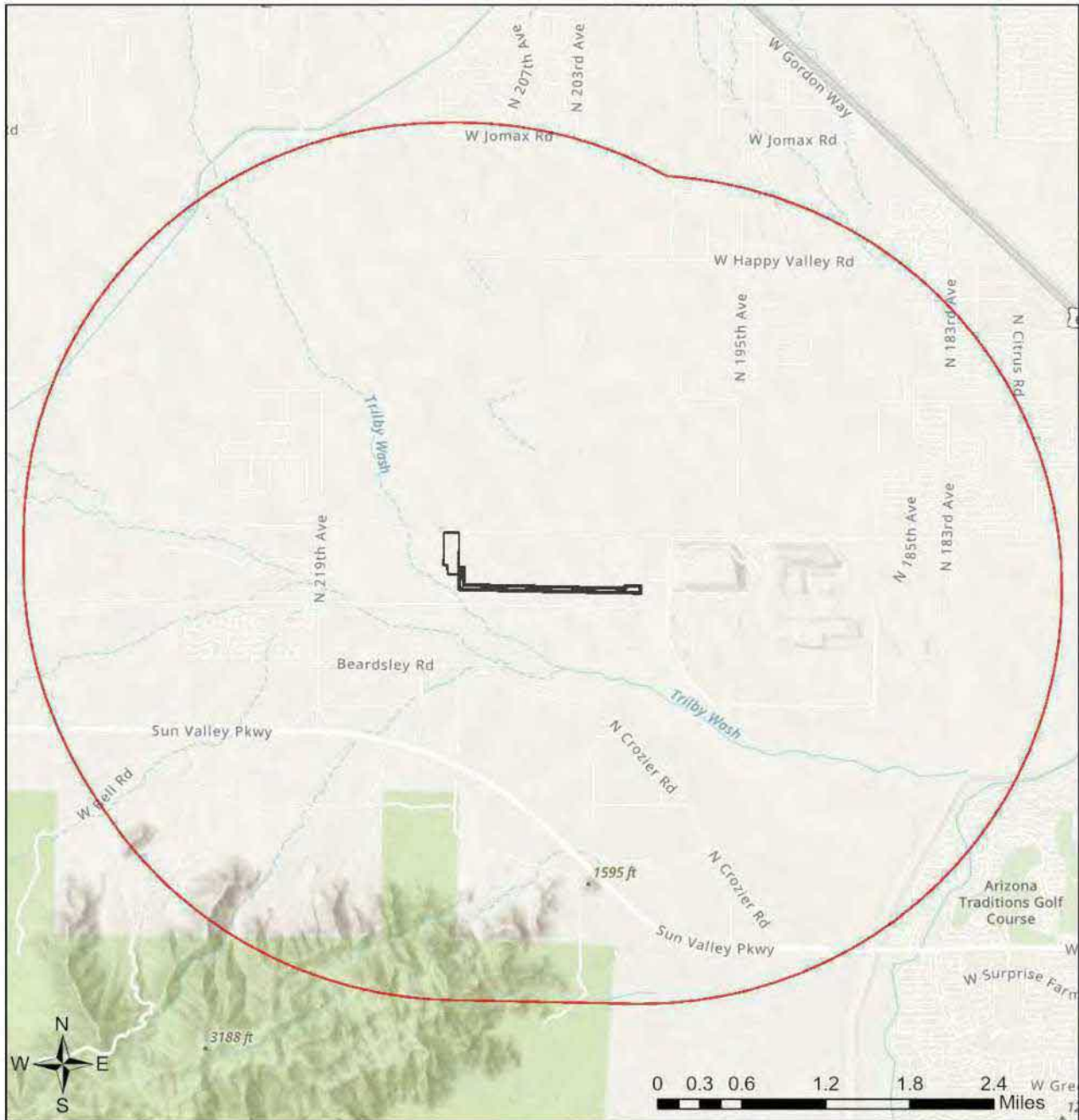
Township/Range(s): T4N, R2W; T4N, R3W

USGS Quad(s): MCMICKEN DAM; WHITE TANK MOUNTAINS NE

County of Yavapai, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
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Esri, USGS



Wild Stallion BESS Important Areas



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

Project Size (acres): 42.54
 Lat/Long (DD): 33.6760 / -112.5017
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T4N, R2W; T4N, R3W
 USGS Quad(s): MCMICKEN DAM; WHITE TANK MOUNTAINS NE

Esri, NASA, NGA, USGS, FEMA
 City of Buckeye, Arizona, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc./METI/
 NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

Wild Stallion BESS Township/Ranges and Land Ownership



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

Project Size (acres): 42.54
 Lat/Long (DD): 33.6760 / -112.5017
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T4N, R2W; T4N, R3W
 USGS Quad(s): MCMICKEN DAM; WHITE TANK MOUNTAINS NE

Esri, NASA, NGA, USGS, FEMA
 City of Buckeye, Arizona, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc./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
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Incilius alvarius	Sonoran Desert Toad					2
Phrynosoma solare	Regal Horned Lizard					2
Psilosops flammeolus	Flammulated Owl					2

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
White Tank Mtns - Trilby Wash - Beardsley Canal	Maricopa 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
Ammospermophilus harrisi	Harris' Antelope Squirrel					2
Anaxyrus microscaphus	Arizona Toad			S		2
Anthus spragueii	Sprague's Pipit					2
Aquila chrysaetos	Golden Eagle	BGA		S		2
Artemisiospiza nevadensis	Sagebrush Sparrow					3
Asio otus	Long-eared Owl					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
Calypte costae	Costa's Hummingbird					2
Campylorhynchus brunneicapillus	Cactus Wren					2
Catharus ustulatus	Swainson's Thrush					2
Chilomeniscus cinctus	Variable Sandsnake					2
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S	S		1
Colaptes chrysoides	Gilded Flicker			S		2
Columbina inca	Inca Dove					2
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat		S	S		1
Empidonax wrightii	Gray Flycatcher					2
Eumops perotis californicus	Greater Western Bonneted Bat			S		2
Falco mexicanus	Prairie Falcon					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
Falco peregrinus anatum	American Peregrine Falcon		S	S		1
Falco sparverius	American Kestrel					2
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Incilius alvarius	Sonoran Desert Toad					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
Macrotus californicus	California Leaf-nosed Bat			S		2
Megascops kennicottii	Western Screech-owl					2
Melanerpes uropygialis	Gila Woodpecker					2
Melospiza lincolni	Lincoln's Sparrow					2
Micrathene whitneyi	Elf Owl					3
Myotis velifer	Cave Myotis			S		2
Myotis yumanensis	Yuma Myotis					2
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					2
Parabuteo unicinctus	Harris's Hawk					2
Passerculus sandwichensis	Savannah Sparrow					2
Perognathus amplus	Arizona Pocket Mouse					2
Phrynosoma solare	Regal Horned Lizard					2
Poocetes gramineus	Vesper Sparrow					2
Rana yavapaiensis	Lowland Leopard Frog		S	S		1
Spizella breweri	Brewer's Sparrow					2
Tadarida brasiliensis	Brazilian Free-tailed Bat					2
Toxostoma bendirei	Bendire's Thrasher					2
Toxostoma lecontei	LeConte's Thrasher			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					
Odocoileus hemionus	Mule Deer					
Puma concolor	Mountain Lion					
Zenaida asiatica	White-winged Dove					
Zenaida macroura	Mourning Dove					

Project Type: Energy Production/Storage/Transfer, Energy Storage, Battery Energy Storage System (BESS) - (new)

Project Type Recommendations:

Fence recommendations will be dependent upon the goals of the fence project and the wildlife species expected to be impacted by the project. The AZGFD's Wildlife Compatible Fencing Guidelines provide information on how fencing impacts wildlife, ways to design fencing to prevent wildlife entanglement and impalement, and to ensure wildlife movement is not restricted. Please refer to the AZGFD's Fencing Guidelines located on Wildlife Friendly Guidelines page, which is part of the Wildlife Planning page at <https://www.azgfd.com/wildlife-conservation/planning-for-wildlife/planning-for-wildlife-wildlife-friendly-guidelines/>.

For wildlife friendly fencing, general guidelines for ensuring wildlife-friendly barbed-wire fences along roadways and other property/allotment boundaries include: barbless wire on the top and bottom with the maximum fence height 42", minimum height for bottom 16". Modifications to this design may be considered for fencing anticipated to be routinely encountered by elk, bighorn sheep, or pronghorn (e.g., Pronghorn fencing would require 18" minimum height on the bottom). For projects that require chain link or other security/perimeter fence, leaving a 6–8-inch gap between the ground surface and bottom of the fence to allow for smaller wildlife species to move freely through the area and make use of any habitat within the project boundary.

During the planning stages of your project, please consider the local or regional needs of wildlife in regards to movement, connectivity, and access to habitat needs. Loss of this permeability prevents wildlife from accessing resources, finding mates, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and ultimately prevents wildlife from contributing to ecosystem functions, such as pollination, seed dispersal, control of prey numbers, and resistance to invasive species. In many cases, streams and washes provide natural movement corridors for wildlife and should be maintained in their natural state. Uplands also support a large diversity of species, and it is important to identify and conserve upland wildlife movement corridors. In addition, maintaining biodiversity and ecosystem functions can be facilitated through improving designs of structures, fences, roadways, and culverts to promote passage for a variety of wildlife species. Guidelines for many of these can be found at: <https://www.azgfd.com/wildlife-conservation/planning-for-wildlife/planning-for-wildlife-wildlife-friendly-guidelines/>.

Consider impacts of outdoor lighting on wildlife and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Artificial lighting could impair the ability of nocturnal animals to navigate (e.g., owls, migratory birds, bats, and other nocturnal mammals) and may affect wildlife behavior and populations. The AZGFD recommends using only the minimum amount of light needed for safety, especially in areas immediately adjacent to open space or undeveloped lands. The AZGFD encourages the use of motion sensing lighting and narrow spectrum lighting (amber or warm tones typically 2700 Kelvin or lower) wherever possible to lower the range of species affected by lighting. Also, please consider shielding, canting, or cutting all lighting, where possible, to ensure that light reaches only areas needing illumination and to minimize impacts to nocturnal wildlife.

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/> and the Arizona Native Plant Society <https://aznps.com/invas> for recommendations on how to control these species. 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.

Habitat restoration recommendations are dependent on habitat communities, target species, and other species located within the project area, site history, restoration goals, and treatment types. General project scoping should include defined project goals with measurable success criteria, a habitat restoration plan with adaptive management measures, post-project monitoring plans, and funding commitments. Prior to developing the habitat restoration plan, a site evaluation (e.g., soil conditions, local and watershed hydrological conditions and regimes) should be conducted along with pre-project fish and wildlife surveys to obtain baseline data for post-project evaluation and assessment of project impacts. The restoration plan should consider effects to habitat and wildlife at landscape scales and develop methods for site preparation and revegetation (plant species should be native to the area and based on current or expected site environmental conditions) that incorporate wildlife habitat features (e.g., retaining snags for roost sites). AZGFD recommends early coordination with AZGFD personnel on project designs. Contact information can be found at <https://www.azgfd.com/Agency/Offices> or email our Project Evaluation Program at PEP@azgfd.gov.

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

The AZGFD recommends following the Avian Power Line Interaction Committee (APLIC) guidelines for new power lines, which can be found in the current version of *Suggested Practices for Avian Protection on Power Lines and Reducing Avian Collisions with Power Lines*. Large bodied birds, such as hawks, owls, vultures, and eagles, may be vulnerable to line strikes and electrocution during construction and operation of power lines and substations; power poles can also serve as perches for large-bodied birds. These potential impacts can be avoided or minimized by following the APLIC guidelines which include designing the power lines with enough space between energized components to reduce the likelihood of a bird electrocution or installing bird flight diverters in sections of line where elevated bird strikes are anticipated (e.g. lines over water bodies or in the path of colonial roosting locations). The AZGFD's Raptor Coordinator, who can be contacted at raptors@azgfd.gov or 623-236-7575, can provide further information on specific design features and best management practices.

If trenching or digging of large holes is necessary, the AZGFD recommends trenching/digging and backfilling crews be close together to minimize the amount of open holes at any given time. Where trenches or holes cannot be back-filled immediately, the AZGFD recommends escape ramps be constructed in each hole and at least every 90 meters in trenches. Escape ramps can be short lateral trenches or wooden planks sloping to the surface. The AZGFD recommends that slopes be less than 45 degrees (1:1) and trenches and holes that have been left open be inspected to remove animals prior to backfilling.

Project Location and/or Species Recommendations:

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.

APPENDIX C

Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects

GUIDELINES FOR HANDLING SONORAN DESERT TORTOISES
ENCOUNTERED ON DEVELOPMENT PROJECTS

Arizona Game and Fish Department
Revised September 22, 2014

The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

The Sonoran desert tortoise occurs south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist. Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position parallel to the ground at all times, and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 40° Celsius (105° Fahrenheit) unless an alternate burrow is available or the tortoise is in imminent danger.

A tortoise may be moved up to one-half mile, but no further than necessary from its original location. If a release site or alternate burrow is unavailable within this distance, and ambient air temperature exceeds 40° Celsius (105° Fahrenheit), contact the Department for guidance. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, may be placed in the Department's tortoise adoption program. *Managers of projects likely to affect desert tortoises should obtain a [scientific collecting license](#) from the Department to facilitate handling or temporary possession of tortoises.* Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

Please keep in mind the following points:

- Use the Department's [Environmental On-Line Review Tool Department](#) during the planning stages of any project that may affect desert tortoise habitat.
- Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.
- Take is prohibited by state law.
- These guidelines do not apply to Mojave desert tortoises (north and west of the Colorado River). Mojave desert tortoises are listed as threatened under the Endangered Species Act, administered by the U.S. Fish and Wildlife Service.
- These guidelines are subject to revision at the discretion of the Department.

APPENDIX D

Burrowing Owl Project Clearance Guidance for Landowners

BURROWING OWL PROJECT CLEARANCE
GUIDANCE FOR LANDOWNERS

Arizona Burrowing Owl Working Group



Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086

January 2009

BURROWING OWL PROJECT CLEARANCE GUIDANCE FOR LANDOWNERS

Arizona Burrowing Owl Working Group

INTRODUCTION

The western burrowing owl (*Athene cunicularia*) is one of the most interesting birds of prey in Arizona (Figure 1). Its species name, *cunicularia*, means “miner”, in reference to this owl’s unusual habit of spending time underground. It is also called the “rattlesnake owl”, because young burrowing owls make a buzzing sound that sounds like a rattlesnake when disturbed. Burrowing owls can be seen during daylight hours, and use underground burrows for nesting and escape cover. Despite the fact they are active during the day and are adaptable to human presence, the burrowing owl can go unnoticed in an area due to their secretive nature. Their use of burrows also makes them susceptible to impacts from ground disturbing activities.



Figure 1. Adult burrowing owl. Photo by Bruce Taubert.

Over the past 50 years, most burrowing owl populations have experienced declines throughout their range in North America. Because of this decline, these owls are protected by various Federal, state, and local laws. The burrowing owl is listed by the USFWS as a National Bird of Conservation Concern, listed as endangered in Canada, and threatened in Mexico. It is also listed as endangered, threatened, or a species of concern in 9 U.S. States. All owls in Arizona are protected federally by the Migratory Bird Treaty Act (MBTA) and Arizona state law (ARS Title 17). Violation of these laws, intentional or benign, may result in prosecution.

Burrowing owls are found in areas of Arizona where urbanization and other human activities are occurring. Arizona is one of the fastest growing states in the U.S., leading to frequent conflicts between burrowing owls and development. Owls can be affected by disturbance and habitat loss, even though there may be no direct impacts to the birds themselves or their burrows. There is often inadequate information about the presence of burrowing owls on a project site until ground disturbance is imminent. By then, it is too late to develop a solution that is helpful to the owls or the developer. These guidelines are intended to provide information and tools that can be applied when there is the potential for a project or action to adversely affect burrowing owls and the resources that support them. Each project and situation is different and should be evaluated for the tools and approach that is most effective in allowing a project to move forward while achieving burrowing owl conservation. These guidelines may not provide the necessary procedures for every project, and we encourage coordination with the agencies and entities listed in the Contact section of this document (Appendix A).

BURROWING OWLS SURVEY PROTOCOL

This guidance was developed by State, Federal, and other burrowing owl experts to help individuals avoid violating the laws protecting burrowing owls. This effort will provide a standardized means for conducting burrowing owl surveys in areas where burrows are likely to be disturbed by projects that may displace them in order to minimize impacts to the owls.

This protocol involves visual surveying for owls and burrows using transects to look for occupancy and/or signs of occupancy. We recommended that only individuals with proper training and certification conduct the survey. This document will be revised as necessary, and updates will be provided to certified surveyors, along with any guidance related to maintaining certification. Updates to this document will also be made available to the public. To facilitate statewide burrowing owl management, we recommend that all survey areas, routes, times, and detections be reported to Arizona Game and Fish Department (AGFD) within 30 days of survey completion. If owls or active burrows are detected, coordination with the appropriate agencies prior to initiating ground-disturbing activity will facilitate compliance with the applicable laws (see Appendix A).

SUITABLE HABITAT

Burrowing owl nesting habitat typically consists of dry, treeless, short-grassland or prairie plains. In the desert environment they nest in areas of short, open scrublands such as mesquite (*Prosopis* spp.), creosote bush (*Larrea tridentate*), rabbit-brush (*Chrysothamnus nauseosus*), and four-wing saltbush (*Atriplex canescens*). They tend to be tolerant of human presence, and will nest in human-modified landscapes such as: abandoned lots within rapidly developing urban areas, airports, golf courses, agricultural fields, irrigation canals, storm drains, roadsides, and parking lots (Figure 2). In the western United States, burrowing owls do not dig their own burrows, and therefore depend on the presence of burrowing mammals. Throughout Arizona, burrowing owls are associated with Gunnison's prairie dogs (*Cynomys gunnisonii*), American badgers (*Taxidea taxus*), ground squirrels (*Spermophilus* spp.), rock squirrels (*Spermophilus variegatus*), foxes (*Vulpes* spp.), and coyotes (*Canis latrans*). Therefore, any open grassland, scrubland, or park-like area devoid of dense tree cover and containing burrowing mammals or adequate artificial nest burrows (e.g., erosion channels or storm drain pipes) can represent adequate nesting, wintering or migratory habitat.



Figure 2. Natural burrow on a wash bank. Photo by Elissa Ostergaard.

SURVEYOR CREDENTIALS

Burrowing owl surveyors should have burrowing owl survey protocol certification (training provided by AGFD; see Website in Contacts below for next date and location) with appropriate documentation.

Completed burrowing owl survey reports provided to AGFD should include each surveyor's certification. Certification will be awarded on an individual basis based on attendance at the training, and will not need to be renewed unless new information or conditions dictate substantial change to the survey protocol.

SURVEY TIMING

Burrowing owls are most likely to occupy breeding burrows between March and mid-July (Figure 3). While burrowing owl migration habits are not well documented, it is believed that owls in northern Arizona generally migrate south for the winter, whereas a larger proportion (12 to 61%; Conway and Ellis 2004) of owls in southern and western Arizona is thought to be non-migratory (Sheffield 1997).

We recommend that preliminary surveys be conducted at the time of property acquisition or before project design to allow time to properly accommodate or mitigate for owls, if present (Table 1). We recommend avoiding project initiation in March due to the possibility of new owls arriving during construction unless all suitable burrows were permanently closed by a properly permitted individual or group before project-related activities. If owls or occupied burrows are detected within the construction area at any time during project implementation, burrows must be avoided (see below for buffer requirements) until: 1) status of the burrows can be determined and owls removed by properly permitted individuals or groups, or 2) other conservation measures are implemented.

Surveys should be conducted within first light (typically ½ hour before sunrise) and 3 hours after sunrise, and between 2 hours before sunset until dusk (typically ½ hour after sunset). Do not conduct surveys during or within 24 hours after a heavy rain or when wind speed is greater than 32 km/hr (20 mi/hr).



Figure 3. Artificial burrow with signs of occupancy. Photo by Elissa Osterguard.

Table 1. Schedule for burrowing owl surveys.

Fall or Winter Initial Survey	
Results	Action
No burrows detected	None.
Unoccupied burrows found	Implement conservation measures* and conduct a second survey 90 days prior to grading.
Occupied burrows or owls found	Implement conservation measures* and survey 30 days prior to grading.
Spring or Summer Initial Survey	
Results	Action
No burrows detected	None.
Unoccupied burrows found	Implement conservation measures* and conduct a second survey 30 days prior to grading.
Occupied burrows or owls found	See below.

*Potential conservation measures include: 1) collapsing all unoccupied burrows of suitable dimensions by a permitted individual, 2) identifying open space areas to be protected as a buffer around occupied and suitable owl burrows, 3) passive exclusion of owls, or 4) translocation of owls by a permitted individual.

FIELD SURVEY PROTOCOL

We recommend that surveys be conducted in all portions of the project site that fit the description of Suitable Habitat (see above). Surveys are conducted by walking straight-line transects 10 m (33 ft) apart (or arranged so that all ground surfaces can be seen) and looking for evidence of owls: individuals, burrows, and sign of occupancy at burrow entrances (pellets, feces or other “ornamentation”, feathers, prey remains, whitewash, etc) (Figure 4). Transects should be located over the entire project area, and oriented so the tops and sides of all topographic features are examined. For example, if the project area includes a wash with a steep bank, one transect should be near the top of the bank, and another near the base of the bank in the wash.



Figure 4. Adult burrowing owl at an artificial burrow entrance. Photo by Bruce Taubert.

At the start of each transect and every 100 m (300 ft), scan the entire visible project area for owls using binoculars or a spotting scope. Record the location of all burrows (natural and artificial). Burrows may include holes dug by mammals, birds, or created by erosion, pipes, spaces below concrete or other solid structures, etc. Each burrow (entrance height 8 + cm [3 + in]; width 8 +

cm [3 + in]; burrow depth > 1 m [3 ft]) should be assessed to determine potential use by burrowing owls, unless owls are present.

An “active” burrow has a live owl or owls, or shows sign of recent use (e.g., fresh whitewash, fresh pellets, feathers, or nest ornamentation – Figure 2). A “potentially active” burrow is one with evidence of previous use, but not recent (e.g., old whitewash, old pellets, cobwebs over entrance, and/or debris at burrow entrances). An “inactive” burrow exhibits no evidence of use by burrowing owls but is of suitable size for occupancy.

Record the number and location of all owls seen within or near the project area. Clean and remove all owl sign at potentially active burrows. Visit the site again after 2-8 days and check all potentially active burrows for fresh sign.

SURVEY REPORTING

Record the surveys locations, dates, and the details of all burrow and owl detections (even if outside the construction zone), either on a hard copy map or as UTM's (Universal Transverse Mercator map coordinates compatible with GIS and GPS systems) using the standard form provided. Attach credentials of all surveyors as described above. Send within 30 days to raptors@azgfd.gov (preferred) or by mail:

Raptor Management Coordinator
Arizona Game and Fish Department
Nongame Branch
5000 West Carefree Highway
Phoenix, Arizona 85086

OWL DETECTIONS, CONSERVATION AND MITIGATION

Should preliminary measures fail to prevent burrowing owl occupancy of a project site during implementation, or if active burrows are located in the construction zone during construction activities, the owls should not be disturbed as it may violate federal and state laws. A 35-m (100-ft) radius buffer, excluding all heavy machinery and foot traffic, should be set up around all active burrow entrances during construction and until the appropriate conservation action is determined (B. Fox, pers. comm.). To permanently accommodate owls on site, we recommend that a buffer of 35-m (100-ft) should remain in perpetuity between the burrows and new construction and managed to maintain breeding habitat suitability (Millsap and Bear 2000). On-site conservation areas should be connected to adjacent burrowing owl habitat through the use of habitat connections. Conservation areas should avoid isolation or fragmentation of burrowing owl habitat. Delineating protected areas (fencing, cones, etc.) is encouraged as long as it does not enclose the owls or prevent the owls' ability to see nearby predators.

If after surveys are completed and reports submitted to AGFD, burrowing owls or active or potentially active burrows are located within the project boundaries, the landowner is advised to contact the nearest AGFD office (see Appendix A) for direction. Further mitigation or costs may be avoided if occupied owl areas can be set aside for at least 10 years and if suitable habitat for nesting and foraging will remain after development is finished. If it is determined that the best option is to disturb and then mitigate for the disturbance of the owls, the owner must obtain a permit from U.S. Fish and Wildlife Service. Mitigation may include excluding owls from disturbed burrows prior to construction and/or providing artificial burrows on-site or in a different location and monitoring to determine the success of the actions taken.



Figure 5. Owlets at a natural burrow entrance. Photo by Bruce Taubert.

LITERATURE CITED

- Arizona Burrowing Owl Working Group. 2007. Burrowing Owl Mitigation Standards and Guidelines. Arizona Game and Fish Department, Phoenix, AZ. [Azgfd.gov](http://azgfd.gov)
- Arizona Game and Fish Department. Arizona Revised Statutes, 17-235, Migratory birds, and 17-236, Taking birds; possession of raptors. Last accessed May 4, 2007. <http://www.azleg.state.az.us/ArizonaRevisedStatutes.asp?Title=17>
- Conway, C.J. and L.A. Ellis. 2004. Demography of Burrowing Owls Nesting in Urban and Agricultural Lands in Southern Arizona. Arizona Game and Fish Department, Heritage Grant Technical Report U03006, Phoenix, AZ.
- Millsap, B.A. and C. Bear. 2000. Density and reproduction of burrowing owls along an urban development gradient. *Journal of Wildlife Management* 64:33-41.
- Sheffield, S.R. 1997. Current status, distribution and conservation of the Burrowing Owl (*Speotyto cunicularia*) in midwestern and western North America. Pages 399-407 in J.R. Duncan, D.H. Johnson, and T.H. Nicholls [Eds.], *Biology and Conservation of Owls of the Northern Hemisphere: Second International Symposium*, February 5-9, 1997, Winnipeg, Manitoba, Canada. USDA For. Serv. Gen. Tech. Rep. NC-190.
- U.S. Fish and Wildlife Service. Migratory Bird Treaty Act, Migratory Bird Permit Office. Last accessed May 4, 2007. <http://www.fws.gov/permits/mbpermits/birdbasics.html>

APPENDIX A: CONTACTS

In Tucson and southern AZ:

Arizona Game and Fish Department
Urban Wildlife Program, Tucson Office
555 N. Greasewood Rd.
Tucson, AZ 85745
(520) 628-5376

US Fish and Wildlife Service
Ecological Services Office
201 N. Bonita Ave., Ste. 141
Tucson, AZ 85745
(520) 670-6144

In Phoenix, central and northern AZ:

Arizona Game and Fish Department
Raptor Management Coordinator
5000 W. Carefree Highway
Phoenix, AZ 85086
(623) 236-7500
www.azgfd.gov

US Fish and Wildlife Service
Ecological Services Office
2321 W. Royal Palm Road, Ste. 103
Phoenix, AZ 85021
(602) 242-0210
<http://www.fws.gov/southwest/es/arizona/>

Burrowing Owl Working Group Members

Marit Alanen, U.S. Fish and Wildlife Service
Troy Corman, Nongame Branch, Arizona Game and Fish Department
Tim Snow, Region V, Arizona Game and Fish Department
James Driscoll, Nongame Branch, Arizona Game and Fish Department
Bob Fox, Wild At Heart (Burrowing Owl Conservation Group)
Sam Fox, Wild At Heart (Burrowing Owl Conservation Group)
David Grandmaison, Research Branch, Arizona Game and Fish Department
Mike Ingraldi, Research Branch, Arizona Game and Fish Department
Shawn Lowery, Research Branch, Arizona Game and Fish Department
Scott Richardson, U.S. Fish and Wildlife Service
Ray Schweinsberg, Research Branch, Arizona Game and Fish Department
Aninna Thornburg, Region V, Arizona Game and Fish Department

APPENDIX B. BURROWING OWL SURVEY REPORT FORM

Surveyor(s):

Date of Survey:

Project Location Information

Project Name:
 City:
 County:
 Legal Description (address, ¼ Section,
 Township, Range):

Weather Conditions During Survey

Precipitation: Y / N (circle one)
 Wind Speed (mph):
 Temperature: °F / °C (circle)
 % Cloud Cover:

Survey Data

Area Surveyed: acres / ha / km² / m² (circle one)
 # Adult burrowing owls detected:
 # Juvenile burrowing owls detected:
 Total # burrowing owls detected:

Total # Active burrows:
 Total # Potentially Active burrows:

Habitat Description within Project Area (check if applicable)

- | | |
|---|----------------------|
| Open, treeless area | Sonoran desert scrub |
| Creosote flats | Agriculture |
| Wash corridor | Urban development |
| Suitable burrows | |
| Fossorial mammals present – list species: | |

Attach map of surveyed area with locations of survey transects. Identify locations of owls and suitable burrows. List owl detections and active or potentially active burrow locations in the following table (please include coordinates and datum) Attach additional pages if necessary:

Observation Type (Owl or Burrow)	Coordinates	Observation Type (Owl or Burrow)	Coordinates

Return completed forms (regardless of whether burrowing owls are detected) along with the surveyor’s certification to:
 Raptor Management Coordinator
 Arizona Game and Fish Department
 Nongame Branch
 5000 West Carefree Highway
 Phoenix, AZ 85086
 (623) 236-7500
raptors@azgfd.gov

APPENDIX E

AZDA Notice of Intent to Clear Land Form



Arizona Department of Agriculture (AZDA)

Central Licensing

Physical Location: 1010 W Washington St., Phoenix, AZ 85007

Mailing Address: 1802 W Jackson St., #78 Phoenix, AZ 85007

Phone: (602) 542-6408 Fax: (602)542-0466

Website: <https://agriculture.az.gov> Email: licensing@azda.gov

Notice of Intent to Clear Land

ARS § 3-904

Pursuant to A.R.S. § 3-904 the undersigned, as Owner of the Property described herein, gives this Notice of Intent to Clear Land of protected native plants.

1. **Owner/landowner's agent.** The owner or landowner's agent of the Property upon which protected native plants will be affected:

Owner's Name _____ Phone _____

Address _____

Agent's Name _____ Phone _____

Address _____

2. **Property.** The description and location of the Property upon which protected native plants will be affected:

County _____

Name of Property/Project _____

Address _____

Physical Location (attach map) _____

(Note: Map must also show surrounding land for 1/2 mile in each direction)

Tax Parcel ID Nos. _____

Legal Description (or attach copy) _____

Number of Acres to be Cleared _____

3. **Owner's Intent.** Landowner's intentions when clearing private land of protected native plants.

Owner intends to allow salvage of the plants, and agrees to be contacted by native plant salvagers.

Owner intends to transplant the plants onto the same property, or to another property he also owns.

Owner has already arranged for salvage of the plants.

Owner does not intend to allow salvage of the plants.

Other _____

4. **Approximate starting date.** _____

(See notice period listed on reverse side)

The information contained in this application is true and accurate to the best of my knowledge. I understand that providing false information is a felony in Arizona

Signature _____ Date _____

Notice to salvagers: Consent of the landowner is required before entering any lands described in this notice.

Explanation Of This Form

1. Notice of Intent to Clear Land.

The majority of the desert plants fall into one of four groups specially protected from theft, vandalism or unnecessary destruction. They include all of the cacti, the unique plants like Ocotillo, and trees like Ironwood, Palo Verde and Mesquite. In most cases the destruction of these protected plants may be avoided if the private landowner gives prior notice to the Arizona Department of Agriculture.

2. Notice Period.

When properly completed, this form is to be sent to the Department within the time periods described below. Landowners/ developers are encouraged to salvage protected native plants whenever possible.

3. Information to Interested Parties.

The information in this notice will be posted in the applicable state office of the Department and mailed to those parties (salvage operators, revegetation experts) who have an interest in these plants and may approach the landowner with the possibility of saving the plant(s) from unnecessary destruction.

Notice to Landowner:

1. The owner may not begin destruction of protected native plants until he receives confirmation from the Arizona Department of Agriculture and the time prescribed below has elapsed. The "Confirmed" stamp only verifies that the Notice has been filed.

Size of area over which the Destruction of Plants will occur

Length of Notice Period

Less than one acre

20 days, oral or written

One acre or more, but less than 40 acres

30 days, written

40 acres or more

60 days, written

2. If you are clearing land over an area of less than one acre, oral notice may be given by calling the applicable state office at the telephone number given below.
3. If the land clearing or plant salvage does not occur within one year, a new Notice is required.

This Notice must be sent to the applicable state office of the Department of Agriculture at the address given below:

Central Licensing

Physical Location: 1010 W Washington St., Phoenix, AZ 85007

Mailing Address: 1802 W Jackson St., #78 Phoenix, AZ 85007

Email: licensing@azda.gov

Notice to salvagers: Consent of the landowner is required before entering any lands described in this notice.

EXHIBIT B – ATTACHMENT B-2

Aquatic Resources Assessment for the Wild Stallion Energy Storage System Project in Surprise, Maricopa County, Arizona (November 2025)



Aquatic Resources Assessment for the Wild Stallion Energy Storage System Project in Surprise, Maricopa County, Arizona

NOVEMBER 2025

PREPARED FOR

Wild Stallion Energy Storage LLC

PREPARED BY

SWCA Environmental Consultants

**AQUATIC RESOURCES ASSESSMENT FOR
THE WILD STALLION ENERGY STORAGE SYSTEM PROJECT
IN SURPRISE,
MARICOPA COUNTY, ARIZONA**

Prepared for

Wild Stallion Energy Storage LLC
Submitted via email: natalie.aiello@bayway-re.com
Attention: Natalie Aiello

Prepared by

SWCA Environmental Consultants
20 East Thomas Road, Suite 1700
Phoenix, Arizona 85012
(602) 274-3831
www.swca.com

SWCA Project No. 100836

November 2025

CONTENTS

1	Introduction	1
2	Methods	1
3	Results.....	5
3.1	Topography and Land Use.....	5
3.2	Soils	5
3.3	Vegetation.....	5
3.4	Hydrography	6
3.5	Surface Water Features.....	6
3.6	Potentially Jurisdictional Waters Summary.....	6
3.6.1	Geographic Scope and Flow Path.....	7
3.6.2	Regulatory Background	7
4	Conclusions	9
5	Limitations and Warranty	9
6	Literature Cited.....	10

Appendices

- Appendix A Representative Site Photographs
- Appendix B Aerial Photographs
- Appendix C Supporting Agency Data

Figures

Figure 1.	General project location.....	2
Figure 2.	Project area location, land ownership, and aerial imagery.	3

Tables

Table 1.	Summary of Surface Water Data Points within the Project Area.....	6
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1 INTRODUCTION

SWCA Environmental Consultants (SWCA) has prepared this aquatic resources assessment for approximately 20 acres of privately owned land and 27 acres of Arizona State Land Department-administered land (collectively, the project area) in the city of Surprise, Maricopa County, Arizona (Figure 1). The project area is in a portion of Sections 19 and 20, Township 4 North, Range 2 West, and Section 24, Township 4 North, Range 3 West, Gila and Salt River Baseline and Meridian, as indicated on the McMicken Dam, Arizona and the White Tank Mountains NE, Arizona, U.S. Geological Survey (USGS) 7.5-minute quadrangles (Figure 2). The approximate center point of the project area is 33.67611°N, 112.50166°W.

The purpose of this assessment is twofold: 1) to document whether any natural surface water features within the project area have the potential to be considered waters of the United States (WOTUS), as defined under 33 Code of Federal Regulations (CFR) 328.3, and would thus be subject to federal regulation under Section 404 of the Clean Water Act (CWA) (33 United States Code 1344) and 2) to document the likely geographic limits of federal jurisdiction (as outlined in 33 CFR 328.4–328.5) of any potential WOTUS that may be present within the project area. SWCA conducted this assessment for internal due diligence.

2 METHODS

This report and associated field reconnaissance were completed in accordance with the U.S. Army Corps of Engineers (USACE) *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* (USACE 2017), *Corps of Engineers Wetlands Delineation Manual* (USACE 1987), *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region (Version 2)* (USACE 2008), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008).

In addition, *Streamflow Duration Assessment Methods for the Arid West and Western Mountains of the United States of America (Version 2.0)* (Mazor et al. 2024) was used to help characterize the flow regimes of the surface water features encountered in the project area. As part of the Streamflow Duration Assessment Method, plant species observed along each surface water feature were compared with the wetland plant list for the Arid West land resources region (USACE 2022) to obtain the hydrophytic indicator status for the species in the Arid West region. The flow regime of each surface water feature was then determined based on information gathered during the desktop review and field investigation.

Before conducting a field reconnaissance, SWCA personnel completed a desktop review to identify potential WOTUS, including wetlands and other special aquatic sites, as defined under the CWA (33 CFR 328.3 (a)), within the project area. SWCA accessed several public databases to characterize surface water features and provide additional data relating to their function. SWCA personnel reviewed recent aerial photographs and online datasets relative to water resources within the boundaries of the project area.

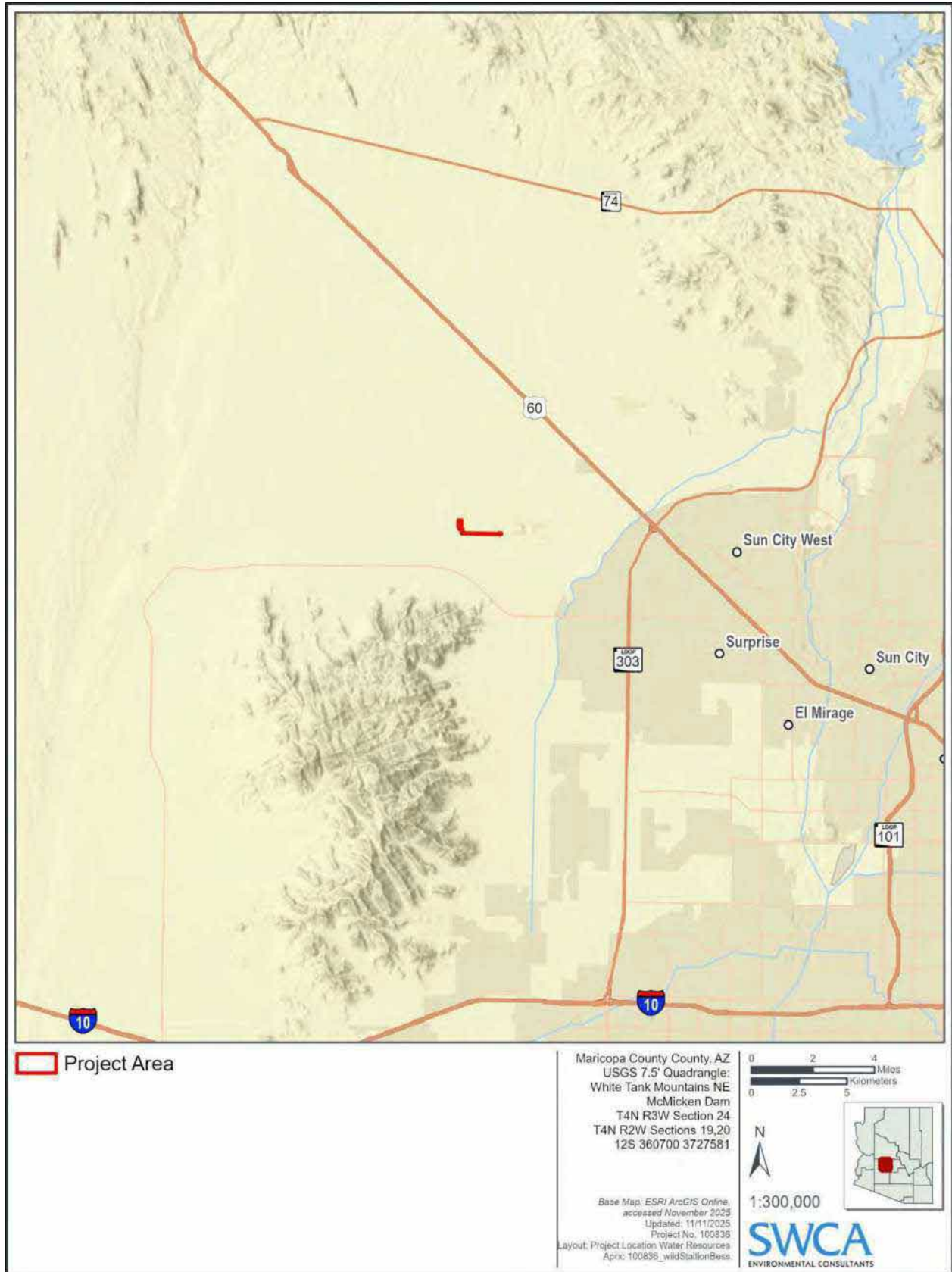


Figure 1. General project location.

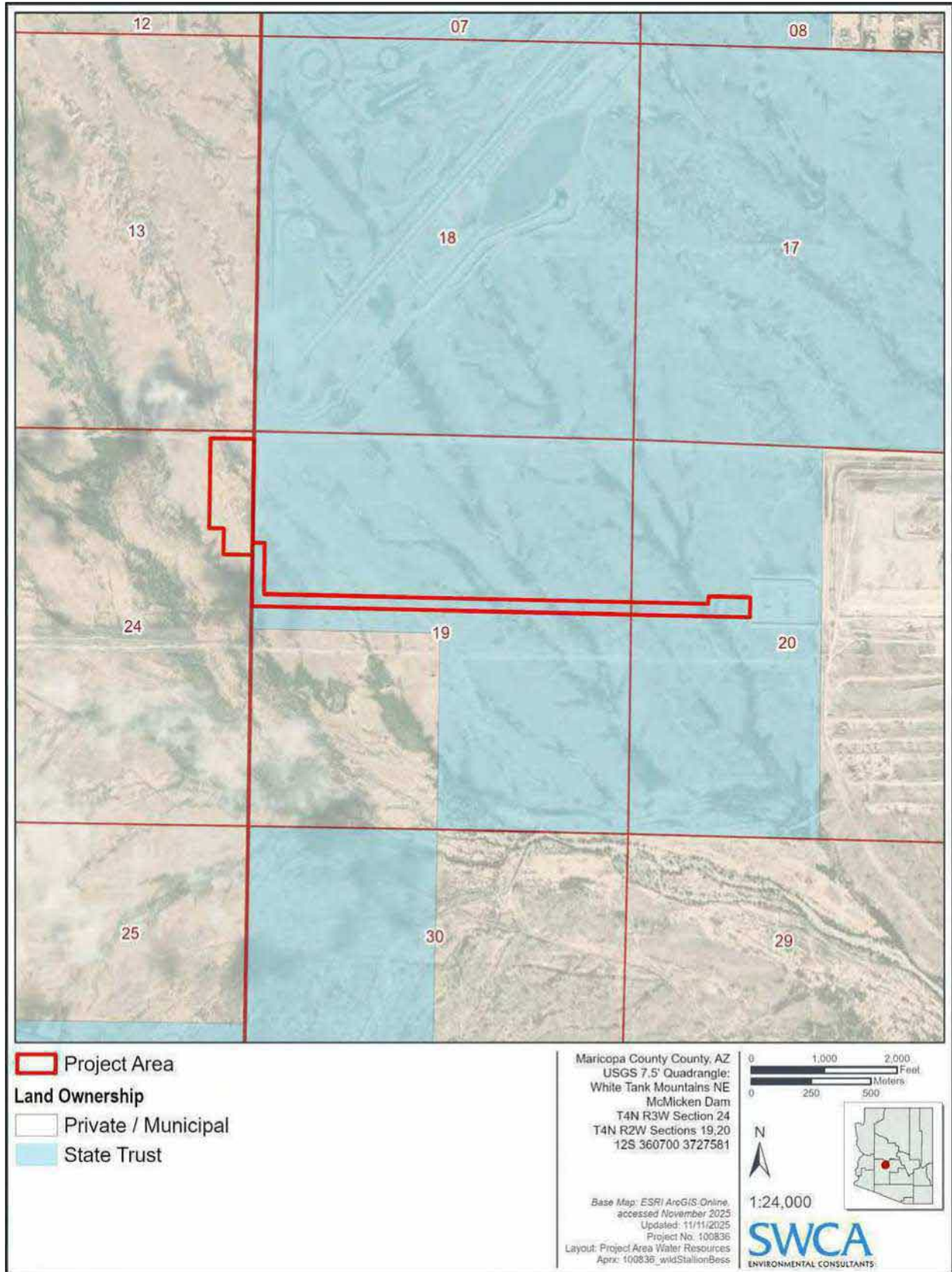


Figure 2. Project area location, land ownership, and aerial imagery.

The following specific data sources were accessed:

- Aerial photographs (Google Earth 2025)
- U.S. Environmental Protection Agency (EPA) Watershed Assessment, Tracking and Environmental Results System Surface Water Information System, which includes National Hydrography Dataset streams, USGS watersheds, and other surface water feature data (EPA 2025)
- Natural Resources Conservation Service (NRCS) Web Soil Survey data (NRCS 2025)
- USGS topographic maps (McMicken Dam, Arizona and White Tank Mountains NE, Arizona 7.5-minute quadrangles) (USGS 2025a)
- Federal Emergency Management Agency (FEMA) digital flood insurance rate map data (FEMA 2025)
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapper (USFWS 2025)
- Arizona Department of Water Resources (ADWR) Well Registry database (ADWR 2025)
- Arizona Department of Environmental Quality (ADEQ) eMaps Web Mapping Tool (ADEQ 2025)
- USACE Antecedent Precipitation Tool (USACE 2025)
- National Oceanic and Atmospheric Administration (NOAA) Regional Climate Centers Applied Climate Information System (NOAA 2025)

During the field reconnaissance on October 29, 2025, and November 5, 2025, SWCA water resources specialists traversed the project area on foot to examine surface water features for ordinary high water marks (OHWMs) and flow regime indicators. Representative ground-level photographs (Appendix A) were taken at surface water features to document on-site conditions, and field data for these features were recorded using GPS technology. Field GPS data were then transferred to a geographic information system (GIS) platform and mapped onto aerial photograph base maps to create figures that depict data point locations and, if present, surface water features exhibiting OHWMs within the project area (Figures B-1 and B-2 in Appendix B).

Identified drainage features were characterized by flow persistence (i.e., regime) as perennial, intermittent, or ephemeral based on field observations and available desktop data, including application of Streamflow Duration Assessment Methods described above. Perennial streams are channels that contain flowing water continuously during a year of normal rainfall, often with the streambed located below the water table for most of the year. Groundwater typically supplies the baseflow for perennial reaches, but the baseflow may also be supplemented by stormwater runoff or snowmelt, or both. By contrast, intermittent streams are channels that contain sustained flowing water for only part of the year, typically during the wet season, when the streambed may be below the water table or when the snowmelt from surrounding uplands may provide sustained flow, or both. The flow may vary greatly with stormwater runoff. Finally, ephemeral streams are channels that flow only in direct response to precipitation; water typically flows only during and/or shortly after large precipitation events, the streambed is always above the water table, and stormwater runoff is the primary water source (Mazor et al. 2024).

3 RESULTS

3.1 Topography and Land Use

The project area is in Sun Valley, approximately 2.5 miles north of the White Tank Mountains, at elevations ranging from approximately 1,420 to 1,460 feet above mean sea level (USGS 2025a). The topography of the project area is relatively flat and slopes downgradient from the north toward the south. Overall, the slope across the project area is calculated at approximately 1.5 percent (Google Earth 2025).

Land use in the vicinity of the project includes residential housing, the Ford Arizona Proving Grounds, construction projects, a landfill, the Sun Valley Parkway, and the Central Arizona Project Canal (Google Earth 2025).

3.2 Soils

The NRCS map indicates four soil map units in the project area (Appendix C). The map units (listed in order of relative abundance in the project area) are: 1) Tremant gravelly loams (42.7%); 2) Tremant-Rillito complex, 0 to 5 percent slopes (26.7%); 3) Mohall-Tremant complex, 0 to 3 percent slopes (22.4%); and 4) Gilman-Antho association (8.1%). All soils are derived from mixed alluvium and have a “well-drained” natural drainage class, and none has a hydric rating (i.e., indicative of wetland soils) (NRCS 2025).

3.3 Vegetation

The project area is within the Arizona Upland subdivision of the Sonoran Desertscrub biotic community, as described and mapped by Brown (1994).

Native plant species observed in the project area included desert globemallow (*Sphaeralcea ambigua*), desert horsepurslane (*Trianthema portulacastrum*), carelessnessweed (*Amaranthus palmeri*), fringed amaranth (*A. fimbriatus*), creosote bush (*Larrea tridentata*), blue paloverde (*Parkinsonia florida*), candy barrelcactus (*Ferocactus wislizeni*), Engelmann's hedgehog cactus (*Echinocereus engelmannii*), velvet mesquite (*Prosopis velutina*), Christmas cactus (*Cylindropuntia leptocaulis*), triangle bur ragweed (*Ambrosia deltoidea*), weakleaf bur ragweed (*A. confertiflora*), manybristle chinchweed (*Pectis papposa*), Arizona poppy (*Kallstroemia grandiflora*), spiderling (*Boerhavia* sp.), water jacket (*Lycium andersonii*), brittlebush (*Encelia farinosa*), tobosa grass (*Pleuraphis mutica*), desert thorn-apple (*Datura discolor*), Devil's spineflower (*Chorizanthe rigida*), needle grama (*Bouteloua aristidoides*), doubleclaw (*Proboscidea parviflora*), bigseed alfalfa dodder (*Cuscuta indecora*).

Nonnative plant species observed in the project area included Saharan mustard (*Brassica tournefortii*), cheeseweed mallow (*Malva parviflora*), jimsonweed (*Datura stramonium*), Bermudagrass (*Cynodon dactylon*), Johnsongrass (*Sorghum halepense*), and redstem stork's bill (*Erodium cicutarium*).

Carelessnessweed and desert horsepurslane appear in the latest wetland indicator plant list for the Arid West land resources region (USACE 2022). Carelessnessweed is rated as Facultative Upland, which is defined as usually occurring in non-wetlands, but may occur in wetlands. Desert horsepurslane is rated as Facultative, which is defined as occurring in both wetlands and non-wetlands.

3.4 Hydrography

The project area lies within the 23,554-acre Trilby Wash Subwatershed (12-digit hydrologic unit code: 150701020703), as defined by the USGS Watershed Boundary Dataset (USGS 2025b). A review of FEMA digital flood insurance rate map data (FEMA 2025; Firm Panels 04013C1195L and 04013C1215L) indicates that all of the project area is mapped as a Zone X area of minimal flood hazard, except a small area in the western portion of the gen-tie corridor that is located in Zone AE, a 100-year floodplain associated with Trilby Wash (Appendix C).

The mean annual precipitation from 2021 to 2024 for the nearby Buckeye 5N, Arizona, weather station is 7.2 inches (NOAA 2025). The USACE Antecedent Precipitation Tool results indicate that the October 2025 site visit took place during the dry season when the drought index was “not available” and that the project vicinity experienced “wetter than normal” antecedent precipitation conditions in the 90 days prior to the visit (see Appendix C) (USACE 2025).

No Outstanding Arizona Waters, EPA Impaired Waters, or water bodies designated as not attaining water quality standards are within or in the vicinity of the project area (ADEQ 2025).

A search of the ADWR Well Registry database indicates there is one well (registered well 55-520184) in the vicinity of the project area with a depth to groundwater of 311 feet below the ground surface (ADWR 2025).

3.5 Surface Water Features

The topographic map, National Hydrography Dataset (NHD), and NWI data review identified two surface water features modeled within the project area (see Appendix C) (EPA 2025; USFWS 2025; USGS 2025b); three additional potential surface water features were identified in the project area through a review of available aerial imagery (Google Earth 2025). The two features are modeled by both the NHD and NWI data and are both classified Cowardin Class R4SBC, which translates to riverine, intermittent, streambed, and seasonally flooded (Federal Geographic Data Committee 2013). Together these five potential surface water features or systems of features were identified in the project area and subject to field investigation at seven representative data points.

3.6 Potentially Jurisdictional Waters Summary

Table 1 summarizes the surface water feature data points that were identified during the desktop review and assessed during the field investigation. Ground-level photographs taken at the seven data points are provided in Appendix A. Aerial photographs showing the data point locations are provided in Appendix B.

Table 1. Summary of Surface Water Data Points within the Project Area

Feature ID	Data Point No.	Photograph No.*	Latitude (°N), Longitude (°W)	Notes	Associated NWI Code	OHWM Indicators Observed	Potential WOTUS?
1	DP-1	1, 2	33.68188, 112.51408	Upland sheet flow identified from aerial imagery as a potential system of linear surface water features.	None	None	No
	DP-2	3, 4	33.67825, 112.51248				
	DP-3	5, 6	33.67631, 112.51057				

Feature ID	Data Point No.	Photograph No.*	Latitude (°N), Longitude (°W)	Notes	Associated NWI Code	OHWM Indicators Observed	Potential WOTUS?
2	DP-4	7, 8	33.67630, 112.50822	Upland sheet flow identified from aerial imagery as a potential system of linear surface water features.	None	None	No
3	DP-5	9, 10	33.67627, 112.50156	Upland sheet flow identified from aerial imagery as a potential system of linear surface water features.	None	None	No
4	DP-6	11, 12	33.67604, 112.49929	Upland sheet flow identified from aerial imagery as a potential system of linear surface water features.	R4SBC	None	No
5	DP-7	13, 14	33.67585, 112.49221	Upland sheet flow/small erosional feature identified from aerial imagery as a system of potential linear surface water features.	R4SBC	None	No

* Representative site photographs are provided in Appendix A.

3.6.1 Geographic Scope and Flow Path

The geographic scope of surface water features includes consideration of the features' positions on the landscape and how they connect with other upstream and downstream features, and flow paths are quantified in terms of the distance between connections. Stormwater for localized precipitation events flows across the project area primarily as sheet flow in Features 1 through 5 to Trilby Wash, which is approximately 0.5 mile south of the project area. Trilby Wash flows into the Trilby Wash Basin, approximately 2.5 miles east of the project area. When the water level in the basin rises to the level of the McMicken Dam Outflow Channel at the northeastern end of the basin, flows continue east in the channel and south to the Agua Fria River via unnamed washes and stormwater channels. The Agua Fria River is a tributary to the Gila River and ultimately the Powers Butte to Gillespie Dam traditional navigable water (TNW) reach of the Gila River. Review of NHDPlus High Resolution data indicates that the overall flow path from Features 1 through 5 in the project area to the TNW is over 60 miles and has many impediments. A review of ADEQ flowline data (ADEQ 2025) indicated that the overall flow path length from the project area to the nearest downstream TNW, the Powers Butte to Gillespie Dam reach of the Gila River, is approximately 29 miles.

3.6.2 Regulatory Background

The CWA serves as the federal regulatory structure to protect surface water quality. Federal jurisdiction of surface waters extends to features that meet the definition of WOTUS as defined under 33 CFR 328. The CWA and associated WOTUS definitions have undergone a series of changes in recent years. Most recently, the March 2023 *Revised Definition of "Waters of the United States"* (2023 WOTUS Rule) was amended on September 8, 2023, to conform the definition of WOTUS to the U.S. Supreme Court decision in *Sackett v. EPA* (EPA 2023). The amended 2023 WOTUS Rule is currently effective in Arizona. The 2023 WOTUS Rule and amendment were developed by the EPA and the USACE to clarify nationwide

regulations that define the jurisdictional extent of the CWA and the definition of WOTUS for use in regulations under the CWA. In accordance with 33 CFR 328.3 definitions:

- a. *Waters of the United States* means:
 1. Waters which are:
 - i. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
 - ii. The territorial seas; or
 - iii. Interstate waters;
 2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
 3. Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
 4. Wetlands adjacent to the following waters:
 - i. Waters identified in paragraph (a)(1) of this section; or
 - ii. Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
 5. Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.
- b. The following are not *Waters of the United States*, even where they otherwise meet the terms of (a)(2) through (5):
 1. Waste treatment systems, treatment ponds or lagoons, designed to meet the requirements of the CWA;
 2. Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding CWA jurisdiction remains with EPA;
 3. Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;
 4. Artificially irrigated areas that would revert to dry land if the irrigation ceased;
 5. Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
 6. Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
 7. Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until

the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

8. Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow (33 CFR 328.3).

Non-navigable tributaries must have indicators of ordinary high water and be relatively permanent, standing, or continuously flowing bodies of water with a continuous surface connection to a TNW, a territorial sea, or an interstate water, and wetlands must have a continuous surface connection to an (a)(1) or (a)(2) water or to a tributary that is a relatively permanent water. Ephemeral streams are not explicitly excluded under the 2023 WOTUS Rule, as amended, and there is no specific flow duration identified for “relatively permanent,” which leaves ephemeral and intermittent streams open for review by the USACE on a case-by-case basis.

4 CONCLUSIONS

SWCA reviewed the project area for all surface water features and evaluated potential jurisdiction under the 2023 WOTUS Rule, as amended. The surface water features in the project area are unlikely to be WOTUS because although two of the site features have been modeled by the USFWS and USGS, none display OHWMs, all are ephemeral and non-relatively permanent, and all are characteristically consistent with non-jurisdictional uplands, sheet flow, or small erosional features excluded from jurisdiction under 33 CFR 328 (b)(8). Therefore, Features 1 through 5 would not meet the definition of an (a)(3) tributary to be considered a WOTUS and subject to Section 404 permitting regulations.

5 LIMITATIONS AND WARRANTY

The results and conclusions of this report represent the best professional judgment of SWCA specialists and are based on information provided by the project proponent and obtained from agencies and other sources during the course of the assessment. No other warranty, expressed or implied, is made. The USACE and the EPA have the ultimate authority to determine the jurisdictional status of any surface water feature.

6 LITERATURE CITED

- Arizona Department of Environmental Quality (ADEQ). 2025. eMaps Web Mapping Tool. Available at: <https://azdeq.gov/emaps/>. Accessed November 2025.
- Arizona Department of Water Resources (ADWR). 2025. ADWR Wells Registry database (Wells55). Available at: <https://app.azwater.gov/WellRegistry/SearchWellReg.aspx>. Accessed November 2025.
- Brown, D.E. (editor). 1994. *Biotic Communities: Southwestern United States and Northwestern Mexico*. Salt Lake City: University of Utah Press.
- Federal Emergency Management Agency (FEMA). 2025. FEMA Flood Map Service Center. Available at: <https://msc.fema.gov/portal/home>. Accessed November 2025.
- Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC. Accessed November 2025.
- Google Earth. 2025. U.S. Department of State Geographer Image Landsat. Available at: <https://www.google.com/earth/>. Accessed November 2025.
- Lichvar, R.W., and S.M. McColley. 2008. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*. ERDC/CRREL TR-08-12. Hanover, New Hampshire: U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Available at: https://www.spl.usace.army.mil/Portals/17/docs/regulatory/JD/FinalOHWMManual_2008.pdf. Accessed November 2025.
- Mazor, R., A. James, K.M. Fritz, B. Topping, T.-L. Nadeau, R. Fertik Edgerton, and K. Nicholas. 2024. *Streamflow Duration Assessment Methods for the Arid West and Western Mountains of the United States of America (Version 2.0)*. Document No. EPA-843-B-24002. Available at: https://www.epa.gov/system/files/documents/2024-10/aw-wm-sdam_user_manual_october2024.pdf. Accessed November 2025.
- National Oceanic and Atmospheric Administration (NOAA). 2025. Applied Climate Information System. Buckeye 5N, AZ Weather Station. Available at: <http://agacis.rcc-acis.org/>. Accessed November 2025.
- Natural Resources Conservation Service (NRCS). 2025. Web Soil Survey. Available at: <https://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. Accessed November 2025.
- U.S. Army Corps of Engineers (USACE). 1987. *Corps of Engineers Wetlands Delineation Manual* (online edition). Available at: <https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/4532/>. Accessed November 2025.
- . 2008. *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region (Version 2.0)*. Environmental Laboratory, ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center. Available at: <https://usace.contentdm.oclc.org/utills/getfile/collection/p266001coll1/id/7627>. Accessed November 2025.

- . 2017. *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports*. U.S. Army Corps of Engineers, Los Angeles District. Available at: https://www.spl.usace.army.mil/Portals/17/docs/regulatory/Permit_Process/Final%20Delin%20Report%20Standards%203-16-2017.pdf?ver=2017-03-24-115759-277. Accessed November 2025.
- . 2022. National Wetland Plant List, Version 3.5. Available at: <https://wetland-plants.sec.usace.army.mil/download/>. Accessed November 2025.
- . 2025. Antecedent Precipitation Tool results. Available at: <https://github.com/jDeters-USACE/Antecedent-Precipitation-Tool/>. Accessed November 2025.
- U.S. Environmental Protection Agency (EPA). 2023. *Revising the definition of “Waters of the United States.”* Available at: <https://www.epa.gov/wotus/revising-definition-waters-united-states>. Accessed November 2025.
- . 2025. WATERS (Watershed Assessment, Tracking & Environmental Results System). Available at: <https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system>. Accessed November 2025.
- U.S. Fish and Wildlife Service (USFWS). 2025. National Wetlands Inventory, Wetlands Mapper. Available at: <http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed November 2025.
- U.S. Geological Survey (USGS). 2025a. National Map. Available at: <https://apps.nationalmap.gov/viewer/>. Accessed November 2025.
- . 2025b. National Watershed Boundary Dataset. Available at: <https://www.usgs.gov/national-hydrography/watershed-boundary-dataset>. Accessed November 2025.

APPENDIX A

Representative Site Photographs

(Data points keyed to Figures B-1 and B-2 in Appendix B)



Photograph A-1. Feature 1, data point (DP)-1; view facing upgradient.



Photograph A-2. Feature 1, DP-1; view facing downgradient.



Photograph A-3. Feature 1, DP-2; view facing upgradient.



Photograph A-4. Feature 1, DP-2; view facing downgradient.



Photograph A-5. Feature 1, DP-3; view facing upgradient.



Photograph A-6. Feature 1, DP-3; view facing downgradient.



Photograph A-7. Feature 2, DP-4; view facing upgradient.



Photograph A-8. Feature 2, DP-4; view facing downgradient.



Photograph A-9. Feature 3, DP-5; view facing upgradient.



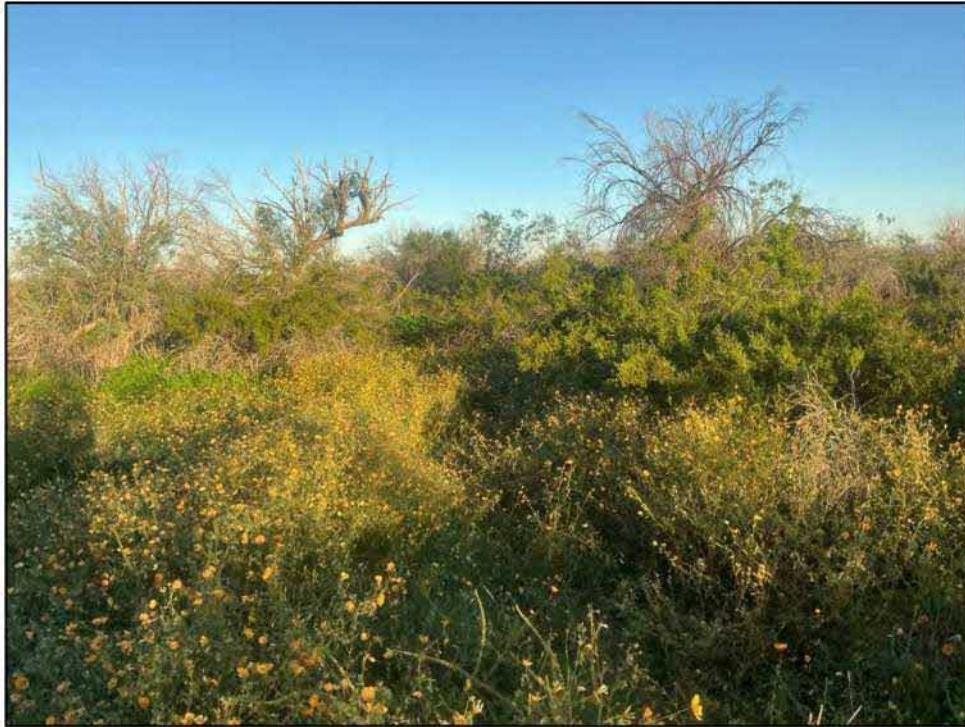
Photograph A-10. Feature 3, DP-5; view facing downgradient.



Photograph A-11. Feature 4, DP-6; view facing upgradient.



Photograph A-12. Feature 4, DP-6; view facing downgradient.



Photograph A-13. Feature 5, DP-7; view facing upgradient.



Photograph A-14. Feature 5, DP-7; view facing downgradient.

APPENDIX B

Aerial Photographs



Figure B-1. Aerial photograph showing the locations of the data points in Appendix A.



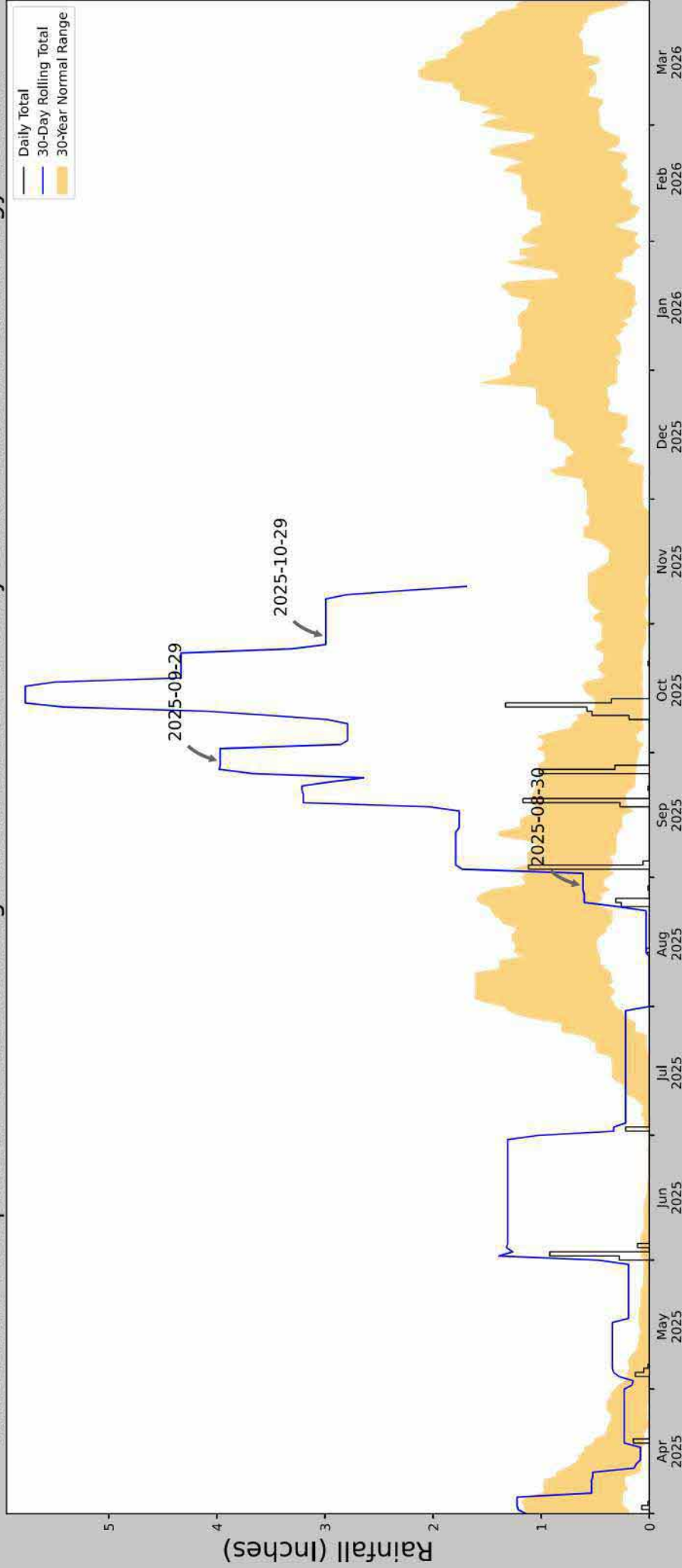
Figure B-2. Aerial photograph showing the locations of the data points in Appendix A.

APPENDIX C

Supporting Agency Data

NRCS Soils Map,
U.S. Army Corps of Engineers Antecedent Precipitation Tool Results,
U.S. Geological Survey National Hydrology Dataset,
U.S. Fish and Wildlife Service National Wetlands Inventory, and
Federal Emergency Management Agency Flood Insurance Rate Map

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



— Daily Total
— 30-Day Rolling Total
 30-Year Normal Range

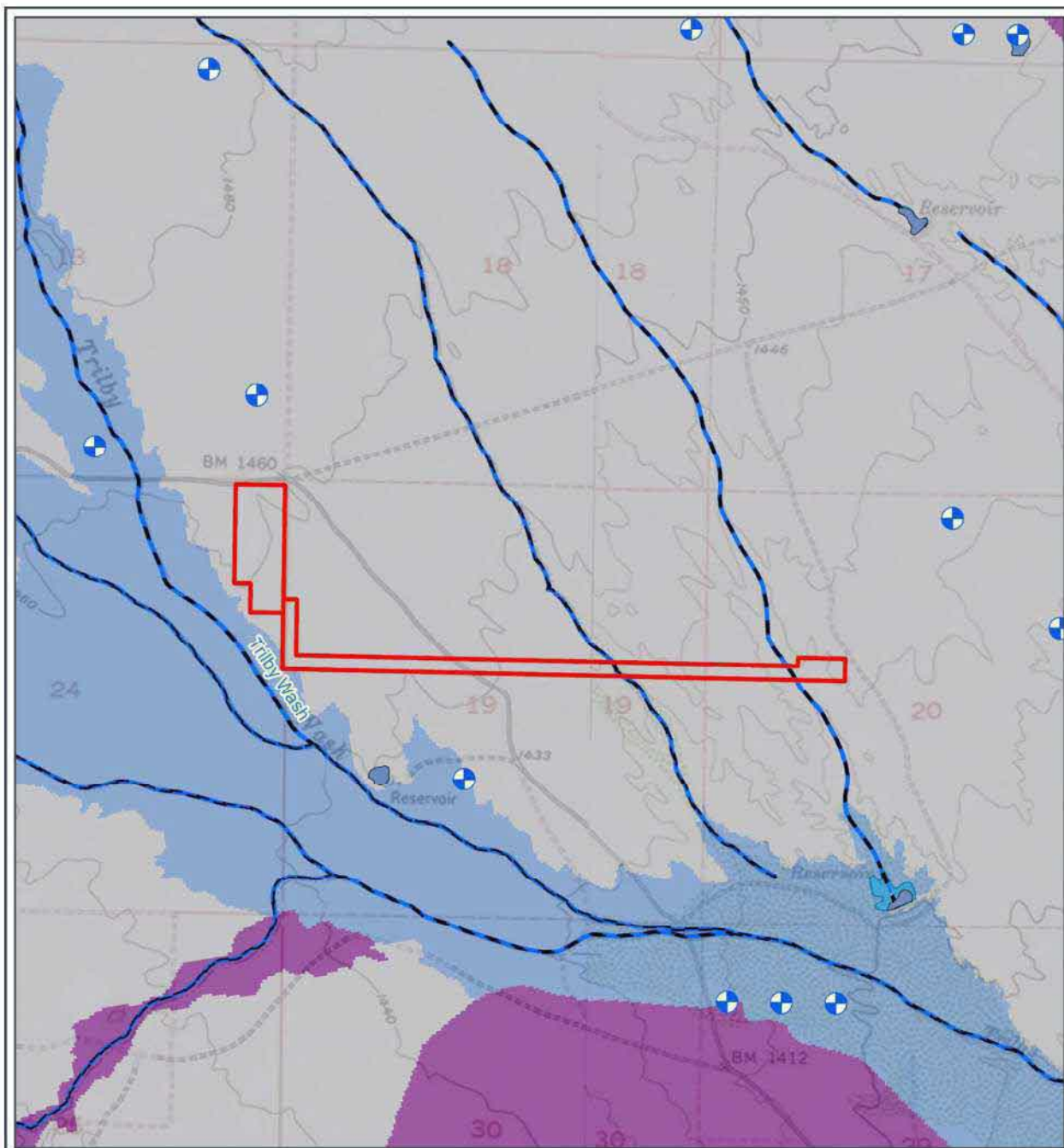
Coordinates	33.67611, -112.50166
Observation Date	2025-10-29
Elevation (ft)	1430,468
Drought Index (PDSI)	Not available (2025-09)
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-10-29	0.035827	0.43622	2.992126	Wet	3	3	9
2025-09-29	0.119685	0.965354	3.968504	Wet	3	2	6
2025-08-30	0.427953	1.163386	0.614173	Normal	2	1	2
Result:							Wetter than Normal - 17

Figures and tables made by the Antecedent Precipitation Tool Version 3.0

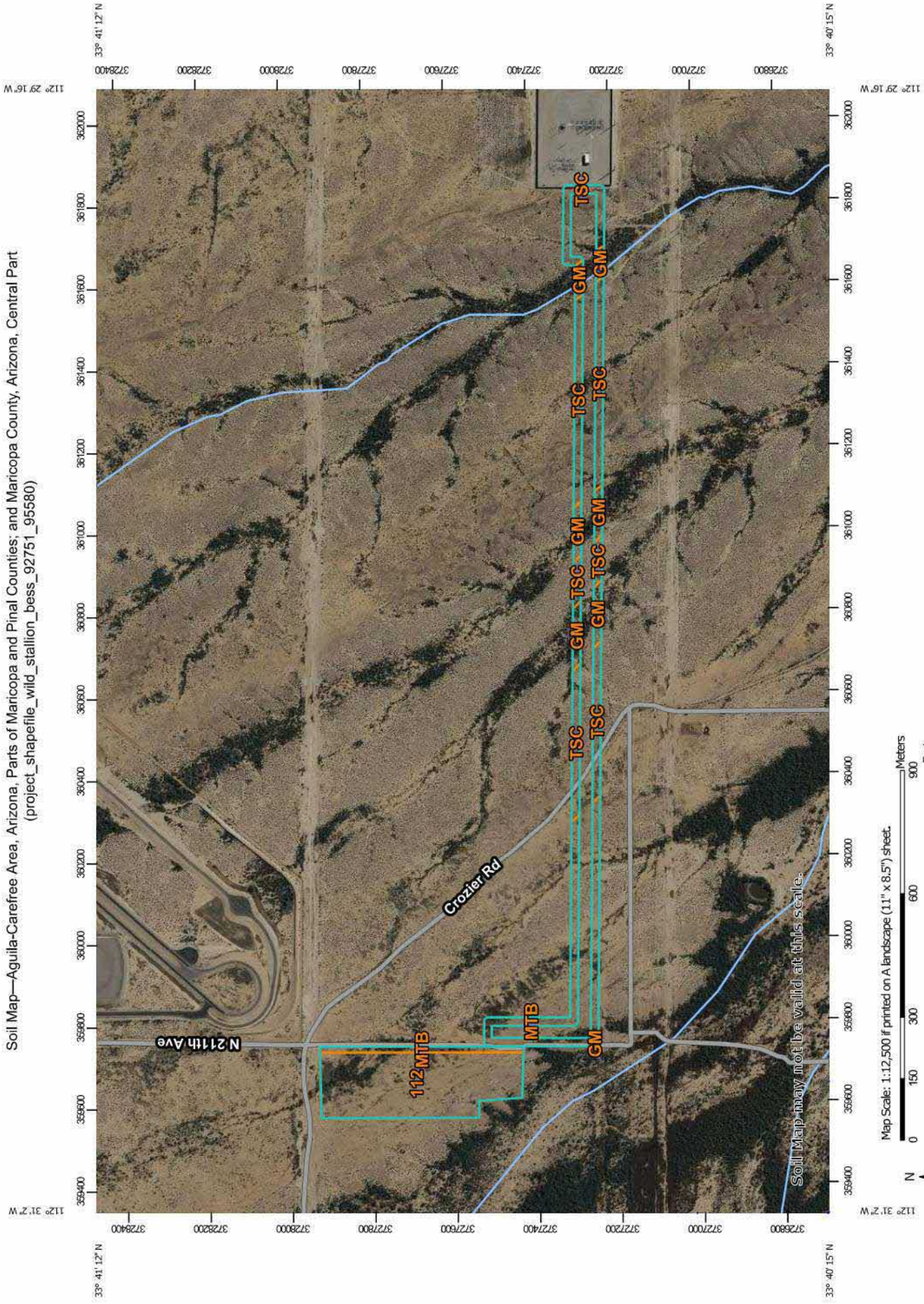
 Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
PHOENIX DEER VALLEY/MUNI AP	33.6903, -112.0661	1486.877	25.061	56.409	12.691	9863	90
GLENDALE 10.7 NNE	33.6614, -112.0802	1414.042	2.155	72.835	1.127	7	0
PHOENIX 15.3 NE	33.6656, -112.0101	1514.108	3.644	27.231	1.739	8	0
PHOENIX 14.8 NNE	33.6474, -112.0045	1478.018	4.619	8.859	2.119	4	0
PHOENIX 12.8 N	33.6258, -112.0591	1457.021	4.475	29.856	2.147	2	0
YOUNGTOWN	33.5944, -112.3006	1134.843	15.028	352.034	12.053	1464	0
PHOENIX CITY	33.4489, -112.0825	1098.097	16.706	388.78	14.013	5	0



Project Area	National Wetland Inventory	Maricopa County, AZ USGS 7.5' Quadrangle: White Tank Mountains NE McMicken Dam T4N R3W Section 24 T4N R2W Sections 19,20 NAD 1983 UTM Zone 12N 33.679°N 112.5027°W		
Wells	Freshwater Pond			
National Hydrography Dataset		Riverine	<i>Base Map: Esri ArcGIS Online, accessed November 2025 Updated: 11/11/2025 Project No. 100836 Layout: NHD NWI Aprx: 100836_wildStationBess</i>	1:24,000
Stream/River	FEMA Flood Zone			
Artificial Path	A	AE		
Lake/Pond	AE	X		

Soil Map—Agua-Carefree Area, Arizona, Parts of Maricopa and Pinal Counties; and Maricopa County, Arizona, Central Part
 (project_shapefile_wild_stallion_bess_92751_95580)



Map Scale: 1:12,500 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84



Natural Resources
 Conservation Service

Web Soil Survey
 National Cooperative Soil Survey

MAP LEGEND

	Area of Interest (AOI)		Spoil Area
	Soils		Stony Spot
	Soil Map Unit Polygons		Very Stony Spot
	Soil Map Unit Lines		Wet Spot
	Soil Map Unit Points		Other
	Special Point Features		Special Line Features
	Blowout		Water Features
	Borrow Pit		Streams and Canals
	Clay Spot		Transportation
	Closed Depression		Rails
	Gravel Pit		Interstate Highways
	Gravelly Spot		US Routes
	Landfill		Major Roads
	Lava Flow		Local Roads
	Marsh or swamp		Background
	Mine or Quarry		Aerial Photography
	Miscellaneous Water		
	Perennial Water		
	Rock Outcrop		
	Saline Spot		
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:20,000 to 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Agua-Carefree Area, Arizona, Parts of Maricopa and Pinal Counties

Survey Area Data: Version 21, Aug 28, 2025

Soil Survey Area: Maricopa County, Arizona, Central Part
Survey Area Data: Version 20, Aug 27, 2025

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 29, 2022—Nov 15, 2022

MAP LEGEND

MAP INFORMATION

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
112	Tremant gravelly sandy loams	18.2	42.7%
Subtotals for Soil Survey Area		18.2	42.7%
Totals for Area of Interest		42.6	100.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
GM	Gilman-Antho association	3.5	8.1%
MTB	Mohall-Tremant complex, 0 to 3 percent slopes	9.5	22.4%
TSC	Tremant-Rillito complex, 0 to 5 percent slopes	11.4	26.7%
Subtotals for Soil Survey Area		24.4	57.2%
Totals for Area of Interest		42.6	100.0%

EXHIBIT B – ATTACHMENT B-3

Cultural Resources Inventory of 28.87 Acres of State Trust Land for the Wild Stallion Energy Storage System Gen-Tie Project, Maricopa County, Arizona (November 2025)



Cultural Resources Inventory
of 28.87 Acres of State Trust Land
for the Wild Stallion Energy Storage
System Gen-tie Project,
Maricopa County, Arizona

ASLD APPLICATION NO. 14-125228-00-100

NOVEMBER 2025

PREPARED FOR

Wild Stallion Energy Storage LLC and
Arizona State Land Department

PREPARED BY

SWCA Environmental Consultants

**CULTURAL RESOURCES INVENTORY OF 28.87 ACRES OF
STATE TRUST LAND FOR THE WILD STALLION ENERGY
STORAGE SYSTEM GEN-TIE PROJECT, MARICOPA COUNTY,
ARIZONA**

(ASLD Application No. 14-125228-00-100)

Prepared for

Wild Stallion Energy Storage LLC
17901 Von Karman Avenue, Suite 1050
Irvine, California 92614
Attn: Natalie Aiello, Central Permitting Manager

and

Arizona State Land Department
1110 West Washington Street
Phoenix, Arizona 85007

Prepared by

Michelle Knoll, M.A.

Principal Investigator

Jerome Hesse, M.S.

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Arizona Antiquities Act Blanket Permit No. 2025-061bl

SWCA Project No. 100836

SWCA Cultural Resources Report No. 25-934

November 2025

**STATE HISTORIC PRESERVATION OFFICE
SURVEY REPORT SUMMARY FORM**

1

1. REPORT TITLE

1a. Report Title: Cultural Resources Inventory of 28.87 Acres of State Trust Land for the Wild Stallion Energy Storage System Gen-tie Project, Maricopa County, Arizona (ASLD Application No. 14-125228-00-100)

1b. Report Author: Michelle Knoll

1c. Date: November 21, 2025

1d. Report No.: 25-934

2. PROJECT REGISTRATION/PERMITS

2a. ASM Accession Number: 2025-TBA

2b. AAA Permit Number: 2025-061bl

2c. ASLD Lease Application Number(s): 14-125228-00-100

2d. Other Permit Number(s): Not Applicable (N/A)

3. ORGANIZATION/CONSULTING FIRM

3a. Name: SWCA Environmental Consultants (SWCA)

3b. Internal Project Number: 100836

3c. Internal Project Name: Wild Stallion Gen-tie

3d. Contact Name: Eric Petersen

3e. Contact Address: 343 West Franklin Street, Tucson, Arizona 85701

3f. Contact Phone: (520) 325-9194

3g. Contact Email: epetersen@swca.com

4. SPONSOR/LEAD AGENCY

4a. Sponsor: Wild Stallion Energy Storage LLC (Wild Stallion)

4b. Lead Agency: Arizona State Land Department (ASLD)

4c. Agency/Sponsor Project Number(s): N/A

4d. Agency Project Name: N/A

4e. Funding Source(s): Private

4f. Other Involved Agencies: Arizona State Museum (ASM)

4g. Applicable Regulations: State Historic Preservation Act (Arizona Revised Statutes [ARS] 41-861 et seq.); Arizona Antiquities Act (ARS 41-841 et seq.); Duty to report discoveries; disposition of discoveries (ARS 41-844).

5. DESCRIPTION OF PROJECT: Wild Stallion, a subsidiary of BayWa r.e. Americas, is proposing to develop a 200-megawatt battery energy storage system (BESS) with a 1.4-mile-long generation intertie transmission line (gen-tie) (project) within and adjacent to the city of Surprise in Maricopa County, Arizona. The BESS will be on 19.7 acres of privately owned land within the city of Surprise and the gen-

**STATE HISTORIC PRESERVATION OFFICE
SURVEY REPORT SUMMARY FORM**

tie will consist of a 1.4-mile-long × 140- to 250-foot-wide right-of-way (ROW) on 28.87 acres of ASLD-administered land in unincorporated Maricopa County. This report is for the gen-tie portion of the project only.

Because the proposed gen-tie ROW is on State Trust Land administered by the ASLD, the approval of the ROW by ASLD is subject to compliance with the Arizona State Historic Preservation Act (ARS 41-861 et seq.). Wild Stallion contracted SWCA to conduct a Class III cultural resources survey of the proposed gen-tie corridor to evaluate whether the project’s construction and operation has the potential to affect historic properties (i.e., cultural properties in or eligible for the Arizona Register of Historic Places [ARHP] and the National Register of Historic Places [NRHP]). This survey to support ASLD is subject to compliance with the Arizona Antiquities Act (ARS 41-841 et seq.).

6. PROJECT AREA: The proposed gen-tie corridor would be on 28.87 acres of ASLD-administered lands in unincorporated Maricopa County, Arizona (Figure 1).

7. PROJECT LOCATION

7a. Address: N/A

7b. Route: N/A

7c. Mileposts Limits: N/A

7d. Nearest City/Town: Surprise **7e. County:** Maricopa

7f. Project Locator UTM: 360700mE, 3727581mN

7g. NAD: 83

7h. Zone: 12S

7i. Baseline & Meridian: Gila and Salt River

7j. USGS Quadrangle(s): White Tank Mountains NE and McMicken Dam, Arizona

7k. Legal Description(s): The project area is within the N½ of Section 19 and the NW¼ of Section 20 in Township (T) 4 North (N), Range (R) 2 West (W), Gila and Salt River Baseline and Meridian (Figure 2).

8. SURVEY AREA

8a. Total Acres: 28.87 acres

8b. Survey Area.

1. Land Jurisdiction	2. Total Acres Surveyed	3. Total Acres Not Surveyed	4. Justification for Areas Not Surveyed
ASLD	28.87	–	N/A

9. ENVIRONMENTAL CONTEXTS

9a. Landform: The project area is on creosote flats in a broad valley between the White Tank Mountains and the Hieroglyphic Mountains.

9b. Elevation: 1,418 to 1,460 feet above mean sea level, generally from east to west.

9c. Surrounding Topographic Features: The north slope of the White Tank Mountains is approximately 2.5 miles to the south, and the Hieroglyphic Mountains are approximately 10 miles to the northeast of the project area.

STATE HISTORIC PRESERVATION OFFICE
SURVEY REPORT SUMMARY FORM

3

9d. Nearest Drainage: The main channel of Trilby Wash is south and west of the project area, and multiple tributaries of Trilby Wash intersect the project area.

9e. Local Geology: The project area is on late and middle Pleistocene piedmont alluvium (Richard et al. 2000).

9f. Vegetation: The project area contains vegetation characteristic of the Arizona Upland Subdivision of the Sonoran Desertscrub biotic community (Brown 1994). Observed vegetation included creosote bush, paloverde, globemallow, barrel cactus, mesquite, and various grasses and forbs.

9g. Soils/Deposition: The project area contains the following soil map units: Mohall loamy upland, Tremant clay loam, Rillito limy fan, Gilman limy fan, and Antho limy fan (Natural Resources Conservation Service 2025).

9h. Buried Deposits: Unlikely

9i. Justification: Subsurface deposits are unlikely without some surface manifestations because it is situated on Pleistocene piedmont alluvium.

10. BUILT ENVIRONMENT: The project area is 0.25 mile south of West Deer Valley Road (unpaved) and the Ford Proving Grounds, and 2 miles south of Luke Airforce Base Auxiliary 1. A substation abuts the east end of the project area, the Waste Management Northwest Regional Landfill is just east of the substation, the Wickenburg to Dysart 69-kilovolt (kV) transmission line is 600 feet to the south, and the project intersects North Crozier Road (unpaved). The remainder of the project area consists of undisturbed desert.

11. INVENTORY CLASS COMPLETED

11a. Class I Inventory:

11b. Researcher(s):

11c. Class II Survey:

11d Sampling Strategy:

11e. Class III Inventory:

12. BACKGROUND RESEARCH SOURCES

12a. AZSITE:

12b. ASM Archaeological Records Office:

12c. SHPO Inventories and/or SHPO Library:

12d. NRHP Database:

12e. ADOT Portal:

12f. GLO Maps: SWCA searched historic maps within 0.5 mile of the project area. The General Land Office (GLO) original survey plat map of T4N, R2W, filed in 1896, depicts no historic features in the search area. The GLO original survey plat map of T4N, R3W, filed in 1919, depicts two northwest-southeast-oriented roads and a fence line projecting into the project area in the northeast corner of Section 24;

these features are not visible in historic aerial imagery from 1958. Within the search area, the map depicts additional road segments projecting westward, away from the project area.

12g. Land-Managing Agency Files: N/A

12h. Tribal Cultural Resources Files: N/A

12i. Local Government Websites: N/A

12j. Other Historic Resources: The 1957 (1958 edition) U.S. Geological Survey (USGS) White Tank Mountains NE, Arizona 1:24,000-scale topographic map depicts one unnamed, unpaved, northwest-southeast-oriented road (present-day North Crozier Road) intersecting the project area near the center of Section 19, T4N, R2W. The 1957 (1958 edition) USGS McMicken Dam, Arizona 1:24,000-scale topographic map depicts one unnamed, unpaved, northwest-southeast-oriented road beyond the east end of the project area in Section 20, T4N, R2W; abandoned portions of this road were previously recorded as AZ T:7:443(ASM). A reservoir and access road are depicted south of the project area within the search area.

The NRHP database maintained by the National Park Service was also consulted to ascertain if any cultural resources previously listed in the NRHP are in the search area. No properties were identified (National Park Service 2025a), and no historical trails or routes of national significance pass through or near the project area (National Park Service 2025b). The ARHP database, maintained by Arizona State Parks and Trails, was also consulted to ascertain whether any cultural resources previously in the ARHP are in the search area. No properties were identified (State Historic Preservation Office [SHPO] 2025).

Historic aerial imagery from 1949 depicts the alignment of present-day North Crozier Road and two northwest-southeast roads on the west end of the project area that converge just south of the project area; all three roads intersect the project area but only North Crozier Road still exists today. Historic aerial imagery from 1958 and 1971 shows the same historic features depicted on the topographic maps in the search area (Maricopa County Assessor’s Office 2025).

13. BACKGROUND RESEARCH RESULTS

13a. Previous Archaeological Surveys within the Study Area.

A review of the available records identified 26 previously conducted surveys within the 0.5-mile radius of the project area. These surveys, which took place between 1977 and 2024, were conducted for proposed nuclear power plant, transmission line, vehicle proving ground, landfill, transportation, land development, natural gas pipeline, and sewer line projects. Four previous investigations intersect and cover 11 acres (41%) of the project area (Table 13a, Figure 3). The ASM has provided guidance regarding the reliability of previous surveys on state lands. This policy states that areas subject to survey on city, county, or state lands that were last surveyed more than 10 years ago must be resurveyed (ASM 2024). All the previous surveys intersecting the project area were conducted more than 10 years ago, thus the entire project area required a resurvey.

Table 13a. Previous Archaeological Surveys that Intersect the Project Area

1. Project Reference Number	2. Project Name	3. Author(s)	4. Year
2004-1076.ASM	APS West Valley North	Cox et al.	2004

**STATE HISTORIC PRESERVATION OFFICE
SURVEY REPORT SUMMARY FORM**

2005-531.ASM	Deer Valley Road Substation	Bockhorst and Stokes	2005
2005-656.ASM	West Valley 230kV Powerline	Jolly and Bockhorst	2005
2013-554.ASM	West Valley North 230kV Update	Punzmann and Fangmeier	2014

13b. Previously Recorded Cultural Resources within the Study Area.

Previous surveys identified three Historic period archaeological sites, one prehistoric-period archaeological site, and one site of unknown affiliation recorded within 0.5 mile of the project area. None of the sites intersect the project area (Table 13b). Sites include a single cluster of fire-affected rocks, a camp or homestead, an artifact scatter, a partially abandoned road (the southern two segments), and one site of unknown type. One of the sites (AZ T:7:310[ASM]) is no longer considered a site by ASM standards (ASM 2021). All the sites have been determined or recommended ineligible for the ARHP/NRHP except for SHPO Topo map site 13(MNA), which has an unknown eligibility status and AZ T:7:21(ASM)/NA18122, which was recommended eligible under an unspecified criterion.

Table 13b. Previously Recorded Cultural Resources within the Study Area

1. Name/Site Number	2. Affiliation	3. Site Type	4. Eligibility Status	5. Associated Reference(s)
AZ T:6:14(ASM)/NA15139	Euro-American/ 1920s–1930s	Camp or homestead	Determined ineligible	Cox et al. (2004)
AZ T:7:21(ASM)/NA18122	Unknown Native/Pre-contact	Fire-affected rock concentration	Recommended eligible	Dosh and Keller (1984)
AZ T:7:310(ASM)	Euro-American/ 1950s–1960s	Artifact scatter	Determined ineligible	Savage and Rogge (2003)
AZ T:7:443(ASM)	Euro-American/ 1950s–1960s	Road	Recommended ineligible	Punzmann and Fangmeier (2014)
13(MNA)*	Unknown	Unknown	Unknown	Unknown

*13(MNA) may be the same site as AZ T:6:14(ASM)/NA15139.

13c. Historic Buildings/Districts/Neighborhoods/Structures.

No Historic period buildings, districts, or neighborhoods have been identified within 0.5 mile of the survey area. One Historic period structure (the Wickenburg to Dysart 69-kV Transmission Line; previously recorded as AZ T:2:143[ASM]) was recorded south of the project area (Table 13c). A review of historic aerial imagery indicates that the line was constructed in the study area between 1976 and 1986 (Maricopa County Assessor’s Office 2025).

Table 13c. Historic Buildings/Districts/Neighborhoods/Structures.

1. Property Name or Address	2. Year	3. Eligibility Status
Wickenburg to Dysart 69-kV Transmission Line	1948–present (post-1976 in the study area)	Determined eligible (Criterion A)

14. CULTURAL CONTEXTS

14a. Prehistoric Culture: Hohokam

14b. Protohistoric Culture: O’odham, Yavapai-Apache

14c. Indigenous Historic Culture: Colorado River Indian Tribes, Fort McDowell Yavapai Nation, Fort Mojave Indian Tribe, Hopi Tribe, Mescalero Apache Tribe, Pascua Yaqui Tribe, Pueblo of Zuni, Salt River Pima-Maricopa Indian Community, Yavapai-Apache Nation, Yavapai-Prescott Indian Tribe

The four southern Tribes (Ak Chin Indian Community, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, Tohono O’odham Nation) have requested that agencies consult with all four Tribes regardless of whether or not the others are identified on the maps in the SHPO Government-to-Government Toolkit.

14d. Euro-American Culture: 1875–present

15. FIELD SURVEY PERSONNEL

15a. Principal Investigator: Jerome Hesse

15b. Field Supervisor: Eric Petersen

15c. Crew: N/A

15d. Fieldwork Date(s): November 6, 2025

16. SURVEY METHODS

16a. Transect Intervals: 20-meter spacing

16b. Coverage (%): 100

16c. Site Recording Criteria: ASM (1995, 2016)

16d. Ground Surface Visibility: Excellent (85%–95%)

16e. Observed Disturbances: The project area has been disturbed by unpaved roads and several tributary washes of Trilby Wash

17. FIELD SURVEY RESULTS

A Class III pedestrian survey of the project area resulted in the recording of three Historic period isolated occurrences (IOs) and no archaeological sites or historic-era in-use structures within the project area (Figure 4).

17a. No Cultural Resources Identified:

17b. Isolated Occurrences (IOs) Only:

17c. Number of IOs Recorded: 3

17d. Table of IOs:

1. IO Number	2. Description	3. Date Range	4. UTM's
IO 1	One sun-colored amethyst bottle base	ca. 1880–1920	361795mE 3727271mN

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SURVEY REPORT SUMMARY FORM**

1. IO Number	2. Description	3. Date Range	4. UTM's
IO 2	Tobacco tin	ca. 1905–present	361185mE 3727274mN
IO 3	The historic alignment of North Crozier Road. The road is an unpaved northwest-southeast-oriented road first seen on aerial imagery from 1949 and first depicted on the 1957 USGS White Tank Mountains NE, Arizona 1:24,000-scale topographic maps. It measures 10 feet wide × 250 feet long in the project area.	ca. 1949–present	360371mE 3727298mN to 360435mE 3727254mN

17e. Historical In-Use Structures Identified: ; **Form(s) Attached:**

18. COMMENTS: Wild Stallion is proposing to develop a 200-megawatt BESS with a 1.4-mile-long gen-tie near Surprise, Maricopa County, Arizona. The gen-tie will consist of a 200-foot-wide ROW occupying approximately 28.87 acres of ASLD-administered land in unincorporated Maricopa County (Figure 5). The gen-tie corridor was surveyed to support the ASLD’s review responsibilities under the State Historic Preservation Act.

The cultural resources pedestrian survey of the project area resulted in the recording of three historic-era IOs (Figure 4). IOs are typically ineligible for the ARHP/NRHP. The ASLD’s issuance of a ROW for the gen-tie line will have no effect on properties in or eligible for the NRHP or ARHP. SWCA recommends no further cultural resources work at this time.

According to AZSITE, AZ T:6:14(ASM), is noted just south of the project area. It is a historic-era trash scatter first recorded in 1977 (Stein et al. 1977), in 1984 (Dosh and Keller 1984), and finally in 2004 (Cox et al. 2004). Dosh and Keller (1984) recommended the site ineligible for the NRHP and Cox et al. (2004) agreed with that assessment. No evidence of the site was identified within the current project area. AZ T:6:14(ASM) was only recorded within the southern 50 feet of the area surveyed by Cox et al. (2004:46), suggesting that the site is at least 100 feet south of the current project area.

SECTION 19. ATTACHMENTS

19a. References:

19b. Project Location Map: Figure 1

19c. Land Jurisdiction Map: Figure 2

19d. Background Research/Results Map(s): Figure 3

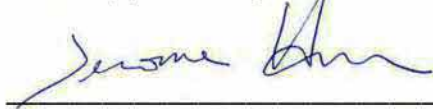
19e. GLO Map(s):

19f. Results Map: Figure 4

19g. Photograph of the project area: Figure 5

SECTION 20. CONSULTANT CERTIFICATION

I certify that the information provided herein has been reviewed for content and accuracy and all work meets applicable agency standards.



Jerome Hesse, M. S.
Principal Investigator

SECTION 21. DISCOVERY CLAUSE

In the event that previously unreported cultural resources are discovered during ground-disturbing activities, all work must immediately cease within 30 meters (100 feet) until a qualified archaeologist has documented the discovery and evaluated its eligibility for the ARHP or NRHP in consultation with the lead agency, the State Historic Preservation Office (SHPO), and Tribes, as appropriate. Work must not resume in this area without the approval of the lead agency.

If human remains, funerary objects, sacred ceremonial objects, or objects of national or tribal patrimony are encountered during ground-disturbing activities on State lands, all work must immediately cease within 30 meters (100 feet) of the human remains and the area must be secured. The ASM, lead agency, SHPO, and appropriate Tribes must be notified of the encounter. All human remains will be treated in accordance with Arizona Revised Statutes § 41-844, and work must not resume in this area without authorization from the ASM and the lead agency.

References Cited

- Arizona State Museum (ASM). 1995. *Revised Site Definition Policy*. Arizona State Museum, University of Arizona, Tucson.
- Arizona State Museum (ASM). 2016. *Policy and Procedures Regarding Historical Sites and Features*. Available at: https://statemuseum.arizona.edu/sites/default/files/policy_procedures_hist_sites_features.pdf. Accessed September 2025.
- Arizona State Museum (ASM). 2021. *Policy and Procedures Regarding Historical-Period Waste Piles*. Arizona State Museum, University of Arizona, Tucson.
- Arizona State Museum (ASM). 2024. *Policy and Procedures Regarding the Use of Previous Archaeological Survey Data*. Arizona State Museum, University of Arizona, Tucson.
- Bockhorst, Andrew B., and Robert J. Stokes. 2005. Cultural resources survey of the proposed Deer Valley Road Substation for Arizona Public Service Company, Maricopa County, Arizona. ACS Project No. 05-046-02. Archaeological Consulting Services, Ltd., Tempe, Arizona.
- Brown, David E. (editor). 1994. *Biotic Communities: Southwestern United States and Northwestern Mexico*. University of Utah Press, Salt Lake City.
- Cox, Eric S., Kirsten Erickson, and A.E. (Gene) Rogge. 2004. Cultural resource survey for the Arizona Public Service West Valley - North Transmission Line and Substation Project, Maricopa County, Arizona. URS Cultural Resource Report 2004-48(AZ). URS Corporation, Phoenix, Arizona.
- Dosh, Deborah P., and Donald R. Keller. 1984. Archaeological Survey of the Mead to Phoenix +500KV Direct Current Transmission Line Preferred Alternative Volumes 1 & 2. Wirth Environmental Services, Phoenix, Arizona.
- Jolly, Donald W., and Andrew B. Bockhorst. 2005. Cultural resources survey of the proposed west Valley 230kV Powerline for Arizona Public Service Company, Maricopa County, Arizona. ACS Project No. 05-055-02. Archaeological Consulting Services, Ltd., Tempe, Arizona.
- Maricopa County Assessor's Office. 2025. Historical Aerial Photography. Available at: <https://gis.maricopa.gov/GIO/HistoricalAerial/index.html>. Accessed November 2025.
- National Park Service. 2025a. National Register of Historic Places. Available at: <https://www.nps.gov/subjects/nationalregister/index.htm>. Accessed November 2025.
- National Park Service. 2025b. National Scenic and National Historic Trail Webmap. Available at: <https://nps.maps.arcgis.com/apps/webappviewer/index.html?id=d89951079a374f28ab4a3b9fc41025dd>. Accessed November 2025.
- Natural Resources Conservation Service. 2025. Web Soil Survey. Available at: <http://websoilsurvey.nrcs.usda.gov/app>. Accessed November 2025.
- Punzmann, Walter R., and Kristin L. Fangmeier. 2014. A Class III Cultural Resources Survey of 20.77 Acres of Arizona State Land Department Land for the Arizona Public Service Company West Valley North 230KV Update Project, near Wittman, Maricopa County, Arizona. Project Report No. 13-183:CSUR. Archaeological Consulting Services, Tempe, Arizona.

**STATE HISTORIC PRESERVATION OFFICE
SURVEY REPORT SUMMARY FORM**

10

- Richard, S. M., S. J. Reynolds, J. E. Spencer, and P. A. Pearthree. 2000. Geologic Map of Arizona: Arizona Geological Survey Map 35, 1 sheet, scale 1:1,000,000. Available at: <https://geomapaz.azgs.arizona.edu/>. Accessed September 2025.
- Savage, Ronald D., and A.E. (Gene) Rogge. 2003. *Cultural Resource Survey for a Proposed Expansion of the Volvo Proving Grounds, Maricopa County, Arizona*. URS Cultural Resource Report 2003-1(AZ). URS Corporation, Phoenix, Arizona.
- State Historic Preservation Office (SHPO). 2025. Arizona Register of Historic Places (ARHP). Available at: <https://azstateparks.com/arizona-register-of-historic-places-arhp>. Accessed November 2025.
- Stein, Pat, Stanley Granger, and Cynthia Freeman. 1977. Palo Verde to Westwing Transmission Line System: An Intensive Survey of the Transmission Line and Access Roads. Museum of Northern Arizona, Flagstaff.



Figure 1. General location of project area.

STATE HISTORIC PRESERVATION OFFICE
SURVEY REPORT SUMMARY FORM

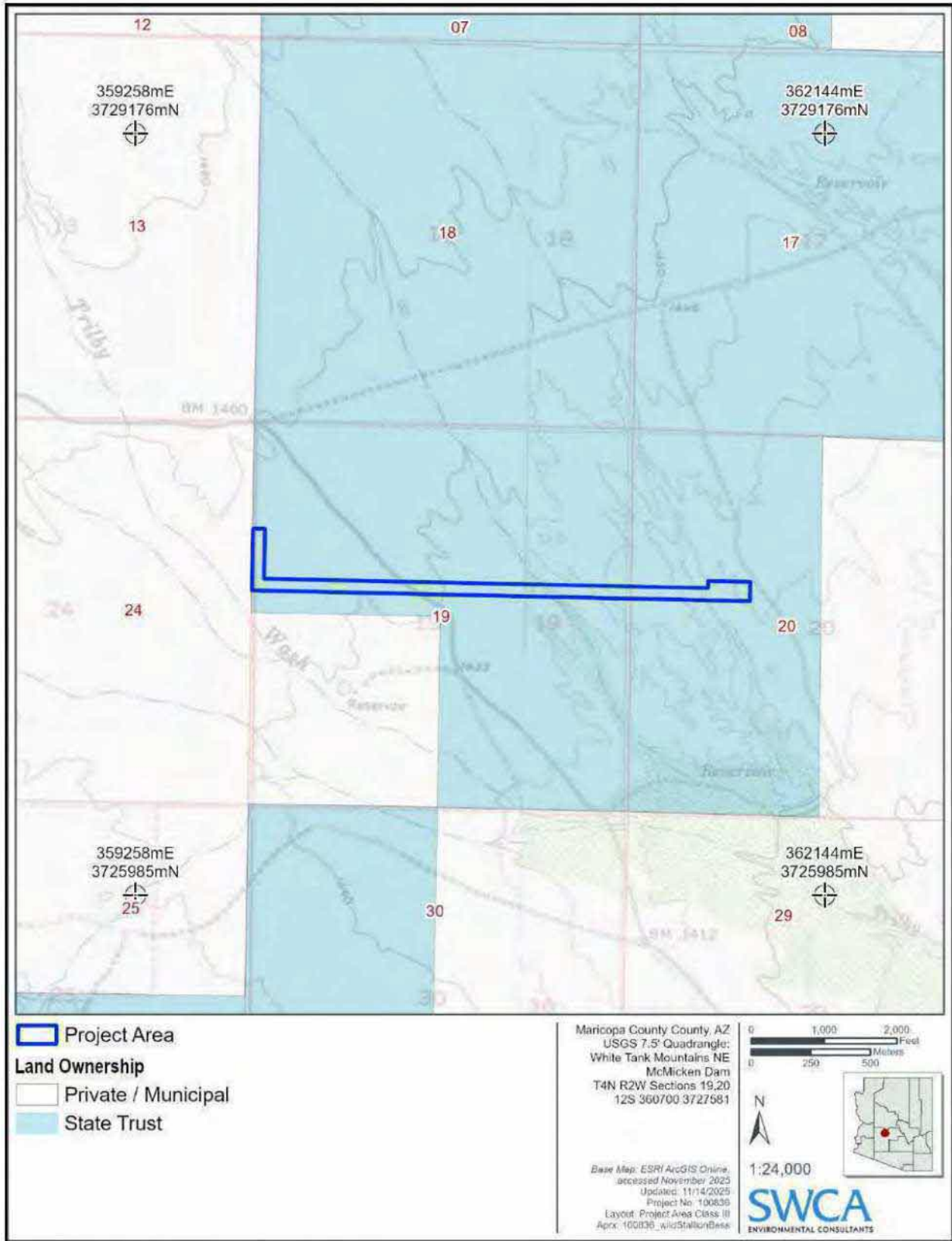


Figure 2. Location of project area.

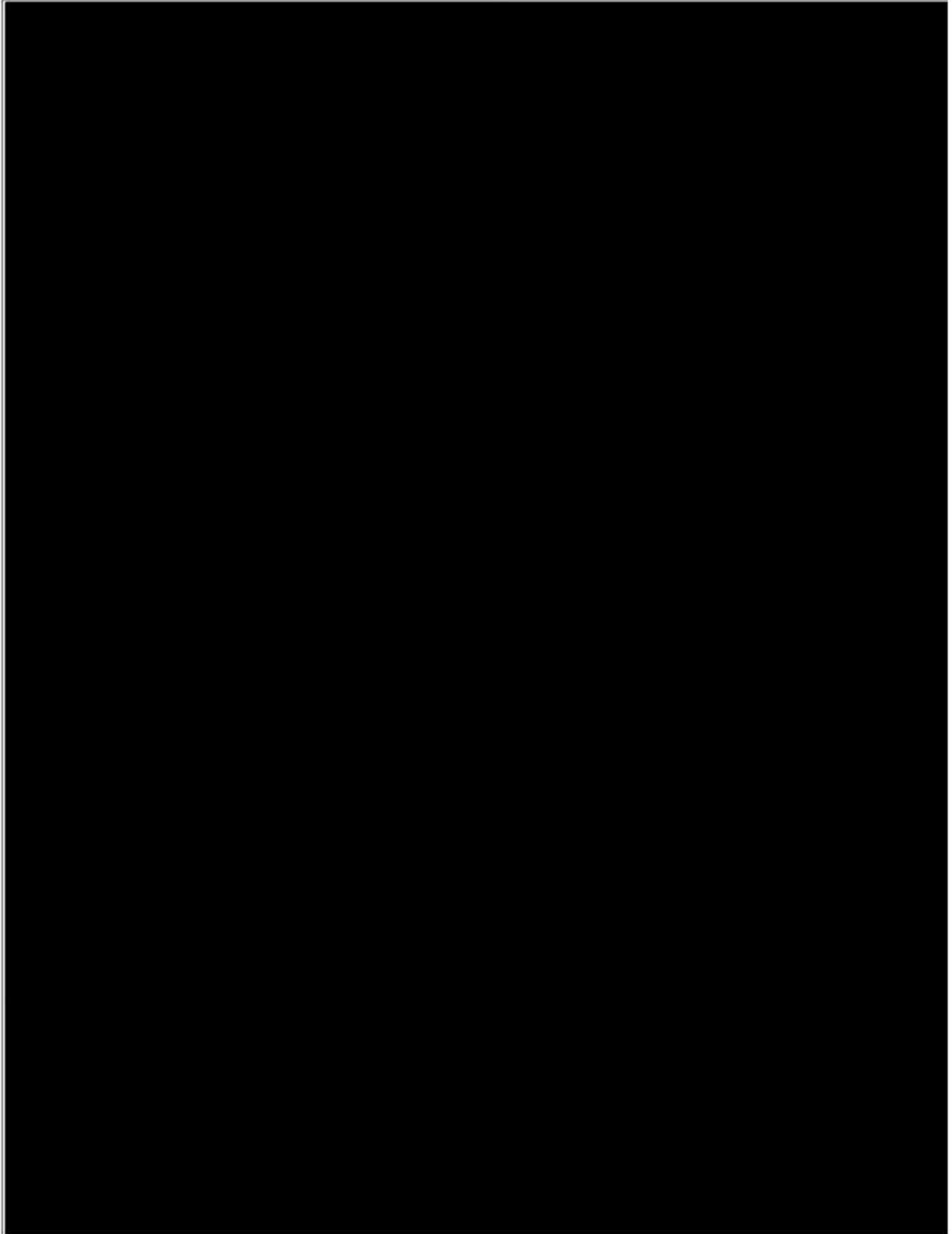


Figure 3. Previous research map (redacted).

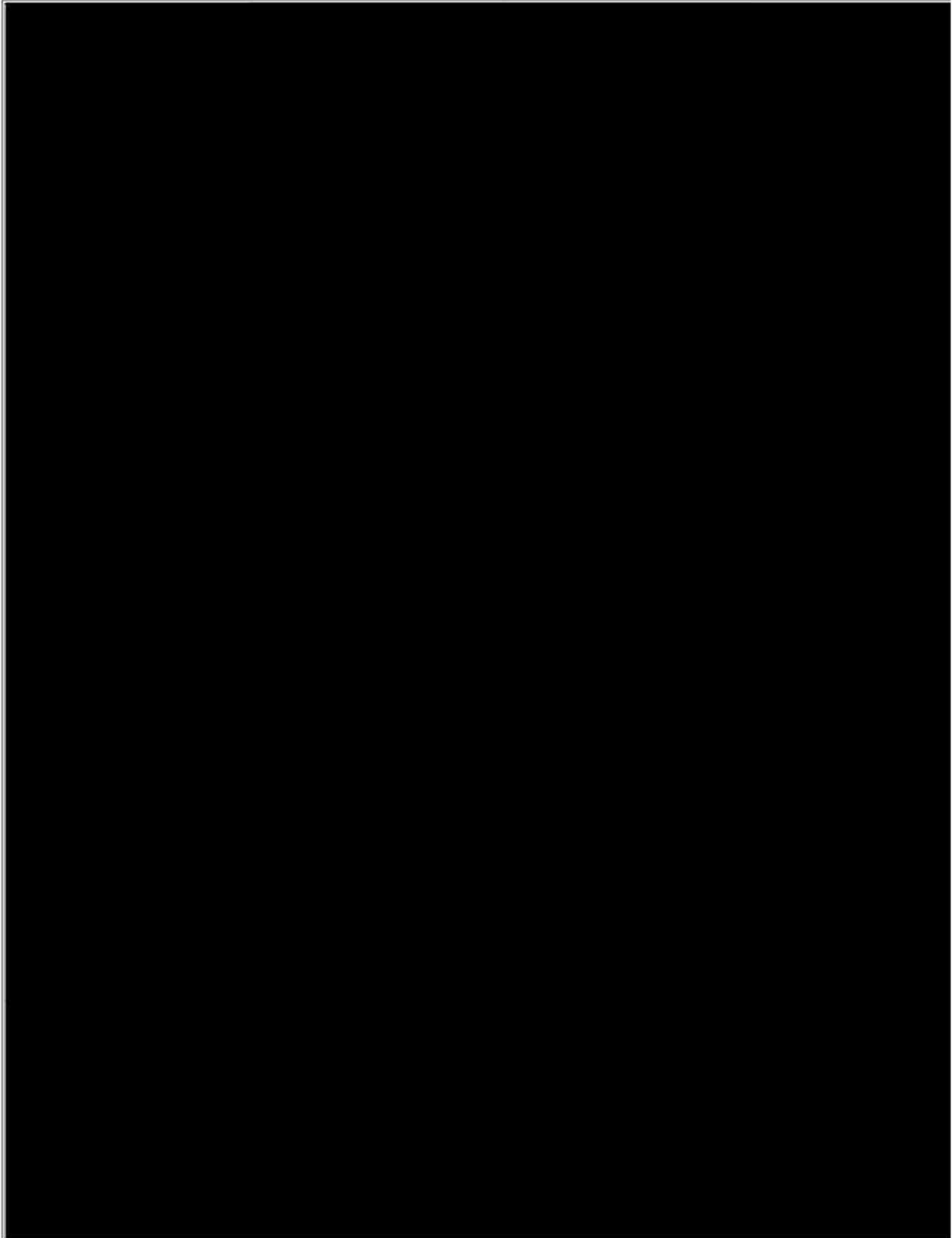


Figure 4. Results map (redacted).



Figure 5. Project area overview, facing west.

EXHIBIT C. AREAS OF BIOLOGICAL WEALTH

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

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

INTRODUCTION

Areas of biological wealth and any rare and/or endangered species or their habitat that may be found in the Certificate of Environmental Compatibility (CEC) Corridor and Study Area were identified through a biotic resource review conducted by SWCA Environmental Consultants (SWCA). A general description of the biotic resources in the CEC Corridor and Study Area can be found in Exhibit D.

Areas of biological wealth can be defined as any habitat, feature, or location that might provide important, unique, or concentrated resources for wildlife or plants in a landscape context. Adverse impacts to these areas might have a greater effect on wildlife or plants than impacts to surrounding areas. Areas of biological wealth can include unique habitat features (e.g., riparian corridors, wetlands, or rock outcrops); conceptual, unprotected areas that have been delineated by an agency or nongovernmental organization (e.g., wildlife corridors, Important Bird Areas [IBAs], and Conservation Opportunity Areas [COAs]); and features or areas (e.g., designated critical habitat, National Wildlife Refuges, wilderness areas, parks, and National Forests) that are protected by a federal agency (e.g., U.S. Fish and Wildlife Service [USFWS], Bureau of Land Management, National Park Service, or U.S. Forest Service), state agency (e.g., Arizona State Parks, Arizona Game and Fish Department [AZGFD]), or local government.

Rare and endangered species include those protected under the Endangered Species Act of 1973 (ESA), as amended (16 United States Code [USC] 1531 et seq.); Bald and Golden Eagle Protection Act of 1940 (BGEPA) (16 USC 668–668d or 50 Code of Federal Regulations [CFR] 22); and some categories of species protected under the Arizona Native Plant Law (ANPL); as well as species listed as Birds of Conservation Concern (BCC), Wildlife of Special Concern (WSC), or some categories of Species of Greatest Conservation Need (SGCN). Habitat used by rare and endangered species is discussed in Exhibit C but may not be subject to protection by law or policy.

LAWS AND POLICIES

Applicable laws and policies regarding special-status species in Arizona include the following:

- The USFWS administers the **ESA, as amended** (16 USC 1531 et seq.), which protects wildlife species listed as endangered (or as threatened if a 4(d) rule applies) from “take.” The ESA defines take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.” The ESA prohibits take of endangered wildlife without authorization. Take prohibitions are extended to threatened wildlife by USFWS special rules known as 4(d) rules (ESA Section 4(d): Protective Regulations). Many threatened wildlife species are subject to a “blanket” 4(d) rule that extends all the take prohibitions for an endangered species. Some threatened wildlife species have specific 4(d) rules that prohibit take only in certain circumstances. If take cannot be avoided, then an incidental take permit can be applied for under Sections 7 (federalized projects) or 10 (nonfederal projects).

Take of threatened or endangered plant species is not prohibited under the ESA. However, the ESA prohibits other kinds of actions against listed plants (e.g., possession, import, and export) when the listed plant is on federal lands. Additionally, on private and state lands in Arizona, state law restricts the transport of ESA-listed plants without a permit.

The ESA also allows for the designation of critical habitat for listed species, although designation of critical habitat is not required. Critical habitat is an administrative designation of a defined area with specific characteristics important to the survival and recovery of a listed species. Designation of critical habitat can affect federal actions but not state or private actions without a federal nexus.

- The **Migratory Bird Treaty Act of 1918 (MBTA)** (16 USC 703–712) provides for the protection of migratory birds and prohibits their unlawful take or possession. The act bans “taking” nearly all native birds; “taking” can mean killing a wild bird or possessing parts of a wild bird, including feathers, nests, or eggs. Exceptions are allowed for hunting MBTA-protected game birds and for research purposes, both of which require permits. Native members of some taxonomic families are not protected under the MBTA, including grouse, turkey, and quail species in Arizona.
- The **BGEPA** (16 USC 668–668d or 50 CFR 22) prohibits any form of possession or taking of bald eagle (*Haliaeetus leucocephalus*) or golden eagle (*Aquila chrysaetos*). A 1962 amendment to the MBTA created a specific exemption for possession of an eagle or eagle parts (e.g., feathers) for religious purposes of Indigenous Tribes. The amendment provided for not only the preservation of the golden eagle, but also the preservation of Indigenous cultural practices. A permit may be obtained from the USFWS for activities potentially leading to take (USFWS 2024a).
- BCC are species, beyond those designated as federally threatened or endangered, that represent the USFWS' s highest conservation priorities (USFWS 2021a). This Project is in Bird Conservation Region (BCR) 33 – Sonoran and Mohave Deserts. The BCC list is nonregulatory, although some agencies may give special consideration to these species.
- The AZGFD manages and conserves wildlife in Arizona. Arizona does not have a counterpart to the federal ESA, but nearly all take of wildlife is regulated in some manner through the **AZGFD hunting and fishing license system**. A list of rare species (**WSC in Arizona**) was drafted in 1996 without creating any specific statutory protections for those species (AZGFD 1996); however, hunting regulations are used to provide some protection. While WSC is no longer a valid category, the AZGFD continues to track these species due to an existing Memorandum of Understanding between the USFWS and AZGFD. Generally, no hunting or capture of WSC is allowed, with some exceptions for managed recreational fisheries of native fish (AZGFD 2026a), and recreational capture of certain reptiles (AZGFD 2026b).
- Arizona prepared the **Arizona Wildlife Conservation Strategy (AWCS)** (2022–2032) through a state/federal partnership and grant program (AZGFD 2022a). The AWCS, which serves as the official State Wildlife Action Plan (SWAP), identifies **SGCN**, a nonregulatory designation with several tiers. Tier 1 species are those that the AZGFD has deemed vulnerable and fall into a category of either federally listed as endangered or threatened under the ESA; those that have been recently removed from the ESA and require post-delisting monitoring; those specifically covered under a signed agreement such as a Candidate Conservation Agreement (CCA), Candidate Conservation Agreement with Assurances, Conservation Strategy and Assessment, or Strategic Conservation Plan; or those for which the AZGFD has determined the protection of a closed season is warranted. Tier 2 represents the remainder of the species meeting the AZGFD' s vulnerability criteria, including species that are not ESA-listed but are regionally rare or declining, species with a U.S. range primarily in Arizona that are dependent on conservation

efforts within the state, and other species with identified conservation issues that may warrant management action and do not meet the criteria for Tier 1 listing. Tier 3 species are those for which existing data were insufficient to score one or more vulnerability criteria due to substantial data gaps and unknown conservation status, but for which conservation concern may be warranted. Species identified as WSC in 1996 are included as SGCNs in the SWAP and are addressed as SGCNs in Table C-1 and the discussion in this exhibit.

- As of December 2022, the **AWCS** also denotes **Conservation Opportunity Areas (COAs)** (AZGFD 2022a). The COA designation was created to help implement the AWCS and should be considered voluntary guidance for specific areas where the AZGFD determined that conservation efforts would be most effective. These COAs are specific areas that show strong potential for substantial improvements for wildlife and associated habitats. COAs are divided into categories of terrestrial and aquatic. Terrestrial COAs focus on geographic areas determined to have high conservation value and strong potential for successful conservation efforts. Aquatic COAs are strictly focused on conservation of aquatic resources, particularly native fish species. COAs reflect the best areas for conservation and were determined without regard to jurisdiction or landownership. In addition, COAs will neither be subject to any new regulation, nor do they have any regulatory effect (AZGFD 2022a).
- Native plants in Arizona are managed by the Arizona Department of Agriculture (AZDA) under the **ANPL** (Arizona Revised Statutes 3-903; Arizona Administrative Code R3-3-208), which regulates harvest, salvage, and transport of plants on nonfederal lands. The ANPL identifies a lengthy list of plant species—largely cacti, agave, yucca, and desert trees—that are susceptible to removal for collection, landscaping, sale, or other commercial uses. ANPL categories are Highly Safeguarded, which are species whose prospects for survival in the state are in jeopardy or that are in danger of extinction; Salvage Restricted, which are species subject to damage and vandalism; Salvage Assessed, which have a sufficient value if salvaged to support the cost of salvage tags and seals; and Harvest Restricted, which are species protected because they are subject to excessive harvesting. Plants listed in the Highly Safeguarded category may be taken or salvaged only for scientific or conservation purposes; however, destruction on private lands is allowed. The ANPL states that these plants shall not be taken, transported, or possessed from any nonfederal land without permission and a permit from the AZDA; it also requires notification (via a Notice of Intent [NOI] to Clear Land Form) before land clearing even if the plants will be destroyed. For private lands, the NOI needs to be submitted according to the acreage to be cleared and the associated timing as noted on the NOI; however, for state lands, the NOI needs to be submitted 60 days prior to land clearing and be completed 1 year from the notification date. In addition, the NOI needs to include an estimate of native plants by ANPL category that will be affected on state lands.

METHODS

SWCA conducted a desktop analysis supplemented with field surveys to identify the likelihood of protected species' occurrence within the Study Area. The Study Area for this review consists of the CEC Corridor plus a 1-mile buffer.

The data sources consulted for this review included the following:

- The USFWS species list obtained from the USFWS online Information for Planning and Consultation (IPaC) system (Attachment C-1) (USFWS 2026a)
- Species information obtained from the AZGFD online Environmental Review Tool (ERT) report (Attachment C-2) (AZGFD 2026c)

- Species information obtained from the USFWS Environmental Conservation Online System (ECOS) (USFWS 2026b) and the USFWS Arizona Ecological Services document library (USFWS 2026c)
- eBird, an online database of bird distribution and abundance managed by the Cornell Lab of Ornithology (eBird 2026)
- Topographic maps, aerial photographs, and land use, land cover, and elevation data from other relevant online sources
- Field visits

The AZGFD online ERT database query establishes a predetermined buffer beyond the CEC Corridor to search for special-status species occurrence records and the presence of modeled habitat. The size of the buffer depends on the type of project being considered. For this Project, the buffer is 3 miles beyond the CEC Corridor for occurrence records, and the CEC Corridor footprint for modeled habitat. The 3-mile buffer fully encompasses the 1-mile-radius Study Area. The analysis in this exhibit is limited whenever possible to the Study Area, except in cases where ERT species results cannot be refined to a range narrower than the predetermined buffer.

The species identified by the USFWS via the IPaC system and by the AZGFD via the online ERT database were subsequently reviewed by SWCA for the probability of the species' occurrence in the Study Area based on 1) the presence of suitable habitat, 2) occurrence records in publicly available authoritative databases, and 3) observations made by SWCA biologists during field visits to the Study Area. SWCA also conducted an effects analysis for those species that may occur in the Study Area.

SWCA biologists with expertise in the biology of flora and fauna of the region completed reconnaissance field surveys for the Project on October 29 and November 5, 2025, and February 18, 2026. All plant and wildlife species observed during the site visits were recorded (see Exhibit D for a complete list). The biologists documented existing conditions and noted any habitat features that may be important to special-status species or related to areas of biological wealth in the CEC Corridor and Study Area. Exhibit D of this application describes the ecological setting and plant communities of the Study Area in more detail.

On February 11, 2026, the USFWS IPaC database was queried to generate an unofficial list of ESA-listed species that have the potential to occur in the Study Area (see Attachment C-1) (USFWS 2026a). In addition, the AZGFD online ERT was queried on the same day to generate a list of special-status species with records within 3 miles of the CEC Corridor (predetermined ERT buffer) and a list of SGCNs with modeled suitable habitat intersecting the CEC Corridor (see Attachment C-2) (AZGFD 2026c).

RESULTS

The USFWS and AZGFD online searches, field surveys, and other data sources described above identified several endangered, threatened, proposed threatened, and other special-status species, and areas of biological wealth that are known to occur or could occur in the region (i.e., within the Study Area for USFWS and within the CEC Corridor plus a 3-mile buffer for AZGFD). These areas of biological wealth and special-status species and the likelihood of their presence in the CEC Corridor and Study Area are addressed below in two sections: 1) Areas of Biological Wealth, and 2) Rare and Endangered Species (AZGFD 2026c; USFWS 2026a).

Areas of Biological Wealth

The USFWS IPaC report does not list or depict any federally proposed or designated critical habitat for ESA-listed species within the CEC Corridor or Study Area (USFWS 2026a, 2026d).

No COAs overlap the CEC Corridor or Study Area. The closest COA, the Hassayampa COA, is approximately 9 miles west of the Study Area (AZGFD 2022a, 2026c).

The AZGFD ERT-generated response reported one special area that intersects the Study Area: the White Tank Mountains to Trilby Wash to Beardsley Canal landscape-level Maricopa County wildlife movement area (WMA). This WMA covers the entire CEC Corridor and most of the Study Area (AZGFD 2026d) (Exhibit C-1). Landscape movement areas are defined as “a type of wildlife linkage in which animals move between distinct habitat blocks; the area may be relatively broad or through a well-defined linkage” (AZGFD 2012:iv).

No IBAs overlap the CEC Corridor or Study Area. The closest IBA, the Lower Salt and Gila Rivers Ecosystem IBA, is approximately 18.3 miles south of the Study Area in the Lower Salt and Gila Rivers Ecosystem (Audubon 2026).

The Arizona Riparian Council definition of a riparian area is as follows: “Riparian is defined as vegetation, habitats, or ecosystems that are associated with bodies of water (streams or lakes) or are dependent on the existence of perennial, intermittent, or ephemeral surface or subsurface water drainage” (AZGFD 2019:2). Riparian areas include hydriparian, mesoriparian, and xeroriparian areas and are important resources for wildlife. Xeroriparian areas are associated with ephemeral surface water and act as a water source only following events such as seasonal rainfall but can act as critical linkages in the landscape by providing movement corridors for various species. Xeroriparian areas are present within the Study Area along Trilby Wash and within the CEC Corridor along the braided tributaries of Trilby Wash. These areas contribute to the broader Maricopa County WMA described above.

The City of Surprise General Plan identifies Trilby Wash and its tributaries within the CEC Corridor and Study Area as wildlife corridors (City of Surprise 2024), which are described in the plan as

A throughfare for the movement and migration of protected species and others in the environment, wildlife corridors are a critical environmental characteristic of Surprise due to several rivers, washes and canals that traverse the planning area. These areas of open space have been identified by the Arizona Game & Fish Department, and animals use them to move throughout their natural habitat. Flash floods keep the central channel of the washes clear of vegetation, dense shrubbery remains on the banks to provide food, protection, and habitat corridors for various species... Corridors such as these are not only vital for the role they play in protecting natural and biological functions, but they are also valued for their scenic, visual, and aesthetic values, providing a record of the natural heritage of Surprise. (City of Surprise 2024:193–194)

Three earthen ephemeral cattle tanks that hold seasonal water are present in the Study Area, both south of the CEC Corridor. Google Earth historical imagery depicts these three tanks holding water intermittently since at least 1985, the oldest imagery reviewed (Google Earth 2026). Although human made, these features would hold water for a longer duration than xeroriparian washes following rainfall. No other unique habitat features are present within the Study Area.

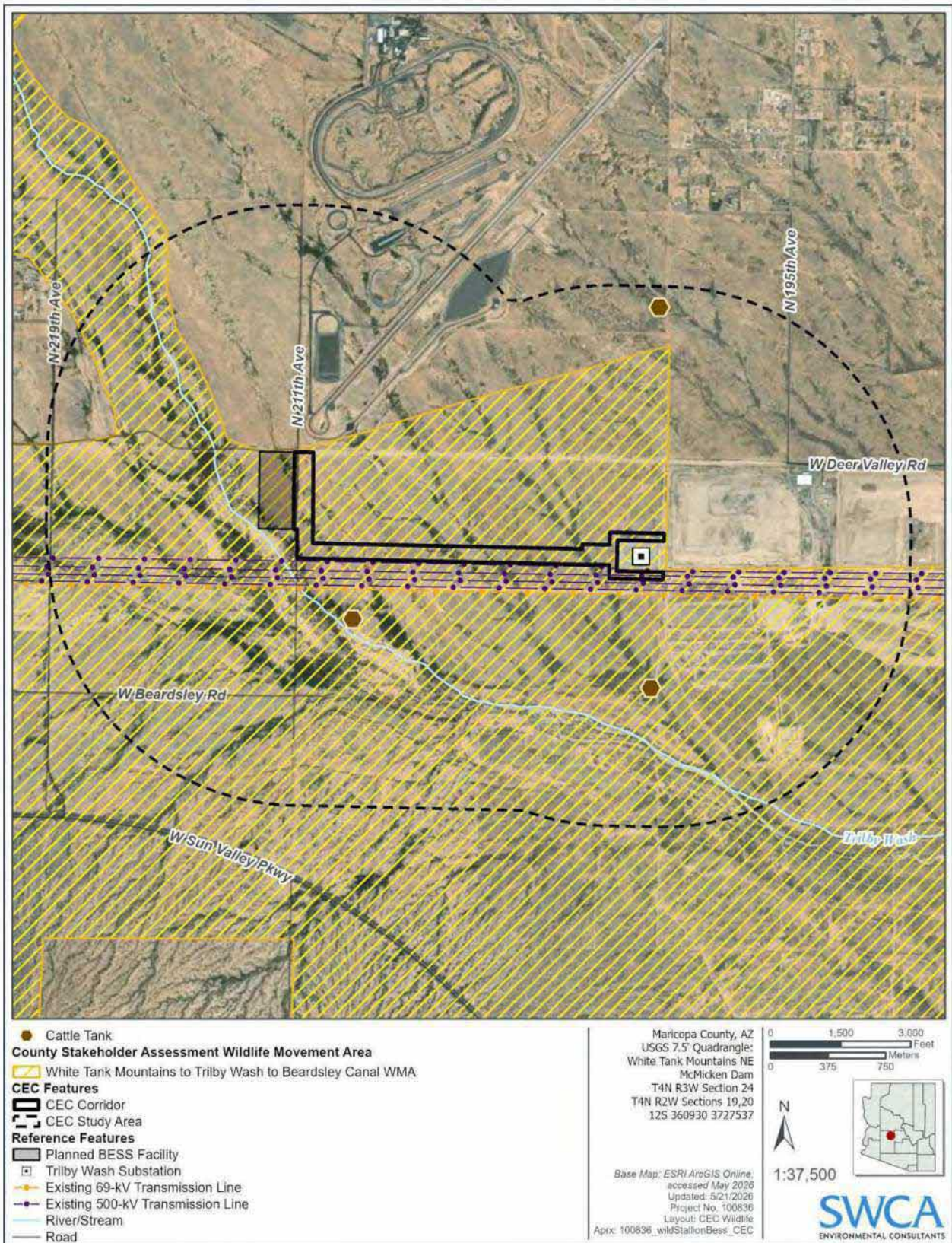


Exhibit C-1. Wildlife movement area and cattle tanks within the Study Area.

Rare and Endangered Species

The USFWS and AZGFD provided lists of special-status species that should be considered in an effects analysis for the Project (AZGFD 2026c; USFWS 2026a). These species and the likelihood of their presence in the vicinity of the Project are addressed below in three subsections: 1) ESA-Listed and ESA-Proposed Species, 2) Other Special-Status Species, and 3) State-Protected Native Plants.

ESA-LISTED AND ESA-PROPOSED SPECIES

Five ESA-listed or proposed species were identified by the USFWS in the Project-specific species list (USFWS 2026a). These species consist of three birds (California least tern [*Sternula antillarum browni*], southwestern willow flycatcher [*Empidonax traillii extimus*] and yellow-billed cuckoo [*Coccyzus americanus*]); one fish (Gila topminnow [*Poeciliopsis occidentalis*]); and one insect (monarch butterfly [*Danaus plexippus*]). The Study Area is within the geographic/elevational range and contains appropriate habitat conditions for two of the five species: yellow-billed cuckoo and monarch butterfly (see Table C-1). The other three species are unlikely to occur in the CEC Corridor or Study Area (see Table C-1).

Table C-1. Federally Listed and Candidate Species Reviewed for Their Potential to Occur in the CEC Corridor and Study Area

Common Name (Scientific Name)	Status*		Range or Habitat Requirements	Potential for Occurrence
	Federal	State		
California least tern (<i>Sternula antillarum browni</i>)	E	–	Forms nesting colonies on barren to sparsely vegetated areas. Nests in shallow depressions on open sandy beaches, sandbars, gravel pits, or exposed flats along shorelines of inland rivers, lakes, reservoirs, and drainage systems at elevations below 2,000 feet above mean sea level (amsl). Found in Maricopa, Mohave, and Pima Counties.	Unlikely to occur. The CEC Corridor and Study Area do not contain habitats similar to those used by this species; there are no open sandy beaches, sand bars, gravel pits, or exposed shorelines of inland rivers, lakes, reservoirs, or drainage systems. The species has not been documented within 3 miles of the CEC Corridor; additionally, AZGFD does not predict the Study Area to contain suitable habitat for the species (AZGFD 2026c).
Gila topminnow (including Yaqui) (<i>Poeciliopsis occidentalis</i>)	E	SGCN Tier 1	Found in small streams, springs, and ciénegas at elevations below 4,500 feet amsl, primarily in shallow areas with aquatic vegetation and debris for cover and without invasive aquatic predators. In Arizona, most of the remaining natural populations are in the Santa Cruz River system. Reintroductions for conservation purposes have occurred, and artificial populations for mosquito control are present in some urban areas.	Unlikely to occur. No permanent aquatic habitats are in or adjacent to the CEC Corridor or Study Area. The species has not been documented within 3 miles of the CEC Corridor; additionally, AZGFD does not predict the Study Area to contain suitable habitat for the species (AZGFD 2026c).

Common Name (Scientific Name)	Status*		Range or Habitat Requirements	Potential for Occurrence
	Federal	State		
Monarch butterfly (<i>Danaus plexippus</i>)	PT†	–	A migratory species found in a variety of habitats, monarch butterflies require milkweed (subfamily Asclepiadaceae) for breeding (USFWS 2020). During fall migration in Arizona, monarch butterflies forage for nectar from a variety of native plants and garden plants. Populations in Arizona can migrate to coastal California or Mexico for winter or may overwinter in the low deserts in California and Arizona (USFWS 2024b). In the southwest, migrating monarch butterflies often are found near water sources (e.g., rivers, creeks, riparian corridors, roadside ditches, irrigated gardens) (USFWS 2020). In the low deserts of Arizona, monarch butterflies breed in late August to early September; however, monarch butterfly reproduction in Arizona is more common in higher elevations and is less common in Sonoran desertscrub (Morris et al. 2015).	May occur. See below for details.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	E	SGCN Tier 1	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood (<i>Populus</i> spp.), willow (<i>Salix</i> sp.), boxelder (<i>Acer negundo</i>), saltcedar (<i>Tamarix</i> spp.), Russian olive (<i>Elaeagnus angustifolia</i>), buttonbush (<i>Cephalanthus</i> spp.), and arrowweed (<i>Pluchea sericea</i>) are present. Nests are found in thickets of trees and shrubs, primarily those that are 13–23 feet high, among dense, homogeneous foliage. Habitat is found at elevations below 8,500 feet amsl.	Unlikely to occur. There are no dense riparian habitats or streams, rivers, or other wetlands in the CEC Corridor or vicinity. The species has not been documented within 3 miles of the CEC Corridor; additionally, AZGFD does not predict the Study Area to contain suitable habitat for the species (AZGFD 2026c). The nearest potentially suitable habitats are approximately 20 miles northwest and south of the Study Area, along the Hassayampa and Gila Rivers, respectively. The nearest recent records are from June 2025 within the Hassayampa River Preserve near the community of Allah, approximately 19 miles northwest of the Study Area (eBird 2026).

Common Name (Scientific Name)	Status*		Range or Habitat Requirements	Potential for Occurrence
	Federal	State		
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	T	SGCN Tier 1	Typically found in riparian woodland vegetation (cottonwood, willow, or saltcedar) at elevations below 6,600 feet amsl. Dense understory foliage appears to be an important factor in nest site selection. The highest concentrations in Arizona are along the Agua Fria, San Pedro, upper Santa Cruz, and Verde River drainages and Cienega and Sonoita Creeks. Migration and wintering habitat needs are not well known, although they appear to include a relatively wide variety of conditions. Migrating yellow-billed cuckoos have been found in coastal scrub, second-growth forests and woodlands, hedgerows, forest edges, and smaller riparian patches than those used for breeding.	May occur. See below for details.

Note: All species were listed in USFWS (2026a). Potential occurrence determination based on information from AZGFD (2022b, 2026c, 2026e), Corman and Wise-Gervais (2005), Morris et al. 2015, USFWS (2020, 2021b, 2026b), Western Monarch Milkweed Mapper (2026).

* Federal status definitions

E = Endangered - species in danger of extinction throughout all or a significant portion of their range; T = Threatened species likely to become endangered within the foreseeable future throughout all or a significant portion of their range; PT = Proposed Threatened.

[†]In late 2025, the USFWS changed the listing decision for this species to a long-term action; thus, the species is unlikely to be listed in the next several years.

* State status definitions

SGCN = Species of Greatest Conservation Need; wildlife species identified by AZGFD as having conservation priority (AZGFD 2022a). SGCN Tier 1 species are those categorized as "highest priority vulnerable" species.

Monarch Butterfly

On December 12, 2024, the USFWS proposed listing monarch butterfly under the ESA as a threatened species with a 4(d) rule for take exceptions (USFWS 2024b). Monarch butterfly may occur in the CEC Corridor and Study Area.

No recent sightings of monarch butterflies have been recorded in the Study Area vicinity (Western Monarch Milkweed Mapper 2026). During a field reconnaissance survey for an unrelated project that largely overlaps the Study Area, one milkweed family species was observed, fringed twinevine (*Funastrum cynanchoides*) (SWCA 2025). Fringed twinevine is generally used by monarch butterflies as a nectar source and less commonly as a larval food plant. However, monarch butterflies in captivity have used it for breeding and the same has also been observed in the wild (Miller 2025). Although the preferred milkweed host plants (*Asclepias* spp.) for monarch breeding were not observed in the Study Area during the site visits, it should be noted that the field visits were not conducted during the primary growing season for milkweed in the Sonoran Desert (late spring and late summer). Other nectar sources are available in the CEC Corridor and Study Area for foraging and migration. Monarch butterflies may be present as transients during migration or as occasional individuals passing through the Study Area en route to larval food plants or nectar resources.

Because of the large amount of habitat in the Study Area, Project impacts to monarch butterfly would be limited to individuals and are not expected to impact the species at a population level. A small portion of suitable dispersal and foraging habitat would be lost, relative to the total amount of habitat that would remain available in the Study Area. Individuals may experience injury, mortality, change of behavior, or

loss of forage as a result of the Project. Individuals would be expected to largely shift activity to nearby suitable habitat.

Yellow-Billed Cuckoo

The entirety of the Study Area lacks the habitat elements that are necessary to support breeding for this species; however, foraging and stopover habitat during migration is present in the CEC Corridor and Study Area. Xeroriparian vegetation along Trilby Wash and cattle tanks that hold seasonal water are present, and the AZGFD ERT-generated report indicates that predicted habitat for the species overlaps the CEC Corridor. Since the species is migratory and overwinters in South America, the species would be present in the Study Area only during migration from early May through early July and again in September (*Federal Register* 78(192):61622–61666). Migrant yellow-billed cuckoos may use Trilby Wash as a migratory corridor to reach suitable breeding grounds because the xeroriparian corridor may provide suitable habitat for foraging.

In July of 2022 and August of 2023, yellow-billed cuckoo observations were reported 2.6 miles north-northwest of the Study Area in a residential neighborhood (eBird 2026). As habitat has been modeled in the Study Area for this species (AZGFD 2026c) (see Attachment C-2), and the species has been documented near the Study Area, yellow-billed cuckoo may occasionally disperse through the area during migration.

OTHER SPECIAL-STATUS SPECIES

Other special-status species considered for the Project fall into the following conservation categories:

1. Eagle species, bald eagle and golden eagle, protected by the BGEPA
2. BCC bird species for BCR 33 – Sonoran and Mohave Deserts
3. SGCN Tier 1, Tier 2, and Tier 3 species
4. ANPL species including Highly Safeguarded, Salvage Restricted, Salvage Assessed, and Harvest Restricted

Some species in these categories have occurrence records in the vicinity of the Project or predicted habitat modeled within the CEC Corridor (AZGFD 2026c). These species are discussed below and listed in Table C-2, where they are evaluated for potential occurrence based on the results of Study Area surveys, familiarity with the vicinity, and additional freely available information sources, including

- AZGFD Heritage Data Management System (AZGFD 2026e),
- *Reptiles and Amphibians of Arizona* online field guide (AZGFD 2023),
- *The Breeding Bird Atlas* (Corman and Wise-Gervais 2005),
- *All About Birds* online field guide (Cornell Lab of Ornithology 2026),
- eBird (2026),
- Google Earth (2026), and
- USFWS ECOS website (USFWS 2026b).

Bald and Golden Eagle Protection Act Species

Bald eagles are an SGCN Tier 1 species. Nests are generally placed in large deciduous or coniferous trees or on cliffs, with a commanding view of the area, less than 1 mile from appropriate aquatic foraging

conditions (e.g., perennial rivers or lakes containing fish) (Buehler 2000). The species communally roosts in the winter in large (50–200 feet tall) deciduous or coniferous trees, which tend to be near aquatic foraging sites (<150 feet but occasionally up to several miles), particularly in areas sheltered from adverse weather conditions with unusually high prey or carcass availability (Buehler 2000; USFWS 2007, 2013). Wintering/nonbreeding individuals and juveniles are typically associated with breeding habitats; however, they may range widely in search of food, shelter, and reduced human presence (Buehler 2000).

The CEC Corridor and Study Area are within the overall range of the species. The Study Area does not contain characteristic nesting or roosting habitats, and there are no AZGFD ERT records of bald eagle within or near the Study Area (AZGFD 2026c). No suitable aquatic foraging habitat (e.g., flowing rivers or lakes containing fish) is present in the CEC Corridor itself; however, small-mammal prey and potential power pole perches are present within the Study Area, and bald eagles may forage within or travel through the Study Area while foraging. Also, if constructed, additional towers would provide more perching opportunities for the species. The nearest and most recent sighting of an individual bald eagle was in February 2023, 2.3 miles east-southeast of the Study Area at the Desert Springs Golf Course in Sun City (eBird 2026). The nearest documented nesting areas are 15 and 20 miles south and southeast and of the Study Area, respectively, in the area east of Arizona State Route 85 along the Gila River, and at Garden Lakes along the Agua Fria River (McCarty, Presler, and Jacobson 2025).

Golden eagles are an SGCN Tier 2 species. They require large, open hunting grounds adjacent to mountainous canyonland and rimrock terrain of open desert, grassland, and forested areas (Katzner et al. 2020; Marzluff et al. 1997). The presence of sizable shrub (e.g., sagebrush [*Artemisia* spp.], rabbitbrush [*Chrysothamnus* spp.]) patches is an essential component of golden eagle home ranges (Marzluff et al. 1997). Nests are placed in rugged terrain (e.g., cliffs) and less often in tall trees and on human-made structures (e.g., transmission towers) (Katzner et al. 2020).

Wintering/nonbreeding individuals and juveniles are typically associated with breeding habitats; however, they may range widely in search of food (Katzner et al. 2020). The nearest known breeding areas for golden eagle are in the New River Mountains, over 20 miles northeast of the Study Area, and the Big Horn and Harquahala Mountains, over 40 miles west-southwest of the Study Area (McCarty, Presler, Drever, et al. 2025a). Although the CEC Corridor and Study Area do not contain suitable nesting habitat for golden eagle, it is within the species' predicted year-round range (AZGFD 2002), and the 2025 Arizona Golden Eagle Productivity Assessment identified additional potential breeding areas approximately 20 miles west of the Study Area in the Belmont Mountains (McCarty, Presler, Drever, et al. 2025b). Potential breeding areas were defined as areas with one or more “large” nests but without documentation of positive occupancy status. The nearest and most recent occurrence of a golden eagle in the vicinity of the Project was in December 2022, 1.8 miles to the south of the Study Area (eBird 2026). Individuals could be expected to perch, forage, or move through the CEC Corridor and Study Area. Also, if constructed, the additional towers would provide additional perching opportunities for the species (see Table C-2).

Birds of Conservation Concern and State Species of Greatest Conservation Need

Of the 18 BCC species included in Table C-2, six are known to occur in the Study Area as a result of direct field observation, seven may occur in the Study Area, and five are unlikely to occur.

Of the 36 avian SGCN included in Table C-2 (excluding the two eagle species discussed separately, above), nine are known to occur in the Study Area as a result of direct field observation, 17 may occur in the Study Area because the area falls within the species' predicted range and contains suitable habitat, and 10 are unlikely to occur.

Other birds not described herein may be attracted to the Study Area for nesting, roosting, or foraging.

STATE-PROTECTED NATIVE PLANT SPECIES

Six plant species documented in the Study Area—blue paloverde (*Parkinsonia florida*), candy barrelcactus (*Ferocactus wislizeni*), Engelmann's hedgehog cactus (*Echinocereus engelmannii*), velvet mesquite (*Prosopis velutina*), Christmas cactus (*Cylindropuntia leptocaulis*), and water jacket (*Lycium andersonii*)—are protected under the ANPL.

ASSESSMENT OF POTENTIAL EFFECTS

Areas of Biological Wealth

No IBAs, COAs, wildlife refuges, wildlife management areas, or proposed or designated critical habitat intersect the CEC Corridor or Study Area. One Maricopa County WMA (the White Tank Mountains to Trilby Wash to Beardsley Canal landscape-level WMA) covers the entire CEC Corridor and most of the Study Area. The terrestrial wildlife species that currently move through this movement area do so in the Sun Valley Parkway, residential developments, a regional landfill, the Ford Arizona Proving Grounds, and existing electrical transmission and distribution infrastructure and a substation. These animals are unlikely to change their movement patterns if a transmission line and access road are added to the existing features. The Project would not affect or reduce the habitat value within the White Tank Mountains to Trilby Wash to Beardsley Canal landscape-level WMA, as the Project is consistent with existing development in this area and has a relatively minimal land-disturbance footprint.

Birds that move through the xeroriparian area along Trilby Wash have potential to interact with the Project. In general, flight altitudes of migrating birds range from several hundred feet to more than 20,000 feet—well above the proposed 120-foot transmission structures (Avian Power Line Interaction Committee [APLIC] 2012). Migrating birds take advantage of thermals and stronger tail winds when conditions permit, allowing them to conserve energy while staying well above power lines. Nonbreeding birds, including migrating species, generally feed continuously during the day and are considered to have continuous exposure to power lines in the vicinity of their feeding areas, with a resultant reduced risk of collision. Powerline collision risk is highest in species that migrate nocturnally, in flocking species, near wetlands or along major riparian corridors that serve as migratory flyways, between foraging and roosting areas, and amongst nesting birds with periodic feeding patterns (APLIC 2012). Collision risk is low in most general upland landscapes, and resident birds tend to have a very low risk of collision. The Project does not substantially increase the risks to avian species that already exist in the Study Area.

Minimization Measures: To minimize risk of collision and electrocution, the Applicant will construct the proposed transmission line following the guidelines outlined in *Suggested Practices for Raptor Protection on Powerlines: 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).

Trilby Wash and earthen cattle tanks were also identified as individual areas of biological wealth that serve as important xeroriparian areas and/or sources of seasonal water in the Study Area. Terrestrial wildlife could be expected to continue using the wash corridor and cattle tanks. As described above, although the risk is low, birds may collide with the new Project infrastructure. The Project does not substantially increase the risks to avian species that already exist in the Study Area.

Minimization Measures: In addition to the minimization measures above for avian wildlife using washes as movement areas, cattle tanks should be avoided to the extent practicable to minimize potential negative effects to wildlife from loss of existing long-term water sources.

ESA-Listed and ESA-Candidate Species

MONARCH BUTTERFLY

Monarch butterfly, currently proposed for federal listing as threatened, may occur within the Study Area. Monarch butterflies may breed in the Study Area if milkweed species are present and may also occur during migration or as transient foragers. Regardless of whether Project activities occur during periods when monarch butterflies are present in Arizona, the Project is *not likely to jeopardize the continued existence of the species*. The Project activities are confined to a small portion of the overall range of this species in Arizona; the CEC Corridor does not contain suitable overwintering habitat (i.e., sheltered riparian areas with large trees); and the Project would not affect the ability of monarch butterflies to migrate or disperse through the CEC Corridor and Study Area. Timing vegetation removal to avoid removal of nectar resources (flowering plants) and larval resources (milkweed), as feasible, will reduce or avoid mortality to foraging and breeding monarchs (Xerces Society 2026). If Project activities have not been completed before monarch butterfly is officially listed, the final rule should be reviewed to determine whether Project activities are exempted from the definition of take and whether mitigation may be appropriate based on USFWS guidance at that time. Conversely, if the proposed listing is withdrawn or not finalized, or if Project activities are completed prior to listing, no ESA compliance related to monarch butterfly would be required for the Project.

Minimization Measures: Best management practices (BMPs) that will be implemented to minimize impacts to monarch butterfly include minimizing areas of ground disturbance, dust suppression, washing vehicles and equipment prior to entering the Project site, and revegetation of temporary construction workspace according to a revegetation plan. With these BMPs in place, impacts to nectar resources and milkweed plants would be negligible and localized.

YELLOW-BILLED CUCKOO

The Study Area is within modeled habitat of yellow-billed cuckoo, a threatened species under the ESA. Xeroriparian habitat in the Study Area may be suitable for brief stopover use by migrating and dispersing yellow-billed cuckoos; however, there are no areas of riparian habitat within the CEC Corridor or Study Area that are suitable for breeding. Individual yellow-billed cuckoos may pass through the Study Area while traveling between areas of suitable habitat but are unlikely to use the CEC Corridor or Study Area for breeding. The risk of collisions with transmission lines from the Project would be similar to that for other regional transmission lines constructed in upland habitat. The Project does not substantially increase the risks to yellow-billed cuckoos above the low risk from other human-constructed features that already exist in the Study Area.

Minimization Measures: To minimize risk of collision and electrocution, the Applicant will construct the proposed transmission line following the guidelines outlined in *Suggested Practices for Raptor Protection on Powerlines: 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 risk of vehicle collisions, vehicle speeds will be limited to 25 miles per hour (mph).

Other Special-Status Species

Special-status wildlife species listed in Table C-2 that may or are known to occur in the Study Area may be affected by the Project as discussed below, but none of the species are likely to be substantially affected. The construction and operation of the Project could affect special-status wildlife species through habitat loss, alteration, or fragmentation; direct mortality or injury; and disturbance or displacement from noise and increased human presence in the Study Area. Vegetation clearing, grading, and excavation

during construction would directly affect a small area of wildlife habitat. After construction, temporarily disturbed areas would be revegetated and restored. Areas occupied by Project infrastructure would remain unavailable to wildlife. Noise and human activity would be temporary and of short duration. Potential effects are addressed with greater specificity below.

Terrestrial Wildlife Species – In addition to temporarily or permanently losing a relatively small amount of habitat, terrestrial animals including amphibians, mammals, and reptiles could be affected by construction activities. Such impacts may include displacement of individuals, temporary impacts to foraging behaviors, and noise-related disturbance. Potential sources of direct mortality and injury during construction include entrapment or injury from open trenches; collisions with vehicles and equipment operating within the construction site; and destruction of occupied burrows. No known occupied burrows have been identified on site to date. Additional transmission structures constructed for the Project would increase potential perching locations for avian predators of small mammals, potentially resulting in increased depredation or avoidance of the CEC Corridor by small mammals. However, abundant natural and existing transmission structure perches are already present in the CEC Corridor and Study Area; therefore, these impacts would be minor and unlikely to affect any species at the population level.

Minimization Measures: If trenching is included as part of Project construction, trenches will be filled in a reasonable time and escape ramps will be provided in trenches for any incidentally entrapped wildlife. If trenches are left open overnight, they will be inspected to remove any wildlife prior to backfilling. Burrows will be avoided or excavated in keeping with species-specific requirements if they cannot be avoided. Vehicle speeds will be limited to 25 mph to reduce noise, dust, and potential collisions. Construction activities will be limited to daylight hours to reduce noise and light impacts for nocturnal wildlife. All trash and debris will be removed from the construction area each day to reduce the likelihood of wildlife coming into the construction site.

Birds – During the construction phase of the Project, avian take is possible if proper precautions are not implemented. During operations, potential threats to birds, particularly eagles and other raptors, include risk of collisions with transmission lines and electrocution. Additional transmission structures for the Project would increase potential perching and nesting locations for birds and raptors. Such locations may provide a minor benefit for some species of birds but could potentially increase predation risk. However, abundant natural and existing transmission structure perches are already present in the CEC Corridor and Study Area; therefore, these impacts would be minor and unlikely to impact any species at the population level.

Minimization Measures: To minimize risk of harm to active bird nests, if construction occurs during bird breeding season (generally March to September with raptors breeding generally January to June),¹ qualified biologists will survey potentially disturbed areas prior to the start of construction activities to locate nests for species protected under the MBTA. All active nests and those of undetermined status will be flagged in the field and will be buffered from ground-clearing activities until the nest is known to be inactive. Nests that are determined to be inactive will be removed.

To minimize risk of collisions, vehicle speeds will be limited to 25 mph, and roadkill that might attract scavenging birds will be removed by construction workers.

To minimize risk of collision and electrocution, the Applicant will construct the proposed transmission line following the guidelines outlined in *Suggested Practices for Raptor Protection on Powerlines: 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).

¹ While these dates encompass the typical breeding bird season, the actual start and end of bird breeding season can vary by species or by weather conditions in any given year.

Bats – No bat colonies were identified by the AZGFD within 3 miles of the CEC Corridor (AZGFD 2026c), and the Project is not anticipated to impact caves, abandoned mines, bridges, dense riparian vegetation, or forests where potential bat roosts may exist. Therefore, the Project is not anticipated to affect bat roosting behavior. Bat species can collide with human-made structures during long-distance migration. Migrating bats often fly high above ground level, between approximately 600 and 2,000 feet for most species, and do not actively echolocate. Brazilian free-tailed bats have been tracked migrating at altitudes upwards of 9,000 feet (McCracken et al. 2021). However, during normal foraging activity, bats actively use echolocation and are typically able to detect and avoid features such as overhead transmission lines (Arnett et al. 2015). Therefore, because bats migrating through the CEC Corridor would be flying at heights above the Project structure heights, and bats foraging within the CEC Corridor at or below structure heights would be using echolocation to detect and avoid the Project structures and features, the Project would pose minimal risk to bats in the Study Area.

Minimization Measures: Construction activities will be limited to daylight hours to the extent feasible, so that construction-related noise, lights, and movement should not affect bat foraging, commuting, or migrating behavior.

State-Protected Native Plants

Potential effects of the proposed Project on state-protected plant species include direct removal during vegetation clearing activities and damage from heavy equipment and vehicles. In accordance with the ANPL requirements, the AZDA will be notified 60 days before plants are destroyed over an area of 40 acres or more.

The Arizona State Land Department (ASLD) requires a Native Plant Inventory be conducted in areas of ground disturbance on State Trust lands. This includes counting ASLD-valued species, most of which are also ANPL species. On October 29, 2025, a Native Plant Inventory was conducted on State Trust lands within the CEC Corridor in accordance with ASLD requirements and was submitted to the ASLD for review on December 2, 2025.

Minimization Measures: Ground-disturbing activities will be limited to those required to accomplish the Project objectives. This will include establishing designated areas for equipment staging, stockpiling materials, and parking. Areas of temporary disturbance will be restored according to a revegetation plan.

CONCLUSION

One ESA-listed species (yellow-billed cuckoo) and one ESA-proposed species (monarch butterfly)² may occur within the CEC Corridor and Study Area. With the proposed minimization measures, the Project is not likely to significantly affect these two species. The Project also has the potential to have minor impacts on non-ESA-listed special-status amphibian, bird, mammal, and reptile species individuals but is not likely to result in a loss of population viability of those species. The proposed minimization measures listed above will reduce any potential impacts to these species.

If Project activities occur during the time of year when monarch butterflies are present in Arizona, the Project may affect individuals of the species, but Project activities would not affect the ability of monarch butterflies to migrate, forage, or disperse through the area. Impacts to individuals would be

² If Project activities have not been completed before monarch butterfly is officially listed, then this analysis should be updated using the current information on the species. Conversely, if the species does not get listed, then no ESA compliance for monarch butterfly on the Project is needed.

limited to minor behavioral changes as they avoid construction equipment, or in response to the removal of foraging sources during ground-disturbing activities.

If Project activities occur during the time of year when migrating or dispersing yellow-billed cuckoos are present in Arizona, the Project may affect individuals of the species, but Project activities would not affect the ability of yellow-billed cuckoos to migrate, forage, or disperse through the area. The low but possible risk of collision with transmission lines during operation would be limited to individuals.

The Project intersects one mapped area of biological wealth (a Maricopa County WMA), as well as a xeroriparian wash corridor (Trilby Wash) and cattle tanks identified as biological wealth areas. The Project disturbance footprint would be limited to transmission structures and access roads (some of which would be temporary) with minimal disturbance to the landscape; as a result, no measurable long-term effect on the terrestrial wildlife using these areas is expected. The small disturbance footprint and relatively short construction time frame would minimize migratory species avoidance and migratory stopover habitat loss. Therefore, any loss of vegetation from construction activities would not contribute meaningfully to habitat fragmentation or decrease connectivity between habitats.

The risk that electrical infrastructure poses to birds will be addressed by following APLIC (2006, 2012) guidelines when designing features for the Project, and preconstruction surveys for migratory bird nests will facilitate compliance with the MBTA.

Table C-2. Other Special-Status Species with the Potential to Occur in the Vicinity of the Study Area

Common Name (Scientific Name)	Status*		Habitat/Range Requirements	Potential for Occurrence in Study Area
	Federal	State		
Amphibians				
Arizona toad (<i>Anaxyrus microscaphus</i>)	–	SGCN Tier 2	Found in Sonoran desertscrub, semidesert grasslands, oak, and occasionally pine-oak woodland habitats up to about 5,800 feet above mean sea level (amsl). Associated with major rivers and edges of agriculture; although often tied to permanent water, can be found miles from water during summer monsoon season in some areas.	May occur. The Study Area contains suitable habitat for species occurrence.
Lowland leopard frog (<i>Lithobates yavapaiensis</i>)	–	SGCN Tier 1	Found in rocky streams, canyon habitats surrounded by conifer forests, or ponds and stream pools. Usually found in areas with desertscrub biotic communities. The greatest threats to species continuation include habitat alteration, fragmentation, and introduction of nonnative competitor fish, crayfish, and frogs. Species dispersal has been shown to remain within a few kilometers of aquatic breeding sites.	Unlikely to occur. Suitable habitat is not present within the Study Area.
Sonoran desert toad (<i>Incilius alvarius</i>)	–	SGCN Tier 2	Found in Sonoran desertscrub, semidesert grasslands, oak, and occasionally pine-oak woodland habitats up to about 5,800 feet amsl. Associated with major rivers, and edges of agriculture; although often tied to permanent water, can be found miles from water during summer monsoon season, in some areas.	May occur. The Study Area contains suitable habitat for species summer occurrence. In addition, a record of occurrence exists in the vicinity of the Project.† (AZGFD 2026c).
Birds				
Abert's towhee (<i>Melospiza aberti</i>)	MBTA	SGCN Tier 2	Common in riparian woodlands or mesquite bosques near water and in agricultural settings.	Known to occur. Suitable desert / suburban habitat is present within the Study Area, and the species was observed during field visits; additional occurrence records exist 0.7 mile north of the Study Area (eBird 2026).
American bittern (<i>Botaurus lentiginosus</i>)	MBTA	SGCN Tier 2	Found primarily in large freshwater brackish marshes, including lake and pond edges. Also known to occur in areas with dense vegetation cover such as shrubby marshes, bogs, wet meadows, and, on occasion, hayfields.	Unlikely to occur. No suitable habitat is present within the Study Area.
American kestrel (<i>Falco sparverius</i>)	MBTA	SGCN Tier 2	Found in open and semi-open habitats; frequently found in prairies, deserts, wooded streams, burned forest, and agricultural areas. Known to nest in natural holes in trees, abandoned woodpecker cavities, cavities in buildings or cliffs, and similar sites.	May occur. The Study Area contains suitable habitat for foraging. Occurrence records exist within 1.1 miles of the Study Area (eBird 2026).

Common Name (Scientific Name)	Status*		Habitat/Range Requirements	Potential for Occurrence in Study Area
	Federal	State		
American peregrine falcon (<i>Falco peregrinus anatum</i>)	MBTA	SGCN Tier 1	Found in various habitats including tundra, moorlands, steppe, seacoasts, forests, and urban areas. Nests on ledges of rocky cliffs or crags; occurs year-round in Arizona.	May occur. The Study Area contains suitable habitat for foraging. Potential for nesting is unlikely because of the lack of suitable structures. Occurrence records exist within 3.6 miles of the Study Area (eBird 2026).
Bald eagle (<i>Haliaeetus leucocephalus</i>)	BGEPA MBTA	SGCN Tier 1	Found in areas with open water or, in arid regions, areas with available food (small birds, rodents, and carrion) and roost sites. Nonbreeding eagles range throughout Arizona except for the south-central portion of the state; breeding eagles are found in limited, fragmented locations of central, east-central, and west-central portions of the state.	May occur. The CEC Corridor and Study Area do not contain preferred breeding or roosting habitats but are within nonbreeding range. Transmission structures provide potential perches, and potential foraging habitat is present in the open desert throughout the Study Area. Occurrence records exist within 3.6 miles of the Study Area (eBird 2026).
Bendire's thrasher (<i>Toxostoma bendirei</i>)	MBTA BCC	SGCN Tier 2	Found in desert habitats with a mix of relatively large shrubs/cacti and open ground or open woodland with scattered shrubs and trees. Not typically found in riparian woodland areas; the species avoids continuous shrublands and grasslands. Commonly found in areas with desertscrub biotic communities. Nesting is known to occur in low trees, shrubs, and cacti including mesquite (<i>Prosopis</i> spp.), cholla (<i>Cylindropuntia</i> spp.), yucca (<i>Yucca</i> spp.), paloverde (<i>Parkinsonia</i> spp.), and saltbush (<i>Atriplex</i> spp.).	Known to occur. The Study Area contains suitable habitat for foraging and potential nesting sites, and the species was observed during a field visit for an unrelated project in the immediate vicinity in 2025.
Brewer's sparrow (<i>Spizella breweri</i>)	MBTA	SGCN Tier 2	A shrub obligate species strongly associated with sagebrush (<i>Artemisia</i> spp.) over most of its range. Found in areas with scattered shrubs and short grasses. Known to nest in sagebrush or cacti from a few centimeters to roughly 1 meter from the ground. During its nonbreeding migratory season, frequently found in low desert, arid-adapted vegetation including desertscrub, sagebrush, and creosote bush (<i>Larrea tridentata</i>).	May occur. The Study Area contains suitable habitat for foraging and potential nesting sites. Occurrence records exist within 3 miles of the Project (eBird 2026).
Cactus wren (<i>Campylorhynchus brunneicapillus</i>)	MBTA BCC†	SGCN Tier 2	Nonmigratory species often found in arid desert habitat with biotic communities including cholla, mesquite, and sage scrub. Nests are typically placed in thorny trees and shrubs, although nests have also been observed in buildings.	Known to occur. The Study Area contains suitable habitat for foraging and potential nesting sites, and the species was observed during field visits in May 2025 for an unrelated project that overlaps the Study Area for this Project. Additional occurrence records exist adjacent to the Study Area (eBird 2026).

Common Name (Scientific Name)	Status*		Habitat/Range Requirements	Potential for Occurrence in Study Area
	Federal	State		
Costa's hummingbird (<i>Calypte costae</i>)	MBTA BCC	SGCN Tier 2	Found in Sonoran and Mojave desertscrub near washes of native desert vegetation or rocky slopes with saguaros (<i>Carnegiea gigantea</i>) and in creosote bush lowlands.	Known to occur. The Study Area contains suitable habitat for foraging and potential nesting sites. The species was observed during a field visit for an unrelated project in the immediate vicinity in May 2025. Additional occurrence records exist within 0.8 mile of the Study Area (eBird 2026).
Elf owl (<i>Micrathene whitneyi</i>)	MBTA	SGCN Tier 2	Known to occupy diverse habitats. In the Sonoran Desert, they are known to use desert ironwood (<i>Olneya tesota</i>), ocotillo (<i>Fouquieria splendens</i>), paloverde, and saguaro. Nesting most often occurs in saguaro and other columnar cacti, Fremont cottonwood (<i>Populus fremontii</i>), honey mesquite (<i>Prosopis glandulosa</i>), and Goodding's willow (<i>Salix gooddingii</i>).	Unlikely to occur. The Study Area does not contain suitable habitat.
Ferruginous hawk (<i>Buteo regalis</i>)	MBTA BCC [†]	SGCN Tier 2	Inhabits grasslands, shrub-steppe, pinyon-juniper, sparse riparian forests, and canyon areas with cliffs and rock outcrops. Year-round range includes roughly the north half of Arizona; wintering range includes roughly the south half of the state.	May occur. Winter foraging habitat is present within the Study Area. Occurrence records exist within 3 miles of the Study Area (eBird 2026).
Flammulated owl (<i>Psiloscoops flammeolus</i>)	MBTA BCC [†]	SGCN Tier 2	Prefers ponderosa pine forests with undergrowth throughout its range, although it is also found in pine-oak forests in Arizona. In migration, it can be found in lower-elevation mountain and other habitats, such as riparian corridors and urban desert locations.	Unlikely to occur. The Study Area does not contain suitable habitat. However, the species has been documented in the vicinity of the Project [†] (AZGFD 2026c).
Gila woodpecker (<i>Melanerpes uropygialis</i>)	MBTA BCC	SGCN Tier 2	Found in Sonoran desertscrub with saguaros present, or riparian woodlands with mature trees.	Known to occur. Suitable habitat is present within the Study Area. The species was observed during a field visit for an unrelated project in the immediate vicinity in May 2025. Additional occurrence records exist adjacent to the Study Area (eBird 2026).
Gilded flicker (<i>Colaptes chrysoides</i>)	MBTA	SGCN Tier 2	Found in Sonoran desertscrub with saguaros present, or riparian woodlands with mature trees.	Known to occur. Suitable habitat is present within the Study Area, and the species was observed during field visits. Additional occurrence records exist adjacent to the Study Area (eBird 2026).
Golden eagle (<i>Aquila chrysaetos</i>)	BGEPA MBTA	SGCN Tier 2	Found in mountainous canyon land, rimrock terrain of open desert, grassland, and forested areas. Year-round range includes all of Arizona.	May occur. Although no suitable nesting habitat is present in the Project or Study Area, eagles may perch, forage, or move through the area to nearby nesting locales. An occurrence record exists within 2.5 miles of the Study Area (eBird 2025).

Common Name (Scientific Name)	Status*		Habitat/Range Requirements	Potential for Occurrence in Study Area
	Federal	State		
Gray flycatcher (<i>Empidonax wrightii</i>)	MBTA	SGCN Tier 2	Prefers arid pinyon pine-juniper woodlands; infrequently in grasslands and desertscrub where these trees are few and scattered. Common breeder and summer resident from the Mogollon Rim north at elevations from approximately 4,300 to 7,600 feet amsl.	Unlikely to occur. The Study Area is outside the species' known range and does not contain habitat suitable for species occurrence (although occurrence records do exist within 2 miles of the Study Area [eBird 2026]).
Harris's hawk (<i>Parabuteo unicinctus</i>)	MBTA BCC†	SGCN Tier 2	Found in savannas, open woodlands, and semidesert habitats. Frequently observed near water sources, both natural and human-made. Often uses saguaro for nesting sites.	May occur. The Study Area contains suitable habitat for foraging. Occurrence records exist within 2 miles of the Study Area (eBird 2026).
Inca dove (<i>Columbina inca</i>)	MBTA	SGCN Tier 2	Found in open country with scattered trees or shrubs, most frequently in arid or semiarid conditions, and around cultivated areas including farmlands, parks, and gardens.	May occur. The Study Area contains suitable habitat. Occurrence records exist within 1 mile of the Study Area (eBird 2026).
Horned lark (<i>Eremophila alpestris</i>)	MBTA	SGCN Tier 2	Found in grasslands, sandy regions, areas with scattered low shrubs, desert playas, pastures, and open cultivated areas.	May occur. The Study Area contains suitable foraging habitat and potential nesting sites. Occurrence records exist within 0.75 mile of the Study Area (eBird 2026).
Killdeer (<i>Charadrius vociferus</i>)	MBTA	SGCN Tier 2	Habitat includes various open areas such as fields, meadows, lawns, pastures, desertscrub, mudflats, and shores of lakes, ponds, rivers, and seacoasts. Nests are on the ground in open, dry, or gravelly situations, sometimes in similar situations on roofs, driveways, etc.	May occur. The Study Area contains suitable foraging habitat and potential nesting sites. Occurrence records exist within 1.5 miles of the Study Area (eBird 2026).
Lawrence's goldfinch (<i>Spinus lawrencei</i>)	MBTA BCC		In Arizona, winters in desert arroyos, floodplains, mesquite bosques, weedy fields, cultivated fields, or roadsides.	Known to occur. Suitable wintering habitat is present within the Study Area, and the species was observed during field visits; additional occurrence records exist 2.4 miles northwest of the Study Area (eBird 2026).
LeConte's thrasher (<i>Toxostoma lecontei</i>)	MBTA BCC	SGCN Tier 2	Found in Sonoran desertscrub dominated by creosote bush, with scattered trees used for nesting.	May occur. The Study Area contains suitable habitat for foraging and nesting. Occurrence records exist within 2 miles of the Study Area (eBird 2026).

Common Name (Scientific Name)	Status*		Habitat/Range Requirements	Potential for Occurrence in Study Area
	Federal	State		
Lincoln's sparrow (<i>Melospiza lincolni</i>)	MBTA	SGCN Tier 2	Breeds in habitats dominated by willow, sedge, and moss, mixed-deciduous wood groves, and black spruce-tamarisk bogs. Uses shrub-dominated habitats, particularly riparian sites, but also brushy forest edges and weedy fields during migration. Uses pine-oak forests, freshwater habitats, coniferous forests, and brushy fields in winter. Nonbreeding range includes southwestern and east-central Arizona. Migration range includes northeastern Arizona. Isolated breeding locations are known in north-central and east-central portions of the state.	Unlikely to occur. No suitable habitat is present within the Study Area (although occurrence records do exist within 2 miles of the Study Area [eBird 2026]).
Loggerhead shrike (<i>Lanius ludovicianus</i>)	MBTA BCC [†]	SGCN Tier 2	Breeds primarily in southern Arizona. Found in open areas with scattered trees and shrubs. Frequently observed in savannas and desertscrub biotic communities.	May occur. Suitable foraging habitat and potential nesting sites are present within the Study Area. Occurrence records exist within 1 mile of the Study Area (eBird 2026).
Long-eared owl (<i>Asio otus</i>)	MBTA BCC	SGCN Tier 2	Found in deciduous forests and riparian areas near permanent water ways. In Arizona, favors dense riparian woodlands and thickets near open grasslands or agricultural fields.	Unlikely to occur. No suitable habitat is present within the Study Area.
Prairie falcon (<i>Falco mexicanus</i>)	MBT ABCC [†]	SGCN Tier 2	Inhabits desertscrub and grasslands, often dominated by a mixture of grasses, sagebrush, and other low growing shrubs. Found year-round throughout most of Arizona. Nests statewide on ledges and within crevices and potholes of cliffs, canyon walls, and rocky ridges at elevations ranging from approximately 500 to 9,000 feet amsl. Nonbreeding wintering individuals have been known to forage in agricultural fields.	May occur. The Study Area contains suitable winter foraging habitat. Occurrence records exist within 1.5 miles of the Study Area (eBird 2026).
Rock wren (<i>Salpinctes obsoletus</i>)	MBTA	SGCN Tier 3	Occurs in a wide variety habitats; prefers exposed rock and associated crevices, dry rocky washes and drainages, and many human-altered habitats like railways and retaining walls.	Known to occur. The Study Area contains suitable foraging habitat and potential nesting sites, and the species was observed in the Study Area during field visits. Additional occurrence records exist adjacent to the Study Area (eBird 2026).
Sagebrush sparrow (<i>Artemisiospiza nevadensis</i>)	MBTA	SGCN Tier 3	Found in shrubby, open flats and sagebrush plains.	May occur. The Study Area contains suitable foraging habitat and potential nesting sites. Occurrence records exist adjacent to the Study Area (eBird 2026).
Savannah sparrow (<i>Passerculus sandwichensis</i>)	MBTA BCC [†]	SGCN Tier 2	Open country, grassy meadows, cultivated fields, lightly grazed pastures, roadsides, coastal grasslands, sedge bogs, edges of salt marshes, and tundra. Breeding range includes northeastern Arizona.	Unlikely to occur. No suitable habitat is present in the Study Area (although occurrence records do exist within 1 mile of the Study Area [eBird 2026]).

Common Name (Scientific Name)	Status*		Habitat/Range Requirements	Potential for Occurrence in Study Area
	Federal	State		
Sprague's pipit (<i>Anthus spragueii</i>)	MBTA BCC†	SGCN Tier 2	Prefers open sandy coastal beaches and barren shores of inland saline lakes or river bars.	Unlikely to occur. No suitable habitat is present within the Study Area.
Swainson's hawk (<i>Buteo swainsoni</i>)	MBTA	SGCN Tier 2	Closely associated with open grasslands and similarly structured grain croplands. Breeding range includes all of Arizona. Typically nests in solitary, conspicuous trees or tall shrubs at elevations from approximately 1,900 to 9,200 feet amsl.	May occur. The Study Area contains suitable foraging habitat. Occurrence records exist within 3 miles of the Study Area (eBird 2026).
Swainson's thrush (<i>Catharus ustulatus</i>)	MBTA	SGCN Tier 2	Breeds in coniferous forests, winters in mature forests. Arizona is in this species' migratory range. Migratory habitat is forests, woodland, swamps, and parks.	Unlikely to occur. No suitable habitat is present within the Study Area.
Verdin (<i>Auriparus flaviceps</i>)	MBTA BCC	SGCN Tier 2	Found in arid, desert habitats, frequently observed in mesquite and creosote bush vegetation. Known to nest in shrubs, small trees, and cacti.	Known to occur. The Study Area contains suitable foraging habitat and potential nesting sites, and the species was observed in the Study Area during field visits. Additional occurrence records exist adjacent to the Study Area (eBird 2026).
Vesper sparrow (<i>Poocetes gramineus</i>)	MBTA BCC†	SGCN Tier 2	Found in open areas with short, sparse grass and scattered shrubs. Uncommon wintering occurrence in central and southern Arizona.	May occur. The Study Area contains suitable foraging habitat for nonbreeding individuals. Occurrence records exist within 1 mile of the Study Area (eBird 2026).
Western burrowing owl (<i>Athene cunicularia hypugaea</i>)	MBTA BCC	SGCN Tier 2	Found in open areas with low brush cover, including grasslands, agricultural margins, and desertscrub. Year-round resident or migratory.	May occur. Desertscrub provides suitable habitat for species occurrence, foraging, and potential for burrow nesting in the Study Area. Occurrence records exist within 1.5 miles of the Study Area (eBird 2026).
Western screech-owl (<i>Megascops kennicottii</i>)	MBTA BCC†	SGCN Tier 2	Commonly found in broadleaf and riparian woodland, particularly within deciduous forests that border canyons and other drainages.	Unlikely to occur. The Study Area does not contain suitable habitat (although occurrence records do exist within 1.5 miles of the Study Area [eBird 2026]).
Western wood-pewee (<i>Contopus sordidulus</i>)	MBTA	SGCN Tier 2	In Arizona, this species is most often found in riparian corridors, mesquite bosques, pine-oak woodlands, and forest edges, both for breeding and during spring and fall migration.	Known to occur. Although the species' preferred habitat types are not present, the species was observed in The Study Area outside the breeding season. Additional occurrence records exist within 2.5 miles northwest of the Study Area (eBird 2026).

Common Name (Scientific Name)	Status*		Habitat/Range Requirements	Potential for Occurrence in Study Area
	Federal	State		
Terrestrial Mammals				
Arizona pocket mouse (<i>Perognathus amplus</i>)	–	SGCN Tier 2	Inhabits various types of desertscrub habitats (greasewood, rabbitbrush, creosote bush, cactus, mesquite, paloverde, etc.). Nests in underground burrows.	May occur. The Study Area contains suitable habitat.
Harris's antelope squirrel (<i>Ammospermophilus harrisii</i>)	–	SGCN Tier 2	Burrowing species found throughout southern Arizona below the Mogollon Rim in deserts, canyons, and dry plains.	May occur. The Study Area contains suitable habitat.
Bats				
Brazilian free-tailed bat (<i>Tadarida brasiliensis</i>)	–	SGCN Tier 2	Found in a variety of habitats with ranges across the United States from desert communities through pinyon-juniper woodlands and pine-oak forests at elevations up to approximately 9,000 feet amsl. Maternity colonies and roosts found in limestone caves, abandoned mines, cliff crevices, bridges, buildings, and hollow trees. Range is throughout Arizona.	May occur. Although the Study Area does not contain suitable roosting habitat, foraging habitat is present.
California leaf-nosed bat (<i>Macrotus californicus</i>)	–	SGCN Tier 2	Known from caves, mines, and rockshelters, mostly in Sonoran desertscrub between elevations of 160 and 3,980 feet amsl. Roost sites are usually near foraging areas. This species mostly forages on insects but is also known to forage on the fruits of cacti species such as prickly pear. Summer and winter range essentially the same.	May occur. Although the Study Area does not contain suitable roosting habitat, foraging habitat is present.
Cave myotis (<i>Myotis velifer</i>)	–	SGCN Tier 2	Typically found in desertscrub with creosote bush, brittlebush (<i>Encelia</i> sp.), paloverde, and cacti, but sometimes found up to pine-oak communities, between 300 and 5,000 feet amsl. Roosts in caves, tunnels, mine shafts, and under bridges, and occasionally in buildings within a few miles of water.	May occur. Although the Study Area does not contain suitable roosting habitat, foraging habitat is present.
Desert (Western) red bat (<i>Lasiurus frantzii</i>)	–	SGCN Tier 2	A summer resident, preferred habitat includes riparian and wooded areas. Generally distributed in south-central to southern and southeastern Arizona, with a few observations along the Colorado River near Bill Williams River and occasionally in the Grand Canyon. Roosts in dense foliage of cottonwood trees, in fruit orchards; sometimes in leafy shrubs or herbs, saguaro boots, buildings, or cave-like settings. They are commonly drawn to feed around city streetlights and floodlights on barns.	Unlikely to occur. No suitable habitat for roosting or foraging occurs within the Study Area.
Greater western bonneted bat (<i>Eumops perotis californicus</i>)	–	SGCN Tier 2	Occurs in lower and upper Sonoran desertscrub near cliffs. Prefers rugged, rocky canyons with abundant crevices at elevations from 240 to 8,475 feet amsl. Prefers crowding into tight crevices at least 1 foot deep x at least 2 inches wide. Colonies prefer deeper crevices, to 10 or more feet. Prefers to forage over large open bodies of water.	May occur. The Study Area contains suitable foraging habitat, although no suitable roosting habitat is present within the Study Area.

Common Name (Scientific Name)	Status*		Habitat/Range Requirements	Potential for Occurrence in Study Area
	Federal	State		
Hoary bat (<i>Lasiurus cinereus</i>)	–	SGCN Tier 2	Prefers deciduous and coniferous forests and woodlands, juniper scrub, riparian forest, and desert habitats at elevations from 485 to 9,900 feet amsl. Foraging occurs near open waterways and along riparian corridors. Roosts primarily among foliage in trees. Ranges statewide.	Unlikely to occur. Suitable habitat for foraging or roosting is not present in the Study Area.
Pale Townsend's big-eared bat (<i>Corynorhinus townsendii pallascens</i>)	–	SGCN Tier 1	Found throughout Arizona in a variety of vegetation communities and prefers to use roost sites, such as caves, mines, or abandoned buildings, with open ceilings instead of cracks or crevices. They typically forage no more than 5 miles from the roost site.	Unlikely to occur. Suitable habitat for foraging or roosting is not present in the Study Area.
Pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>)	–	SGCN Tier 2	Rugged canyons and rocky outcroppings below 7,500 feet amsl. Associated with water sources in low deserts, desertscrub, and pine-oak forests, including large and small water tanks and ephemeral pools. Day roosts in rock crevices in cliffs and shallow caves and may roost in buildings or under roof tiles. In Arizona, found in roughly the south half of the state.	May occur. The Study Area contains suitable foraging habitat, although no suitable roosting habitat is present within the Study Area.
Western yellow bat (<i>Lasiurus xanthinus</i>)	–	SGCN Tier 2	Found in arid habitats along riparian corridors. Known to roost in palm trees, cottonwood, and yucca. Forages over open water.	Unlikely to occur. The Study Area does not contain suitable roosting or foraging habitat.
Yuma myotis (<i>Myotis yumanensis</i>)	–	SGCN Tier 2	Associated with a wide variety of upland and lowland habitats (within wide range of elevations: sea level to 11,000 feet amsl), including riparian, desertscrub, moist woodlands, and forests, where they prefer cliffs and rocky walls near water. Foraging occurs along forested edges of streams, ponds, and lakes. Roosts in caves, mines, cliff crevices, buildings, bridges, and similar structures. Nursery colonies in buildings, caves, mines, and bridges. In Arizona, ranges throughout except for the south-central portion of the state.	Unlikely to occur. The Study Area does not contain suitable roosting or foraging habitat.
Reptiles				
Regal horned lizard (<i>Phrynosoma solare</i>)	–	SGCN Tier 2	Found in valley bottoms in Sonoran desertscrub and desert grasslands, avoids the lowest elevations.	May occur. The Study Area contains suitable habitat, and occurrence records exist in the vicinity of the Project† (AZGFD 2026c).
Sonoran desert tortoise (<i>Gopherus morafkai</i>)	CCA	SGCN Tier 1	Found primarily on rocky, and often steep, hillsides and bajadas of Mohave and Sonoran desertscrub, typically at elevations below 7,800 feet amsl. May occur, but is less likely to occur, in desert grassland, juniper woodland, and interior chaparral habitats and even pine communities.	May occur. The Study Area contains suitable habitat, and occurrence records exist in the vicinity of the Project† (AZGFD 2026c).

Common Name (Scientific Name)	Status*		Habitat/Range Requirements	Potential for Occurrence in Study Area
	Federal	State		
Variable sandsnake (<i>Chilomeniscus stramineus</i>)	–	SGCN Tier 2	Found in sandy, sandy-gravelly, or loamy soils of flats, dunes, hummocks, and arroyos. Found in deserts, uplands with paloverde and saguaro, and thornscrub habitats.	May occur. Suitable foraging and breeding habitat is present within the Study Area.

Notes: Includes Arizona SGCN listed in the AZGFD (2026a) online ERT report, USFWS IPaC Migratory Bird list (USFWS 2026a), and BCC for BCR 33 (USFWS 2021a).

Range or habitat requirement information and potential occurrence justification from AZGFD (2026e), Ammerman et al. (2012), Billerman et al. (2020), Corman and Wise-Gervais (2005), Hoffmeister (1986), Reid (2006).

* Federal Status Definitions

BCC = Bird of Conservation Concern; BCC[†] = Bird of Conservation Concern for regions other than BCR 33 (included in table because they are also Arizona SGCN); BGEPA = Bald and Golden Eagle Protection Act; CCA = Candidate Conservation Agreement; MBTA = Migratory Bird Treaty Act.

* State Status Definitions

SGCN = Species of Greatest Conservation Need; wildlife species identified by AZGFD as having conservation priority (AZGFD 2022a). SGCN Tier 1 species are those categorized as "highest priority vulnerable" species. Tier 2 represents the remainder of the species meeting the vulnerability criteria. Tier 3 species have an "unknown" status and are priority species for additional research.

[†] The Heritage Data Management System record of occurrence was within 3 miles of the Project (AZGFD 2026c); thus, it is unknown if that record is within the Study Area. Therefore, we use "in the vicinity of the Project" for clarity.

LITERATURE CITED

- Ammerman, L.K., C.L. Hice, and D.J. Schmidly. 2012. *Bats of Texas*. College Station: Texas A&M University Press.
- Arizona Department of Agriculture (AZDA). 2026. Protected Arizona native plants. Available at: <https://agriculture.az.gov/plantsproduce/native-plants>. Accessed February 2026.
- Arizona Game and Fish Department (AZGFD). 1996. *Wildlife of Special Concern in Arizona (Public Review Draft)*. Phoenix: Arizona Game and Fish Department.
- . 2002. Golden Eagle (*Aquila chrysaetos*). Unpublished abstract compiled and edited by the Heritage Data Management System. Phoenix: Arizona Game and Fish Department.
- . 2012. *The Maricopa County Wildlife Connectivity Assessment: Report on Stakeholder Input*. Available at: https://conservationcorridor.org/cpb/Arizona_Game_and_Fish_Department_2012-Maricopa.pdf. Accessed January 2025.
- . 2019. *Pinal County Riparian Area Guidelines*. Available at: https://s3-us-west-2.amazonaws.com/azgfd-portal-wordpress-pantheon/wp-content/uploads/archive/Riparian-Guidelines-2.0_062920.pdf. Accessed February 2026.
- . 2022a. *The Arizona Wildlife Conservation Strategy 2022–2032*. Phoenix: Arizona Game and Fish Department. Available at: https://azgfd-wdw.s3.amazonaws.com/awcs-2022/documents/AWCS_Final_Approved_11-22.pdf. Accessed February 2026.
- . 2022b. *Coccyzus americanus*. Unpublished abstract compiled and edited by the Heritage Data Management System. Phoenix: Arizona Game and Fish Department.
- . 2023. Online Field Guide to the Reptiles and Amphibians of Arizona. Available at: <http://www.reptilesfaz.org/>. Accessed February 2026.
- . 2026a. *Arizona Game and Fish Department 2025 & 2026 Fishing Regulations*. Available at: https://azgfd-portal-wordpress-pantheon.s3.us-west-2.amazonaws.com/wp-content/uploads/2025/03/31111037/2025-26-Fishing-Regulations_250331.pdf. Accessed February 2026.
- . 2026b. *Arizona Reptile and Amphibian Regulations 2021–2025*. Available at: https://azgfd-portal-wordpress-pantheon.s3.us-west-2.amazonaws.com/wp-content/uploads/archive/2021-25-Reptile-and-Amphibian-Regulations_Sept21.pdf. Accessed February 2026.
- . 2026c. Arizona Environmental Review Tool Report. Wild Stallion Energy Storage System Gen-Tie Project CEC Application. Project ID: HGIS-27461. Available at: <https://ert.azgfd.gov/content/home>. Accessed February 11, 2026.
- . 2026d. Arizona Wildlife Conservation Strategy: Conservation Opportunity Areas. Available at: <https://awcs.azgfd.com/conservation-opportunity-areas>. Accessed February 2026.
- . 2026e. Heritage Data Management System species abstracts and maps. Available at: <https://www.azgfd.com/wildlife-conservation/on-the-ground-conservation/cooperative-programs/az-natural-heritage-program/>. Accessed February 2026.

- Arnett, E.B., E.F. Baerwald, F. Mathews, L. Rodrigues, A. Rodriguez-Duran, J. Rydell, R. Villegas-Patraca, and C.C. Voigt. 2015. Impacts of wind energy development on bats: a global perspective. In *Bats in the Anthropocene: Conservation of Bats in a Changing World*, edited by C.C. Voigt and T. Kingston, pp. 295–323. New York, New York: Springer International Publishing.
- Audubon. 2026. Important Bird Areas. Available at: <https://www.audubon.org/important-bird-areas>. Accessed February 2026.
- Avian Power Line Interaction Committee (APLIC). 2006. *Suggested Practices for Raptor Protection on Powerlines: The State of the Art 2006*. Washington, D.C.: Edison Electric Institute and Raptor Research Foundation.
- . 2012. *Reducing Avian Collisions with Power Lines: The State of the Art in 2012*. Washington, D.C.: Edison Electric Institute and APLIC.
- Billerman, S.M., B.K. Keeney, P.G. Rodewald, and T.S. Schulenberg (eds.). 2020. *Birds of the World*. Ithaca, New York: Cornell Laboratory of Ornithology. Available at: <https://birdsoftheworld.org/bow/home>. Accessed February 2026.
- Buehler, D.A. 2000. Bald eagle (*Haliaeetus leucocephalus*). In *Birds of the World*, edited by A.F. Poole and F.B. Gill. Ithaca, New York: Cornell Lab of Ornithology.
- City of Surprise. 2024. *Surprise 2040 General Plan*. Available at: <https://content.civicplus.com/api/assets/c347f6a6-d821-4f50-b825-b29c89138c53?scope=all>. Accessed April 2026.
- Corman, T.E., and C. Wise-Gervais. 2005. *Arizona Breeding Bird Atlas*. Albuquerque: University of New Mexico Press.
- Cornell Lab of Ornithology. 2026. All About Birds: An online guide for bird identification, life history, and distribution. Available at: <https://allaboutbirds.org>. Accessed February 2026.
- eBird. 2026. Cornell Lab of Ornithology eBird species maps. Available at: <https://ebird.org/home>. Accessed February 2026.
- Google Earth. 2026. Historical aerial imagery of the Study Area. Available at: <https://earth.google.com/web>. Accessed February 2026.
- Hoffmeister, D.F. 1986. *Mammals of Arizona*. Tucson: University of Arizona Press.
- Katzner, T.E., M.N. Kochert, K. Steenhof, C.L. McIntyre, E.H. Craig, and T.A. Miller. 2020. Golden eagle (*Aquila chrysaetos*). In *Birds of the World*, edited by P.G. Rodewald and B.K. Keeney. Ithaca, New York: Cornell Lab of Ornithology.
- Marzluff, J.M., S.T. Knick, M.S. Vekasy, L.S. Schueck, and T.J. Zarriello. 1997. Spatial use and habitat selection of golden eagles in Southwestern Idaho. *The Auk* 114(4):673–87.
- McCarty, K.M., J.K. Presler, and K.V. Jacobson. 2025. *Arizona Bald Eagle Management Program 2025 Summary Report*. Nongame and Endangered Wildlife Program Technical Report 381. Phoenix: Arizona Game and Fish Department. Available at: <https://swbemc.org/Bald%20Eagle%20Management%20Program%20Summary%20Report%202025.pdf>. Accessed February 2026.

- McCarty, K.M., J.K. Presler, D.W. Drever, and K.V. Jacobson. 2025a. *Arizona Golden Eagle Occupancy and Productivity Assessment 2025*. Nongame and Endangered Wildlife Program Technical Report 382. Phoenix: Arizona Game and Fish Department. Available at: <https://azgfd-portal-wordpress-pantheon.s3.us-west-2.amazonaws.com/wp-content/uploads/2025/12/29100013/NGTR-382.GOEA-productivity-report-2025.pdf>. Accessed February 2026.
- . 2025b. *Arizona Golden Eagle Productivity Assessment 2024*. Nongame and Endangered Wildlife Program Technical Report 370. Phoenix: Arizona Game and Fish Department. Available at: <https://azgfd-portal-wordpress-pantheon.s3.us-west-2.amazonaws.com/wp-content/uploads/2025/12/29095725/NGTR-370.GOEA-productivity-report-2024.pdf>. Accessed February 2026.
- McCracken, G., Y. Lee, E. Gillam, W. Frick, and J. Krauel. 2021. Bats flying at high altitudes. In *50 Years of Bat Research: Foundations and New Frontiers*, edited by B.K. Lim, M.B. Fenton, R.M. Brigham, S. Mistry, A. Kurta, E.H. Gillam, A. Russell, and J. Ortega, pp. 189–205. Springer.
- Miller, J. 2025. Use of fringed twinevine (*Funastrum cynanchoides*) for breeding by captive and wild monarchs (*Danaus plexippus*). Personal email communication, Jessica Miller, USFWS Monarch Species Lead, Arizona Ecological Services Field Office, to Eleanor Gladding, Senior Biologist, SWCA, Tucson, Arizona. August 20.
- Morris, G.M., C. Kline, and S.M. Morris. 2015. Status of *Danaus plexippus* population in Arizona. *Journal of the Lepidopterists' Society* 69:91–107.
- Reid, F.A. 2006. *A Field Guide to Mammals of North America*. 4th ed. New York, New York: Houghton Mifflin Company.
- SWCA Environmental Consultants (SWCA). 2025. *Biological Resources Review for the Surprise 208 Project in Surprise, Maricopa County, Arizona / SWCA Project No. 98167*. Phoenix, Arizona: SWCA Environmental Consultants.
- U.S. Fish and Wildlife Service (USFWS). 2007. *National Bald Eagle Management Guidelines*. Available at: https://www.fws.gov/sites/default/files/documents/national-bald-eagle-management-guidelines_0.pdf. Accessed January 2026.
- . 2013. *Eagle Conservation Plan Guidance, Module 1 – Land-based Wind Energy*. Version 2. U.S. Fish and Wildlife Service, Division of Migratory Bird Management. Available at: <https://www.fws.gov/sites/default/files/documents/eagle-conservation-plan-guidance.pdf>. Accessed January 2026.
- . 2020. *Monarch (Danaus plexippus) Species Status Assessment Report*, version 2.1. September. Available at: <https://ecos.fws.gov/ServCat/DownloadFile/191345>. Accessed February 2026.
- . 2021a. *Birds of Conservation Concern 2021*. December. Available at: <https://www.fws.gov/sites/default/files/documents/birds-of-conservation-concern-2021.pdf>. Accessed February 2026.
- . 2021b. Endangered and threatened wildlife and plants; designation of critical habitat for the western distinct population segment of the yellow-billed cuckoo. *Federal Register* 86(75): 207980–21005.

- . 2024a. Eagle take permit regulations; revisions to regulations for eagle incidental take and general permits. *Federal Register* 89(29):9920–9965. Available at: <https://www.federalregister.gov/documents/2024/02/12/2024-02182/eagle-take-permit-regulations-revisions>. Accessed February 2026.
 - . 2024b. Endangered and threatened wildlife and plants; threatened species status with section 4(d) rule for monarch butterfly and designation of critical habitat. *Federal Register* 89(239):100662–100716. Available at: <https://www.federalregister.gov/documents/2024/12/12/2024-28855/endangered-and-threatened-wildlife-and-plants-threatened-species-status-with-section-4d-rule-for>. Accessed February 2026.
 - . 2026a. Information for Planning and Consultation (IPaC). Available at: <https://ecos.fws.gov/ipac/>. Accessed February 11, 2026.
 - . 2026b. Environmental Conservation Online System (ECOS). Available at: <https://ecos.fws.gov/ecp/>. Accessed February 2026.
 - . 2026c. Arizona Ecological Services Field Office library. Available at: <https://www.fws.gov/office/arizona-ecological-services/species>. Accessed February 2026.
 - . 2026d. Critical habitat for threatened and endangered species online mapper. Available at: <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>. Accessed February 2026.
- Western Monarch Milkweed Mapper. 2026. Sightings map. Available at: <https://www.monarchmilkweedmapper.org/app/#/combined/map>. Accessed February 2026.
- Xerces Society. 2026. *Timing Management in Monarch Breeding Habitat*. Available at: https://xerces.org/sites/default/files/2019-10/18-010-02_Timing-Management-in-Western-Monarch-Habitat.pdf. Accessed February 2026.

EXHIBIT C – ATTACHMENT C-1

USFWS Information for Planning and Consultation (IPaC) System Official Species List for the Project

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.

Location

Maricopa County, Arizona



Local office

Arizona Ecological Services Field Office

☎ (602) 242-0210

📠 (602) 242-2513

9828 North 31st Ave

#c3

Phoenix, AZ 85051-2517

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 species¹ 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 Fisheries²).

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](#).

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.

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

Birds

NAME	STATUS
California Least Tern <i>Sternula antillarum browni</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> 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	Endangered
Yellow-billed Cuckoo <i>Coccyzus americanus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Gila Topminnow (incl. Yaqui) <i>Poeciliopsis occidentalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1116	Endangered

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> 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	Proposed Threatened

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.

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-incident-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.

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>

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 (|)

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?

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.

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-incident-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 <i>Recurvirostra americana</i> 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
Bald Eagle <i>Haliaeetus leucocephalus</i> 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
Costa's Hummingbird <i>Calypte costae</i> 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	Breeds Jan 15 to Jun 10
Gila Woodpecker <i>Melanerpes uropygialis</i> 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	Breeds Apr 1 to Aug 31

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 (|)

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.

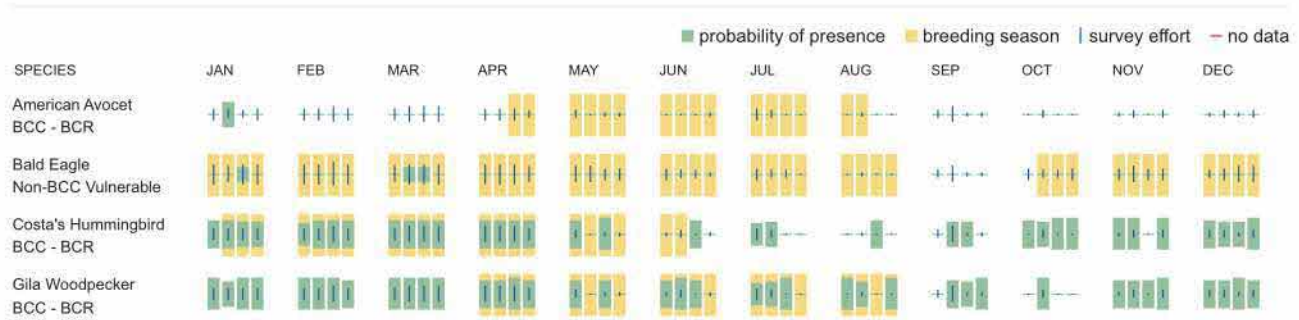
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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.



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?

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

- "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);
- "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- "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:

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.

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](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

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 tubercid 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.

EXHIBIT C – ATTACHMENT C-2

AZGFD Arizona Online Environmental Review Tool Report for the Project

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:

Wild Stallion Energy Storage System Gen-Tie Project CEC Application

Project Type:

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

Project ID:

HGIS-27461

User Project Number:

100836

Project Description:

Wild Stallion Energy Storage LLC is proposing the Wild Stallion Energy Storage System Project within and adjacent to the city of Surprise in Maricopa County, Arizona. The project involves development of a 200-megawatt battery energy storage system (BESS) with a 1.4-mile-long generation intertie transmission line (gen-tie) that would connect the planned BESS to an existing substation. The BESS would be on approximately 20 acres of privately owned land and the gen-tie would have a 200-foot-wide right-of-way (ROW) occupying approximately 27 acres of Arizona State Land Department (ASLD)-administered land (collectively, the project area). The gen-tie will be an above-ground line.

Contact Person:

India Hesse

Organization:

SWCA Environmental Consultants

On Behalf Of:

PRIVATE

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.

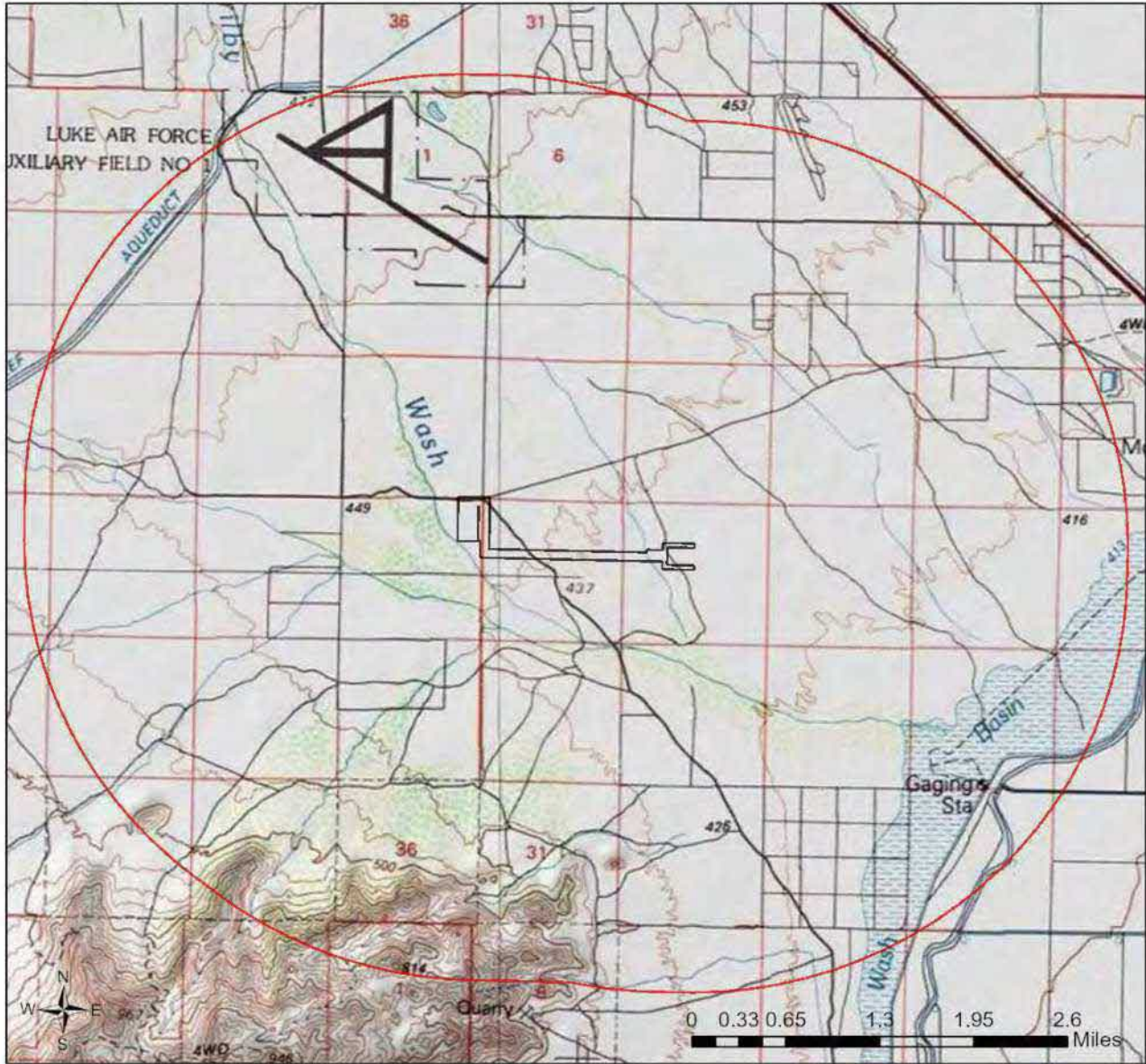
Locations Accuracy Disclaimer:

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.

Wild Stallion Energy Storage System Gen-Tie Project CEC Application USA Topo Basemap With Locator Map



- Buffered Project Boundary
- Project Boundary

Project Size (acres): 108.89

Lat/Long (DD): 33.6765 / -112.5086

County(s): Maricopa

AGFD Region(s): Mesa

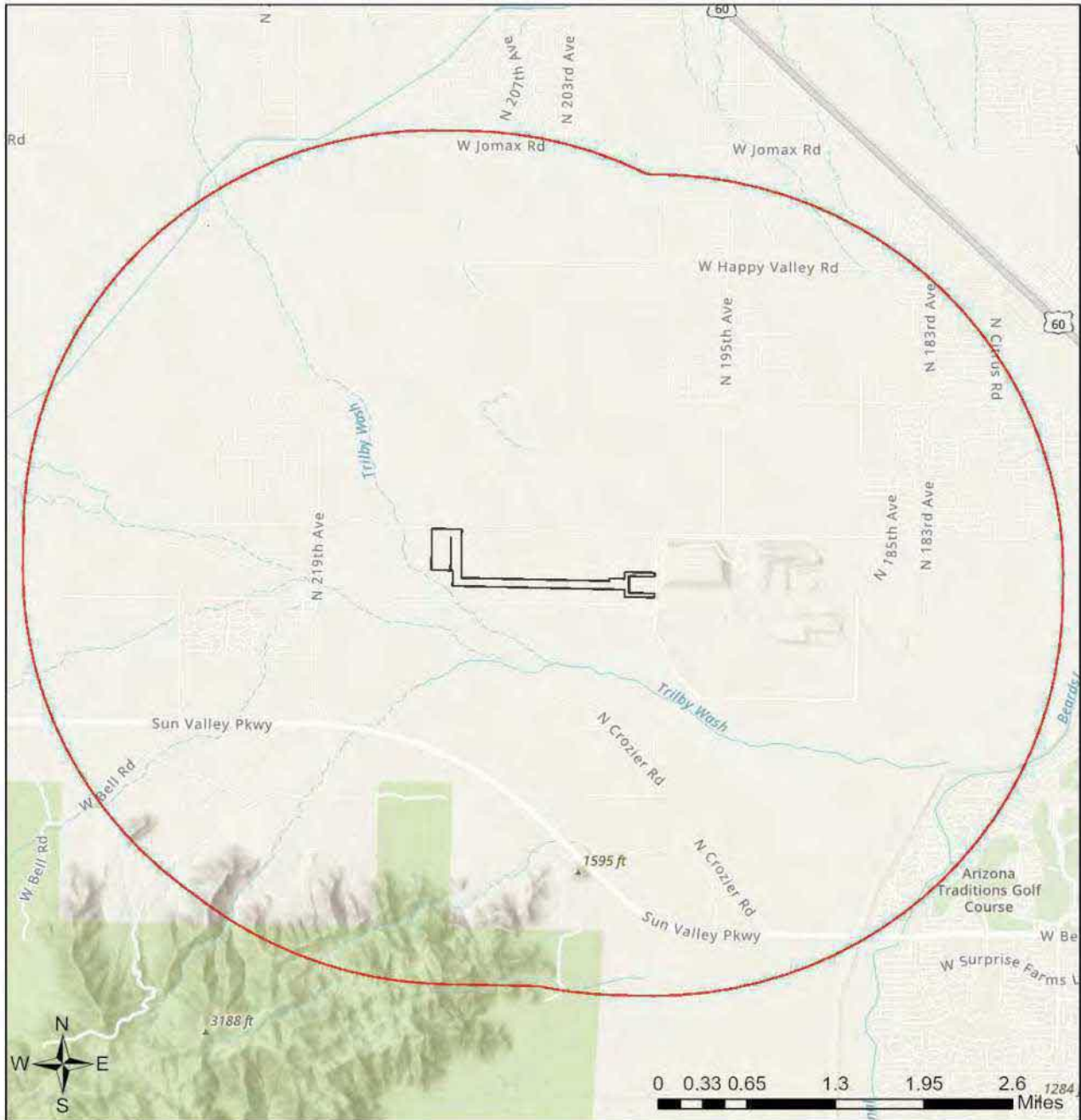
Township/Range(s): T4N, R2W; T4N, R3W

USGS Quad(s): MCMICKEN DAM; WHITE TANK MOUNTAINS NE

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



Wild Stallion Energy Storage System Gen-Tie Project CEC Application Important Areas

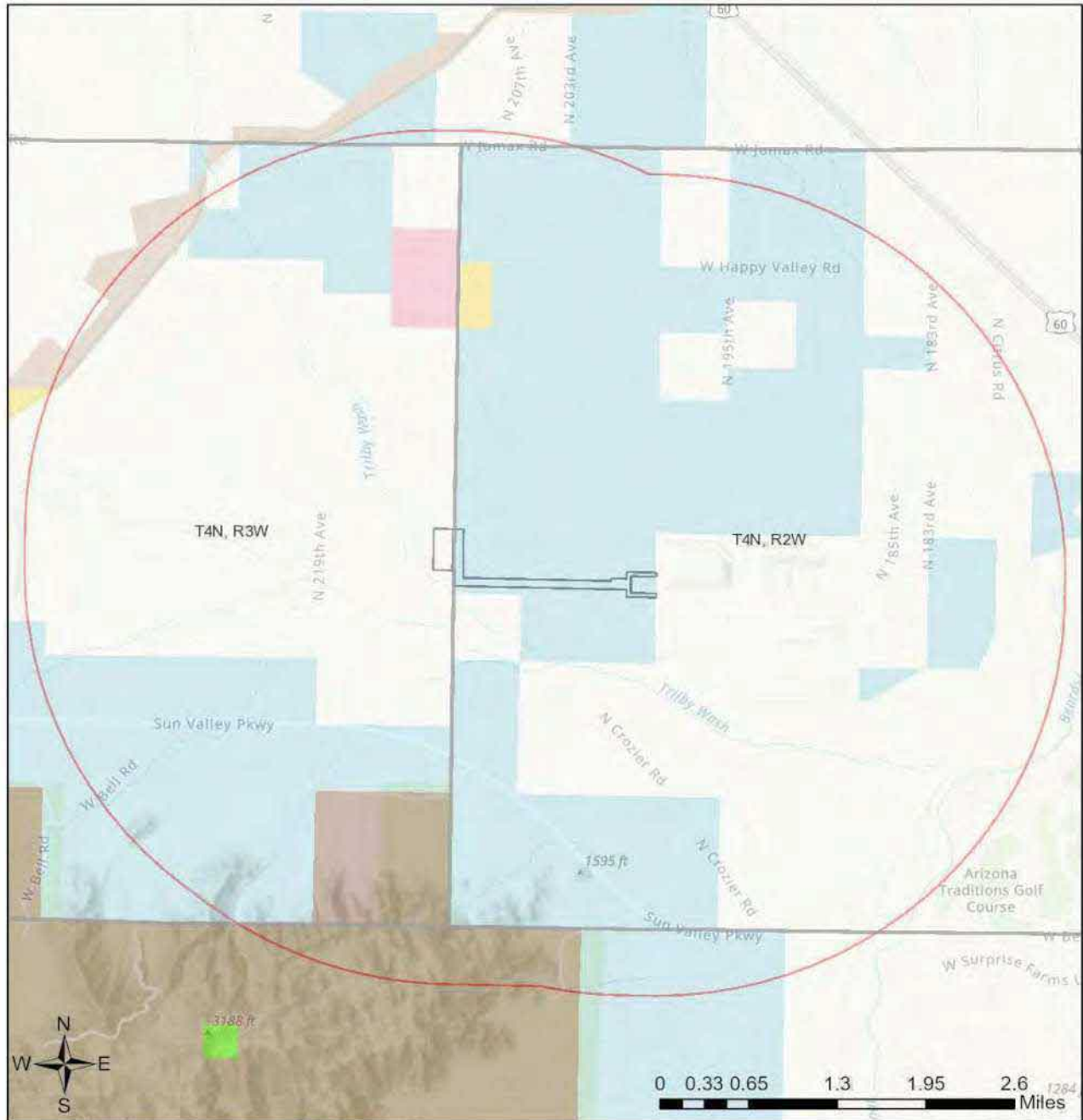


- Buffered Project Boundary
- Project Boundary
- Important Bird Areas
- Critical Habitat
- Pinal County Riparian
- Wildlife Connectivity

Project Size (acres): 108.89
 Lat/Long (DD): 33.6765 / -112.5086
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T4N, R2W; T4N, R3W
 USGS Quad(s): MCMICKEN DAM; WHITE TANK MOUNTAINS NE

Esri, NASA, NGA, USGS, FEMA
 City of Buckeye, Arizona, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc; METI/
 NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

Wild Stallion Energy Storage System Gen-Tie Project CEC Application Township/Ranges and Land Ownership



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

Project Size (acres): 108.89
 Lat/Long (DD): 33.6765 / -112.5086
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T4N, R2W; T4N, R3W
 USGS Quad(s): MCMICKEN DAM; WHITE TANK MOUNTAINS NE

Esri, NASA, IGA, USGS, FEMA
 City of Buckeye, Arizona, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc; 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
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Incilius alvarius	Sonoran Desert Toad					2
Phrynosoma solare	Regal Horned Lizard					2
Psilosops flammeolus	Flammulated Owl					2

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
White Tank Mtns - Trilby Wash - Beardsley Canal	Maricopa 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
Ammospermophilus harrisi	Harris' Antelope Squirrel					2
Anaxyrus microscaphus	Arizona Toad	UR		S		2
Anthus spragueii	Sprague's Pipit					2
Aquila chrysaetos	Golden Eagle			S		2
Artemisiospiza nevadensis	Sagebrush Sparrow					3
Asio otus	Long-eared Owl					2
Athene cucularia 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
Calypte costae	Costa's Hummingbird					2
Campylorhynchus brunneicapillus	Cactus Wren					2
Catharus ustulatus	Swainson's Thrush					2
Chilomeniscus cinctus	Variable Sandsnake					2
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S	S		1
Colaptes chrysoides	Gilded Flicker			S		2
Columbina inca	Inca Dove					2
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat		S	S		1
Empidonax wrightii	Gray Flycatcher					2
Eumops perotis californicus	Greater Western Bonneted Bat			S		2
Falco mexicanus	Prairie Falcon					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
Falco peregrinus anatum	American Peregrine Falcon		S	S		1
Falco sparverius	American Kestrel					2
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Incilius alvarius	Sonoran Desert Toad					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
Macrotus californicus	California Leaf-nosed Bat			S		2
Megascops kennicottii	Western Screech-owl					2
Melanerpes uropygialis	Gila Woodpecker					2
Melospiza lincolni	Lincoln's Sparrow					2
Micrathene whitneyi	Elf Owl					3
Myotis velifer	Cave Myotis			S		2
Myotis yumanensis	Yuma Myotis					2
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					2
Parabuteo unicinctus	Harris's Hawk					2
Passerculus sandwichensis	Savannah Sparrow					2
Perognathus amplus	Arizona Pocket Mouse					2
Phrynosoma solare	Regal Horned Lizard					2
Poocetes gramineus	Vesper Sparrow					2
Rana yavapaiensis	Lowland Leopard Frog		S	S		1
Spizella breweri	Brewer's Sparrow					2
Tadarida brasiliensis	Brazilian Free-tailed Bat					2
Toxostoma bendirei	Bendire's Thrasher					2
Toxostoma lecontei	LeConte's Thrasher			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					
Odocoileus hemionus	Mule Deer					
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/> and the Arizona Native Plant Society <https://aznps.com/invas> for recommendations on how to control these species. 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 AZGFD recommends that wildlife surveys are conducted to determine if noise-sensitive species, such as birds or mammals, occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

The AZGFD recommends following the Avian Power Line Interaction Committee (APLIC) guidelines for new power lines, which can be found in the current version of *Suggested Practices for Avian Protection on Power Lines and Reducing Avian Collisions with Power Lines*. Large bodied birds, such as hawks, owls, vultures, and eagles, may be vulnerable to line strikes and electrocution during construction and operation of power lines and substations; power poles can also serve as perches for large-bodied birds. These potential impacts can be avoided or minimized by following the APLIC guidelines which include designing the power lines with enough space between energized components to reduce the likelihood of a bird electrocution or installing bird flight diverters in sections of line where elevated bird strikes are anticipated (e.g. lines over water bodies or in the path of colonial roosting locations). The AZGFD's Raptor Coordinator, who can be contacted at raptors@azgfd.gov or 623-236-7575, can provide further information on specific design features and best management practices.

The AZGFD recommends that a qualified biologist conduct a survey for nesting birds within the project area prior to removal or trimming of trees/vegetation, if the removal or trimming occurs during the breeding season (the Project Evaluation Program can be contacted at PEP@azgfd.gov or 623-236-7600 to determine the appropriate breeding season within the project area). Trees and/or vegetation within the project area may provide nesting opportunities for avian species that are regulated under the Migratory Bird Treaty Act (MBTA) and protected under state law. If it is anticipated the project will not be in compliance with MBTA, the AZGFD recommends contacting the U.S. Fish and Wildlife Service (<https://www.fws.gov/office/arizona-ecological-services>) for technical assistance. The USFWS will provide options to comply with the MBTA.

The AZGFD recommends revegetating disturbed areas with native drought-tolerant species that represent the natural surrounding landscape. Landscaping with native plants can help support wildlife and pollinator species in the area while reducing dust and erosion. In addition, the applicable land management agencies should be consulted regarding guidelines for revegetation efforts. The AZGFD also recommends the development of a short and long-term monitoring plan, including adaptive management guidelines to address invasive species control and maintain native vegetation.

Project Location and/or Species Recommendations:

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.



EXHIBIT D. BIOLOGICAL RESOURCES

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

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

INTRODUCTION

The purpose of this review is to identify and characterize the plant and wildlife species that may be present within the Study Area. Understanding the distribution of plant communities and wildlife species within and around the Certificate of Environmental Compatibility (CEC) Corridor provides context for evaluating potential Project interactions with biological resources. This exhibit identifies species that may occur in the Study Area based on available data sources, habitat conditions, and field observations.

The Study Area was also assessed to determine whether habitat features for species protected under federal, state, or local regulations were present in the CEC Corridor and Study Area. Exhibit C of this application describes areas of biological wealth, rare and endangered species habitat, and likelihood of protected species occurrence within the Study Area.

METHODOLOGY

The Study Area for this biological resources review consists of the CEC Corridor plus a 1-mile buffer. To identify the plant and wildlife species that may occur in the vicinity of the Project, SWCA Environmental Consultants (SWCA) consulted publicly available data sources, including the following:

- Arizona Game and Fish Department (AZGFD) Online Environmental Review Tool (ERT)³ (AZGFD 2026a)
- *Biotic Communities: Southwestern United States and Northwestern Mexico* (Brown 1994)
- *Ecoregional Animal-Habitat Models for the Southwestern United States* (Boykin 2007)
- Regional checklists, reports, and publications (e.g., AZGFD 2023; eBird 2026; Hoffmeister 1986; iNaturalist 2026; Kesner and Marsh 2010)
- Southwest Regional Gap Analysis Project land cover dataset (U.S. Geological Survey [USGS] 2016)
- Topographic maps and aerial photographs (Google Earth 2026)

In addition, SWCA biologists with expertise in the biology of flora and fauna of the region completed field surveys of the CEC Corridor on October 29 and November 5, 2025, and the Study Area on February 18, 2026. All wildlife and plant species observed during these field surveys were recorded.

³ The AZGFD Online ERT database query establishes a predetermined buffer beyond the CEC Corridor to search for occurrence records and the presence of modeled habitat. The size of the buffer depends on the type of project being considered. For this Transmission Project, the buffer is 3 miles beyond the CEC Corridor. This buffer fully encompasses the 1-mile-radius Study Area. The analysis in this exhibit is limited whenever possible to the Study Area, except in cases where ERT species results cannot be refined to a range narrower than the predetermined buffer.

RESULTS

Ecological Setting

The Study Area is in the Arizona Upland/Eastern Sonoran Basins ecoregion, which is composed of broad alluvial plains, fans, and bajadas between higher relief mountain ranges (Griffith et al. 2014). Elevations typically range between approximately 1,500 to 3,000 feet above mean sea level (amsl) but are as low as 900 feet amsl in the north of the ecoregion and as high as 3,600 feet amsl on some upper slopes. Sediments filling the basins represent combinations of fluvial, colluvial, and alluvial deposits.

The Study Area is characterized by generally flat terrain that slopes gently downward from northwest to southeast at elevations ranging from approximately 1,390 to 1,485 feet amsl. The Project is situated on a valley floor between the bajadas of the White Tank and Hieroglyphic Mountains, within the Phoenix Valley. There are numerous small ephemeral washes present in the Study Area, including Trilby Wash and its tributaries (USGS 2026). The washes contain higher-density vegetation than the adjacent upland areas, some of which are characterized by moderately formed desert pavement. The Study Area is approximately 1.2 miles northeast of the White Tank Mountains, approximately 7.5 miles southwest of the Hieroglyphic Mountains, approximately 9 miles east of the Hassayampa River, and approximately 9.5 miles west of the Agua Fria River. The Central Arizona Project (CAP) canal is 1.9 miles to the northwest of the Study Area.

Land use within the Study Area includes a private automotive testing area, a regional landfill, various transportation corridors (e.g., Deer Valley Road, 195th Avenue, 211th Avenue, 219th Avenue, and a series of other unnamed paved and unpaved roads), electrical energy transmission and distribution infrastructure including the Arizona Public Service (APS) Trilby Wash Substation, a natural gas pipeline, and ranching infrastructure (e.g., fencing, cattle tanks). The remaining areas are undisturbed desert.

Arizona Department of Environmental Quality's Arrowhead Ranch Well No. 07 is near the south boundary of the Study Area. Three unlined earthen cattle tanks used for ranching operations are present within the Study Area. Google Earth historical imagery depicts these three tanks holding water intermittently since 1985 (Google Earth 2026).

The CEC Corridor is primarily undisturbed desert, traversed by ephemeral washes and unpaved roads.

Vegetation Communities

Brown (1994) maps the Study Area in the Lower Colorado River Valley subdivision of the Sonoran Desertscrub biotic community. According to the Southwest Regional Gap Analysis Project landcover classification, the Study Area and the CEC Corridor are dominated by Sonora-Mojave Creosotebush-White Bursage Desert Scrub (Table D-1) (USGS 2016).

Table D-1. Vegetation Cover Types in the Study Area by Percent of Total Land Cover

Vegetation Cover Type	Area (acres)		Percent of Total Land Cover	
	Study Area	CEC Corridor	Study Area	CEC Corridor
Apacherian-Chihuahuan Mesquite Upland Scrub	2	0	0.05	–
Barren Lands, Non-specific	8	0	0.17	–
North American Warm Desert Riparian Mesquite Bosque	49	<1	1.09	0.16

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:

Wild Stallion Energy Storage System Gen-Tie Project CEC Application

Project Type:

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

Project ID:

HGIS-27461

User Project Number:

100836

Project Description:

Wild Stallion Energy Storage LLC is proposing the Wild Stallion Energy Storage System Project within and adjacent to the city of Surprise in Maricopa County, Arizona. The project involves development of a 200-megawatt battery energy storage system (BESS) with a 1.4-mile-long generation intertie transmission line (gen-tie) that would connect the planned BESS to an existing substation. The BESS would be on approximately 20 acres of privately owned land and the gen-tie would have a 200-foot-wide right-of-way (ROW) occupying approximately 27 acres of Arizona State Land Department (ASLD)-administered land (collectively, the project area). The gen-tie will be an above-ground line.

Contact Person:

India Hesse

Organization:

SWCA Environmental Consultants

On Behalf Of:

PRIVATE

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.

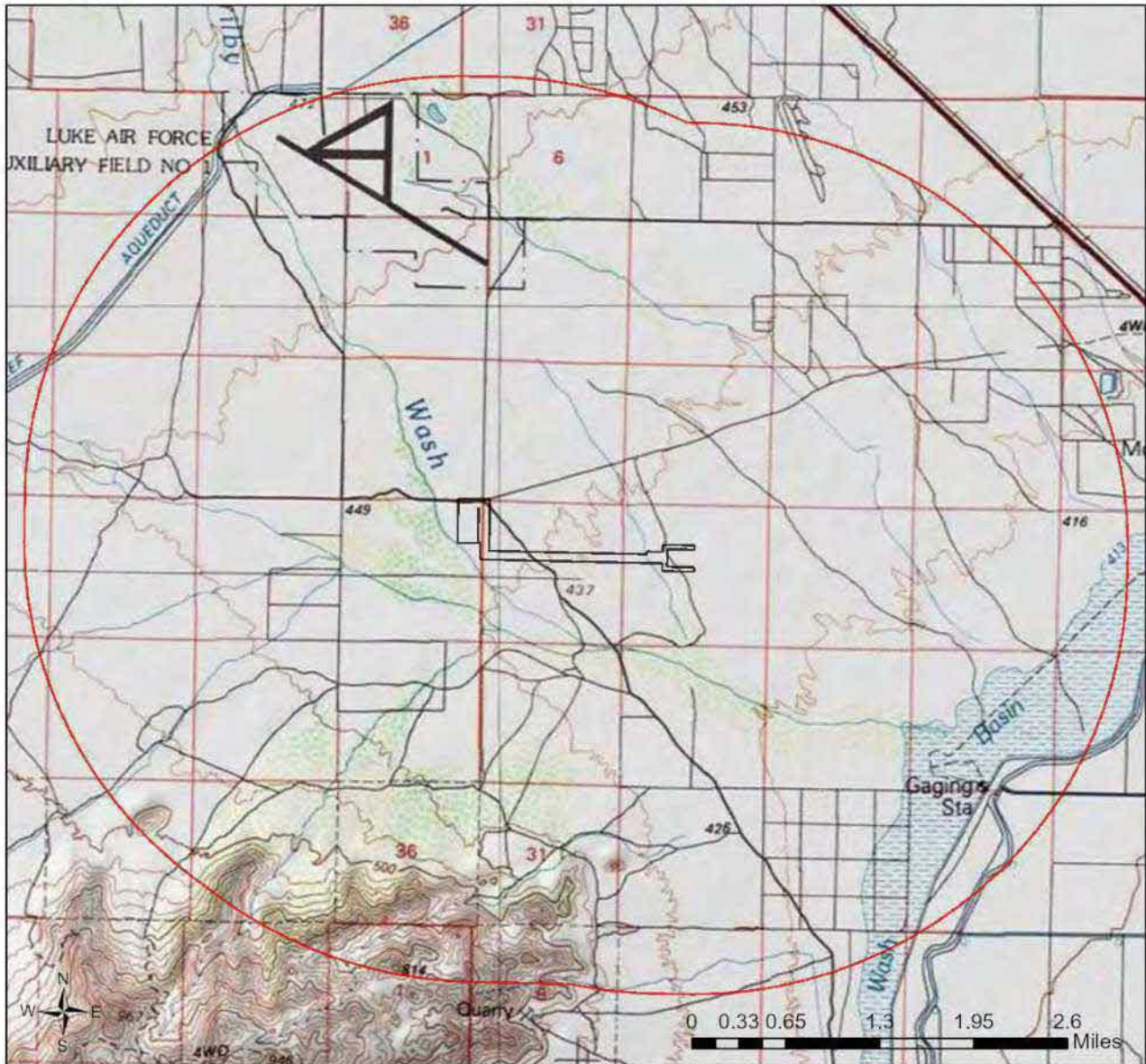
Locations Accuracy Disclaimer:

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.

Wild Stallion Energy Storage System Gen-Tie Project CEC Application USA Topo Basemap With Locator Map



- Buffered Project Boundary
- Project Boundary

Project Size (acres): 108.89

Lat/Long (DD): 33.6765 / -112.5086

County(s): Maricopa

AGFD Region(s): Mesa

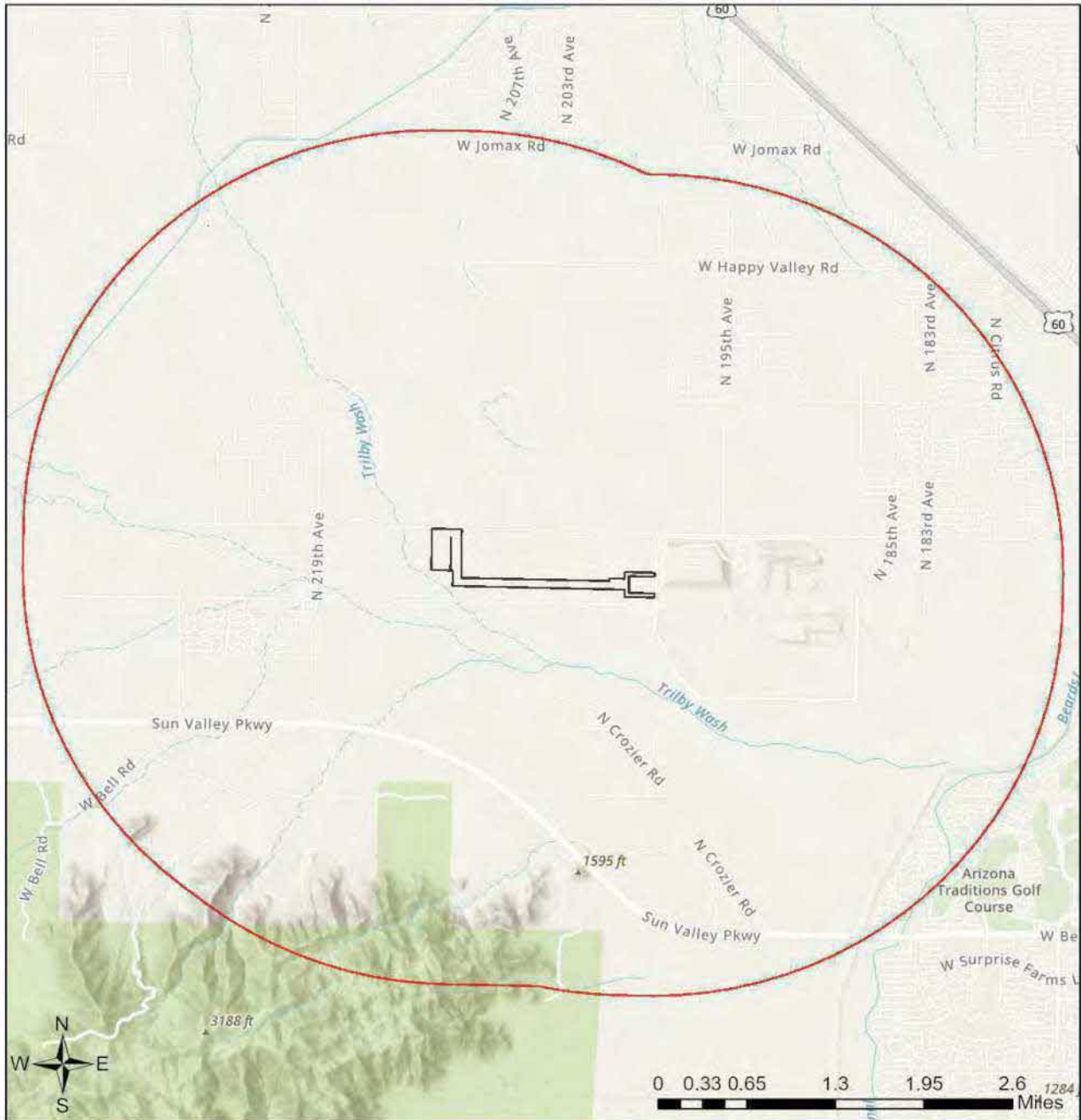
Township/Range(s): T4N, R2W; T4N, R3W

USGS Quad(s): MCMICKEN DAM; WHITE TANK MOUNTAINS NE

County of Yavapai, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS
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Esri, USGS



Wild Stallion Energy Storage System Gen-Tie Project CEC Application Important Areas

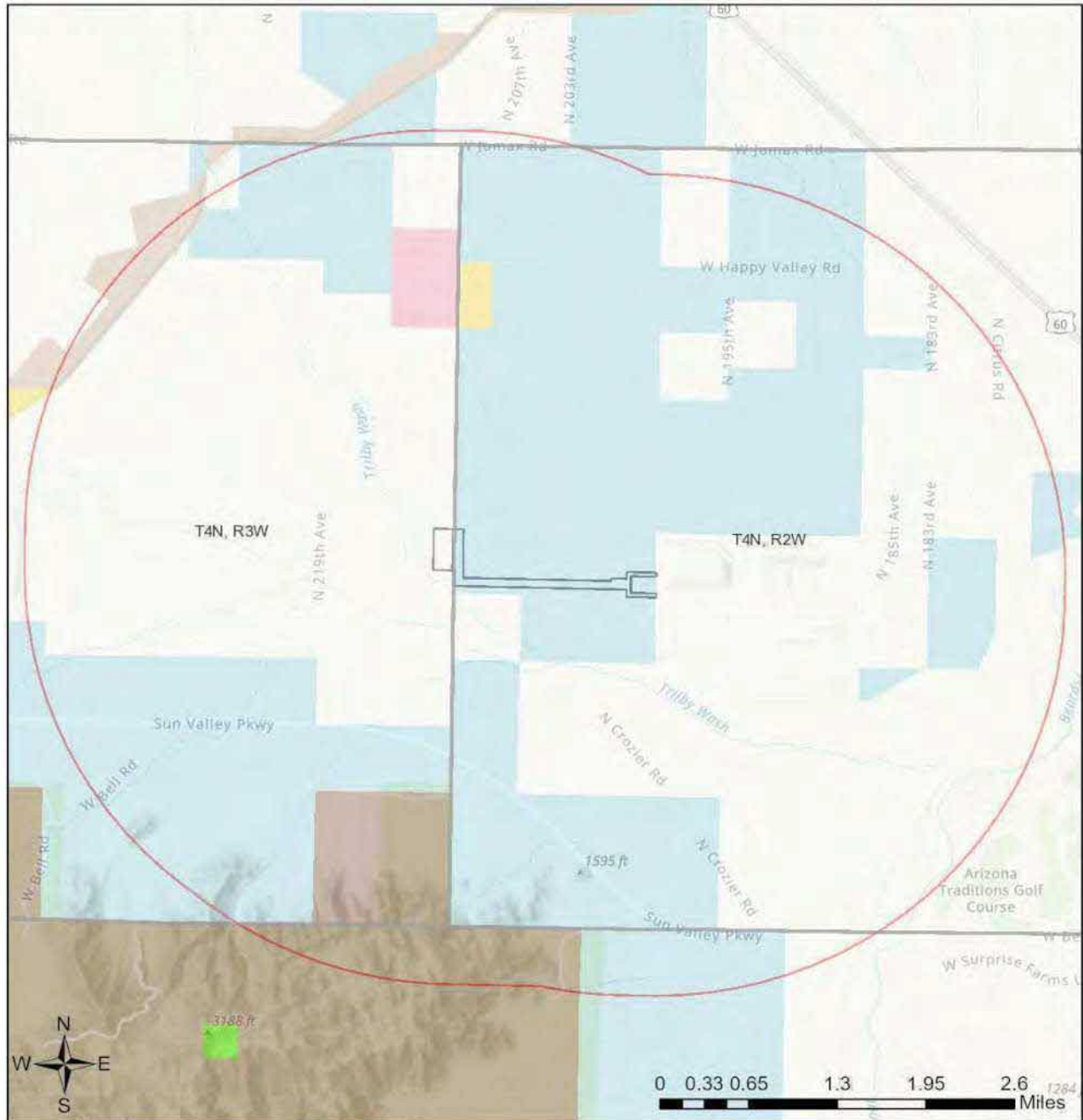


- Buffered Project Boundary
- Project Boundary
- Important Bird Areas
- Critical Habitat
- Pinal County Riparian
- Wildlife Connectivity

Project Size (acres): 108.89
 Lat/Long (DD): 33.6765 / -112.5086
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T4N, R2W; T4N, R3W
 USGS Quad(s): MCMICKEN DAM; WHITE TANK MOUNTAINS NE

Esri, NASA, NGA, USGS, FEMA
 City of Buckeye, Arizona, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc; METI/
 NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS

Wild Stallion Energy Storage System Gen-Tie Project CEC Application Township/Ranges and Land Ownership



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

Project Size (acres): 108.89
 Lat/Long (DD): 33.6765 / -112.5086
 County(s): Maricopa
 AGFD Region(s): Mesa
 Township/Range(s): T4N, R2W; T4N, R3W
 USGS Quad(s): MCMICKEN DAM; WHITE TANK MOUNTAINS NE

Esri, NASA, IGA, USGS, FEMA
 City of Buckeye, Arizona, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc; 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
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Incilius alvarius	Sonoran Desert Toad					2
Phrynosoma solare	Regal Horned Lizard					2
Psilosops flammeolus	Flammulated Owl					2

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
White Tank Mtns - Trilby Wash - Beardsley Canal	Maricopa 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
Ammospermophilus harrisi	Harris' Antelope Squirrel					2
Anaxyrus microscaphus	Arizona Toad	UR		S		2
Anthus spragueii	Sprague's Pipit					2
Aquila chrysaetos	Golden Eagle			S		2
Artemisospiza nevadensis	Sagebrush Sparrow					3
Asio otus	Long-eared Owl					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
Calypte costae	Costa's Hummingbird					2
Campylorhynchus brunneicapillus	Cactus Wren					2
Catharus ustulatus	Swainson's Thrush					2
Chilomeniscus cinctus	Variable Sandsnake					2
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S	S		1
Colaptes chrysoides	Gilded Flicker			S		2
Columbina inca	Inca Dove					2
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat		S	S		1
Empidonax wrightii	Gray Flycatcher					2
Eumops perotis californicus	Greater Western Bonneted Bat			S		2
Falco mexicanus	Prairie Falcon					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
Falco peregrinus anatum	American Peregrine Falcon		S	S		1
Falco sparverius	American Kestrel					2
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S	S		1
Incilius alvarius	Sonoran Desert Toad					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
Macrotus californicus	California Leaf-nosed Bat			S		2
Megascops kennicottii	Western Screech-owl					2
Melanerpes uropygialis	Gila Woodpecker					2
Melospiza lincolni	Lincoln's Sparrow					2
Micrathene whitneyi	Elf Owl					3
Myotis velifer	Cave Myotis			S		2
Myotis yumanensis	Yuma Myotis					2
Nyctinomops femorosaccus	Pocketed Free-tailed Bat					2
Parabuteo unicinctus	Harris's Hawk					2
Passerculus sandwichensis	Savannah Sparrow					2
Perognathus amplus	Arizona Pocket Mouse					2
Phrynosoma solare	Regal Horned Lizard					2
Poocetes gramineus	Vesper Sparrow					2
Rana yavapaiensis	Lowland Leopard Frog		S	S		1
Spizella breweri	Brewer's Sparrow					2
Tadarida brasiliensis	Brazilian Free-tailed Bat					2
Toxostoma bendirei	Bendire's Thrasher					2
Toxostoma lecontei	LeConte's Thrasher			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					
Odocoileus hemionus	Mule Deer					
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/> and the Arizona Native Plant Society <https://aznps.com/invas> for recommendations on how to control these species. 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 AZGFD recommends that wildlife surveys are conducted to determine if noise-sensitive species, such as birds or mammals, occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

The AZGFD recommends following the Avian Power Line Interaction Committee (APLIC) guidelines for new power lines, which can be found in the current version of *Suggested Practices for Avian Protection on Power Lines and Reducing Avian Collisions with Power Lines*. Large bodied birds, such as hawks, owls, vultures, and eagles, may be vulnerable to line strikes and electrocution during construction and operation of power lines and substations; power poles can also serve as perches for large-bodied birds. These potential impacts can be avoided or minimized by following the APLIC guidelines which include designing the power lines with enough space between energized components to reduce the likelihood of a bird electrocution or installing bird flight diverters in sections of line where elevated bird strikes are anticipated (e.g. lines over water bodies or in the path of colonial roosting locations). The AZGFD's Raptor Coordinator, who can be contacted at raptors@azgfd.gov or 623-236-7575, can provide further information on specific design features and best management practices.

The AZGFD recommends that a qualified biologist conduct a survey for nesting birds within the project area prior to removal or trimming of trees/vegetation, if the removal or trimming occurs during the breeding season (the Project Evaluation Program can be contacted at PEP@azgfd.gov or 623-236-7600 to determine the appropriate breeding season within the project area). Trees and/or vegetation within the project area may provide nesting opportunities for avian species that are regulated under the Migratory Bird Treaty Act (MBTA) and protected under state law. If it is anticipated the project will not be in compliance with MBTA, the AZGFD recommends contacting the U.S. Fish and Wildlife Service (<https://www.fws.gov/office/arizona-ecological-services>) for technical assistance. The USFWS will provide options to comply with the MBTA.

The AZGFD recommends revegetating disturbed areas with native drought-tolerant species that represent the natural surrounding landscape. Landscaping with native plants can help support wildlife and pollinator species in the area while reducing dust and erosion. In addition, the applicable land management agencies should be consulted regarding guidelines for revegetation efforts. The AZGFD also recommends the development of a short and long-term monitoring plan, including adaptive management guidelines to address invasive species control and maintain native vegetation.

Project Location and/or Species Recommendations:

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.



Vegetation Cover Type	Area (acres)		Percent of Total Land Cover	
	Study Area	CEC Corridor	Study Area	CEC Corridor
North American Warm Desert Riparian Woodland and Shrubland	11	0	0.23	–
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	4,080	72	89.61	89.05
Sonora-Mojave Mixed Salt Desert Scrub	13	0	0.29	–
Sonoran Paloverde-Mixed Cacti Desert Scrub	390	9	8.56	10.79
Total	4,553	82	100.00	100.00

Source: USGS (2016)

Plant Species

The CEC Corridor and Study Area are characterized by denser vegetation along washes and more sparsely vegetated uplands. Desert trees, including blue paloverde (*Parkinsonia florida*), yellow paloverde (*P. microphylla*), and velvet mesquite (*Prosopis velutina*) are present along these washes. Water jacket (*Lycium andersonii*), canyon ragweed (*Ambrosia ambrosioides*), desert globemallow (*Sphaeralcea ambigua*), and triangle bur ragweed (*Ambrosia deltoidea*) are also abundant along washes. Upland vegetation is dominated by creosote bush (*Larrea tridentata*) and desert Indianwheat (*Plantago ovata*). Other native and nonnative species were observed in the CEC Corridor and portions of the Study Area during the October/November 2025 and February 2026 field surveys; a full list can be found in Table D-2.

Five Arizona Department of Agriculture (AZDA)-recognized noxious weeds (AZDA 2026) were noted in the CEC Corridor and Study Area at the time of the field visits: Asian (Saharan) mustard (*Brassica tournefortii*) and stinknet (*Oncosiphon piluliferum*), both Class B noxious weeds, and Johnsongrass (*Sorghum halepense*), puncturevine (*Tribulus terrestris*), and red brome (*Bromus rubens*), all Class C noxious weeds. In addition, buffelgrass (*Pennisetum ciliare*), also a Class C noxious weed, has been previously documented outside but adjacent to the Study Area along Sun Valley Parkway (iMapInvasives 2026).

No broadleaf deciduous riparian vegetation communities (i.e., communities containing willow [*Salix* spp.], cottonwood [*Populus* spp.], or ash [*Fraxinus* spp.], etc.) were observed during the surveys in the CEC Corridor or Study Area.

Table D-2. Plant Species Observed During Surveys

Common Name	Scientific Name
Barley	<i>Hordeum</i> sp.
Berlandier's wolfberry	<i>Lycium berlandieri</i> *
Bermudagrass	<i>Cynodon dactylon</i> †
Big galleta	<i>Pleuraphis rigida</i>
Blue paloverde	<i>Parkinsonia florida</i> *
Brittlebush	<i>Encelia farinosa</i>
Buckhorn cholla	<i>Cylindropuntia acanthocarpa</i> *
Buckwheat	<i>Eriogonum</i> sp.
Burrobrush	<i>Hymenoclea salsola</i>

Common Name	Scientific Name
Candy barrelcactus	<i>Ferocactus wislizeni</i> *
Carelessweed	<i>Amaranthus palmeri</i>
Catclaw acacia	<i>Senegalia greggii</i>
Cheeseweed mallow	<i>Malva parviflora</i> †
Christmas cactus	<i>Cylindropuntia leptocaulis</i> *
Creosote bush	<i>Larrea tridentata</i>
Coues' cassia	<i>Senna covesii</i>
Desert globemallow	<i>Sphaeralcea ambigua</i>
Desert Indianwheat	<i>Plantago ovata</i>
Desert thorn-apple	<i>Datura discolor</i>
Desertbroom	<i>Baccharis sarothroides</i>
Devil's spineflower	<i>Chorizanthe rigida</i>
Engelmann's hedgehog cactus	<i>Echinocereus engelmannii</i> *
Fringed twinevine	<i>Funastrum cynanchoides</i>
Globemallow	<i>Sphaeralcea</i> sp.
Johnsongrass	<i>Sorghum halepense</i> †, ‡
Large-spike bristlegrass	<i>Setaria macrostachya</i>
Littleleaf ratany	<i>Krameria erecta</i>
London rocket	<i>Sisymbrium irio</i>
Lotebush	<i>Ziziphus obtusifolia</i>
Manybristle chinchweed	<i>Pectis papposa</i>
Mediterranean grass	<i>Schismus</i> sp.
Mesquite mistletoe	<i>Phoradendron californicum</i>
Needle grama	<i>Bouteloua aristidoides</i>
Prickly Russian thistle	<i>Salsola tragus</i>
Puncturevine	<i>Tribulus terrestris</i> †, ‡
Red brome	<i>Bromus rubens</i> †, ‡
Redstem stork's bill	<i>Erodium cicutarium</i> †
Asian (Saharan) mustard	<i>Brassica tournefortii</i> †, ‡
Saguaro	<i>Carnegiea gigantea</i> *
Spiny hackberry	<i>Celtis ehrenbergiana</i>
Stinknet	<i>Oncosiphon pilulifer</i> †, ‡
Triangle bur ragweed	<i>Ambrosia deltoidea</i>
Tobosa grass	<i>Pleuraphis mutica</i>
Unicorn-plant	<i>Proboscidea</i> sp.
Velvet mesquite	<i>Prosopis velutina</i> *
Water jacket	<i>Lycium andersonii</i> *
Yellow paloverde	<i>Parkinsonia microphylla</i> *

* Protected under the Arizona Native Plant Law (Arizona Revised Statutes 3-904) as administered by the AZDA.

† Nonnative plant species

† AZDA-recognized noxious weed

Wildlife Species

Wildlife species observed in the Study Area or that could potentially occur in the CEC Corridor and Study Area are listed in Tables D-3 through D-5 at the end of this exhibit. Species observed during SWCA's field surveys are included in the tables and marked with an asterisk.

SUMMARY OF POTENTIAL EFFECTS

Plant Species

The Project involves work in previously developed and disturbed areas (i.e., APS Trilby Substation, unpaved roads), as well as in relatively undisturbed desertscrub. Vegetation would be removed in areas where power poles would be placed. However, the Project would not result in landscape-level impacts to the Lower Colorado River Valley subdivision of the Sonoran Desertscrub biotic community due to the relatively small amount of disturbance and the abundant desertscrub vegetation present in the Study Area and vicinity.

Noxious weeds have been documented within the CEC Corridor and Study Area. Ground disturbance from construction and increased vehicle and foot traffic may enable the spread of existing weeds to new locations or introduce new species.

Minimization Measures: Ground-disturbing activities will be limited to those required to accomplish the Project objectives. This will include establishing designated areas for equipment staging, stockpiling materials, and parking. Areas of temporary disturbance will be restored according to the revegetation plan incorporated into the Stormwater Pollution Prevention Plan. Standard best management practices will be employed during construction to minimize the introduction and spread of noxious weeds.

Wildlife Species

There is no perennial aquatic habitat in or near the CEC Corridor or Study Area. The Hassayampa and Agua Fria Rivers lie approximately 9 miles west and east of the Study Area, respectively, and are the closest sources of water (characterized by both perennial and intermittent stretches) to the Study Area that are not human made. The CAP canal lies 1.9 miles to the northwest of the Study Area. The CAP canal is known to carry fish, although none of the fish caught in a 2005 to 2009 study were native to the Gila River Basin (Kesner and Marsh 2010), and no CAP-fed irrigations ditches are in the CEC Corridor or Study Area. No native, invasive, or introduced fish species are expected to occur in the CEC Corridor or Study Area.

Wildlife species listed in Tables D-2 through D-5 may be affected by the Project as discussed below, but none of the species are likely to be substantially affected. Additional minimization measures focused on special-status wildlife can be found in Exhibit C.

- Increases in noise, vibration, and human presence during construction-related activities may disturb wildlife species in the area and cause them to avoid or move away from the site or temporarily alter their behavior in other ways. This could increase depredation, decrease foraging success, reduce reproductive success, or result in loss of fitness for that individual from increased metabolic output. Once construction is completed, it is expected that wildlife will return to the area and resume normal behavior patterns.

- Ground-dwelling animals (e.g., some amphibians, reptiles, and small mammals) in areas of ground disturbance could be injured or killed during construction.
- Reptile species near the proposed transmission poles could experience predation because of the increase in available perches for predators.
- Ground- and shrub-nesting birds could be disturbed during construction, and their nests, eggs, or young destroyed. Migratory Bird Treaty Act surveys will be conducted prior to ground-disturbing activities during the spring nesting season to avoid impacts to nesting migratory birds.
- Removal of vegetation associated with construction of access roads, placement of transmission structures, and construction of associated facilities would result in a small loss of habitat that could provide nesting sites, cover, and/or forage for bird and mammal species or their prey. In temporarily disturbed areas, species composition of birds and mammals using those areas may change over time as vegetation species and structure recover. The acreage of vegetation to be cleared is small, however, particularly relative to the large amount of comparable habitat available in and around the Project footprint. Removal of vegetation is expected to have a negligible effect on wildlife species.
- Transmission lines do not appear to affect most terrestrial wildlife movements (Lee and BPA Biological Studies Task Team 1989; Thompson 1977).
- The effects of exposure to electromagnetic fields (EMF) by birds nesting near power lines is largely unknown; however, in one study, Fernie et al. (2000) found that EMF exposure affected the reproductive success of kestrels, increasing fertility, egg size, embryonic development, and fledging success, but reducing hatching success.
- Transmission lines pose a risk of collisions and electrocution for birds, particularly eagles and other raptors. To minimize that risk, the Applicant will construct the proposed transmission line following the guidelines outlined in *Suggested Practices for Raptor Protection on Powerlines: The State of the Art in 2006* (Avian Power Line Interaction Committee [APLIC] 2006) and *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* (APLIC 2012).
- Impacts of the Project to bats are expected to be negligible because there are no known maternity colonies or bat migration corridors, movements would be at night (generally not during construction activities), and bats are well adapted to avoid stationary objects by using echolocation.

Table D-3. Amphibian and Reptile Species That May Occur in the Project Vicinity

Common Name (Scientific Name)	Habitat
Amphibians	
American bullfrog* (<i>Lithobates catesbeianus</i>)	Introduced in Arizona. Found in a wide variety of aquatic habitats from cattle tanks and canals to ponds, reservoirs, and marshes.
Couch's spadefoot (<i>Scaphiopus couchii</i>)	Found primarily in Sonoran and Chihuahuan deserts and associated grasslands. They can be encountered in any arid western desert valley capable of supporting rain pools that last at least 7 to 8 days.
Great Plains toad (<i>Anaxyrus cognatus</i>)	Cattle tanks, roadside ditches, canals in agricultural areas, wetlands, and ciénegas. Found in desertscrub, grasslands, and into montane woodlands.
Red-spotted toad (<i>Anaxyrus punctatus</i>)	Inhabits rocky canyons and gullies in deserts, grasslands, and dry woodlands. Eggs and larvae develop in shallow water in temporary rain pools, spring-fed pools, and pools along intermittent streams.
Woodhouse's toad (<i>Anaxyrus woodhousii</i>)	Found in areas near ponded permanent water, such as backwaters and slack water of lakes and irrigation ditches and canals but can also be found at cattle tanks and other seasonal wetlands, foraging in rural or urban areas near these habitats.
Reptiles	
Gila monster (<i>Heloderma suspectum</i>)	Ranges from desertscrub to lower reaches of Great Basin Conifer Woodland and Madrean Evergreen Woodland biotic communities. Commonly found above the flats in rocky drainages and rugged terrain.
Coachwhip (<i>Coluber flagellum</i>)	Typically found in desertscrub and semidesert grasslands. Uses a wide range of habitats, including desert, prairie, scrubland, woodland, farmland, and creek valleys, generally in dry, open terrain.
Common side-blotched lizard (<i>Uta stansburiana</i>)	Typically found in desertscrub, semidesert grasslands, Great Basin grasslands, and interior chaparral.
Desert iguana (<i>Dipsosaurus dorsalis</i>)	Primarily found in Mohave Desertscrub and Lower Colorado River Valley subdivisions of the Sonoran Desertscrub biotic community, and occasionally in Arizona Upland subdivision of Sonoran Desertscrub. Found on flatlands and gently sloping bajadas.
Desert night snake (<i>Hypsiglena chlorophaea</i>)	Ranges from flat, open sandy deserts to steep, rocky, and wooded slopes.
Desert spiny lizard (<i>Sceloporus magister</i>)	Found in Sonoran desertscrub, Great Basin desertscrub, semidesert grassland, interior chaparral, and woodlands.
Gopher snake (<i>Pituophis catenifer</i>)	Found in biotic communities up to alpine tundra. Found in deserts, forests, and coastal grasslands.
Long-nosed leopard lizard (<i>Gambelia wislizeni</i>)	Found in desertscrub and semidesert grasslands.
Long-nosed snake (<i>Rhinocheilus lecontei</i>)	Found in deserts, dry prairies, arid river valleys, thornbrush, and shrubland.
Long-tailed brush lizard (<i>Urosaurus graciosus</i>)	Primarily an inhabitant of Lower Colorado River Sonoran and Mohave desertscrub, commonly found in creosote bush-lined desert flats with sandy soils and along drainages.
Mohave rattlesnake (<i>Crotalus scutulatus</i>)	Found in desertscrub and semidesert grassland, usual in relatively level terrain.
Ornate tree lizard (<i>Urosaurus ornatus</i>)	Found in most biotic communities from desertscrub to subalpine.
Sidewinder (<i>Crotalus cerastes</i>)	Typically found in flat, open desert with sandy or loamy soils.
Spotted leaf-nosed snake (<i>Phyllorhynchus decurtatus</i>)	Found in creosote bush flats and washes in Sonoran desertscrub.
Tiger whiptail (<i>Aspidoscelis tigris</i>)	Found in a wide variety of habitats including creosote bush flats, sandy wash, canyons, and hillsides. Found in desertscrub, semidesert grasslands, and lower reaches of chaparral.

Common Name (Scientific Name)	Habitat
Western banded gecko (<i>Coleonyx variegatus</i>)	Ranges from dry creosote bush flats to rugged, rocky slopes to barren high desert plateaus.
Western diamondback rattlesnake (<i>Crotalus atrox</i>)	Widespread; found in desert, grassland, woodland, shrubland, chaparral, and talus.
Western patch-nosed snake (<i>Salvadora hexalepis</i>)	Found in flatlands and low valleys from desertscrub to woodlands.
Western shovel-nosed snake (<i>Chionactis occipitalis</i>)	Found in or near sandy washes or dunes in desert flats or on gently sloping bajadas.
Zebra-tailed lizard (<i>Callisaurus draconoides</i>)	Found primarily in desertscrub. Occurs in flatlands and broad, sandy washes.

Sources: Range or habitat information is from AZGFD (2023, 2026a, 2026b); Boykin (2007); and NatureServe (2026).

* Nonnative species

Table D-4. Bird Species That May Occur in the Project Vicinity

Common Name (Scientific Name)	Habitat
Anna's hummingbird (<i>Calypte anna</i>)	Found in chaparral, coastal scrub, oak savannas, and open woodland. Also common in urban and suburban settings. Year-round resident in southern and central Arizona.
Ash-throated flycatcher* (<i>Myiarchus cinerascens</i>)	Found in dry scrub, open woodlands, and deserts. Cavity nester that breeds in this part of Arizona. Year-round resident in southern Arizona.
Black phoebe (<i>Sayornis nigricans</i>)	Usually found near water, including marshy ponds, streams, near farm ponds, and along irrigation ditches. Year-round resident in Arizona.
Black-throated sparrow* (<i>Amphispiza bilineata</i>)	Found in sparsely vegetated desertscrub; most often found in desert uplands and on alluvial fans and hillsides. Year-round resident in southern and central Arizona.
Black vulture (<i>Coragyps atratus</i>)	Found in a wide variety of habitats. Typically found in riparian woodlands and desertscrub with saguaros (<i>Carnegiea gigantea</i>) and tall trees. Also found in rural and agricultural fields, and prefers elevated perches including trees, saguaros, telephone poles, or transmission towers. Year-round resident in south-central Arizona.
Brewer's blackbird (<i>Euphagus cyanocephalus</i>)	Often found near human habitation. Found in shrubby and busy areas near water, riparian woodland, cultivated lands, and marshes. Winters south of Mogollon Rim.
Brown-headed cowbird (<i>Molothrus ater</i>)	Often associated with human-modified, fragmented landscapes and attracted to feedlots, pastures, and fields. Found in a variety of habitats, including desertscrub, agricultural lands, and residential areas. Migratory; present in Arizona spring through fall.
Cliff swallow (<i>Petrochelidon pyrrhonota</i>)	Feeds over pastures, fields, towns, and open areas. Nests in colonies that can be on cliffsides, caves, building eaves, bridges, culverts, dams, or large trees. Nests are created with mud and dried grass at the juncture of a vertical wall and horizontal overhang. Summer breeding resident in Arizona.
Common raven* (<i>Corvus corax</i>)	Found in most habitat types from desert lowlands to mountain forests. Regularly encountered in rural, agricultural, and urban settings. Year-round resident.
Cooper's hawk (<i>Accipiter cooperii</i>)	Found in woodlands, parks, neighborhoods, and fields associated with trees. Year-round resident.
Curve-billed thrasher* (<i>Toxostoma curvirostre</i>)	Found in creosote bush desertscrub, grasslands, and residential areas. Year-round resident.
Eurasian collared dove (<i>Streptopelia decaocto</i>)	Found in a variety of habitats from open woodland to desertscrub. Year-round resident. Nonnative species; not protected under the MBTA.
European starling [†] (<i>Sturnus vulgaris</i>)	Found predominantly near human settlements, in rural and urban areas, and in agricultural fields. Year-round resident. Nonnative species; not protected under the MBTA.
Gambel's quail* (<i>Callipepla gambelii</i>)	Typically associated with brushy Sonoran Desert uplands and desert washes. Also found in residential areas and along the margins of cultivated lands. Year-round resident; not protected under the MBTA.

Common Name (Scientific Name)	Habitat
Great horned owl (<i>Bubo virginianus</i>)	Found in a wide variety of habitats, including deserts scrub, agricultural and residential areas, as well as woodlands and orchards. Year-round resident.
Greater roadrunner (<i>Geococcyx californianus</i>)	Found in open, arid country with scattered shrubs, trees, or cacti. Also common in agricultural areas and urban and suburban settings. Year-round resident.
House finch* (<i>Carpodacus mexicanus</i>)	Found in arid scrub and brush, open woodland, oak-juniper, and pine-oak habitats, and towns and cultivated lands. Year-round resident.
House sparrow† (<i>Passer domesticus</i>)	Nonnative introduced species abundant in cities and towns. Found in feedlots, agricultural areas, and urban and rural communities. Year-round resident. Not protected under the MBTA.
Lark sparrow (<i>Chondestes grammacus</i>)	Found in agricultural areas, suburban gardens, oak woodlands, chaparral, and mesquite (<i>Prosopis</i> spp.) / acacia (<i>Senegalia</i> spp.) grasslands. Year-round resident or migratory.
Lesser goldfinch (<i>Spinus psaltria</i>)	Found in patchy open habitats, including thickets, weedy fields, woodland, scrubland, and farmlands. Year-round resident.
Lesser nighthawk (<i>Chordeiles acutipennis</i>)	Found in arid lowlands, deserts, and agricultural areas. Nests on the ground, usually beneath a shrub but sometimes out in the open. Migratory; present in Arizona spring through fall.
Mourning dove* (<i>Zenaida macroura</i>)	Found in a wide variety of habitats, most regularly in deserts scrub, shrubby grasslands, and open woodlands. Also found in rural and urban habitats. Year-round resident.
Northern cardinal (<i>Cardinalis cardinalis</i>)	Found in dense shrubby areas including overgrown fields, backyards, mesquite thickets, and ornamental landscaping. Year-round resident.
Northern mockingbird (<i>Mimus polyglottos</i>)	Prefers open and partly open situations. Occurs in areas of scattered brush or trees to semidesert, and around towns and cultivated areas. Year-round resident.
Phainopepla (<i>Phainopepla nitens</i>)	Found in Arizona during the breeding season. Found in desert washes, where they feed heavily on desert mistletoe (<i>Phoradendron</i> spp.) berries. Short-distance migrant between Sonoran desert and semiarid woodlands in surrounding regions.
Red-tailed hawk* (<i>Buteo jamaicensis</i>)	Found in a wide variety of open habitats. Elevated perches are important. Year-round resident. Individuals may be year-round residents or migratory.
Red-winged blackbird (<i>Agelaius phoeniceus</i>)	Nests near water. During migration and wintering, can also be found in cultivated lands, pastures, and prairies. May be year-round or migratory.
Rock dove† (<i>Columba livia</i>)	Closely associated with human settlement, such as towns, parks, and agricultural areas. Year-round resident. Nonnative species; not protected under the MBTA.
Say's phoebe (<i>Sayornis saya</i>)	Widespread but prefers open, arid habitats, including deserts and urban margins. Year-round resident.
Turkey vulture* (<i>Cathartes aura</i>)	Widespread; uses a variety of habitats. Commonly perches on rocky outcrops, cliffs, canyon walls, transmission towers, telephone poles, and tall trees. Can be found across Arizona during the breeding season and migration; a small number overwinter in southern Arizona.
Warbling vireo* (<i>Vireo swainsoni</i>)	Prefers riparian woodlands, cottonwood and willow stands, and well-vegetated canyons, but can be found across Arizona during the breeding season and migration, especially in parks and desert oases with dense tree cover. Migratory.
Western kingbird (<i>Tyrannus verticalis</i>)	Prefers open areas in many habitat types, including desert, rural, and agricultural areas. Migratory breeding season resident.
White-crowned sparrow* (<i>Zonotrichia leucophrys</i>)	Occurs in woodlands, shrubland, croplands, suburbs, old fields, and conifer woodlands. Migratory winter visitor.
White-winged dove* (<i>Zenaida asiatica</i>)	Habitat generalist, including deserts scrub, riparian, urban, and agricultural areas. Year-round resident.
Yellow-rumped warbler* (<i>Setophaga coronata</i>)	Habitat includes open scrub, second-growth woodland, thickets, farmlands, and gardens, especially near water. Migratory winter visitor.

Sources: Range or habitat information is from Corman and Wise-Gervais (2005), eBird (2026), and NatureServe (2026).

* Observed in Study Area during field reconnaissance.

† Nonnative species

Table D-5. Mammal Species That May Occur in the Project Vicinity

Common Name (Scientific Name)	Habitat
Terrestrial Mammal Species	
Black-tailed jackrabbit* (<i>Lepus californicus</i>)	Found in open habitats with scattered patches of shrubs, including plains, fields, and deserts.
Cactus mouse (<i>Peromyscus eremicus</i>)	Found in deserts and pinyon-juniper (<i>Pinus</i> spp.– <i>Juniperus</i> spp.) woodland with rocky, sandy, or loamy soils. Found in rock heaps, stone walls, burrows, woodrat houses, and brush fences.
Coyote* (<i>Canis latrans</i>)	Found in all habitat types, including agricultural, urban, and suburban areas.
Deer mouse (<i>Peromyscus maniculatus</i>)	Found in upland and riparian habitats, including open areas, brushlands, and coniferous and deciduous forests.
Desert cottontail (<i>Sylvilagus audubonii</i>)	Found in grasslands, brushlands, edges of foothill woodlands, willow thickets, and occasionally in cultivated fields or under buildings.
Desert kangaroo rat (<i>Dipodomys deserti</i>)	Found in low deserts, often sandy soil with sparse vegetation including alkali sinks, shadscale scrub, and creosote bush (<i>Larrea tridentata</i>).
Desert pocket mouse (<i>Chaetodipus penicillatus</i>)	Found in sparsely vegetated sandy desert floors.
Javelina (=collared peccary) (<i>Pecari tajacu</i>)	Found in deserts, shrublands, cities, and agricultural areas.
Merriam's kangaroo rat (<i>Dipodomys merriami</i>)	Found in low deserts in sparsely vegetated areas.
Mule deer (<i>Odocoileus hemionus</i>)	Found in mountains and lowlands, often associated with successional vegetation.
Raccoon (<i>Procyon lotor</i>)	Found in varying habitats, often along streams and shorelines.
Rock pocket mouse (<i>Chaetodipus intermedius</i>)	Found in lower grasslands and deserts. Commonly found in creosote bush, mesquite (<i>Prosopis</i> spp.), saltbush (<i>Atriplex</i> spp.), and creosote bush-lechuguilla (<i>Agave lechuguilla</i>) areas.
Round-tailed ground squirrel* (<i>Xerospermophilus tereticaudus</i>)	Found in Sonoran desertscrub, alkali sink, and creosote bush communities in low, flat areas; avoids rocky hills.
Western harvest mouse (<i>Reithrodontomys megalotis</i>)	Found in a wide variety of habitats in places with adequate cover. Often lives in areas with adequate grass cover, along streams, bottomlands, along fences, or around irrigated areas.
White-throated woodrat (<i>Neotoma albigula</i>)	Found in brushlands, rocky cliffs, creosote bush scrub, mesquite-yucca (<i>Yucca</i> spp.), and pinyon-juniper woodland.
Bat Species	
Big brown bat (<i>Eptesicus fuscus</i>)	Found in variable habitat, from ponderosa pine (<i>Pinus ponderosa</i>) forests, pinyon-juniper woodlands, the lower edge of spruce (<i>Picea</i> spp.)–fir (<i>Abies</i> spp.) forests, and Lower Sonoran zones. Migratory; found throughout the state in summer and in southern Arizona in the winter. Roosts in buildings, bridge joints, mines, hollow trees, and caves.
Canyon bat (<i>Parastrellus hesperus</i>)	Found in deserts, woodlands, and shrublands. Roosts in boulders, cracks, and crevices.
California myotis (<i>Myotis californicus</i>)	Found in desert ranges and flatlands; shrub-oak (<i>Quercus</i> spp.) to ponderosa pine zones. Migratory; winter distribution in southern Arizona, south of the Gila River. Roosts in crevices and cracks in canyon walls, caves, and mine shafts, and under bark in trees or snags.
Pallid bat (<i>Antrozous pallidus</i>)	Found in many habitat types, including forests, canyons, open farmland, and deserts. Migratory; found throughout Arizona and in the southern part of the state in winter. Roosts in rock crevices, buildings, caves, and mines.

Sources: Range or habitat information is from AZGFD (2026a, 2026b); Hoffmeister (1986); and NatureServe (2026).

* Observed in CEC Corridor during field reconnaissance.

LITERATURE CITED

- Arizona Department of Agriculture (AZDA). 2026. Noxious weed list. Available at: <https://agriculture.az.gov/pestspest-control/agriculture-pests/noxious-weeds>. Accessed February 2026.
- Arizona Game and Fish Department (AZGFD). 2023. Online Field Guide to the Reptiles and Amphibians of Arizona. Available at: <http://www.reptilesfaz.org/>. Accessed February 2026.
- . 2026a. Arizona Environmental Review Tool Report. Wild Stallion Energy Storage System Gen-Tie Project CEC Application. Project ID: HGIS-27461. Available at: <https://ert.azgfd.gov/content/home>. Accessed February 11, 2026.
- . 2026b. Wildlife Nongame Species, Nongame and Endangered Wildlife Program. Link to species abstracts. Available at: <https://www.azgfd.com/Wildlife/NonGameManagement/>. Accessed February 2026.
- Avian Power Line Interaction Committee (APLIC). 2006. Suggested Practices for Raptor Protection on Powerlines: The State of the Art in 2006. Washington, D.C.: Edison Electric Institute and Raptor Research Foundation.
- . 2012. Reducing Avian Collisions with Power Lines: The State of the Art in 2012. Washington, D.C.: Edison Electric Institute and APLIC.
- Boykin, K.G. 2007. *Ecoregional Animal-Habitat Models for the Southwestern United States*. Draft. Las Cruces: New Mexico Cooperative Fish and Wildlife Research Unit. Brown, D.E. 1994. *Biotic Communities: Southwestern United States and Northwestern Mexico*. Salt Lake City: University of Utah Press.
- Corman, T.E., and C. Wise-Gervais. 2005. *Arizona Breeding Bird Atlas*. Albuquerque: University of New Mexico Press.
- eBird. 2026. Cornell Lab of Ornithology eBird species maps. Available at: <https://ebird.org/home>. Accessed February 2026.
- Fernie, K., D.M. Bird, R.D. Dawson, and P.C. Lague. 2000. Effects of electromagnetic fields on the reproductive success of American kestrels. *Physiological and Biochemical Zoology* 73:60–65. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/10685907>. Accessed February 2026.
- Google Earth. 2026. Historical aerial imagery of the Study Area. Available at: <https://earth.google.com/web>. Accessed February 2026.
- Griffith, G.E., J.M. Omernik, C.B. Johnson, and D.S. Turner. 2014. Ecoregions of Arizona (poster): U.S. Geological Survey Open-File Report 2014-1141, with map, scale 1:1,325,000. Available at: <http://dx.doi.org/10.3133/ofr20141141>. Accessed February 2026.
- Hoffmeister, D.F. 1986. *Mammals of Arizona*. Tucson: University of Arizona Press.
- iMapInvasives. 2026. iMapInvasives webmap. Available at: <https://www.imapinvasives.org/az-admin>. Accessed February 2026.

- iNaturalist. 2026. Observations. Available at: <https://www.inaturalist.org/observations>. Accessed February 2026.
- Kesner, B.R., and P.C. Marsh. 2010. *Central Arizona Project Fish Monitoring: Final Report. Analysis of Fish Population Monitoring Data for Selected Waters of the Gila River Basin, Arizona, for the Five Year Period 2005–2009*. Contract No. R09PD32013. Submitted to U.S. Bureau of Reclamation. Tempe, Arizona: Marsh and Associates, LLC.
- Lee, J.M., and BPA Biological Studies Task Team. 1989. *Electrical and Biological Effects of Transmission Lines: A Review*. Portland, Oregon: Bonneville Power Administration, Available at: <https://www.osti.gov/servlets/purl/5712107>. Accessed February 2026.
- NatureServe. 2026. NatureServe Explorer. Available at: <https://explorer.natureserve.org/>. Accessed February 2026.
- Thompson, L.S. 1977. *Overhead Transmission Lines: Impact on Wildlife*. Research report No. 2. Helena: Montana Department of Natural Resources and Conservation.
- U.S. Geological Survey (USGS). 2016. Southwest Regional Gap Analysis Project. Available at: <http://swregap.org/>. Accessed February 2026.
- . 2026. National Hydrography Dataset Plus High Resolution [webmap]. Available at: <https://www.usgs.gov/national-hydrography/national-hydrography-dataset>. Accessed February 2026.

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

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219, Exhibit 1:

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.

SCENIC AREAS AND VISUAL RESOURCES

Overview

This section of Exhibit E addresses the inventory of and potential effects to scenic and/or visual resources of the Project. The following sections include a description of sensitive viewers and the methodology for assessing and inventorying visual resources in the Project's 1-mile Study Area, and a discussion of the potential effects of the Project. The Project would be within a 165-foot-wide right-of-way to be sited within the Certificate of Environmental Compatibility (CEC) Corridor. The CEC Corridor is approximately 80.71 acres, consisting of 3.17 acres of private property and 77.54 acres of State Trust lands administered by Arizona State Land Department. The Project would start at the proposed on-site substation (Project Substation) that would be connected to the proposed battery energy storage system (BESS) Facility and extend east to the Trilby Wash Substation, which is adjacent to the west of the Waste Management Northwest Regional Landfill. The Project would be south of Deer Valley Road and would cross approximately 1.4 miles of Arizona State Trust land and private property primarily in unincorporated Maricopa County, with a small portion extending into the City of Surprise, Arizona (Figure E-1). The CEC Corridor does not overlap any public lands that require conformance with specific visual resource management objectives or guidelines (e.g., Bureau of Land Management [BLM], U.S. Forest Service). Furthermore, the CEC Corridor is not within any designated national or state scenic areas.

Methodology

The purpose of this visual resources assessment is to identify and characterize the level of visual modification in the landscape that would result from the construction and operation of the Project. Visual impacts are typically described in terms of the visual contrast created by the Project, which can potentially affect both scenery (scenic quality) and sensitive viewers. Scenic quality refers to the general characteristics and inherent aesthetic value of the landscape as a resource regardless of specific viewers. The term *sensitive viewers* refers to specific individuals and/or groups whose views could be affected by the Project. The methods used to conduct this visual resources assessment are consistent with past visual resources studies conducted for similar projects approved by the Arizona Power Plant and Transmission Line Siting Committee.

Visual resources information and data for the visual assessment of the Study Area were developed based on publicly available geographic information system (GIS) data, aerial photography, and on-site field verification and photographic documentation. These data were collected for all land in the Study Area, regardless of jurisdiction, and used to develop a comprehensive understanding of the existing landscape and associated visual resources.

To assess how the Project may visually modify the existing landscape, SWCA developed photo-realistic visual simulations of the Project components from representative viewing locations, referred to as key observation points (KOPs). To document KOPs, SWCA visited the Study Area on February 23 and April 2, 2026, to evaluate nearby visual resources from which the Project would likely be visible. The Applicant ultimately selected four KOPs; existing conditions were photographed from each KOP for the purpose of creating visual simulations. These KOPs are near the Study Area boundary along North 219th Avenue and West Deer Valley Road, which are publicly accessible travel routes used by nearby residents. These KOPs provide views of the Project from the north, northwest, and southwest and adequately capture the context of the Project within the landscape. Table E-1 lists chosen KOPs and the reason for the inclusion. Exhibit E-1 shows the chosen KOP locations in relation to the Project.

Photo-realistic simulations of the Project components for each KOP were made using ArcGIS, Google Earth Pro, Autodesk products (AutoCAD and 3DS Max), and Adobe Photoshop software (see Exhibits G-4 through G-19). Developing visual simulations involves creating a three-dimensional model of Project components, positioning the modeled Project components on a digital elevation model along the preliminary proposed route within the CEC Corridor, and finally superimposing the resulting model onto the KOP photographs at the correct scale and distance. Date and time-of-day inputs determine shadows and reflected light, and the software accounts for distance and haze to increase accuracy of viewing conditions.

Using the resulting visual simulations, SWCA evaluated the potential for impacts to both scenic quality and sensitive viewers by evaluating the visual contrast that the Project would have with the existing landscape. Visual contrast refers to the degree that the Project would either resemble existing features or contrast with features in the existing landscape. The degree of visual contrast considers the existing landforms, vegetation, and built structures present in the landscape. It is described in terms of the degree of perceivable change in the basic design elements of form, line, color, texture, and scale that would be evident by the introduction of the Project in the landscape.

The following distance zones were used for evaluating impacts on scenery from each KOP:

- **Immediate Foreground:** up 0.25 mile
- **Foreground:** 0.25 to 1 mile
- **Middle Ground/Background:** 1 mile and outside the Study Area

The impact thresholds for this assessment are categorized as follows:

- **High:** Project features would result in a strong degree of contrast and would appear as dominant features within the existing landscape.
- **Moderate:** Project features would result in a moderate degree of contrast and would appear as co-dominant features within the existing landscape.
- **Low:** Project features would result in a weak degree of contrast and would be subordinate to the features of the existing landscape.
- **None:** Project features would result in no degree of contrast and would not be evident compared to the features of the existing landscape.

Table E-1. Key Observation Point Locations

KOP Number	KOP Name	Latitude / Longitude	Viewer Type	Location	Rationale for Selection
1	North 219th Avenue	33.686334° / -112.530252°	Travel route Residence	Approximately 1.10 miles northwest of the nearest proposed Project transmission structure within the CEC Corridor. The nearest confirmed residence is approximately 0.13 mile north of this KOP. This residence would be approximately 1.08 miles northwest of the CEC Corridor and 1.23 miles northwest of the nearest proposed Project transmission structure along the preliminary proposed route.	Represents typical views from travel routes near the Project just outside the Study Area. Sensitivity of travel route viewers is assessed as moderate. Sensitivity of residential viewers is assessed as high.
2	Intersection of North 219th Avenue and West Beardsley Road	33.668002° / -112.530361°	Travel route	Approximately 1.17 miles northwest of the nearest proposed Project transmission structure within the CEC Corridor.	Represents typical views from travel routes near the Project just outside the Study Area. Sensitivity of viewers is assessed as moderate.
3	West Deer Valley Road	33.682160° / -112.508547°	Travel route	Approximately 0.33 mile north of the nearest proposed Project transmission structure within the CEC Corridor.	Represents typical views from travel routes near the Project inside the Study Area. Sensitivity of viewers is assessed as moderate.
4	Intersection of West Deer Valley Road and North Landfill	33.681588° / -112.487323°	Travel route	Approximately 0.3 mile north of the nearest proposed Project transmission structure within the CEC Corridor.	Represents typical views from travel routes near the Project inside the Study Area. Sensitivity of viewers is assessed as moderate.

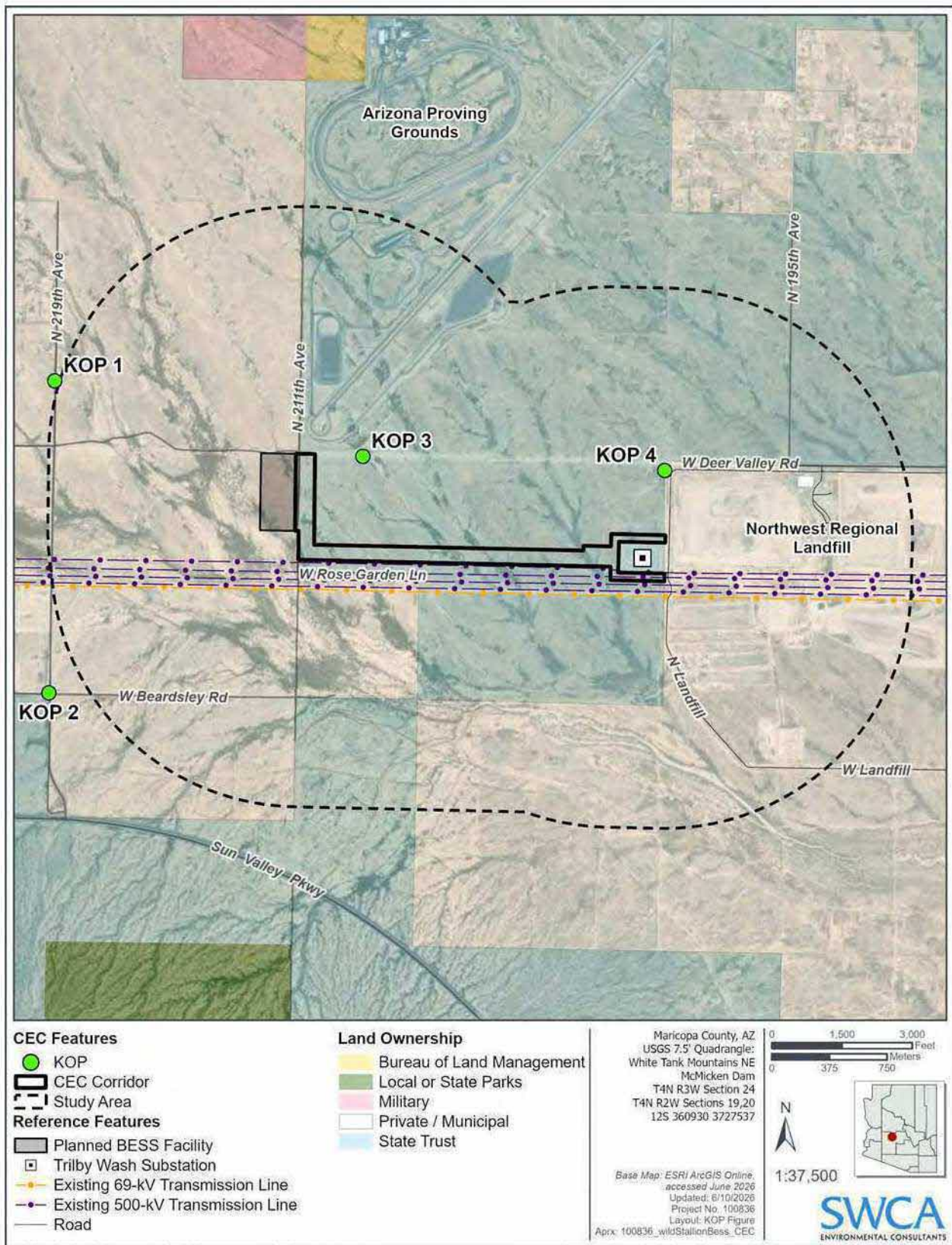


Exhibit E-1. CEC Corridor, Study Area, and KOPs.

SCENERY

Scenery is a qualitative measure of a landscape's inherent aesthetic value, based on the visual appearance of existing features such as landforms, vegetation, and built elements. Scenic quality is based on the premise that landscapes with greater diversity and visual variety in landforms and vegetation are more aesthetically pleasing and therefore hold greater value. For this assessment, impacts to scenery were based on comparing the existing landscape character to the anticipated character, considering any contrast introduced as a result of the construction and operation of the Project.

SENSITIVE VIEWERS

The concept of sensitive viewers refers to members of the public for whom the Project may be visible and who may be sensitive to potential changes in the scenery caused by the long-term presence of the Project. The contrast from the Project depends on several factors, including viewing distance, duration of view, viewing condition, and degree of visibility. When combined, these factors indicate the overall visual dominance of the Project within the landscape.

The term *viewing distance* refers to the viewer's physical distance from the Project components. The assessment of visual impacts is predicated on the fact that a person's ability to discern details decreases as viewing distance increases. The duration of view refers to the length of time and associated viewing angle; generally, a viewer's attention is attracted to a higher degree as the duration of view increases. The term *viewing conditions* refers to whether the viewer is looking down at the Project from a superior position, looking up at the Project from an inferior position, or viewing the Project from an elevation that is similar to that of the Project (i.e., a neutral view). The term *degree of visibility* refers to whether views of the Project would be either open and unobstructed, or partially to fully obstructed by other features in the existing landscape (i.e., topography, vegetation, or built features). The degree of visibility also refers to whether the Project would be viewed against the sky (i.e., skylined) or viewed against a backdrop of landforms, vegetation, and/or built features.

Anticipated viewer sensitivities to visual changes are also discussed within the assessment, including brief discussions regarding the potential sensitivities of different types of identified viewer groups within the vicinity of the Project. Residential and recreational viewer groups are typically considered to have high sensitivities to visual changes in the landscape, whereas viewers moving along travel routes are considered to have low to moderate sensitivities to visual changes (unless traveling along a designated scenic travel route or more natural-appearing areas).

Inventory Results

SCENERY

The Study Area falls within the Arizona Upland/Eastern Sonoran Basins Level IV Ecoregion of the larger Sonoran Basin and Range Level III Ecoregion (Griffith 2014). The Arizona Upland/Eastern Sonoran Basins Level IV Ecoregion landscape consists of generally flat to gently sloping wide, open alluvial plains and broad desert basins; bajadas (which are coalesced alluvial fans that slope gradually upward toward mountain fronts); and discontinuous mountain ranges that rise abruptly from the valley floors. This ecoregion consists of highland areas that have more rainfall than do the Sonoran Desert mountains farther west. Greater amounts of precipitation in summer result in a greater concentration of vegetation within this ecoregion as compared to surrounding ecoregions. The ecoregion is dominated by desert shrublands and upland thornscrub vegetation that includes saguaro (*Carnegiea gigantea*), yellow paloverde (*Parkinsonia microphylla*), creosote bush (*Larrea tridentata*), triangle bur ragweed (*Ambrosia deltoidea*), physicnut (*Jatropha cuneata*), wolfberry (*Lycium* spp.), bush muhly

(*Muhlenbergia porteri*), threeawns (*Aristida* spp.), pricklypear (*Opuntia* spp.), cholla (*Cylindropuntia* spp.), ocotillo (*Fouquieria splendens*), organpipe cactus (*Stenocereus thurberi*), desert ironwood (*Olneya tesota*), and globe mallow (*Sphaeralcea* spp.) (Griffith 2014).

Land uses within the Study Area include commercial, industrial, transportation, utility, and livestock grazing. The mountains associated with the White Tank Mountain Regional Park are clearly visible from the CEC Corridor approximately 2.3 miles away. Development within the Study Area includes the Ford Arizona Proving Grounds (which is not open to the general public for use or recreation), the Waste Management Northwest Regional Landfill, four galvanized steel lattice tower transmission lines (four 500-kilovolt [kV] lines), one galvanized steel monopole 69-kV transmission line, the existing Arizona Public Service (APS) Trilby Wash Substation, ranching infrastructure (e.g., fencing, cattle tanks), and several named roadways and unnamed local roadways.

The Study Area consists of a low variety of shrub and thornscrub vegetation. The Study Area does not have any standing or flowing waters (except for three cattle tanks that hold water intermittently), and there is little variation in the color hues and contrast in the soil and vegetation. There is moderate variation in adjacent scenery that is mostly due to topographic changes, and the relatively flat and open panoramic views of the Study Area are common in the landscape. Cultural modifications present in the Study Area (roadways, the Ford Arizona Proving Grounds, the landfill, transmission development) do not add to the scenic quality of the landscape and, in general, detract from the area's natural landscape character. The Study Area has relatively open, broad views of the landscape with an undulating and rugged horizon associated with the mountainous landforms to the southwest breaking up the otherwise flat horizon. However, the scenic quality within the Study Area is considered low based on the limited vegetation variety and extent of cultural modifications.

SENSITIVE VIEWERS

Travel Routes

The primary travel routes in the Study Area include West Deer Valley Road, North 195th Avenue, North 219th Avenue, and a number secondary unnamed and unimproved roadways. KOPs 1 and 2 are along North 219th Avenue, with KOP 1 north of West Deer Valley Road and KOP 2 at the intersection of North 219th Avenue and West Beardsley Road. KOP 3 is north of the Project on West Deer Valley Road, and KOP 4 is east of KOP 3 at the intersection of West Deer Valley Road and North Landfill. Views from travel routes within the Study Area would be mostly panoramic and open in nature with a flat to slightly undulating horizon line and include views of the White Tank Mountain Regional Park to the southwest. Viewers moving along travel routes are expected to have relatively short durations of view due to travel speeds; views are typically focused on the immediate foreground while in motion, and viewers have relatively low sensitivities to visual changes as a result of the visibility of existing development within the Study Area.

Residences

KOPs 1 and 2 represent travel routes at the west edge of the Study Area, and residential developments would be beyond this distance. The nearest areas with residential viewers are the Mesquite Mountain Ranch subdivision to the southwest, a single potential residence to the west, and a cluster of dispersed residential properties to the northwest, all over 1 mile from the CEC Corridor. Additional residential development is present approximately 1.3 miles northeast and approximately 1.6 miles east of the CEC Corridor, but views from the northeast and east are obscured by the raised topography of the Waste Management Northwest Regional Landfill. While there are no residences within the Study Area, there is one confirmed residence at 22440 N 219th Avenue, Surprise, Arizona 85387 (Maricopa County

Assessor's Parcel Number 503-81-030L) approximately 5,715 feet (1.08 miles) to the northwest and one potential residence at 21961 W Lone Cactus Drive, Surprise Arizona 85387 approximately 5,500 feet (1.04 miles) west of the CEC Corridor (Maricopa County Assessor's Parcel Number 503-80-991) (see Exhibit A-4). Visual impacts to the nearest confirmed residence (along North 219th Avenue) can be assessed through KOP 1. Residential viewers are anticipated to have a high sensitivity to changes in the landscape due to long duration of views and interest in maintenance of the surrounding landscape.

Recreation Areas

Existing recreational uses within the Study Area are limited due to the mix of state and private lands. Recreational viewers are anticipated to have a moderate to high sensitivity to changes in the landscape depending on the duration and type of activities in which viewers are participating. The City of Surprise General Plan identifies a trailhead east of North 219th Avenue within the Study Area; the trailhead is adjacent to two regional trails running along Trilby Wash and its tributary, as well as a community trail that extends northeast from the regional trails (City of Surprise 2024). The trailhead and regional trails do not intersect the proposed CEC Corridor. The community trail is mapped crossing the proposed BESS Facility site and the northwestern portion of the CEC Corridor, but no trail is apparent on aerial imagery (Google Earth 2026) or was observed during the site visits. The General Plan also includes a goal to develop a comprehensive trail system along desert washes within city boundaries, including Trilby Wash in the Study Area. The City of Surprise is currently developing a Parks and Recreation Master Plan, which will include additional details for the trails. “The Parks and Recreation Master Plan will show a conceptual hierarchy of connected trails, including major trails, and minor trails with limited access to other areas. The design of these trails will vary depending on context, use, and landowner approval, but should consider a range of uses including hiking, bicycling, and equestrian use” (City of Surprise 2024:193). No KOPs were selected to represent direct views of recreational areas as the trails within the area are currently unestablished or conceptual based on a review of the City of Surprise General Plan and trail data (City of Surprise 2024, 2025); however, KOPs 1, 2, and 3 capture views of the proposed locations of the regional trails, trailhead, and community trail within the landscape.

Impact Assessment Results

Below are general descriptions of the potential impacts to scenic quality and sensitive viewers from the construction and operation of the Project.

SCENERY

The Project is anticipated to be constructed using galvanized steel 230-kV tapered multisided monopoles. The structures would have a maximum height of 120 feet to maintain necessary clearances. The span lengths between structures would be up to 650 feet, depending on final design. The structures would have a gray galvanized steel finish, and conductors would have a non-specular finish in order to reduce visibility. Variations may be required to achieve site-specific mitigation objectives or meet site-specific engineering requirements. Existing development similar to the Project in this area includes four lattice tower 500-kV transmission lines and one monopole 69-kV transmission line. The lines, forms, colors, textures, and scale of the Project would be similar in appearance to existing transmission line infrastructure visible within the landscape. The development of the Project would introduce linear continuous forms and repeating vertical lines with horizontal connecting lines. Impacts to the existing vegetation would include vegetation disturbance or removal within small, geometric areas graded for structure installation. The Project would not result in a significant degree of contrast to the existing landscape. Overall, the Project is anticipated to create a weak degree of contrast to the existing low scenic quality of the landscape within the Study Area. The addition of a sixth transmission line in this area

would incrementally increase the extent of utility development within the landscape, but the Project would be visually subordinate to the larger existing transmission lines.

SENSITIVE VIEWERS

Travel Routes

Views from travel routes within the Study Area would vary from unobstructed to partially obstructed, based on viewing location. Based on the generally flat landform on which the Project would be located, views of the Project from travel routes would generally be from a neutral viewing position and would include skylined views of the Project transmission line and interconnect with the substation, where visible. Viewers moving along travel routes are expected to have relatively short durations of view due to travel speeds, with attention typically focused on the immediate foreground while in motion. Viewer sensitivity to visual changes is expected to be relatively low due to the presence of existing development and infrastructure within the Study Area.

KOP 1 represents views from North 219th Avenue, and the CEC Corridor would be approximately 1.1 miles from observers at this KOP. The CEC Corridor runs south from West Deer Valley Road then turns east just north of the existing transmission lines, running east to connect to the APS Trilby Wash Substation (see Exhibit G-4). At this KOP, the west end of the Project would be the portion closest to viewers, and the several westernmost monopole structures would appear slightly larger than the existing transmission structures in the view due to being closer to viewers. Viewers at this KOP would be in a neutral viewing position. The monopoles would be partially obscured by existing topography and vegetation with structures mostly skylined. The Project would be similar in form to the existing monopole transmission line visible from this KOP, just south of West Rose Garden Lane, and would differ from the four other existing transmission lines in the Study Area, which are lattice structures with greater visual complexity. The Project would introduce vertical elements that form a continuous linear feature across the landscape, consistent with the pattern created by existing transmission lines. The gray galvanized steel color and surface texture of the monopoles would be similar to those of the existing transmission infrastructure. The form, line, color, and texture of the Project would be consistent with existing transmission development in the area and would be similar to the 69-kV structures visible within the landscape but smaller and less complex than the existing 500-kV structures. As viewed from the middle ground or background, the Project would appear subordinate to the existing lattice tower transmission lines due to its simpler form and similarity in line, color, and texture. The addition of the Project as a sixth transmission line co-located with five existing transmission lines would incrementally increase visible utility development at this KOP. Overall, the Project would result in a weak degree of contrast and low visual impacts (Table E-2). The Project would be visible but would be a subordinate feature in the landscape for vehicular travelers along this travel route at this KOP.

KOP 2 represents views from the intersection of North 219th Avenue and West Beardsley Road, and the CEC Corridor would be approximately 1.17 miles from observers at this KOP (see Exhibit G-8). At this KOP, the existing transmission lines would be closer to viewers than would the Project. Viewers at this KOP would be in a neutral viewing position, and the Project monopoles would be partially obscured by existing topography and vegetation and partially backdropped against distant mountains with the very tips of some structures skylined. As discussed for KOP 1, the Project would be similar in form to the existing monopole transmission line visible from this KOP, just south of West Rose Garden Lane, and would differ from the four other existing transmission lines in the Study Area, which are lattice structures with greater visual complexity. The form, line, color, and texture of the Project would be consistent with existing transmission development in the area and would be similar to the 69-kV structures visible within the landscape but smaller and less complex than the existing 500-kV structures. As viewed from the middle ground or background, the Project would appear subordinate to the existing lattice tower

transmission lines due to its simpler form and similarity in line, color, and texture. The addition of the Project as a sixth transmission line co-located with five existing transmission lines would incrementally increase visible utility development at this KOP. Overall, the Project would result in a weak degree of contrast and low visual impacts (see Table E-2). The Project would be visible but would be a subordinate feature in the landscape for vehicular travelers along this travel route at this KOP.

KOP 3 represents views from West Deer Valley Road, and the CEC Corridor would be approximately 0.33 mile from observers at this KOP (see Exhibit G-12). At this KOP, the west end of the Project is closest to the viewer. As a result, the westernmost monopole structures would appear larger than the existing transmission structures in the view because they are closer to the viewer. Viewers at this KOP would be in a neutral viewing position; the Project monopoles would be partially obscured by existing topography and vegetation and partially backdropped against distant mountains with half to just the tips of some structures skylined. As discussed for KOPs 1 and 2, the Project would be similar in form to the existing monopole transmission line visible from this KOP, just south of West Rose Garden Lane (although the existing monopole transmission line would appear smaller in scale at this view). The Project would differ from the four other existing transmission lines in the Study Area, which are lattice structures with greater visual complexity. The form, line, color, and texture of the Project would be consistent with existing transmission development in the area and would be similar to the 69-kV structures visible within the landscape but smaller and less complex than the existing 500-kV structures. As viewed from the foreground, the Project would appear subordinate to the existing lattice tower transmission lines due to its simpler form and similarity in line, color, and texture. The addition of the Project as a sixth transmission line co-located with five existing transmission lines would incrementally increase visible utility development at this KOP. Overall, the Project would result in a weak degree of contrast and low visual impacts (see Table E-2). The Project would be visible but would be a subordinate feature in the landscape for vehicular travelers along this travel route at this KOP.

KOP 4 represents views from the intersection of West Deer Valley Road and North Landfill, and the CEC Corridor would be approximately 0.3 mile from observers at this KOP (see Exhibit G-16). At this KOP, the very eastern monopole structures would be closest to the viewer as the transmission line connects to the APS Trilby Wash Substation. Viewers at this KOP would be in a neutral viewing position; the Project monopoles would be partially obscured by existing topography and vegetation and partially backdropped against distant mountains with portions of the tips of some structures skylined. As discussed for KOPs 1, 2, and 3, the Project would be similar in form to the existing monopole transmission line visible from this KOP, just south of West Rose Garden Lane (although the existing monopole transmission line would appear smaller in scale at this view). The Project would differ from the four other existing transmission lines in the Study Area, which are lattice structures with greater visual complexity. The Project would introduce a similar degree of contrast as when viewed from KOP 3. As viewed from the foreground, the Project would appear subordinate to the existing lattice tower transmission lines due to its simpler form and similarity in line, color, and texture. The addition of the Project as a sixth transmission line co-located with five existing transmission lines would incrementally increase visible utility development at this KOP. Overall, the Project would result in a weak degree of contrast and low visual impacts (see Table E-2). The Project would be visible but would be a subordinate feature in the landscape for vehicular travelers along this travel route at this KOP.

Table E-2. Contrast and Impact Results Summary

KOP Number	KOP Name	Viewer Type	Level of Sensitivity	Degree of Contrast	Level of Impact
1	North 219th Avenue	Vehicular traveler Residential	Moderate High	Weak	Low
2	Intersection of North 219th Avenue and West Beardsley Road	Vehicular traveler	Moderate	Weak	Low
3	West Deer Valley Road	Vehicular traveler	Moderate	Weak	Low
4	Intersection of West Deer Valley Road and North Landfill	Vehicular traveler	Moderate	Weak	Low

Residences

KOP 1 is approximately 0.13 mile south of the nearest confirmed residence to the Study Area, which is along North 219th Avenue. Residential viewers are anticipated to have a high sensitivity to changes in the landscape and a similar but more distant view of the Project compared to vehicular travelers. The form, line, color, and texture of the Project would be consistent with existing transmission development in the area and would be similar to the 69-kV structures visible within the landscape but smaller and less complex than the existing 500-kV structures. As viewed from the middle ground or background, the Project would appear subordinate to the existing lattice tower transmission lines due to its simpler form and similarity in line, color, and texture. The addition of the Project as a sixth transmission line co-located with five existing transmission lines would incrementally increase visible utility development at this KOP. Overall, the Project would result in a weak degree of contrast and low visual impacts to residential viewers near KOP 1 and beyond (see Table E-2). The Project would be visible but would be a subordinate feature in the landscape.

Conclusion

Based on the assessment in this exhibit, the Project would have a low level of impact to scenic areas and visual resources and would be environmentally compatible with the landscape and its uses. There are no residential areas within the Study Area. While there are identified conceptual or planned trails within the Study Area, these trails do not seem established at this time. Overall, the Project would introduce elements commonly found in the existing landscape. The development of the Project would result in a weak degree of visual contrast and low level of visual impact to the existing low scenic quality of the landscape within the Study Area. The Project would introduce elements into the landscape that are overall similar to existing transmission development, with slight differences in form, scale, and texture compared to existing lattice tower transmission development, as visible from KOPs 1, 2, 3 and 4. At all analyzed KOPs, the Project would appear subordinate to existing landscape features as a result of limited view duration, viewing distance, and the surrounding level of development.

LITERATURE CITED

- City of Surprise. 2024. *Surprise 2040 General Plan*. Available at: <https://content.civicplus.com/api/assets/c347f6a6-d821-4f50-b825-b29c89138c53?scope=all>. Accessed April 2026.
- . 2025. City of Surprise GIS data on general plan trails and general plan major trails. Available at: <https://data-surprise.opendata.arcgis.com/search?groupIds=e0b1df5f9d1546aaefb40e445319c8c&tags=Trail>. Accessed April 2026.
- Google Earth. 2026. Aerial imagery near 33.676565°, -112.500532°. Available at: <https://www.google.com/earth/>. Accessed April 2026.
- Griffith, G.E., J.M. Omernik, C.B. Johnson, and D.S. Turner. 2014. Ecoregions of Arizona (poster): U.S. Geological Survey Open-File Report 2014-1141, with map, scale 1:1,325,000. Available at: <http://dx.doi.org/10.3133/ofr20141141>. Accessed March 2026.

HISTORIC-ERA SITES AND STRUCTURES AND ARCHAEOLOGICAL SITES

As required by the Arizona Corporation Commission (ACC) Rules of Practice and Procedure R14-3-219, the potential effects of the proposed Project on historic-era sites and structures and archaeological sites were assessed. The assessment was also prepared to support ACC compliance with the State Historic Preservation Act (ARS 41-861 through 41-864). The State Historic Preservation Act requires state agencies to consider impacts of their programs to historic properties listed in or eligible for the Arizona Register of Historic Places (ARHP) and to provide the Arizona State Historic Preservation Office (SHPO) an opportunity to review and comment on the actions that affect such historic properties.

To be eligible for the ARHP, a property must be at least 50 years old (less if it has special significance) and have national, state, or local significance in American history, architecture, archaeology, engineering, or culture. It 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 significant historical events or trends
- Criterion B: be associated with historically significant persons
- Criterion C: have distinctive characteristics of a style or a type, or have artistic value, or represent a significant entity whose components may lack individual distinction
- Criterion D: have yielded or have the potential to yield important information concerning history or prehistory

Methodology

The Study Area for the purpose of assessing potential impacts to historic sites and structures, as well as archaeological sites, is defined as a 1-mile-radius buffer from the CEC Corridor. SWCA reviewed archival records to identify such properties within the Study Area. Data sources searched included AZSITE, Arizona's statewide cultural resources database, which includes records from the Arizona State Museum (ASM), Arizona State University, SHPO, and BLM; the Arizona Records Office; the National Register of Historic Places (NRHP) database; General Land Office (GLO) plat maps; and historical topographic maps. One site (13MNA) was depicted within the Study Area but outside the CEC Corridor; however, AZSITE had no information regarding its type and cultural or temporal affiliation. Because the site could not be characterized, it is not included in the discussion below.

Previous Cultural Resources Projects

A records review was completed for the CEC Corridor and Study Area. The records review identified 37 prior cultural resources surveys that have taken place within the Study Area. These projects took place from 1977 to 2025 in support of generation, telecommunication, transmission, proving grounds, landfill, sewer infrastructure, and residential development projects. Of these, 18 cultural resources surveys intersect the CEC Corridor, covering approximately 42.19 acres (52.2%) of the CEC Corridor (Table E-3).

The SHPO has provided guidance for the reliance on survey data that are 10 years old or older (SHPO 2004). The guidance states that surveys conducted before 1995 did not use the current ASM site definition criteria (ASM 1995). Three surveys intersecting the CEC Corridor (1977-20.ASM, 1984-128.ASM, and 1986-254.ASM) predate 1995 but were subsequently surveyed to current standards.

Of the remaining 15 surveys (covering 42.19% of the CEC Corridor), all used a survey strategy that would meet current methodological standards for full coverage in Arizona (SHPO 2004).

The ASM has recently provided updated guidance for any survey conducted on state lands more than 10 years ago (ASM 2024). Areas subject to survey on city, county, or state lands that were last surveyed more than 10 years ago must be resurveyed. Four surveys on State Trust land (2024-164.ASM, 2024-230.ASM, 2025-270.ASM, and 2025-533.ASM) were surveyed less than 10 years ago and are considered adequate; they cover approximately 30.48 acres (37.7%) of the CEC Corridor. One survey that intersects the CEC Corridor on private land (2005-268.ASM) also meets current SHPO standards and covers 3.17 acres (4%) of the CEC Corridor. SWCA Environmental Consultants (SWCA) believes these five surveys, which cover 33.65 acres (41.7%) of the CEC Corridor, can be relied on for current inventory purposes. It is unlikely that additional resources present in the CEC Corridor have become at least 50 years old since the previous surveys.

In summary, 47.06 acres (58.3%) of the CEC Corridor have never been surveyed or were surveyed prior to 2016 on State Trust land and will require an updated survey.

Table E-3. Previous Cultural Resources Projects Intersecting the CEC Corridor

Agency Number	Project Name	Organization	Year
1977-20.ASM	Arizona Nuclear Power Project	Museum of Northern Arizona	1977
1984-128.ASM	MEAD-PHOENIX 500KV SURVEY	Wirth Environmental Services	1984
1986-254.ASM/ 7.2906.SHPO	Maricopa County Landfill Site	Dames and Moore	1986
2004-1076.ASM	APS West Valley North	URS Corporation	2004
2005-268.ASM	White Tank Mountains - Fox Trail Survey	Northland Research, Inc.	2003
2005-531.ASM	Deer Valley Road Substation	Archaeological Consulting Services, Ltd.	2005
2005-656.ASM	West Valley 230kV Powerline	Archaeological Consulting Services, Ltd.	2005
2005-856.ASM	Festival Ranch Project	Environmental Planning Group	2005
2007-768.ASM	TSI Substation Temporary Use Work Area	Archaeological Consulting Services, Ltd.	2007
2008-26.ASM	Centex_AS LD Surprise ARCH Survey	SWCA Environmental Consultants	2008
2008-674.ASM	Fox Trails Deer Valley Roadway Easement	SWCA Environmental Consultants	2008
2008-90.ASM	WSLG Surprise 1.5-Mile Sewer Line	WestLand Resources, Inc.	2005
2013-554.ASM	West Valley North 230kV Update	Archaeological Consulting Services, Ltd.	2013
2014-493.ASM	Sun Valley to Trilby Wash Supplemental Cultural Resource Survey	URS Corporation	2014
2024-164.ASM	Ranger Energy Center, LLC's Maricopa County Gen-Tie Line Survey	Eocene Environmental Group	2024
2024-230.ASM	Deer Valley Gen-tie Survey Area	SWCA Environmental Consultants	2024
2025-270.ASM	Deer Valley BESS	SWCA Environmental Consultants	2025
2025-533.ASM	Wild Stallion Gen-tie	SWCA Environmental Consultants	2025

Note: Shading denotes surveys that SWCA believes can be relied on for current inventory purposes.

Historic-Era Sites

The records review identified six historic-era sites within the Study Area, none of which intersect the CEC Corridor (Table E-45). One site (13MNA) in the Study Area is of unknown temporal and cultural affiliation and is not included in Tables E-4 through E-6. The historic-era sites consist of artifact scatters, features with artifact scatters, a ranch complex, a temporary campsite, and abandoned segments of a road. All are determined or recommended ineligible for the ARHP.

Table E-4. Previously Recorded Historic-Era Sites Within the Study Area

Site Number	Cultural/Temporal Affiliation	Site Type	ARHP Eligibility Status	Associated Reference(s)	Distance from CEC Corridor (miles)
AZ T:7:310(ASM)	Euro-American / 1880–1890	Historic artifact scatter	Determined ineligible	Savage and Rogge (2003)	0.42
AZ T:6:14(ASM)/NA15139	Euro-American / 1880–1890	Historic features with artifacts	Determined ineligible	Cox et al. (2004)	0.01
AZ T:6:94(ASM)	Euro-American / 1920s–1930s	Ranch complex	Recommended ineligible	Shaw (2003)	0.44
AZ T:6:95(ASM)	Euro-American / 1920s–1930s	Artifact scatter	Recommended ineligible	Shaw (2003)	0.75
AZ T:7:443(ASM)	Euro-American / 1950s–1960s	Road (two segments)	Recommended ineligible	Punzmann and Fangmeier (2014)	0.02
98167.01.SWCA	Euro-American/Mexican-American / 1920s–1930s	Camp	Recommended ineligible	Knoll (2025)	0.88

Historic-Era In-Use Structures

The records review identified three historic-era in-use structures within the Study Area consisting of two unnamed road segments (previously recorded as AZ T:7:443[ASM] and AZ T:7:453[ASM]) and the Wickenburg to Dysart 69-kV Transmission Line (previously recorded as AZ T:2:143[ASM]) (Table E-5). The two in-use roads intersect the CEC Corridor.

The first road (previously recorded as AZ T:7:443[ASM]) consists of one northeast-southwest-oriented in-use segment and two abandoned segments south of the existing Trilby Wash Substation. Archaeological Consulting Services, Ltd. (ACS), described the site as a ca. 1950s unimproved and bladed unpaved road. Due to modern disturbances, ACS separated the site into three segments from north to south: segment 1 is in-use, segment 2 is abandoned and disturbed, and segment 3 is abandoned and overgrown. The road was recommended ineligible for the ARHP (Punzmann and Fangmeier 2014).

The above road alignment corresponds with a second northeast-southwest-oriented in-use road north of the existing Trilby Wash Substation. The road was previously recorded as AZ T:7:453(ASM) by Antigua in 2017 (Moses and Luchetta 2017) as an in-use Late Historic Euro-American road with one potentially abandoned segment; they recommended the site ineligible for the ARHP. The area was revisited in 2025 by SWCA, and the road was recorded as an isolated occurrence (Nolte et al. 2026).

Both roads are depicted as a single road on the 1957 U.S. Geological Survey (USGS) McMicken Dam, Arizona, 1:24,000-scale topographic map and are also shown on a 1949 historical aerial image. ACS noted the original historical alignment connected to a system of unimproved historical roads that

eventually linked to U.S. Route 60, Luke Air Force Auxiliary Field No. 1, and the Beardsley Canal (Punzmann and Fangmeier 2014).

Table E-5. Previously Recorded Historic-Era In-Use Structures Within the Study Area

Structure Name	Cultural/Temporal Affiliation	Site Type	ARHP Eligibility Status	Associated Reference(s)	Distance from CEC Corridor (miles)
Wickenburg to Dysart 69-kV Transmission Line / previously AZ T:2:143(ASM)	Euro-American / 1948–present (post-1976 in the Study Area)	Transmission line	Determined eligible (Criterion A)	Watkins et al. (2011)	0.06
Unnamed road segment / previously recorded as AZ T:7:443(ASM)	Euro-American / 1950s–1960s	Road	Recommended ineligible	Punzmann and Fangmeier (2014)	0.00
Unnamed road segment/ previously recorded as AZ T:7:453(ASM)	Euro-American / 1950s–1960s	Road	Recommended ineligible	Moses and Luchetta (2017); Nolte et al. (2026)	0.00

*Shaded rows indicate structure intersects the CEC Corridor.

SWCA reviewed historical GLO plat maps, historical topographic maps, and historical aerial imagery for the Study Area to identify any extant historic-era features that may still be present. The GLO original survey plat map of Township (T) 4 North (N), Range (R) 2 West (W), filed in 1896, depicts no historical features in the CEC Corridor or Study Area. The GLO original survey plat map of T4N, R3W, filed in 1919, depicts two northwest-southeast-oriented roads and a fence line intersecting the CEC Corridor in the far northeast corner of Section 24. Within the Study Area, the GLO map depicts the NUNEZ' CABIN and ADOBE TANK in Section 13, as well as three additional fence lines and seven unpaved road segments.

The 1957 (1958 edition) USGS White Tank Mountains NE and McMicken Dam, Arizona, 1:24,000-scale topographic maps depict one unnamed, improved, northwest-southeast-oriented road intersecting the CEC Corridor near the center of Section 19, T4N, R2W; this road follows the modern alignment of North Crozier Road. This in-use road was recorded by SWCA as an isolated occurrence in 2025 (Knoll 2025). Four unimproved roads, two reservoirs, and one building are depicted within the Study Area. The 1972 edition of these maps depicts two additional unimproved roads in the Study Area.

Historical aerial imagery from 1949 to 1953 shows features that correspond with the 1957 USGS topographic maps, including two faint, northwest-southeast-oriented unpaved roads intersecting the CEC Corridor in the western portion of Section 19 (Maricopa County Assessor's Office 2026). Imagery from 1958 shows one north-south-oriented road along the eastern edge of Section 24, T4N, R3W intersecting the CEC Corridor (NETROnline 2026). Aerial imagery from 1976 shows one faint, northwest-southeast-oriented unpaved road intersecting the CEC Corridor in the east half of Section 19, T4N, R2W. One of the roads shown on the 1949 to 1953 aerial images is no longer visible in the CEC Corridor on the 1976 aerial image.

The NRHP database maintained by the National Park Service was also consulted to ascertain whether any cultural resources in the NRHP are in the Study Area. No properties were identified (National Park Service 2026a), and no national historic trails or routes of national significance pass through or near the Study Area (National Park Service 2026b). The ARHP database, maintained by Arizona State Parks and Trails, was also consulted to ascertain whether any cultural resources previously listed in the ARHP are in the Study Area. No properties were identified (SHPO 2026).

Archaeological Sites

There are two previously recorded archaeological sites—a lithic scatter and a fire-affected rock concentration (Table E-6)—within the Study Area; neither intersects the CEC Corridor.

Table E-6. Previously Recorded Archaeological Sites Within the Study Area

Site Number	Cultural/Temporal Affiliation	Site Type	ARHP Eligibility Status	Associated Reference(s)	Distance from CEC Corridor (miles)
AZ T:7:24(ASM)	Unknown precontact	Lithic scatter	Unevaluated	O'Brien et al. (1986)	0.36
AZ T:7:21(ASM)/NA18122	Unknown precontact	Fire-affected rock concentration	Recommended eligible	Dosh and Keller (1984)	0.03

Assessment of Effects

A project can have direct and/or indirect effects on historic sites, historic in-use structures, and archaeological sites when it alters the characteristics that qualify it for listing in the ARHP/. Only historic properties (i.e., sites that are listed in or eligible for the ARHP) need to be considered for project impacts. Direct effects result when a project physically affects a historic resource, whereas indirect effects to historic properties are typically visual. 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, as listed in 36 Code of Federal Regulations 800.5, include the following:

- 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 an Indian 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

DIRECT EFFECTS

Direct effects are assessed for historic properties (i.e., those properties eligible for or listed in the ARHP). No historic properties intersect the CEC Corridor.

INDIRECT EFFECTS

Because of the presence of existing overhead and linear structures across the landscape that would be adjacent to the proposed structures, the proposed Project would not introduce any incompatible elements that are not already present. Therefore, there would be no adverse indirect impacts to the setting or

integrity of the only ARHP-eligible property in the Study Area (the Wickenburg to Dysart 69-kV Transmission Line).

Conclusion

The records review identified that 41.7% of the CEC Corridor has been previously and adequately surveyed for cultural resources. No previously recorded historic properties intersect the CEC Corridor, and no unrecorded cultural resources on GLO plat and historical USGS topographic maps are depicted intersecting the CEC Corridor.

The Applicant will complete a cultural resources inventory of the portions of the final route that have not been previously adequately surveyed to identify and evaluate the cultural resources that may be present. If any historic properties are encountered, the inventory report would provide recommendations on how to mitigate any adverse effects on those historic properties.

LITERATURE CITED

- Arizona State Historic Preservation Office (SHPO). 2004. *SHPO Position on Relying on Old Archaeological Survey Data*. SHPO Guidance Point No. 5. Phoenix: Arizona State Parks.
- . 2026. Arizona Register of Historic Places (ARHP). Available at: <https://azstateparks.com/arizona-register-of-historic-places-arhp>. Accessed February 2026.
- Arizona State Museum (ASM). 1995. *Revised Site Definition Policy*. Arizona State Museum, University of Arizona, Tucson.
- . 2024. *Policy and Procedures Regarding the Use of Previous Archaeological Survey Data*. Tucson Arizona State Museum, University of Arizona.
- Cox, E.S., K. Erickson, and A.E. (Gene) Rogge. 2004. *Cultural Resource Survey for the Arizona Public Service West Valley - North Transmission Line and Substation Project, Maricopa County, Arizona*. Cultural Resource Report 2004-48(AZ). Phoenix, Arizona: URS Corporation.
- Dosh, D.P.L., and D.R. Keller. 1984. *Archaeological Survey of the Mead to Phoenix +500KV Direct Current Transmission Line Preferred Alternative, Volumes 1 and 2*. Phoenix, Arizona: Wirth Environmental Services.
- Knoll, M. 2025. *Cultural Resources Inventory of 28.87 Acres of State Trust Land for the Wild Stallion Energy Storage System Gen-tie Project, Maricopa County, Arizona (ASLD Application No. 14-125228-00-100)*. Cultural Resources Report No. 25-934. Phoenix, Arizona: SWCA Environmental Consultants.
- Maricopa County Assessor's Office. 2026. Historic aerials. Available at: <https://gis.maricopa.gov/GIO/HistoricalAerial/index.html>. Accessed February 2026.
- Moses, J. and S. Luchetta. 2017. *A Class III (Intensive) Cultural Resources Assessment Survey of Approximately 70 Acres for a State Land Application for TransCanada Facility USA, Inc. Located at West Deer Valley Road and 199th Avenue in Surprise, Maricopa County, Arizona*. Prescott, Arizona: Antigua Archaeology, LLC.
- National Park Service (NPS). 2026a. National Register of Historic Places. Available at: <https://www.nps.gov/subjects/nationalregister/index.htm>. Accessed February 2026.
- . 2026b. National Trails System web map. Available at: <https://nps.maps.arcgis.com/apps/webappviewer/>. Accessed February 2026.
- NETROnline. 2026. Historic aerials. Available at: <https://www.historicaerials.com/viewer>. Accessed February 2026.
- Nolte, G., A. Vinger, and K. Flanagan. 2026. *Class III Survey of 60 Acres for the Deer Valley BESS Project, Maricopa County, Arizona. Cultural Resources Report No. 25-567*. Phoenix, Arizona: SWCA Environmental Consultants.
- O'Brien, P.M., A.E. Rogge, and J.S. Bruder. 1986. *Archaeological Investigations Along Trilby Wash in West-Central Arizona: A Survey of the Northwest Maricopa County Landfill Site*. Phoenix, Arizona: Dames and Moore.

- Punzmann, W.R., and K.L. Fangmeier. 2014. *A Class III Cultural Resources Survey of 20.77 Acres of Arizona State Land Department Land for the Arizona Public Service Company, West Valley North 230kV Update Project, near Wittman, Maricopa County, Arizona*. Project Report No. 13-183:CSUR. Tempe, Arizona: Archaeological Consulting Services, Ltd.
- Savage, R.D., and A.E. (Gene) Rogge. 2003. *Cultural Resource Survey for a Proposed Expansion of the Volvo Proving Grounds, Maricopa County, Arizona*. Cultural Resource Report 2003-1(AZ). Phoenix, Arizona: URS Corporation.
- Shaw, C.W. 2003. *Cultural Resources Survey of 880 Acres North of the White Tank Mountains (Fox Trail), City of Surprise, Maricopa County, Arizona*. Technical Report No. 03-120. Tempe, Arizona: Northland Research, Inc.
- Watkins, C.N., D.A. Bild, and K.M. Stehman. 2011. *A Cultural Resources Survey on Federal and State Land of 22.26 miles (134.90 acres) for the Arizona Public Service M-109 (Eagle Eye-Wickenburg) 69-kV Transmission Line, and 12.48 miles (75.63 acres) of the Arizona Public Service M-115 (Wickenburg-Dysart) 69-kV Transmission Line in Maricopa County, Arizona*. Tempe, Arizona: Logan Simpson Design.

EXHIBIT F. RECREATION

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219, Exhibit 1, the intent of this exhibit is to:

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.

Recreation information for the Study Area (Certificate of Environmental Compatibility [CEC] Corridor plus 1-mile buffer) was obtained from the City of Surprise General Plan (City of Surprise 2024); Maricopa County Comprehensive Plan (Maricopa County 2016); Maricopa County Assessor parcel viewer (Maricopa County 2026a); Maricopa County Parks, Trails, and Amenities GIS mapper (Maricopa County 2026b); Arizona State Land Department (ASLD) parcel viewer (ASLD 2026); Arizona Game and Fish Department (AZGFD) mapper (AZGFD 2026); U.S. Forest Service (USFS) interactive visitor mapper (USFS 2026); Google Earth aerial imagery (Google Earth 2026); and the Bureau of Land Management (BLM) national data mapper (BLM 2026a) and ePlanning website (BLM 2026b).

Within the Study Area, the City of Surprise General Plan identifies a trailhead east of North 219th Avenue, adjacent to two regional trails running along Trilby Wash and its tributary, as well as a community trail that extends northeast from the regional trails (City of Surprise 2024). The trailhead and regional trails do not intersect the proposed CEC Corridor. The community trail alignment is mapped crossing the proposed battery energy storage system site and the northwestern portion of the CEC Corridor; however, the trail appears to remain conceptual, as no trail is apparent on aerial imagery (Google Earth 2026) or was observed during a site visit on February 23, 2026. The General Plan also includes a goal to develop a comprehensive trail system along desert washes within city boundaries, including Trilby Wash in the Study Area (City of Surprise 2024, 2025). The City of Surprise is currently developing a Parks and Recreation Master Plan, which will include additional details for the trails. “The Parks and Recreation Master Plan will show a conceptual hierarchy of connected trails, including major trails and minor trails with limited access to other areas. The design of these trails will vary depending on context, use, and landowner approval, but should consider a range of uses including hiking, bicycling, and equestrian use” (City of Surprise 2024: 193). Similar to the mapped community trail, these wash-based trails appear to remain conceptual, as no trails were observed on aerial imagery or during the site visit.

No other recreational sites or facilities are within the Study Area, although informal recreation may occur. Currently, there are no dedicated community or regional parks within the Study Area (City of Surprise 2024; Maricopa County 2016). Some neighborhood parks have been identified near the Study Area, the closest of which is owned by the Frontera Homeowners Association and is approximately 0.9 mile west of the Study Area within a residential development. Additional residential development parks owned by the North Copper Canyon Community Association are approximately 0.9 mile to the east of the Study Area (Maricopa County 2026a). The White Tank Mountain Regional Park is approximately 0.6 mile south of the Study Area, and Lake Pleasant Regional Park is approximately 15 miles northwest of the Study Area (ASLD 2026). The White Tank Mountain Regional Park is on Maricopa County Parks Department–managed land, and Lake Pleasant Regional Park is on BLM-administered lands (ASLD 2026). Access routes to these parks are not within the Study Area and would not be affected by the Project.

The Study Area is within game management unit (GMU) 42 (AZGFD 2026). GMU 42 offers a variety of small- and big-game hunting opportunities, including javelina, mule deer, dove, quail, waterfowl, and mountain lion (AZGFD 2022). The AZGFD manages hunting in the Study Area, regardless of land ownership. Hunting is prohibited within the City of Surprise; however, hunting is permitted within Maricopa County and on ASLD-administered land with a permit. Hunting seasons may occur year-round but are most prevalent in the fall.

The USFS interactive visitor mapper does not identify any proposed dedicated recreation or open space areas within the Study Area (USFS 2026). The BLM does not have any plans to designate recreational facilities in the Study Area, and the national data mapper did not identify any recreational resources within the Study Area (BLM 2026a, 2026b). Similarly, the ASLD has identified no existing or planned recreational rights-of-way in the Study Area (ASLD 2026).

Current land uses in the Study Area include vacant/undeveloped (including livestock grazing), commercial, industrial, transportation, and utilities. Vacant/undeveloped and transportation land uses currently provide limited recreational opportunities. Recreational users may occasionally use public roadways for walking, biking, and general transportation, as well as incidental uses such as bird-watching. Within the surrounding region, recreational opportunities such as off-road vehicle use, hiking, hunting, camping, bird-watching, and horseback riding are available, primarily within BLM-administered land near Lake Pleasant and Maricopa County land at White Tank Mountain Regional Park. Generally, all Arizona State Trust lands, which could provide similar recreational opportunities, can be accessed by the public with a Special Use Permit.

The Project would not be fenced and would generally not be open to the public because it consists of electrical transmission infrastructure intended for operations and maintenance, not public or recreational use. Implementation of the Project would have minimal impact to existing recreational use because there is currently limited use of the area (primarily travel along public roadways), and such access would continue to be available following construction. Similarly, implementation would have minimal to no impact to recreation in the Study Area or surrounding region because implementation would not block access to recreation areas.

LITERATURE CITED

- Arizona State Land Department (ASLD). 2026. ASLD parcel viewer. Available at: <https://gis.azland.gov/>. Accessed February 2026.
- Arizona Game and Fish Department (AZGFD). 2022. GMU 42. Available at: https://live-azgfd-main.pantheonsite.io/wp-content/uploads/2023/01/GMU-42.pdf?_gl=1*1san72a*_gcl_au*MTQ3MzkyMjU0OS4xNzc2MTA0Mjgz. Accessed April 2026.
- _____. 2026. AZGFD mapper. Available at: <https://ert.azgfd.gov/content/map>. Accessed April 2026.
- Bureau of Land Management (BLM). 2026a. National data mapper. Available at: <https://experience.arcgis.com/experience/9a89ee80c604431e8f8d939a186fbdbb/>. Accessed February 2026.
- _____. 2026b. ePlanning home. Available at: <https://eplanning.blm.gov/>. Accessed February 2026.
- City of Surprise. 2024. *Surprise 2040 General Plan*. Available at: <https://content.civicplus.com/api/assets/c347f6a6-d821-4f50-b825-b29c89138c53?scope=all>. Accessed February 2026.
- _____. 2025. City of Surprise GIS data on general plan trails and general plan major trails. Available at: <https://data-surprise.opendata.arcgis.com/search?groupIds=e0b1df5f9d1546aaefb40e445319c8c&tags=Trail>. Accessed April 2026.
- Google Earth. 2026. Aerial imagery near 33.676565°, -112.500532°. Available at: <https://www.google.com/earth/>. Accessed April 2026.
- Maricopa County. 2016. *Maricopa County Vision 2030 Comprehensive Plan*. Available at: <https://www.maricopa.gov/ArchiveCenter/ViewFile/Item/6126>. Accessed February 2026.
- _____. 2026a. Maricopa County assessor parcel viewer. Available at: <https://maps.mccassessor.maricopa.gov/>. Accessed April 2026.
- _____. 2026b. Parks, trails, and amenities mapper. Available at: <https://maricopa.maps.arcgis.com/apps/webappviewer/index.html?id=aafc101dac42439baeaad96a27b9097b>. Accessed February 2026.
- U.S. Forest Service (USFS). 2026. Interactive visitor mapper. Available at: <https://www.fs.usda.gov/ivm/index.html>. Accessed February 2026.

EXHIBIT G. CONCEPTUAL DRAWINGS OF TRANSMISSION FACILITIES

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219, Exhibit I:

Attach any artist's or architect's conception of the proposed plan or transmission line structures and switchyards, which applicant believes may be informative to the committee.

Exhibit G-1 – Typical 230-kV tangent self-supporting steel monopole.

Exhibit G-2 – Typical 230-kV angle self-supporting steel monopole.

Exhibit G-3 – Typical 230-kV A-frame dead end.

Exhibit G-4 – KOP 1 photosimulation cover sheet.

Exhibit G-5 – Photograph from KOP 1 showing existing condition.

Exhibit G-6 – Photosimulation from KOP 1 showing the simulated condition with the proposed Project.

Exhibit G-7 – Photosimulation from KOP 1 showing the simulated condition with the proposed Project, with color overlay.

Exhibit G-8 – KOP 2 photosimulation cover sheet.

Exhibit G-9 – Photograph from KOP 2 showing existing condition.

Exhibit G-10 – Photosimulation from KOP 2 showing the simulated condition with the proposed Project.

Exhibit G-11 – Photosimulation from KOP 2 showing the simulated condition with the proposed Project, with color overlay.

Exhibit G-12 – KOP 3 photosimulation cover sheet.

Exhibit G-13 – Photograph from KOP 3 showing existing condition.

Exhibit G-14 – Photosimulation from KOP 3 showing the simulated condition with the proposed Project.

Exhibit G-15 – Photosimulation from KOP 3 showing the simulated condition with the proposed Project, with color overlay.

Exhibit G-16 – KOP 4 photosimulation cover sheet.

Exhibit G-17 – Photograph from KOP 4 showing existing condition.

Exhibit G-18 – Photosimulation from KOP 4 showing the simulated condition with the proposed Project.

Exhibit G-19 – Photosimulation from KOP 4 showing the simulated condition with the proposed Project, with color overlay.

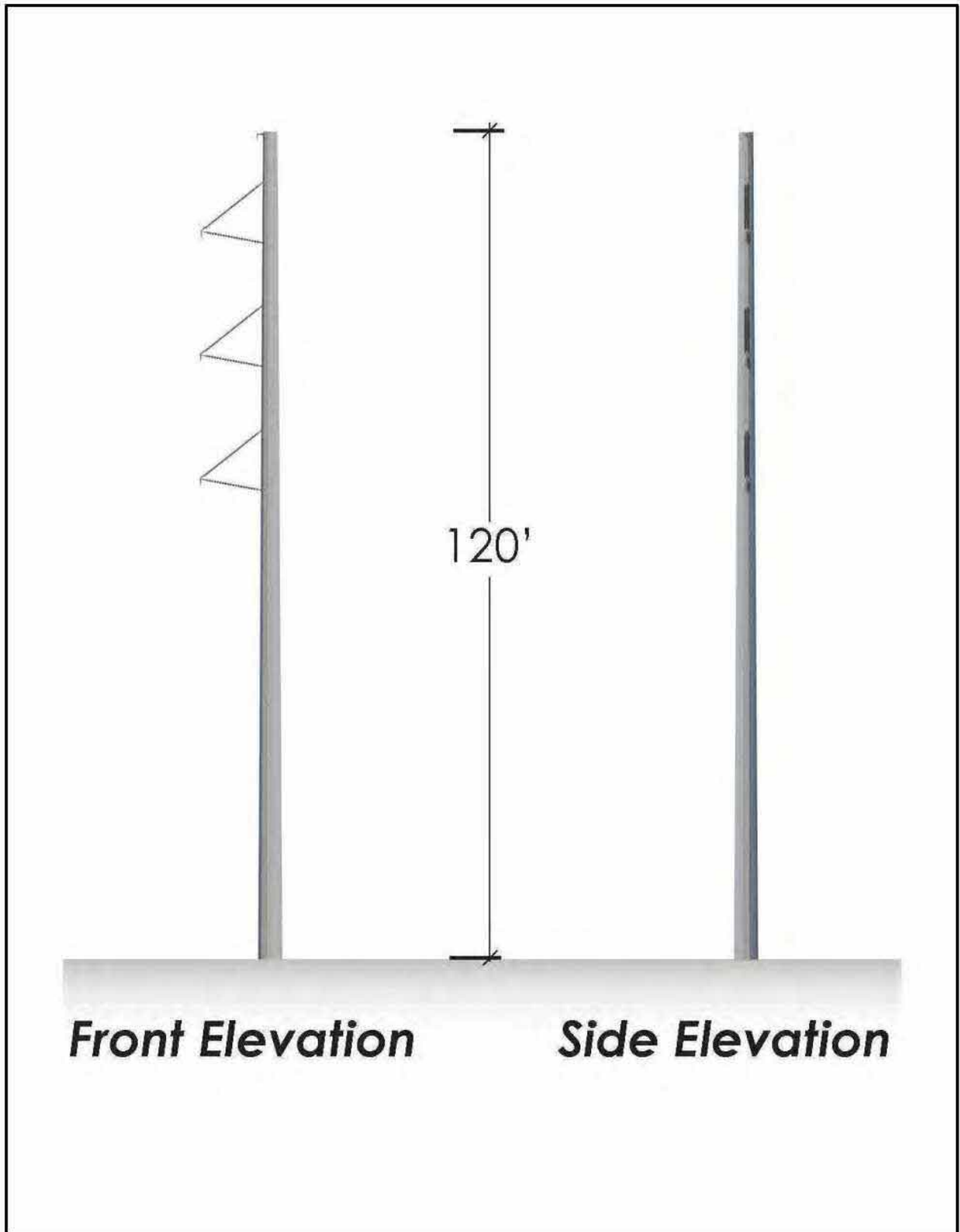


Exhibit G-1. Typical 230-kV tangent self-supporting steel monopole.

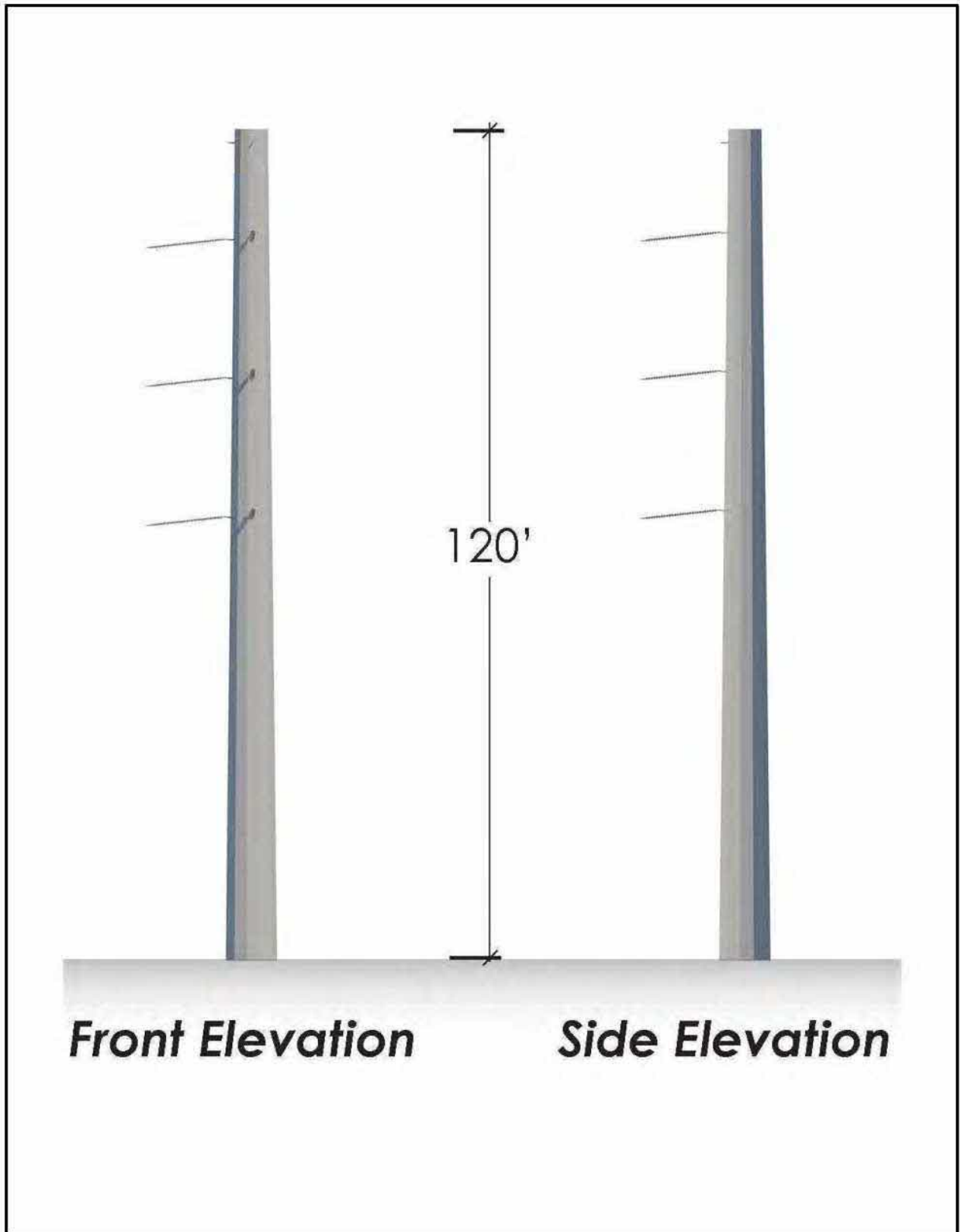


Exhibit G-2. Typical 230-kV angle self-supporting steel monopole.

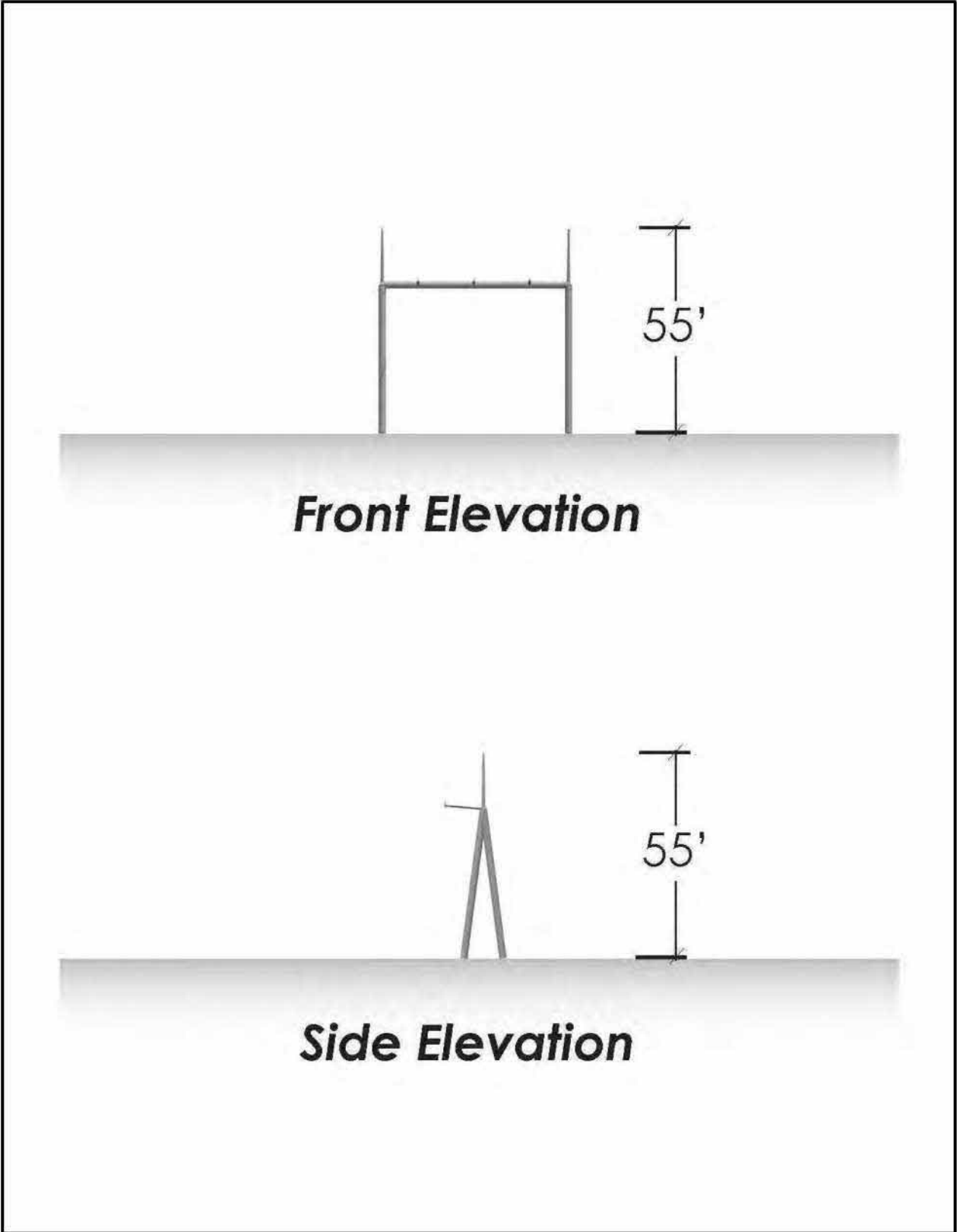


Exhibit G-3. Typical 230-kV A-frame dead end.

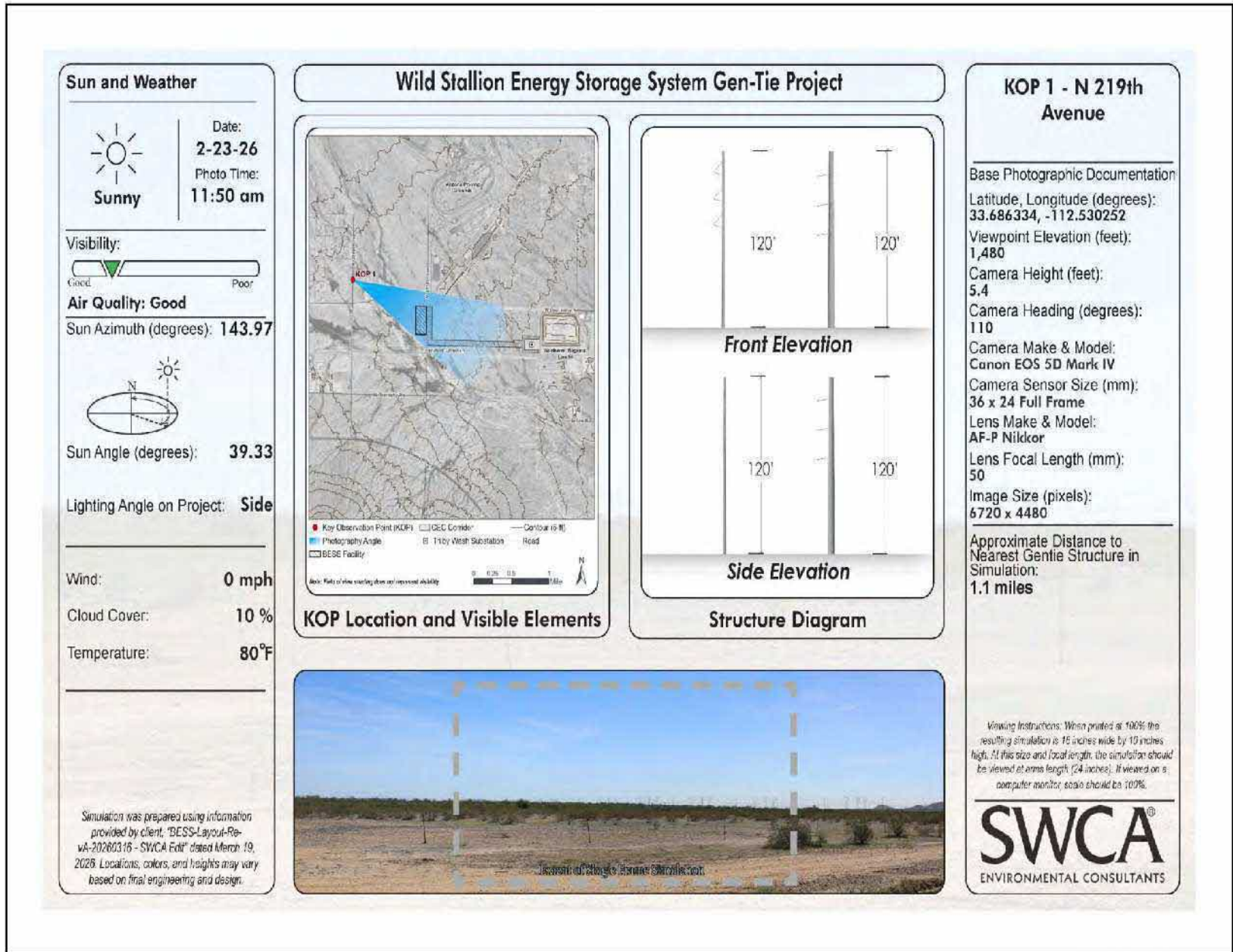


Exhibit G-4. KOP 1 photosimulation cover sheet.



KOP 1: View from N 219th Avenue looking southeast - Existing Condition

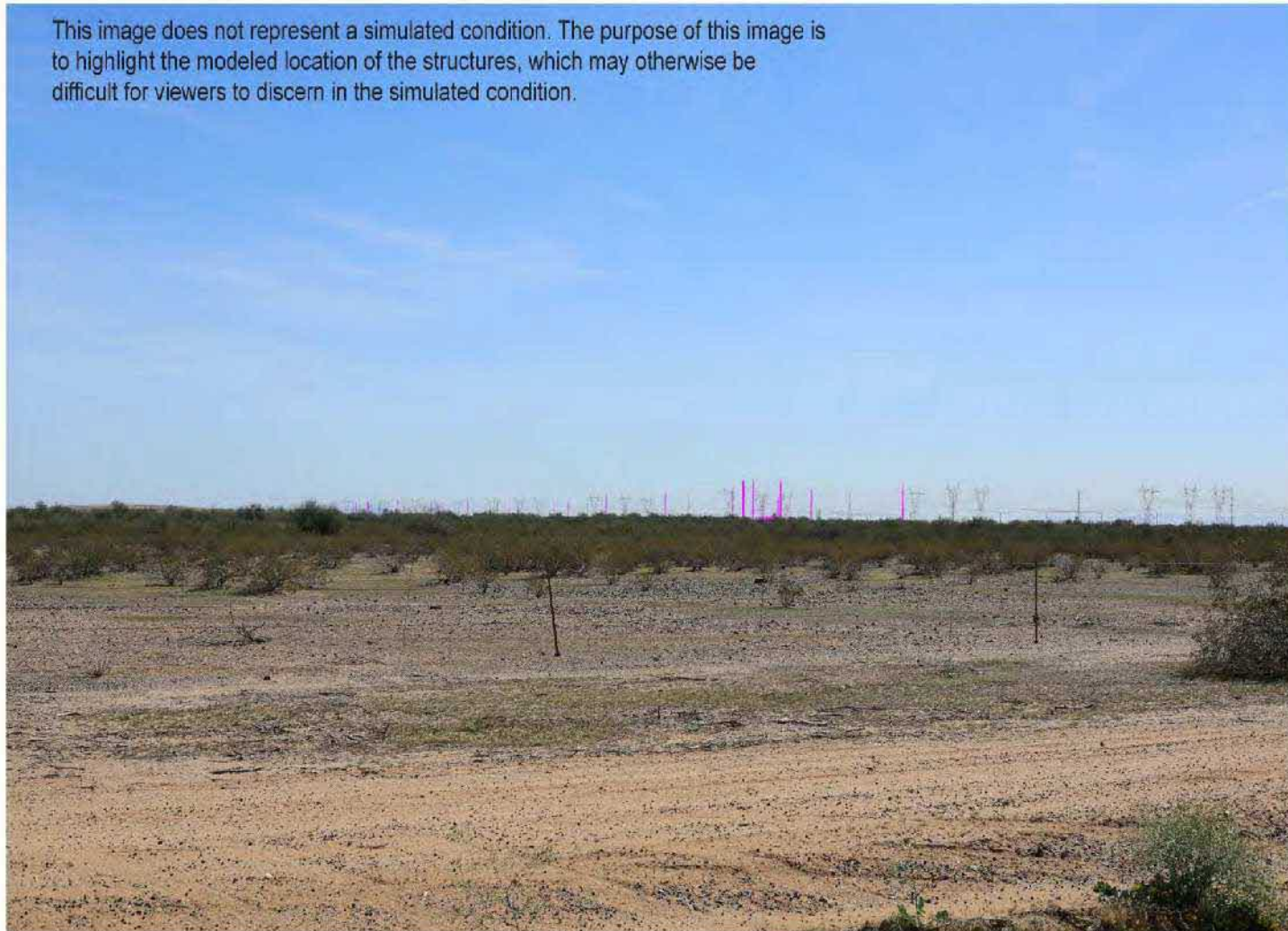
Exhibit G-5. Photograph from KOP 1 showing existing conditions.



KOP 1: View from N 219th Avenue looking southeast - Simulated Condition

Exhibit G-8. Photosimulation from KOP 1 showing the simulated condition with the proposed Project.

This image does not represent a simulated condition. The purpose of this image is to highlight the modeled location of the structures, which may otherwise be difficult for viewers to discern in the simulated condition.



KOP 1: View from N 219th Avenue looking southeast - Simulated Condition with Color Overlay

Exhibit G-7. Photosimulation from KOP 1 showing the simulated condition with the proposed Project, with color overlay.

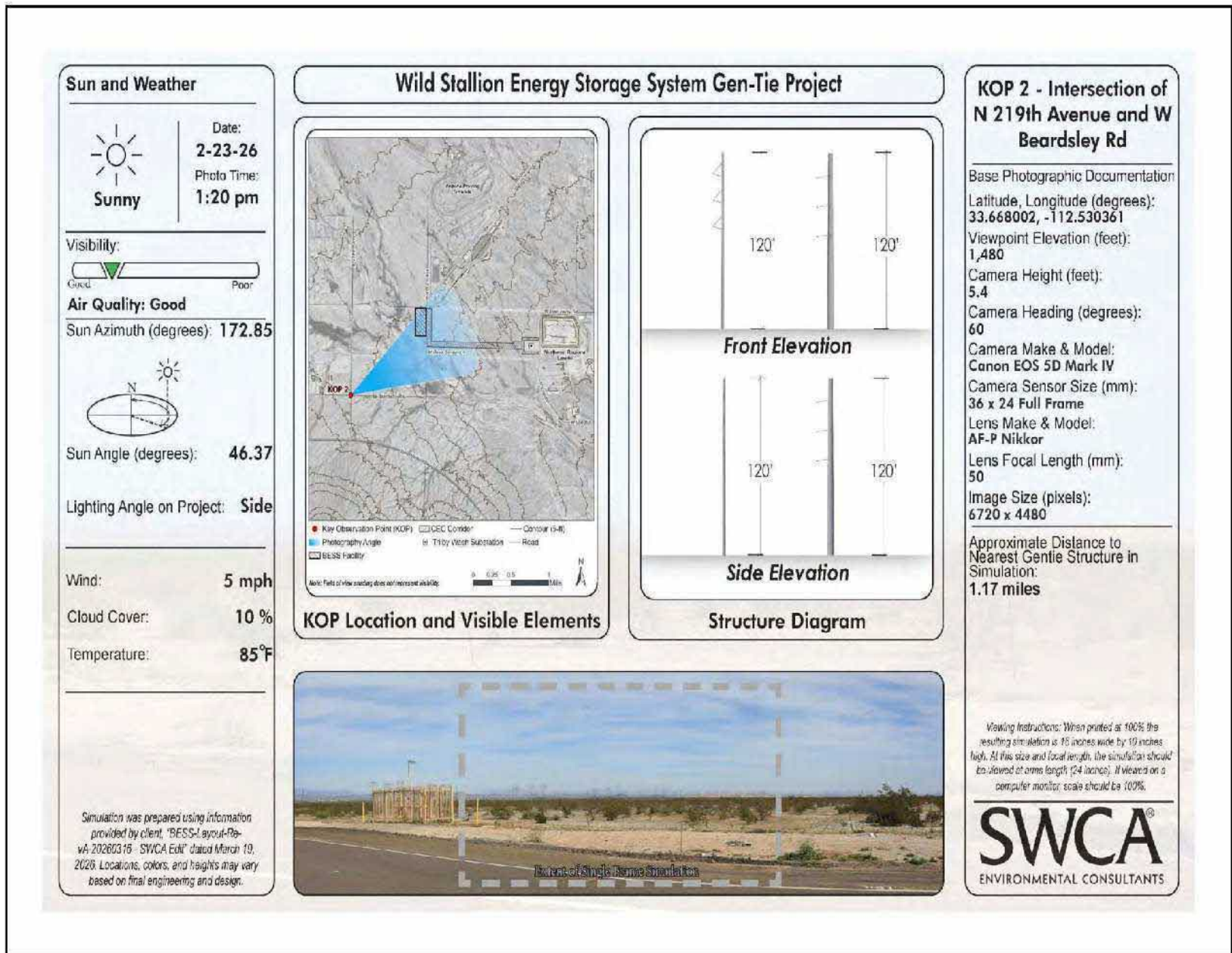


Exhibit G-8. KOP 2 photosimulation cover sheet.



KOP 2: View from Intersection of N 219th Ave and W Beardsley Rd looking northeast - Existing Condition

Exhibit G-9. Photograph from KOP 2 showing existing conditions.



KOP 2: View from Intersection of N 219th Ave and W Beardsley Rd looking northeast - Simulated Condition

Exhibit G-10. Photosimulation from KOP 2 showing the simulated condition with the proposed Project.

This image does not represent a simulated condition. The purpose of this image is to highlight the modeled location of the structures, which may otherwise be difficult for viewers to discern in the simulated condition.



KOP 2: View from Intersection of N 219th Ave and W Beardsley Rd looking northeast - Simulated Condition with Color Overlay

Exhibit G-11. Photosimulation from KOP 2 showing the simulated condition with the proposed Project, with color overlay.

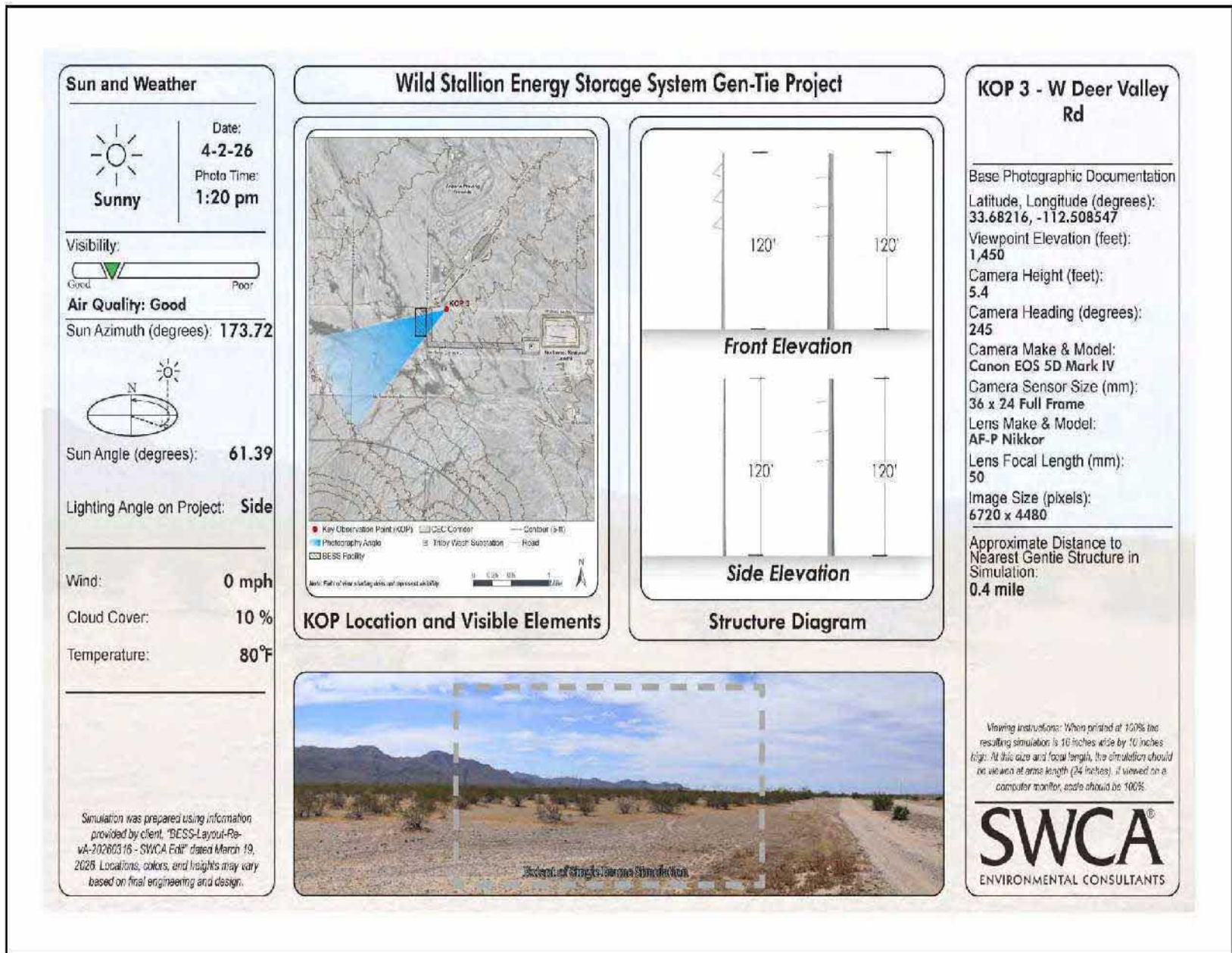


Exhibit G-12. KOP 3 photosimulation cover sheet.



KOP 3: View from W Deer Valley Rd looking southwest - Existing Condition

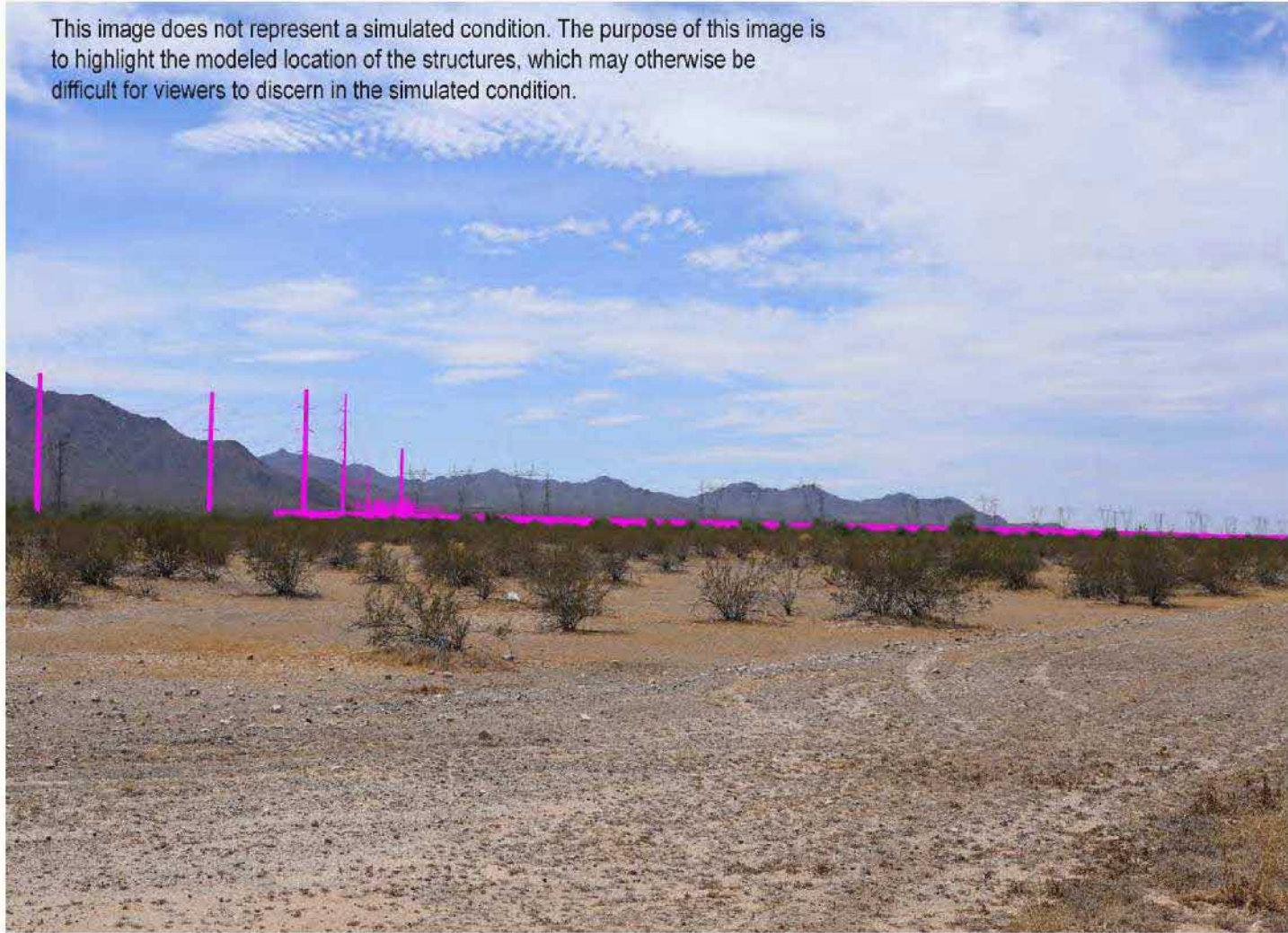
Exhibit G-13. Photograph from KOP 3 showing existing conditions.



KOP 3: View from W Deer Valley Rd looking southwest - Simulated Condition

Exhibit G-14. Photosimulation from KOP 3 showing the simulated condition with the proposed Project.


This image does not represent a simulated condition. The purpose of this image is to highlight the modeled location of the structures, which may otherwise be difficult for viewers to discern in the simulated condition.



KOP 3: View from W Deer Valley Rd looking southwest - Simulated Condition with Color Overlay

Exhibit G-15. Photosimulation from KOP 3 showing the simulated condition with the proposed Project, with color overlay.

Sun and Weather



Sunny

Date:
2-23-26

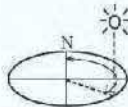
Photo Time:
11:25 am

Visibility:

Good Poor

Air Quality: Good

Sun Azimuth (degrees): **137.65**



Sun Angle (degrees): **36.17**

Lighting Angle on Project: **Side**


Wind: **0 mph**

Cloud Cover: **10 %**

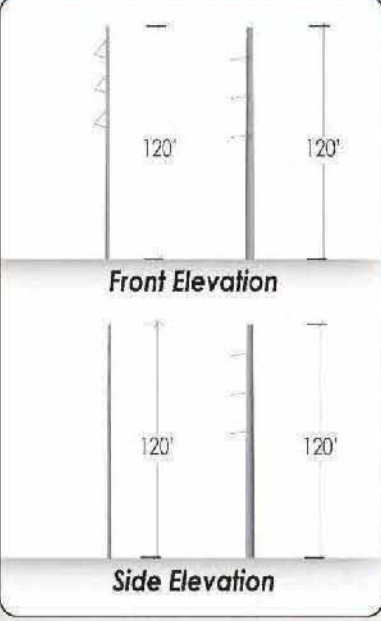
Temperature: **80°F**

Simulation was prepared using information provided by client, "BESS-L layout-RevA 20260316 - SWCA Edit" dated March 19, 2026. Locations, colors, and heights may vary based on final engineering and design.


Wild Stallion Energy Storage System Gen-Tie Project



KOP Location and Visible Elements



Structure Diagram



Photorealistic Simulation

KOP 4 - Intersection of W Deer Valley Rd and N Landfill

Base Photographic Documentation

Latitude, Longitude (degrees):
33.681588, -112.487323

Viewpoint Elevation (feet):
1,425

Camera Height (feet):
5.4

Camera Heading (degrees):
225

Camera Make & Model:
Canon EOS 5D Mark IV

Camera Sensor Size (mm):
36 x 24 Full Frame

Lens Make & Model:
AF-P Nikkor

Lens Focal Length (mm):
50

Image Size (pixels):
6720 x 4480

Approximate Distance to Nearest Gentle Structure in Simulation:
0.3 mile

Viewing Instructions: When printed at 100% the resulting simulation is 16 inches wide by 10 inches high. At this size and focal length, the simulation should be viewed at arm's length (24 inches). If viewed on a computer monitor, scale should be 100%.

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Exhibit G-16. KOP 4 photosimulation cover sheet.



KOP 4: View from Intersection of W Deer Valley Rd and N Landfill looking southwest - Existing Condition

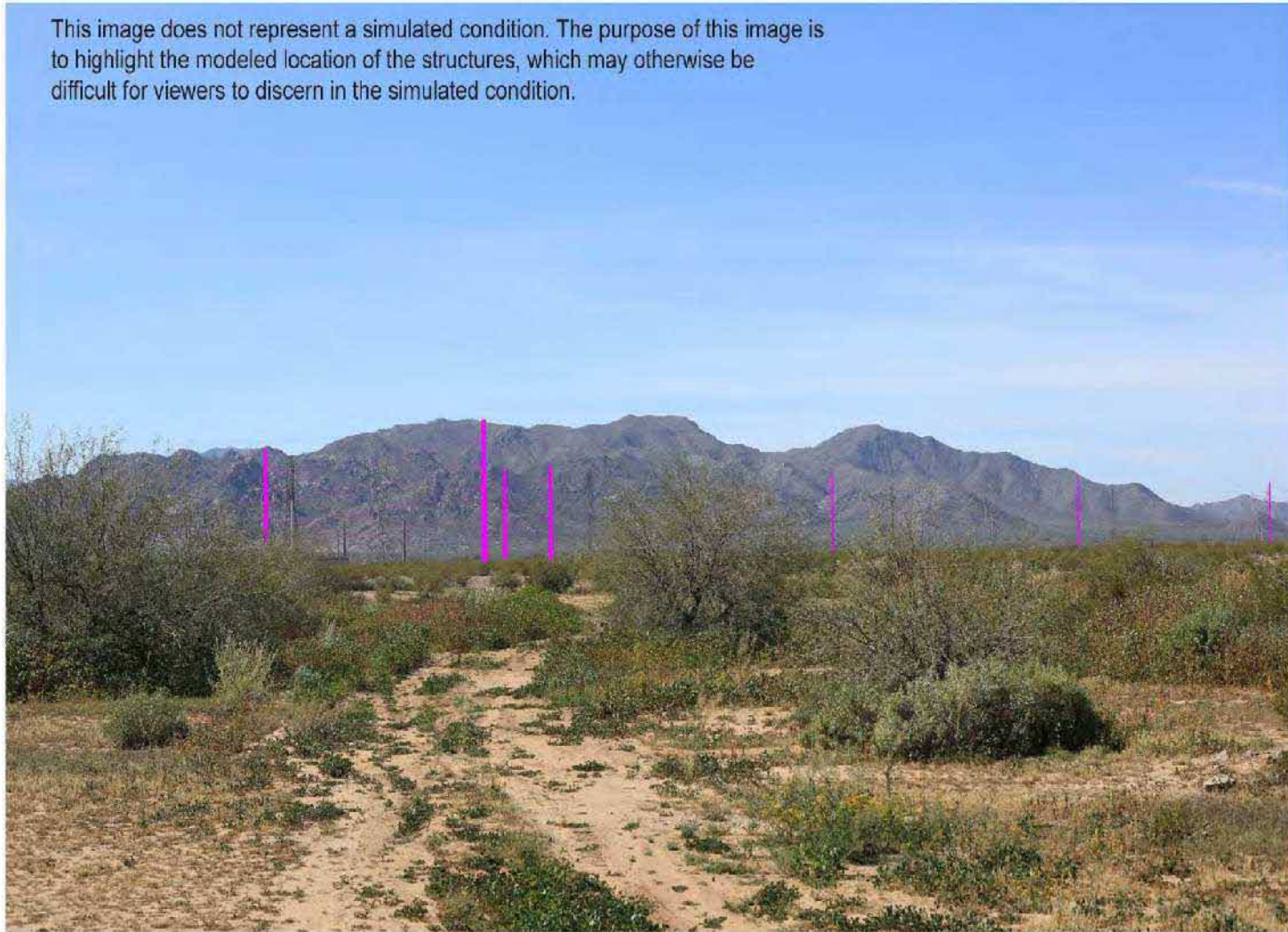
Exhibit G-17. Photograph from KOP 4 showing existing conditions.



KOP 4: View from Intersection of W Deer Valley Rd and N Landfill looking southwest - Simulated Condition

Exhibit G-18. Photosimulation from KOP 4 showing the simulated condition with the proposed Project.

This image does not represent a simulated condition. The purpose of this image is to highlight the modeled location of the structures, which may otherwise be difficult for viewers to discern in the simulated condition.



KOP 4: View from Intersection of W Deer Valley Rd and N Landfill looking southwest - Simulated Condition with Color Overlay

Exhibit G-19. Photosimulation from KOP 4 showing the simulated condition with the proposed Project, with color overlay.

EXHIBIT H. EXISTING PLANS

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219, Exhibit 1:

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.

INTRODUCTION

This exhibit summarizes the outreach to entities to inquire about known plans for development in the vicinity of the Project. Existing and planned land uses, as well as an analysis of the Project's compatibility with applicable land use plans, are discussed in Exhibit B. Existing and planned land uses in the Study Area are mapped in Exhibits A-2 and A-3, respectively.

AGENCY AND STAKEHOLDER OUTREACH

On April 6, 2026, letters were sent to the applicable jurisdictions and stakeholders (listed in Table H-1) to provide Project information and request new or additional information on planned developments within the Study Area. Exhibits H-1a through H-1c provide a copy of the letter, and Exhibits H-2a through H-2d include the response letter from the Arizona Game and Fish Department. Email correspondence was received from Arizona Department of Transportation (ADOT) and the Department of War Military Aviation and Installation Assurance Siting Clearinghouse. ADOT acknowledged receipt of the project information and noted that the Project will not cause an impact to ADOT right-of-way but that Arizona State Land Department (ASLD) property was in the area and copied Ruben Ojeda, ASLD Rights of Way Section Manager, to assist. The Applicant has been in communication with ASLD regarding the proposed right-of-way on State Trust Land; coordination is ongoing. The Department of War acknowledged receipt of the project information and requested the opportunity to review; communication with the Department of War is ongoing to ensure there are no concerns related to Luke Air Force Base Auxiliary Airfield 1. No responses identified new or additional information on planned developments within the Study Area. Other than the planned Wild Stallion battery energy storage system facility and the planned area developments mapped by the City of Surprise (discussed in Exhibit B), no planned developments were identified in the Study Area. The letter to the Arizona State Historic Preservation Office (SHPO) was sent separately on April 7, 2026, and included a request for consultation with project information as outlined in the *ACC-SHPO Consultation Checklist for Compliance with the State Historic Preservation Act*. Exhibits H-3a through H-3o provide a copy of the letter to SHPO and their response.

Table H-1. Entities Contacted to Identify Future Plans for Development

Agency/Organization/Landowner	Contact Name	Title
Arizona Department of Transportation	Jason James	Regional Planning Manager
Arizona Department of Transportation	Randy Everett	Senior Division Administrator
Arizona Game and Fish Department	Ginger Ritter	Project Evaluation Supervisor
Arizona Public Service	Jason Spitzkoff	Manager, Transmission Engineering
Arizona Public Service	Kevin Duncan	Senior Siting Consultant
Arizona State Historic Preservation Office	Kathryn Leonard	State Historic Preservation Officer

Agency/Organization/Landowner	Contact Name	Title
Arizona State Land Department	Robyn Sahid	Commissioner
Arizona State Land Department	Jim Perry	Deputy Commissioner
Arizona State Land Department	Bill Boyd	Deputy Commissioner
Arizona State Land Department	Ruben Ojeda	Rights of Way Section Manager
Arizona State Land Department	Amber Troidl	Acting Manager - Right of Way Section
City of Surprise	Kevin Sartor	Mayor
City of Surprise	Andrea Davis	City Manager
City of Surprise	Kimberly Campbell	Emergency Manager
City of Surprise	Lloyd Abrams	Community Development Director
Friends of White Tank Park	-	-
Grand Hikers	-	-
Luke Air Force Base Auxiliary Airfield 1	Mark C. James	Director, Community Initiatives Team
Maricopa County	Angela Anderson	Parks and Recreation
Maricopa County	Debbie Lesko	District 4 Supervisor
Maricopa County	-	Planning and Development
Maricopa County	Jen Pokorski	County Manager
Maricopa County	Jesse Gutierrez	County Engineer
Maricopa County	Juanita Garze	Clerk of the Board of Supervisors
Transwestern Pipeline Company LLC	New River Comp Station Discharger Group	-
U.S. Fish & Wildlife Service	Shaula Hedwall	Senior Fish and Wildlife Biologist, Arizona Ecological Services
U.S. Fish & Wildlife Service	Laura Stewart	Supervisory Fish and Wildlife Biologist, Arizona Ecological Services
U.S. Fish & Wildlife Service	Kristen Madden	DMB Chief, Southwest Region
U.S. Fish & Wildlife Service	Kammie Kruse	Permits Branch Chief, Migratory Birds
U.S. Fish & Wildlife Service	Kirsten Cruz-McDonnell	Migratory Bird Biologist, Energy Coordinator
White Tank Mountains Conservancy	-	-



r.e.think energy

April 6, 2026

Subject: Wild Stallion Energy Storage Gen-Tie Project Community Meeting

Greetings,

You are invited to attend an open house for the Wild Stallion Energy Storage Gen-Tie Project (the Project) on April 22, 2026 at the Surprise Regional Library. The Project involves a new 230-kilovolt generation intertie transmission line (gen-tie) that would connect the planned Wild Stallion battery energy storage system (BESS) to the regional electric grid at the existing Arizona Public Service (APS) 230kV Trilby Wash Substation. The BESS will be located on Deer Valley Road in Maricopa County, AZ located within City of Surprise municipal limits, approximately 1.5 miles directly west of the Waste Management Northwest Regional Landfill. The Project is located on private land and State Trust Land managed by the Arizona State Land Department. Once connected to the regional electric grid, the Project will allow the BESS to contribute to grid reliability and stability while storing electricity for Arizonans to use when it is most needed, such as during peak demand or unexpected outages.

The meeting will consist of a booth-style event, and participants are invited to stop by anytime within the designated timeframe. Please note that no formal presentation will be provided. This notice is being sent to nearby property owners and associations to encourage public participation during the meeting and in the review process. Light snacks and beverages will be provided.

Please scan the QR code below to visit the project website for information about the community meeting, including the option to submit questions or comments ahead of the meeting. We also invite you to reach out to CommunitySupport@BayWa-re.com or by calling 949-393-1904 with questions regarding the Project or the event.

Date of Community Meeting: Wednesday, April 22nd

Time of Community Meeting:

- Start Time: 6:00pm
- Finish Time: 7:00pm

Location of the Community Meeting:

Surprise Regional Library, Regional Program Room
16089 N. Bullard Ave, Surprise, AZ 85374

Check Out the Project Website Below!



<https://us.baywa-re.com/en/projects/local-projects/landing-wild-stallion-energy-storage>

Exhibit H-1a. Example April 2026 Exhibit H letter (1 of 3).

Subject: Wild Stallion Energy Storage Gen-Tie Project Community Meeting

Wild Stallion Energy Storage LLC (the Applicant), a wholly owned subsidiary of BayWa r.e. Development LLC, plans to file an application for a Certificate of Environmental Compatibility (CEC) with the Arizona Power Plant and Transmission Line Siting Committee ("Line Siting Committee") for the Wild Stallion Energy Storage Gen-Tie Project (the Project) located in Maricopa County, AZ. The Project involves a new 230-kilovolt generation intertie transmission line (gen-tie) that would connect the planned Wild Stallion battery energy storage system (BESS) to the regional electric grid at the existing Arizona Public Service (APS) 230kV Trilby Wash Substation. The Project would be an aboveground line on poles up to 120 feet tall. The Project would start at the planned BESS near Deer Valley Road and the 211th Avenue alignment, extend east up to 2 miles, and end at the APS Trilby Wash Substation at one of three interconnection locations (options A, B, or C) as shown on the enclosed map. The final alignment of the gen-tie will be determined at a later design stage, but will be within the identified CEC Corridor shown on the enclosed map. The CEC Corridor is located on private land and State Trust Land managed by the Arizona State Land Department in Maricopa County, AZ. Additional information is available on the Project website: <https://us.baywa-re.com/en/projects/local-projects/wild-stallion-energy-storage>

Planned Project and associated facilities include BESS components enclosed by a perimeter wall, a main power transformer, a substation, electrical infrastructure, the gen-tie, and access roadways. The BESS is a proposed 200MW / 800MWh facility located off of Deer Valley Road within City of Surprise municipal limits, approximately 1.5 miles directly west of the Waste Management Northwest Regional Landfill. The BESS, gen-tie, and supporting facilities will be engineered using industry best practices to comply with all applicable requirements while undergoing rigorous environmental, cultural, noise, and other impact studies before the start of construction, which is anticipated in mid-2029. Once connected to the regional electric grid, the Project will allow the BESS to contribute to grid reliability and stability while storing electricity for Arizonans to use when it is most needed, such as during peak demand or unexpected outages.

The Applicant is working with its environmental consultant, SWCA Environmental Consultants, to prepare the CEC application for the Project that will include environmental studies evaluating the proposed route for the gen-tie within the CEC Corridor. The Line Siting Committee will evaluate the CEC application at a public hearing currently scheduled for August 2026. If approved, the CEC will then be presented to the Arizona Corporation Commission for their consideration and final decision.

Arizona Administrative Code Rule R14-3-219 requires that CEC applications include an exhibit that identifies "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."

This letter is an opportunity for your organization to provide any information or comments regarding development plans for inclusion in the CEC application. We respectfully request your response in writing; specifically, please advise us of any relevant existing or future development plans in the vicinity of the proposed Project that you can identify at this time.

For Wild Stallion Energy Storage LLC to include your information with its CEC application, please forward your written comments to Wild Stallion Energy Storage LLC, by May 1, 2026, via email at communitysupport@baywa-re.com, or by physical mail: Attn: Annaka Egan, Wild Stallion Energy Storage LLC, 5901 Priestly Dr #300, Carlsbad, CA 92008. Additionally, you may reach the project team directly by phone at (949) 393-1904.

Sincerely,



Jeremy Akin
Project Manager for Wild Stallion Energy Storage LLC

Exhibit H-1b. Example April 2026 Exhibit H letter (2 of 3).

Project Overview Map for the Wild Stallion Energy Storage Gen-Tie Project

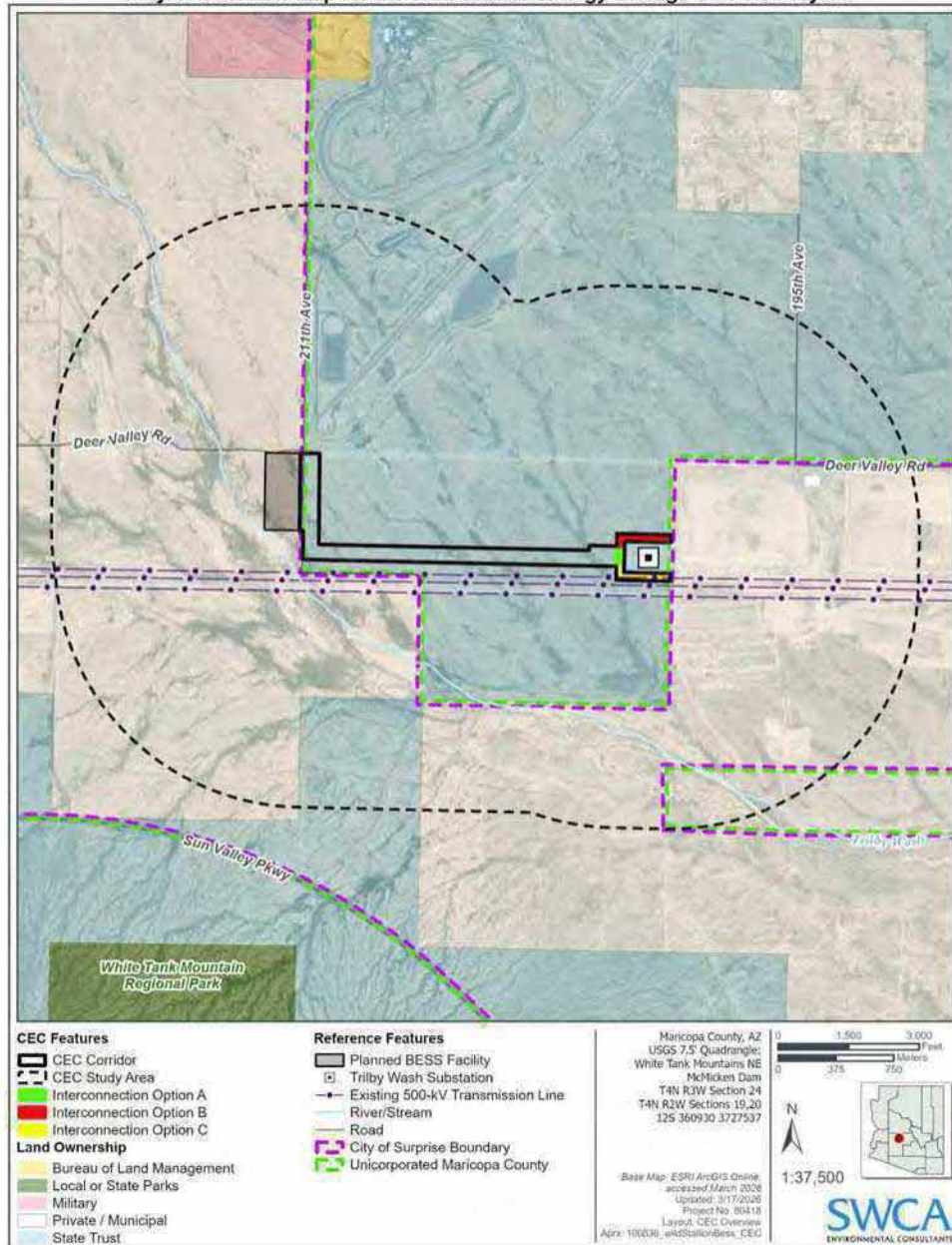


Exhibit H-1c. Example April 2026 Exhibit H letter (3 of 3).



April 29, 2026

Ms. Annaka Egan
Wild Stallion Energy LLC
5901 Priestly Drive #300
Carlsbad, CA 92008

Electronically submitted to: communitysupport@bavwa-re.com

RE: Wild Stallion Energy Storage Gen-Tie Project

Dear Ms. Egan:

The Arizona Game and Fish Department (Department) appreciates the opportunity to review the Wild Stallion Energy Storage Gen-Tie Project (Project). The Department understands that Wild Stallion Energy LLC proposes to construct an approximately 2-mile 230kV transmission line and an approximately 18-acre battery energy storage system which would connect to the existing Trilby Wash Substation. The project is located on private and state trust lands northwest of Surprise, Arizona, in primarily undisturbed Sonoran desert scrublands.

Under Title 17 of the Arizona Revised Statutes, the Department, by and through the Arizona Game and Fish Commission, has jurisdictional authority and public trust responsibilities to conserve and protect the state fish and wildlife resources. In addition, the Department manages threatened and endangered species through authorities of Section 6 of the Endangered Species Act and the Department's Section 10(a)(1)(A) permit. It is the mission of the Department to conserve and protect Arizona's diverse fish and wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations.

The Department recognizes the importance of planning efforts to develop energy infrastructure that contribute to regional and state economic growth needs and would like to work closely with Wild Stallion Energy LLC during the planning and development of this Project. The Department recognizes that appropriate coordination, proper planning, and voluntary implementation of best management practices allow projects to be developed that avoid, minimize, or offset potential impacts to wildlife and recreational access during development and operation of the facilities. For your consideration, the Department provides the following comments based on the agency's statutory authorities, public trust responsibilities, and special expertise related to wildlife resources and recreation:

- Maintaining habitat connectivity is a priority for the Department, and wildlife movement corridors are important for wildlife to respond to changing environmental conditions. The

ARIZONA

azgfd.gov | 480.981.9400

MESA OFFICE: 7200 E. UNIVERSITY DRIVE, MESA AZ 85207

GOVERNOR: KATIE HOBBS COMMISSIONERS: CHAIR MARSHA PETRIE SUE, SCOTTSDALE | JEFF BUCHANAN, PATAGONIA | JAMES E. GOUGHNOUR, PAYSON
KURT KERR, PINETOP | JESSICA MANUELL, PARKS DIRECTOR: TOM P. FINLEY DEPUTY DIRECTOR: JOSHUA W. HURST

Exhibit H-2a. AZGFD response letter (1 of 4).

attached Environmental Review Tool report (HGIS-28175) displays where the project footprint intersects or is adjacent to riparian wildlife movement areas. These areas include Trilby Wash and other ephemeral washes present within and around the project area. The Department recommends maintaining a minimum setback of 200 feet from ephemeral washes and ¼ mile from perennial waters. The Department also recommends minimizing ground disturbance within these washes to maintain connectivity and minimize potential impacts to wildlife movement.

- The Department understands that the southwestern edge of the project footprint is adjacent to xero-riparian habitat along the Trilby Wash. To the extent feasible, the Department recommends buffering Trilby Wash by a minimum of 200 feet from development infrastructure to maintain wildlife connectivity.
- The Sonoran desert tortoise, which is a federal and state species of special concern, has the potential to occur in the project area and may utilize habitat near the project footprint. The Department recommends conducting surveys for Sonoran desert tortoise within suitable habitat to determine the presence of this species. The [Sonoran Desert Tortoise Conservation Guidelines](#)¹ provide protocols for these surveys as well as guidelines for handling Sonoran desert tortoises and recommended avoidance, minimization, and mitigation measures if this species is detected.
- The Department also recommends conducting surveys for nesting birds prior to vegetation removal and/or construction activities that occur during the breeding season, which is typically January-June in this area. The project area has vegetation present which may provide suitable nesting opportunities for avian species that are regulated under the Migratory Bird Treaty Act (MBTA). If it is anticipated the Project will not be in compliance with MBTA, the Department recommends contacting the [United States Fish and Wildlife Services](#)² for technical assistance.

Finally, the Department offers the following general recommendations to reduce potential impacts to wildlife and habitat during construction and operation of the facility:

- The Department recommends following the Avian Power Line Interaction Committee (APLIC) guidelines for new power lines, which can be found in the current version of *Suggested Practices for Avian Protection on Power Lines and Reducing Avian Collisions with Power Lines*. Large bodied birds, such as hawks, owls, vultures, and eagles, may be vulnerable to line strikes and electrocution during construction and operation of power lines and substations; power poles can also serve as perches for large-bodied birds. These potential impacts can be avoided or minimized by following the APLIC guidelines which include designing the power lines with enough space between energized components to reduce the likelihood of a bird electrocution or installing bird flight diverters in sections of line where elevated bird strikes are anticipated (e.g. lines over water bodies or in the path of colonial roosting locations). The Department's Raptor Coordinator, who can be contacted at raptors@azgfd.gov or 623-236-7575, can provide further information on specific design features and best management practices.

¹ <https://azgfd-portal-wordpress.pantheon.s3-us-west-2.amazonaws.com/wp-content/uploads/2025/01/16/14611-Rubke-2024-Sonoran-Desert-Tortoise-Conservation-Guidelines.pdf>

² <https://www.fws.gov/office/arizona-ecological-services/contact-us>

Exhibit H-2b. AZGFD response letter (2 of 4).

- If other wildlife are encountered during construction activities, the Department recommends moving them out of harm's way, no more than 0.25 mile outside the project boundary within similar habitat.
- If trenching or digging of large holes is necessary, the Department recommends trenching/digging and backfilling crews be close together to minimize the amount of open holes at any given time. Where trenches or holes cannot be back-filled immediately, the Department recommends escape ramps be constructed at least every 300 feet. Escape ramps can be short lateral trenches or wooden planks sloping to the surface. The Department recommends that slopes be less than 45 degrees (1:1) and trenches and holes that have been left open be inspected to remove animals prior to backfilling.
- For any areas that would be fenced as part of this Project, please refer to the Department's [*Wildlife Compatible Fencing Guidelines*](#)³ for information on how fencing impacts wildlife, ways to design fencing to prevent wildlife entanglement and impalement, and to ensure wildlife movement is not restricted. Department personnel are available as resources to help determine appropriate fencing design and layout that will achieve its objective while reducing impact to wildlife.
- Artificial lighting could impair the ability of nocturnal animals to navigate (e.g., owls, migratory birds, bats, and other nocturnal mammals) and may affect wildlife behavior and populations ([*Davies et. al. 2013*](#)⁴). The Department recommends using only the minimum amount of light needed for safety. The Department encourages the use of motion sensing lighting and "warmer" narrow spectrum lighting (amber, orange, red) which is wildlife-friendly and should be used as often as possible to minimize the number of species affected by lighting. It is also beneficial that all lighting is shielded, canted, or cut to minimize the amount of upward shining light.
- To minimize the potential introduction or spread of invasive species, the Department encourages taking precautions to wash and/or decontaminate equipment before entering and leaving the site. See the [*Arizona Department of Agriculture's website*](#)⁵ for a list of prohibited and restricted noxious weeds and the [*Arizona Native Plant Society*](#)⁶ for recommendations on how to control them. To view a list of documented invasive species or to report invasive species in or near your project area, visit [*iMapInvasives*](#)⁷, which is a national cloud-based application for tracking and managing invasive species.
 - Stinknet is a highly invasive noxious winter weed native to South Africa, and is extremely flammable when dry. Stinknet (also known as globe chamomile) has heavily infested Maricopa, Pinal, and Pima counties and is expanding into Yuma, Yavapai, and Gila counties. Infestations spread rapidly along highways and open fields in residential areas, with emergence starting in late November and plants continuing to germinate and emerge through May in wet years. This species is likely present within, or adjacent to, the project area. In order to minimize the spread of this plant it is critical that any new infestations are identified and

³ https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/planningFor/wildlifeFriendlyGuidelines/110125_AGFD_fencing_guidelines.pdf

⁴ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657119>

⁵ <https://agriculture.az.gov/pestspest-control/agriculture-pests/noxious-weeds>

⁶ <https://aznps.com/invas>

⁷ <https://imap.natureserve.org/imap/services/page/map.html>

Exhibit H-2c. AZGFD response letter (3 of 4).

quickly managed. Additional information is available through the [Southwest Vegetation Management Association](https://www.svwma.org/)⁸, the [Sonoran Desert Cooperative Weed Management Area](https://www.sdcwma.org/species/stinknet.php)⁹, or the [Arizona Native Plant Society](http://aznps.com)¹⁰.

- The Department recommends revegetating disturbed areas with native drought-tolerant species that represent the natural surrounding landscape. Landscaping with native plants can help support wildlife and pollinator species in the area while reducing dust and erosion. In addition, the applicable land management agencies should be consulted regarding guidelines for revegetation efforts.

Thank you for the opportunity to provide input on the Wild Stallion Energy Storage Gen-Tie Project. For further coordination, please contact Hunter Watson at hwatson@azgfd.gov or 480-997-3401.

Sincerely,



Kriselle Colvin
Regional Supervisor, Region VI

cc: Callie Cavalcant – Habitat, Evaluation, and Lands Branch Chief, AZGFD

Attachment: HGIS-28175 ERT Species Report

AZGFD #M26-04090747

⁸ <https://www.svwma.org/>

⁹ <https://www.sdcwma.org/species/stinknet.php>

¹⁰ <http://aznps.com>



SHPO-2026-0411 (186231)

Rec: 04-07-26

2929 North Central Avenue, Suite 1800
Phoenix, Arizona 85012
Tel 602.274.3831 Fax 602.274.3958
www.swca.com

April 7, 2026

Kathryn Leonard, State Historic Preservation Officer
1110 West Washington Street, Suite 100
Phoenix, Arizona 85007

Submitted via email to: azshpo@azstateparks.gov and cklebacha@azstateparks.gov

Re: Request for Consultation – Wild Stallion Energy Storage System Gen-tie Project Certificate of Environmental Compatibility

Dear Kathryn Leonard:

Pursuant to Arizona Revised Statutes 40-360 et seq., Wild Stallion Energy Storage LLC, a wholly owned subsidiary of BayWa r.e. Development LLC, plans to file an application for a Certificate of Environmental Compatibility (CEC) for the proposed Wild Stallion Energy Storage System 230-kilovolt (kV) generation tie-line (gen-tie) (herein called the Project). The Project would connect a planned 200-megawatt battery energy storage system (BESS) to the Arizona Public Service (APS) Trilby Wash Substation within the city of Surprise, Maricopa County, Arizona. The Project would extend up to 2 miles within a 165-foot-wide right-of-way (ROW). The ROW will be within a CEC Corridor measuring 165 to 435 feet wide. The CEC Corridor is on private land and State Trust Land managed by the Arizona State Land Department (ASLD).

This letter contains information about the Project in accordance with the Arizona State Historic Preservation Office’s (SHPO’s) September 2022 “ACC-SHPO Consultation Checklist for Compliance with the State Historic Preservation Act” (attached hereto as Attachment 1). On behalf of the Applicant, we respectfully request that the SHPO review and provide comments on the Project to support the Arizona Corporation Commission’s (ACC’s) compliance with the State Historic Preservation Act (Arizona Revised Statutes 41-861 through 41-864).¹

GENERAL PROJECT INFORMATION

- *Project name:* Wild Stallion Energy Storage System Gen-tie Project
- *Project location (legal description and Universal Transverse Mercator [UTM]):* The CEC Corridor is in Sections 19 and 20, Township 4 North, Range 2 West and Section 24, Township 4 North, Range 3 West.
 - The northwestern terminus of the CEC Corridor would be in the northwest quarter of Section 24, Township 4 North, Range 3 West, in Maricopa County, Arizona.
 - Northwestern terminus coordinates: (359730 Easting [E], 3727953 Northing [N]; UTM Zone 12S)

¹ The State Historic Preservation Act requires state agencies to consider impacts of their programs on historic properties in or eligible for the Arizona Register of Historic Places (ARHP), and to provide the SHPO an opportunity to review and comment on the actions that affect such historic properties.

Exhibit H-3a. Request for Consultation letter to SHPO and SHPO response (1 of 15).

- The three options for the eastern termini of the gen-tie at the Trilby Wash Substation would be in the west half of Section 20, Township 4 North, Range 2 West, Maricopa County, Arizona.
 - Eastern terminus coordinates (option A): (361830 E, 3727276 N; UTM Zone 12S)
 - Eastern terminus coordinates (option B): (362133 E, 3727399 N; UTM Zone 12S)
 - Eastern terminus coordinates (option C): (362128 E, 3727140 N; UTM Zone 12S)
- *Funding source:* Private (no state, federal, or other public funding sources)

PROJECT AREA INFORMATION

- *Project area:* The Project area consists of the CEC Corridor. The 165- to 435-foot-wide CEC Corridor will contain a 165-foot-wide transmission line ROW that will extend up to 2 miles (80.71 acres) between the planned BESS and the regional transmission grid at the existing APS Trilby Wash Substation, located 9 miles west-northwest of downtown Surprise, Arizona. The CEC Corridor is shown on Figure 2-1 of Attachment 2. Figure 2-1 also shows land jurisdiction in the vicinity of the CEC Corridor.
- *Total area:* Up to 80.71 acres.
- *Landownership (all involved; acres by land jurisdiction):* The CEC Corridor will be on private land and on State Trust Lands administered by ASLD (Table 1).

Table 1. CEC Corridor by Land Jurisdiction

Jurisdiction	Area (acres)	Percent of Total
Private	3.17	4%
ASLD ROW	77.54	96%

SCOPE OF WORK

Wild Stallion Energy Storage LLC plans to file an application for a CEC for the Project. The proposed Project is designed to deliver power from the planned Wild Stallion BESS to the regional transmission grid via the existing APS Trilby Wash Substation, located approximately 9 miles west-northwest of downtown Surprise, Arizona. Wild Stallion Energy Storage LLC anticipates the Project will require 17 to 20 transmission structures, depending on interconnection location (i.e., option A, B, or C), terrain, turns, and other factors. Transmission structures for the Project would be up to 120 feet high, with spans between structures up to 650 feet. The Project may use a combination of tangent, angle, and dead-end monopoles that will be tapered, multisided, and made of galvanized steel. New access roads and staging areas will be confined to the CEC Corridor. The Applicant is seeking a CEC for the CEC Corridor.

SUMMARY OF PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS WITHIN THE STUDY AREA

A records review was completed for the CEC Corridor and a 1-mile buffer (Study Area). The records review identified 37 prior cultural resources surveys that have taken place within the Study Area. These

projects took place from 1977 to 2025 in support of generation, telecommunication, transmission, proving grounds, landfill, sewer infrastructure, and residential development projects. Of these, 18 cultural resources surveys intersect and cover approximately 42.19 acres (52.2%) of the CEC Corridor (Table 2 and Figure 3-1 in Attachment 3).

The SHPO has provided guidance for the reliance on survey data that are 10 years or older (SHPO 2004). Surveys conducted before 1995 did not use the current Arizona State Museum (ASM) site definition criteria (ASM 1995). Three surveys in the CEC Corridor (1977-20.ASM, 1984-128.ASM, and 1986-254.ASM) predate 1995. These surveys cannot be relied upon for current inventory purposes; however, 100% of the pre-1995 project areas were subsequently surveyed to current standards. Of the remaining 15 surveys (covering 42.19% of the CEC Corridor), all used a survey strategy that would meet current methodological standards for full coverage in Arizona (SHPO 2004). The principal investigators listed for these surveys meet current state and federal professional qualification standards. In addition, the ASM has recently provided updated guidance for any survey conducted on state lands more than 10 years ago (ASM 2024). Areas subject to survey on city, county, or state lands that were last surveyed more than 10 years ago must be resurveyed. Four surveys on State Trust Land (2024-164.ASM, 2024-230.ASM, 2025-270.ASM, and 2025-533.ASM) were surveyed less than 10 years ago and are considered adequate; they cover approximately 30.48 acres (37.7%) of the CEC Corridor. The portion of the CEC Corridor that intersects private land (2005-268.ASM) also meets current SHPO standards and covers 3.17 acres (4%) of the CEC Corridor. SWCA Environmental Consultants (SWCA) believes these five surveys, which cover 33.65 acres (41.7%) of the CEC Corridor, can be relied on for current inventory purposes. It is unlikely that additional resources present in the CEC Corridor have become at least 50 years old since the previous surveys.

In summary, 47.06 acres (58.3%) of the CEC Corridor have never been surveyed or were surveyed prior to 2016 on State Trust Land and will require an updated survey.

Table 2. Previous Cultural Resources Projects Intersecting the CEC Corridor

Agency Number	Project Name	Organization	Year
1977-20.ASM	Arizona Nuclear Power Project	Museum of Northern Arizona	1977
1984-128.ASM	MEAD-PHOENIX 500KV SURVEY	Wirth Environmental Services	1984
1986-254.ASM/ 7,2906.SHPO	Maricopa County Landfill Site	Dames and Moore	1986
2004-1076.ASM	APS West Valley North	URS Corporation	2004
2005-268.ASM	White Tank Mountains - Fox Trail Survey	Northland Research, Inc.	2003
2005-531.ASM	Deer Valley Road Substation	Archaeological Consulting Services, Ltd.	2005
2005-656.ASM	West Valley 230kV Powerline	Archaeological Consulting Services, Ltd.	2005
2005-856.ASM	Festival Ranch Project	Environmental Planning Group	2005
2007-768.ASM	TSI Substation Temporary Use Work Area	Archaeological Consulting Services, Ltd.	2007
2008-26.ASM	Centex_ASLD Surprise ARCH Survey	SWCA Environmental Consultants	2008
2008-674.ASM	Fox Trails Deer Valley Roadway Easement	SWCA Environmental Consultants	2008
2008-90.ASM	WSLG Surprise 1.5-Mile Sewer Line	WestLand Resources, Inc.	2005
2013-554.ASM	West Valley North 230kV Update	Archaeological Consulting Services, Ltd.	2013
2014-493.ASM	Sun Valley to Tributary Wash Supplemental Cultural Resource Survey	URS Corporation	2014

Exhibit H-3c. Request for Consultation letter to SHPO and SHPO response (3 of 15).

Request for Consultation – Wild Stallion Energy Storage System Gen-Tie Project Certificate of Environmental Compatibility

Agency Number	Project Name	Organization	Year
2024-164 ASM	Ranger Energy Center, LLC's Maricopa County Gen-Tie Line Survey	Eocene Environmental Group	2024
2024-230 ASM	Deer Valley Gen-Tie Survey Area	SWCA Environmental Consultants	2024
2025-270 ASM	Deer Valley BESS	SWCA Environmental Consultants	2025
2025-533 ASM	Wild Stallion Gen-Tie	SWCA Environmental Consultants	2025

Note: Shading denotes surveys that SWCA believes can be relied on for current inventory purposes.

IDENTIFICATION OF CULTURAL RESOURCES WITHIN THE STUDY AREA

Historic-Era Sites

The records review identified six historic-era sites within the Study Area, none of which intersects the CEC Corridor (Table 3 and Figure 3-1 in Attachment 3). One site (13 MNA) in the Study Area is of unknown temporal and cultural affiliation and is not included in the tables below. The historic-era sites consist of artifact scatters, features with artifact scatters, a ranch complex, a temporary campsite, and abandoned segments of a road. All are determined or recommended ineligible for the Arizona Register of Historic Places (ARHP).

Table 3. Previously Recorded Historic-Era Sites within the Study Area

Site Number	Cultural/Temporal Affiliation	Site Type	ARHP Eligibility Status	Associated Reference(s)	Distance from CEC Corridor (miles)
AZ T:7:310(ASM)	Euro-American/ 1880–1890	Historic artifact scatter	Determined ineligible	Savage and Rogge (2003)	0.42
AZ T:6:14(ASM)/ NA15139	Euro-American/ 1880–1890	Historic features with artifacts	Determined ineligible	Cox et al. (2004)	0.01
AZ T:6:94(ASM)	Euro-American/ 1920s–1930s	Ranch complex	Recommended ineligible	Shaw (2003)	0.44
AZ T:6:95(ASM)	Euro-American/ 1920s–1930s	Artifact scatter	Recommended ineligible	Shaw (2003)	0.75
AZ T:7:443(ASM)	Euro-American/ 1950s–1960s	Road (two segments)	Recommended ineligible	Punzmann and Fangmeier (2014)	0.02
98167.01 SWCA	Euro-American/Mexican-American/ 1920s–1930s	Camp	Recommended ineligible	Knoll (2025)	0.88

Historic-Era In-Use Structures

The records review identified three historic-era in-use structures within the Study Area consisting of two unnamed roads and the Wickenburg to Dysart 69-kV Transmission Line (previously recorded as AZ T:2:143[ASM]) (Table 4 and Figure 3-1 in Attachment 3). The two in-use roads intersect the CEC Corridor.

The first road (previously recorded as AZ T:7:443[ASM]) consists of one northeast-southwest-oriented in-use segment and two abandoned segments south of the existing Trilby Wash substation. Archaeological Consulting Services, Ltd. (ACS), described the site as a ca. 1950s unimproved and bladed dirt road. Due to modern disturbances, ACS separated the site into three segments from north to south:

segment 1 is in-use, segment 2 is abandoned and disturbed, and segment 3 is abandoned and overgrown. The road was recommended ineligible for the ARHP (Punzmann and Fangmeier 2014).

The above road alignment corresponds with a second northeast-southwest-oriented in-use road north of the existing Trilby Wash substation. The road was previously recorded as AZ T:7:453(ASM) by Antigua in 2017 (Moses and Luchetta 2017) as an in-use Late Historic Euro-American road with one potentially abandoned segment; they recommended the site ineligible for the ARHP. The area was revisited in 2025 by SWCA and the road was recorded as an isolated occurrence (Nolte et al. 2026).

Both roads are depicted as a single road on the 1957 U.S. Geological Survey (USGS) McMicken Dam, Arizona 1:24,000-scale topographic map and are also shown on a 1949 historical aerial image. ACS noted the original historic alignment connected to a system of unimproved historic roads which eventually linked to the U.S. Route 60, Luke Air Force Auxiliary Field No. 1, and to the Beardsley Canal (Punzmann and Fangmeier 2014).

Table 4. Previously Recorded Historic-Era In-Use Structures within the Study Area

Structure Name	Cultural/Temporal Affiliation	Site Type	ARHP Eligibility Status	Associated Reference(s)	Distance from CEC Corridor (miles)
Wickenburg to Dysart 69-kV Transmission Line / previously AZ T:2:143(ASM)	Euro-American; 1948–present (post–1976 in the Study Area)	Transmission line	Determined eligible (Criteria A)	Watkins et al. (2011)	0.06
Unnamed road / previously recorded as AZ T:7:443(ASM)	Euro-American/ 1950s–1980s	Road	Recommended ineligible	Punzmann and Fangmeier (2014)	0.00
Unnamed road / previously recorded as AZ T:7:453(ASM)	Euro-American/ 1950s–1980s	Road	Recommended ineligible	Moses and Luchetta (2017); Nolte et al. (2026)	0.00

Note: Shaded rows indicate site intersects the CEC Corridor.

SWCA reviewed historical General Land Office (GLO) plat maps, historical topographic maps, and historical aerial imagery for the CEC Corridor to identify any extant historic-era features that may still be present. The GLO original survey plat map of Township 4 North, Range 2 West, filed in 1896, depicts no historic features in the CEC Corridor or Study Area. The GLO original survey plat map of Township 4 North, Range 3 West, filed in 1919, depicts two northwest-southeast roads and a fence line intersecting the CEC Corridor in the far northeast corner of Section 24. Within the Study Area, the GLO map depicts the “Nunez Cabin” and “Adobe Tank” in Section 13, as well as three additional fence lines, and seven unpaved road segments.

The 1957 (1958 edition) USGS White Tank Mountains NE and McMicken Dam, Arizona 1:24,000-scale topographic map depicts one unnamed, improved, northwest-southeast road intersecting the CEC Corridor near the center of Section 19, Township 4 North, Range 2 West; this road follows the modern alignment of North Crozier Road. This in-use road was recorded by SWCA as an isolated occurrence in 2025 (Knoll 2025). Four unimproved roads, two reservoirs, and one building are depicted within the Study Area. The 1972 edition of these maps depicts two additional unimproved roads in the Study Area.

Historical aerial imagery from 1949 to 1953 shows features that correspond with the 1957 USGS topographic maps, including two faint, northwest-southeast unpaved roads intersecting the CEC Corridor in the western portion of Section 19 (Maricopa County Assessor’s Office 2026). Imagery from 1958

shows one north-south road along the eastern edge of Section 24, Township 4 North, Range 3 West intersecting the CEC Corridor (NETROnline 2026). Aerial imagery from 1976 shows one faint, northwest-southeast unpaved road intersecting the CEC Corridor in the east half of Section 19, Township 4 North, Range 2 West. One of the roads shown on the 1949 to 1953 aerial images is no longer visible in the CEC Corridor on the 1976 aerial image.

The National Register of Historic Places database maintained by the National Park Service was also consulted to ascertain whether any cultural resources in the National Register of Historic Places are in the Study Area. No properties were identified (National Park Service 2026a), and no national historic trails or routes of national significance pass through or near the Study Area (National Park Service 2026b). The ARHP database, maintained by Arizona State Parks and Trails, was also consulted to ascertain whether any cultural resources previously listed in the ARHP are in the Study Area. No properties were identified (SHPO 2026).

Archaeological Sites

There are two previously recorded archaeological sites within the Study Area—a lithic scatter and a fire-cracked rock concentration (Table 5 and Figure 3-1 in Attachment 3); neither intersects the CEC Corridor.

Table 5. Previously Recorded Archaeological Sites within the Study Area

Site Number	Cultural/Temporal Affiliation	Site Type	ARHP Eligibility Status	Associated Reference(s)	Distance from CEC Corridor (miles)
AZ T:7:24(ASM)	Unknown precontact	Lithic scatter	Unevaluated	O'Brien et al. (1986)	0.36
AZ T:7:21(ASM)/NA18122	Unknown precontact	Fire-cracked rock concentration	Recommended eligible	Dosh and Keller (1984)	0.03

SUMMARY AND ASSESSMENT OF EFFECTS

The records review identified that 41.7% of the CEC Corridor has been previously and adequately surveyed for cultural resources. No previously recorded historic properties intersect the CEC Corridor and no unrecorded cultural resources on GLO plat and historic USGS topographic maps are depicted intersecting the CEC Corridor.

To ensure that other potential historic properties would not be impacted within the CEC Corridor, the Applicant will complete a cultural resources inventory of the portions of the CEC Corridor that have not been previously adequately surveyed to identify and evaluate the cultural resources that may be present. If any historic properties are encountered, the inventory report would provide recommendations on how to mitigate any adverse effects on those historic properties.

Request for Consultation – Wild Stallion Energy Storage System Gen-tie Project Certificate of Environmental Compatibility

Wild Stallion Energy Storage LLC respectfully requests your review and comments on this project. Please feel free to contact me at michelle.knoll@swca.com should you have any questions.

Sincerely,

Michelle Knoll

Michelle Knoll
Project Manager-Cultural Resources, SWCA Environmental Consultants

SHPO concurs that 41.7% of the project area has been adequately surveyed and that the remaining 58.3% requires survey. Please continue consultation with our office when this survey is completed.

Caroline Klebacha

**Caroline Klebacha, M.A.
Arizona State Historic Preservation Office
April 22, 2026**

Exhibit H-3g. Request for Consultation letter to SHPO and SHPO response (7 of 15).

REFERENCES CITED

- Arizona State Historic Preservation Office (SHPO). 2004. *SHPO Position on Relying on Old Archaeological Survey Data*. SHPO Guidance Point No. 5. Arizona State Parks, Phoenix.
- Arizona State Historic Preservation Office (SHPO). 2026. Arizona Register of Historic Places (ARIHP). Available at: <https://azstateparks.com/arizona-register-of-historic-places-arhp>. Accessed February 2026.
- Arizona State Museum (ASM). 1995. *Revised Site Definition Policy*. Arizona State Museum, University of Arizona, Tucson.
- Arizona State Museum (ASM). 2024. *Policy and Procedures Regarding the Use of Previous Archaeological Survey Data*. Arizona State Museum, University of Arizona, Tucson.
- Cox, Eric S., Kirsten Erickson, and A.E. (Gene) Rogge. 2004. *Cultural Resource Survey for the Arizona Public Service West Valley - North Transmission Line and Substation Project, Maricopa County, Arizona*. Cultural Resource Report 2004-48(AZ). URS Corporation, Phoenix, Arizona.
- Dosh, Deborah P.L., and Donald R. Keller. 1984. *Archaeological Survey of the Mead to Phoenix +500KV Direct Current Transmission Line Preferred Alternative, Volumes 1 and 2*. Wirth Environmental Services, Phoenix, Arizona.
- Knoll, Michelle. 2025. *Cultural Resources Inventory of 28.87 Acres of State Trust Land for the Wild Stallion Energy Storage System Gen-tie Project, Maricopa County, Arizona (ASLD Application No. 14-125228-00-100)*. Cultural Resources Report No. 25-934. SWCA Environmental Consultants, Phoenix, Arizona.
- Maricopa County Assessor's Office. 2026. *Historic Aerials*. Available at: <https://gis.maricopa.gov/GIO/HistoricalAerial/index.html>. Accessed February 2026.
- Moses, Jim, and Sarah Luchetta. 2017. *A Class III (Intensive) Cultural Resources Assessment Survey of Approximately 70 Acres for a State Land Application for TransCanada Facility USA, Inc. Located at West Deer Valley Road and 199th Avenue in Surprise, Maricopa County, Arizona*. Antigua Archaeology, LLC, Prescott, Arizona.
- National Park Service (NPS). 2026a. *National Register of Historic Places*. Available at: <https://www.nps.gov/subjects/nationalregister/index.htm>. Accessed February 2026.
- National Park Service (NPS). 2026b. *National Trails System Webmap*. Available at: <https://nps.maps.arcgis.com/apps/webappviewer/>. Accessed February 2026.
- NETROnline. 2026. *Historic Aerials*. Available at: <https://www.historicaerials.com/viewer>. Accessed February 2026.
- Nolte, Gabriela, Alex Vinger, and Kelin Flanagan. 2026. *Class III Survey of 60 Acres for the Deer Valley BESS Project, Maricopa County, Arizona*. Cultural Resources Report No. 25-567. SWCA Environmental Consultants, Phoenix, Arizona.
- O'Brien, Patrick M., A.E. Rogge, and J. Simon Bruder. 1986. *Archaeological Investigations Along Trilby Wash in West-Central Arizona: A Survey of the Northwest Maricopa County Landfill Site*. Dames and Moore, Phoenix, Arizona.

- Punzmann, Walter R., and Kristin L. Fangmeier. 2014. *A Class III Cultural Resources Survey of 20.77 Acres of Arizona State Land Department Land for the Arizona Public Service Company, West Valley North 230kV Update Project, near Wittman, Maricopa County, Arizona*. Project Report No. 13-183:CSUR. Archaeological Consulting Services, Ltd., Tempe, Arizona.
- Savage, Ronald D., and A.E. (Gene) Rogge. 2003. *Cultural Resource Survey for a Proposed Expansion of the Volvo Proving Grounds, Maricopa County, Arizona*. Cultural Resource Report 2003-1(AZ). URS, Phoenix, Arizona.
- Shaw, Chester W. 2003. *Cultural Resources Survey of 880 Acres North of the White Tank Mountains (Fox Trail), City of Surprise, Maricopa County, Arizona*. Technical Report No. 03-120. Northland Research, Inc., Tempe, Arizona.
- Watkins, Christopher N., David A. Bild, and Kelly M. Stehman. 2011. *A Cultural Resources Survey on Federal and State Land of 22.26 miles (134.90 acres) for the Arizona Public Service M-109 (Eagle Eye-Wickenburg) 69-kV Transmission Line, and 12.48 miles (75.63 acres) of the Arizona Public Service M-115 (Wickenburg-Dysart) 69-kV Transmission Line in Maricopa County, Arizona*. Logan Simpson Design, Tempe, Arizona.

Exhibit H-3i. Request for Consultation letter to SHPO and SHPO response (9 of 15).

ATTACHMENT 1

**Arizona Corporation Commission – State Historic Preservation Office
Consultation Checklist for Compliance with the State Historic
Preservation Act**

Exhibit H-3j. Request for Consultation letter to SHPO and SHPO response (10 of 15).

ACC-SHPO CONSULTATION CHECKLIST
FOR COMPLIANCE WITH THE STATE HISTORIC PRESERVATION ACT
(September 2022)

Projects requiring a Certificate of Environmental Compatibility are subject to the Arizona State Historic Preservation Act and consultation with the Arizona State Historic Preservation Officer. All submissions must include a letter on letterhead, addressed to:

Kathryn Leonard, State Historic Preservation Officer
1110 W. Washington St., #100
Phoenix, AZ 85007

The letter should be one or two pages (as needed) and include:

- Project Name
- Project location (please include legal description and UTM's)
- Funding source for the project, and/or the state or federal agency or program, as applicable
- Project Area description (project area dimensions, and include all alternatives, access roads, gen-tie connections, staging areas, etc)
- Total Acres in Project Area
- Landownership (all involved; provide acres by land jurisdiction)
- Scope of work (detailed description of the project)
- Summary of previous archaeological investigations within the Project Area
- Identification of cultural resources within the Project Area (brief description of site and eligibility status)
- Request for SHPO review and comment

Attachments should include:

- Location map showing where the project area is located and land jurisdiction
- Map(s) showing Class I research results for projects and cultural resources

Email to: azshpo@azstateparks.gov (no hard copies accepted)

Additional questions: cklebach@azstateparks.gov

Exhibit H-3k. Request for Consultation letter to SHPO and SHPO response (11 of 15).

ATTACHMENT 2
Project Area and Land Jurisdiction Map

Exhibit H-3I. Request for Consultation letter to SHPO and SHPO response (12 of 15).

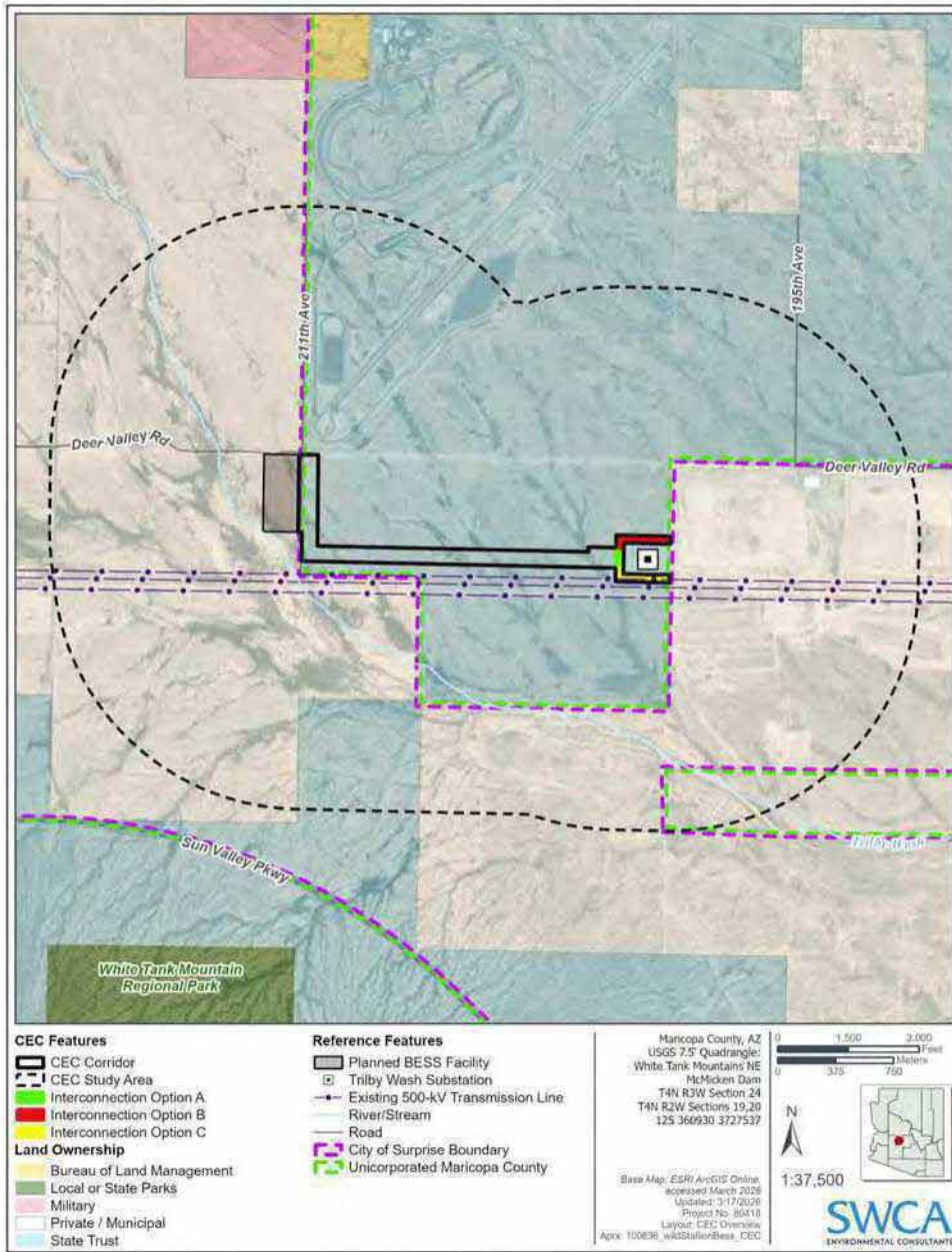


Figure 2-1. Project overview and land jurisdiction.

Attachment 2 - 1

Exhibit H-3m. Request for Consultation letter to SHPO and SHPO response (13 of 15).

ATTACHMENT 3
Class 1 Previous Research Map

Exhibit H-3n. Request for Consultation letter to SHPO and SHPO response (14 of 15).

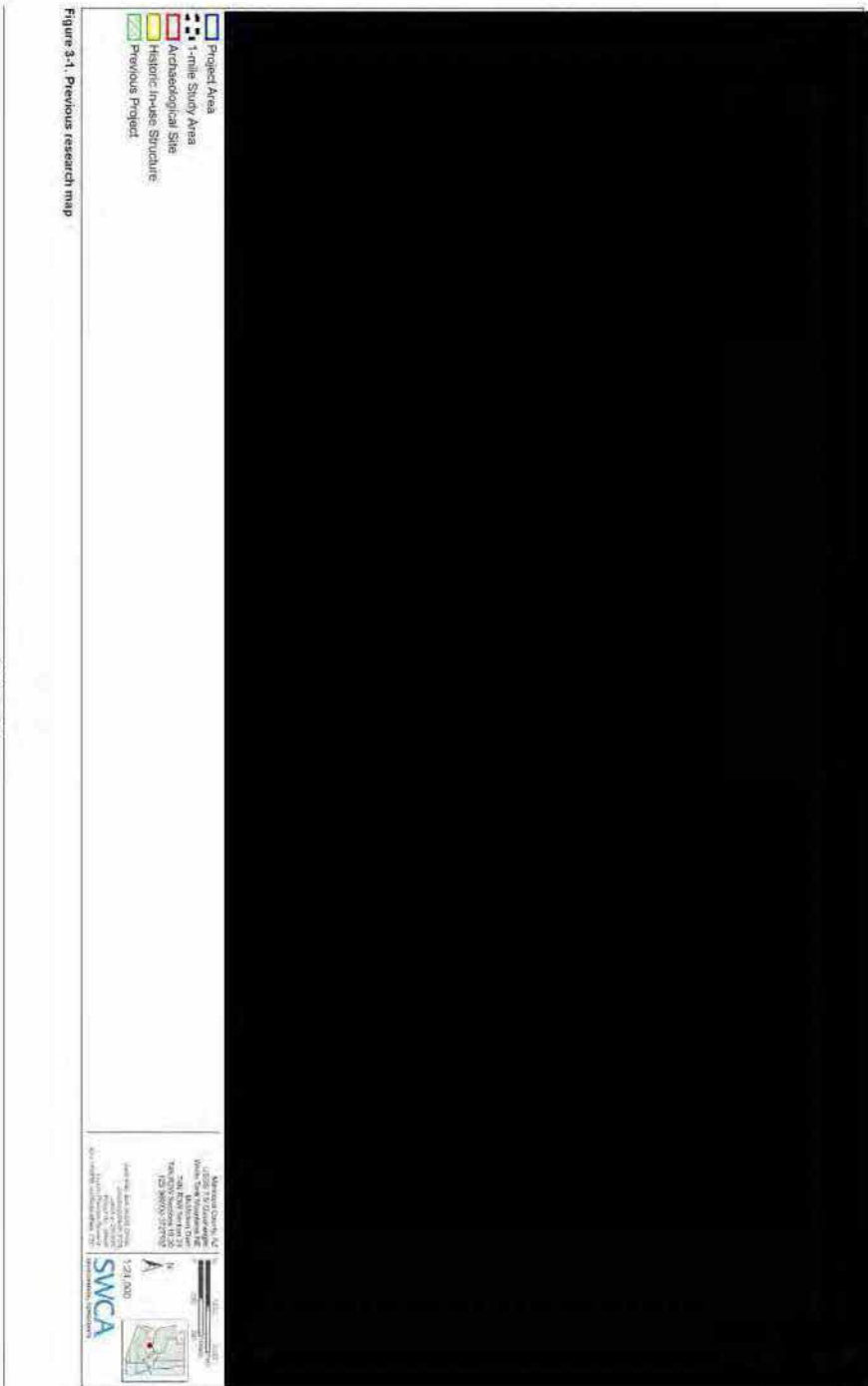


Figure 3-1. Previous research map

Attachment 3 - 1

Exhibit H-3o. Request for Consultation letter to SHPO and SHPO response (redacted) (15 of 15).

EXHIBIT I. NOISE

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219:

Describe the anticipated noise emission levels and any interference with communication signals which will emanate from the proposed facilities.

Exhibit I describes anticipated noise emissions during construction and operation, electromagnetic field (EMF) levels, and potential for communication signal interference from the Project, including corona discharge effects and audible noise. This analysis satisfies Arizona Corporation Commission Rule R14-3-219(B)(5).

AUDIBLE NOISE

Sound is a form of energy transmitted through pressure variations in a medium, typically air, and is detectable by the ears of humans and animals. Noise, in contrast, refers to any unwanted or intrusive sound that interferes with a desired acoustic environment.

Sound is primarily described by two fundamental characteristics: amplitude and frequency. Amplitude represents the magnitude of the pressure variation reaching the ear and determines the perceived loudness of a sound. Frequency describes the rate at which a sound source vibrates or oscillates over time and is typically measured in hertz (Hz).

Two additional concepts important to noise analysis are sound power and sound pressure. Sound power represents the total acoustic energy emitted by a sound source per unit time. It is an inherent property of the source and remains constant regardless of the surrounding environment or the distance from the source.

Sound pressure refers to the local variations in air pressure caused by a propagating sound wave. As sound travels through a medium, it produces pressure fluctuations that can be measured at a specific location. Unlike sound power, sound pressure levels vary with distance from the source and are influenced by environmental factors such as reflections, absorption, and physical obstructions.

Human hearing generally ranges from approximately 0 A-weighted decibels (dBA) to 120 dBA. The A-weighting scale adjusts sound measurements to reflect the sensitivity of the human ear to different frequencies and provides a metric that more closely represents perceived loudness. Sound levels above approximately 120 dBA are extremely loud and may cause discomfort or potential hearing damage.

Understanding how sound levels combine is essential when evaluating the cumulative effects of multiple noise sources. Because decibels are expressed on a logarithmic scale, sound levels cannot be added arithmetically. For example, two independent sources that each produce a sound level of 30 dBA combine to produce a total sound level of approximately 33 dBA rather than 60 dBA. In addition, small changes in sound level, generally on the order of 1 to 2 dB, are typically imperceptible to the average listener. This principle provides context when evaluating modeled noise increases.

These relationships form the basis for the distance-based sound propagation calculations presented later in this exhibit. In those calculations, the sound power levels of construction equipment or corona sources are used to estimate resulting sound pressure levels at nearby receptors.

For reference, Table I-1 presents common noise sources and their corresponding sound levels in dBA. These examples provide context for comparing the relative loudness of typical environmental and everyday sounds.

Table I-1. Sound Levels of Representative Sounds and Noises

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock band
Jet fly-over at 1,000 feet		
	100	
Gas lawn mower at 3 feet		
	90	
Diesel truck at 50 feet at 50 miles per hour		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban daytime	50	Dishwasher next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: California Department of Transportation (2009)

Existing Sound Environment

The Project is an up-to-2-mile-long generation intertie transmission line. The Project is within and adjacent to the City of Surprise in Maricopa County, Arizona, on private land and Arizona State Trust lands managed by the Arizona State Land Department. The Study Area for the Project consists of a 1-mile-radius buffer around the requested Certificate of Environmental Compatibility (CEC) Corridor.

Land uses within and surrounding the Study Area include a private automotive testing area, a regional landfill, various minor transportation corridors, electrical energy transmission and distribution infrastructure including the Arizona Public Service (APS) Trilby Wash Substation, a natural gas pipeline, and ranching infrastructure (e.g., fencing, cattle tanks). The remaining areas are undisturbed desert. Residential areas are present to the east and west of the Study Area. The Luke Air Force Base Auxiliary Airfield 1 is approximately 0.6 mile north of the Study Area; the Study Area is within the boundary of the associated “Territory in the Vicinity” and designated Accident Potential Zones for the airfield overlap

with the northeast portion of the Study Area; the CEC Corridor is outside of any Accident Potential Zones (see Exhibit A-4). Noise associated with these land uses includes low altitude aircraft, distant roadway traffic, agricultural equipment, and occasional rural residential sources such as lawn care equipment and domestic animals.

To characterize the existing acoustic environment in the Project vicinity, SWCA conducted an ambient sound survey in the Study Area and near the Project. Long-term noise monitoring was performed over a 26-hour period from February 17, 2026, to February 18, 2026. One monitoring location (LT-1) was selected to represent ambient sound levels in the Study Area. The monitoring location was at 33.6778°N, 112.4875°W.

The existing sound environment in the Study Area reflects a combination of rural environmental sounds and intermittent human activity. Primary contributors include aircraft, distant roadway traffic and automotive noise from the proving grounds, landfill equipment, occasional agricultural equipment, and rural residential sources such as lawn care equipment and domestic animals. Natural sounds, including wind moving through vegetation, insects, and birds, also contribute to the ambient soundscape. Together, these human-generated and environmental sources establish the baseline acoustic conditions in the Study Area.

The ambient sound survey documented existing noise conditions using several commonly reported acoustic metrics. These metrics include the equivalent continuous sound level (L_{eq}), the L90 statistical sound level, the day-night average sound level (L_{dn}), the daytime average sound level (L_d), and the nighttime average sound level (L_n). The measurements provide a quantitative baseline for evaluating potential noise effects associated with construction and operation of the Project. The significance of potential impacts is assessed based on both absolute sound levels and any measurable increase above existing ambient conditions.

Table I-2 summarizes the measured A-weighted sound levels recorded at the monitoring location using meteorologically valid data. Data from periods of high wind was removed as to not skew results. The data presented only reflects data that is free of environmental influence.

Table I-2. Summary of Ambient Sound Measurements

Monitoring Location	Monitoring Start	Monitoring End	Elapsed Time	Measured Sound Levels (dBA)*				
				L_{eq}	L_{90}	L_{dn}	L_d	L_n
LT-1	2026-02-17 19:15:45	2026-02-18 21:33:18	26:17:33	49.5	26.9	50.3	52.2	31.1

* L_{eq} = the average sound level over a specified period, representing fluctuating noise as a constant level of energy.

L_{90} = the sound level exceeded 90% of the time; commonly used as an indicator of background noise;

L_{dn} = a 24-hour average sound level with a 10-dBA penalty applied to nighttime hours (10 p.m.–7 a.m.);

L_d = the average sound level during defined daytime hours;

L_n = the average sound level during defined nighttime hours.

The measured sound levels indicate a relatively quiet rural environment. L_{90} values were recorded in the mid-20-dBA range, while the overall L_{dn} was approximately 50 dBA. These results are consistent with rural areas that experience limited development and intermittent human activity. These baseline measurements provide the reference condition used to evaluate potential Project-related noise increases.

Noise-Sensitive Receptors

Noise-sensitive receptors are land uses, including residences, schools, daycares, libraries, churches, hospitals, nursing homes, auditoriums, parks, and outdoor gathering areas, where elevated sound could disrupt normal activities.

A detailed review of aerial imagery, parcel records, and Maricopa County and City of Surprise zoning data within the Study Area identified no schools, libraries, healthcare facilities, formal recreational areas, multi-family residential developments, or dense subdivisions.

The existing APS Trilby Wash Substation is immediately east of the CEC Corridor, with the Northwest Regional Landfill farther east. The nearest noise-sensitive receptors are a single-family home approximately 5,715 feet (1.08 miles) to the northwest and a potential residence approximately 5,500 feet (1.04 miles) west of the CEC Corridor, outside the Study Area. Additional residential development is present approximately 1.3 miles north and approximately 1.6 miles east of the CEC Corridor. The area north of the CEC Corridor is dominated by the Ford Arizona Proving Grounds (industrial test facility), and the area to the south by vacant State Trust land and open desert scrub. No residential communities exist within the Study Area (see Exhibit A-4).

This substantial separation distance between the Project and noise-sensitive receptors, combined with open desert terrain providing natural screening, minimizes potential noise effects at the few identified residences. No future entitled developments were identified within the Study Area that would alter this assessment.

Anticipated Noise During Project Construction

Construction of the Project would require the use of various types of ground-based machinery and equipment, including earthmoving equipment, cranes, air compressors, generators, and haul trucks. Operation of this equipment is typically associated with elevated noise levels. According to the Federal Highway Administration (FHWA) (FHWA 2006), common construction equipment used for transmission line installation, such as cranes, dozers, and haul trucks, can generate sound levels of approximately 70 to 90 dBA at a distance of 50 feet.

Construction hours will strictly comply with Maricopa County Ordinance P-22 (Hours of Construction Ordinance), which limits activities within 500 feet of Rural or Residential zoning to weekdays from 7:00 a.m. to 7:00 p.m., weekends/holidays from 8:00 a.m. to 6:00 p.m., with seasonal adjustments shortening hours November through March due to cooler temperatures and favorable noise propagation conditions. The City of Surprise limits construction times in residential zones within the city. As no construction will occur within residential zones within city limits, this does not apply.

The Project will also implement industry-standard noise control measures in accordance with FHWA guidance and transmission line construction best management practices, including properly maintained mufflers on all diesel equipment, strategic staging of generators and compressors farthest from off-site receptors as conditions and operations allow, and sequencing of highest-noise activities midday when ambient levels peak.

Construction noise decreases substantially with increasing distance from the source. Under typical outdoor conditions, sound levels decrease by approximately 6 dB for each doubling of distance from the source. For example, equipment generating 85 dBA at a distance of 50 feet would be expected to produce approximately 79 dBA at 100 feet, assuming hemispherical sound propagation and no shielding from terrain or structures.

The nearest identified noise-sensitive receptors are approximately 5,500 feet (1.04 miles) to the west and approximately 5,715 feet (1.08 miles) to the northwest of the CEC Corridor (see Exhibit A-4). At these distances, sound from typical construction equipment would be substantially attenuated. Using standard distance-based propagation assumptions, a source producing 85 dBA at 50 feet would be expected to result in a sound level of approximately 44.5 dBA at the receptor location. This estimate conservatively assumes no additional attenuation from terrain, vegetation, ground absorption, or other physical barriers.

Measured ambient sound levels in the Study Area indicate a L_d of approximately 52.2 dBA.

The predicted construction noise level at the nearest receptor, approximately 44.5 dBA, is therefore lower than the measured daytime ambient conditions. Under these conditions, construction noise at the receptor location would likely be partially masked by existing environmental sounds and typical rural activity.

Because construction activities would be temporary and intermittent, and because sound levels decrease substantially with distance, construction-related noise at nearby receptors is expected to be limited. Based on the distance to the nearest confirmed residence and the predicted sound levels relative to existing ambient conditions, construction noise is not expected to result in substantial impacts or exceed applicable county noise regulations (Maricopa County 2004, 2006). The CEC Corridor is not within residential zones within city limits of the City of Surprise; therefore, City of Surprise construction timing regulations do not apply.

Anticipated Impacts During Project Operation

Corona discharge is an electrical phenomenon that occurs when the electric field surrounding a high-voltage conductor becomes strong enough to ionize the surrounding air. This process is common on energized transmission lines, including 230-kilovolt (kV) systems, and occurs in varying degrees on most operating high-voltage conductors.

When corona discharge occurs, small electrical discharges form around the conductor surface. These discharges can produce several effects, including faint audible noise, minor radio interference, localized heating, and small chemical reactions in the surrounding air. The audible component of corona discharge is typically perceived as a low-level humming, crackling, or hissing sound.

Several factors influence the occurrence and intensity of corona discharge. These include the operating voltage of the line, the physical characteristics of the conductor, and environmental conditions. Conductor properties such as diameter, surface condition, and minor imperfections (e.g., dust accumulation, scratches, or nicks) can affect the electrical gradient along the conductor surface and influence corona formation. Environmental conditions also play an important role. Wet or foul weather conditions can increase corona activity, while elevation and air pressure influence air density and therefore affect the likelihood and intensity of corona discharge.

The primary source of operational noise from transmission lines is corona discharge. For the Project, which would be constructed within a 165-foot-wide right-of-way (ROW) in the CEC Corridor, potential corona-related noise was evaluated using the Bonneville Power Administration (BPA) Corona and Field Effects model. This publicly available Excel-based tool is commonly used to estimate environmental effects associated with transmission lines, including audible corona noise as well as EMF levels.

The model estimates audible corona noise using inputs such as conductor type, operating voltage, conductor spacing and configuration, elevation, and weather conditions. Both fair weather and wet weather scenarios are evaluated because precipitation can increase corona activity and associated noise. The model assumes that the transmission line ROW is at the center of the CEC Corridor. The model also includes elevation-based correction factors because air density decreases with altitude, which can

influence corona formation. The CEC Corridor is at an average elevation of approximately 1,400 feet above mean sea level.

Model results indicate that corona noise from the Project would be approximately 27.0 dBA directly beneath the conductors under fair weather conditions and approximately 22.9 dBA at the edge of the 165-foot-wide ROW (Exhibit I-1). These predicted sound levels are below the measured ambient sound levels in the Study Area. For reference, the measured nighttime L_{90} sound level at the monitoring location was 26.9 dBA, indicating that the predicted corona noise level at the ROW edge would be approximately 4 dB lower than existing sound conditions. Even directly beneath the Project, predicted fair weather corona noise levels remain near or below existing nighttime ambient conditions.

The nearest noise-sensitive receptor is approximately 5,500 feet from the centerline of the ROW, well beyond the distance at which corona noise would be detectable.

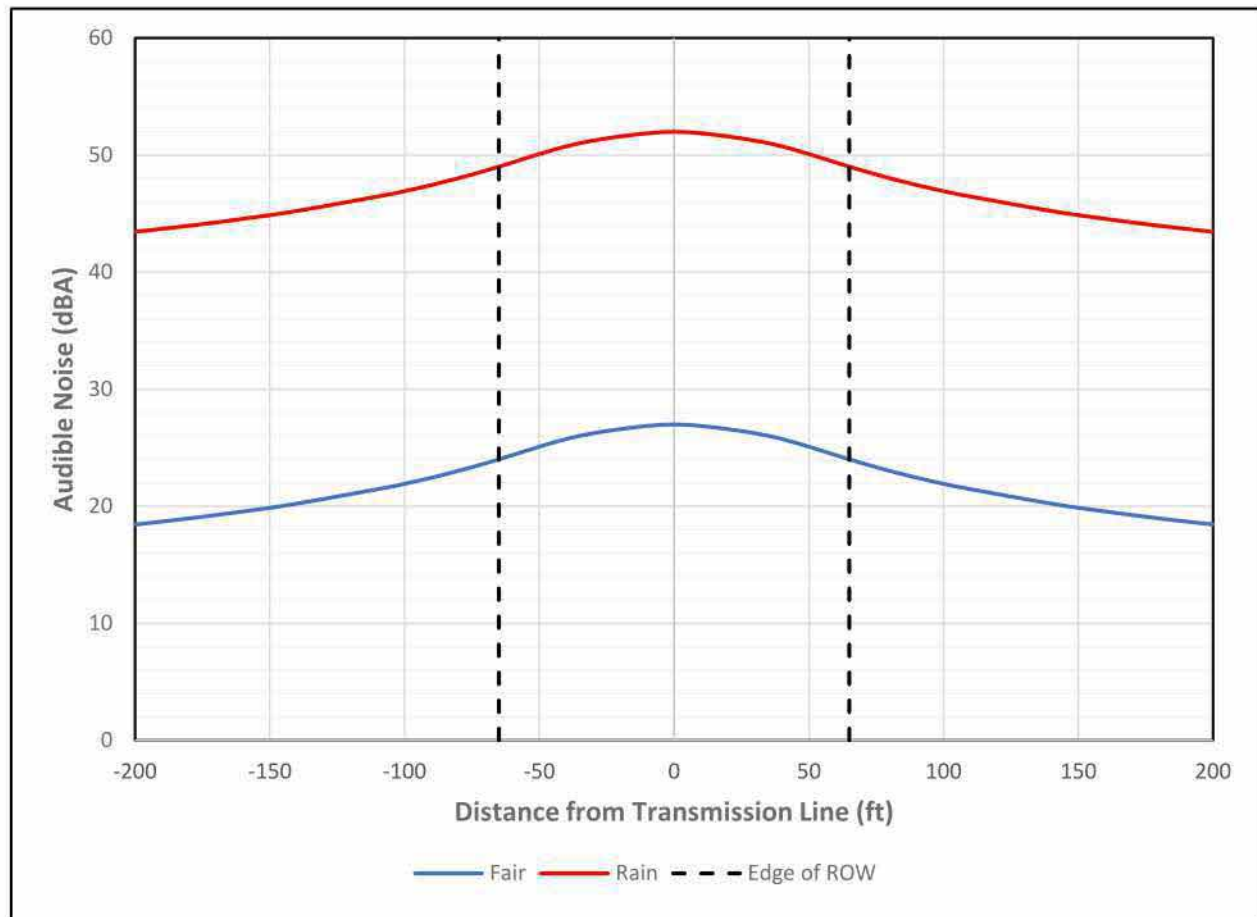


Exhibit I-1. Corona audible noise for 230-kV transmission line.

Under wet weather conditions, corona activity can increase temporarily. The model predicts a maximum corona noise level of approximately 52.0 dBA directly beneath the Project during wet weather, decreasing to approximately 47.9 dBA at the edge of the ROW. During these conditions, environmental sounds associated with precipitation, wind, and other meteorological activity typically increase ambient noise levels and would further mask any audible corona effects.

Based on the modeling results and the distance to the nearest noise-sensitive receptor, corona noise associated with operation of the Project is not expected to result in perceptible noise increases at nearby

receptors. Modeled sound levels remain below existing ambient conditions at and beyond the ROW under both fair and wet weather conditions. Therefore, operational noise impacts associated with corona discharge are not anticipated and mitigation is not required.

COMMUNICATION SIGNAL INTERFERENCE

Overhead transmission lines have been studied extensively for their potential effects on communication systems. In general, properly designed and maintained transmission lines do not interfere with standard radio, television, or wireless communication signals. When interference is reported, it is typically associated with either corona discharge or gap discharge along energized conductors or hardware components.

Corona discharge can produce low levels of broadband electrical noise that may be detectable by nearby radio receivers under certain conditions. This effect is most commonly associated with lower-frequency radio services, such as AM radio. Listeners located close to a transmission line may occasionally perceive a faint humming or crackling sound on an AM receiver, particularly during wet weather conditions when corona activity may increase. However, the intensity of corona-related electrical noise decreases rapidly with distance from the line and is typically limited to areas near the conductors.

Higher-frequency communication systems are generally much less susceptible to this type of interference. FM radio, which operates between approximately 88 and 108 megahertz (MHz), uses frequency modulation that inherently rejects most forms of amplitude-based electrical noise. As a result, FM radio reception is rarely affected by transmission line corona activity. Television signals and most modern digital broadcast systems also operate at frequencies where corona-related interference is generally negligible (BPA 2013; Electric Power Research Institute [EPRI] 1982). In addition, transmission lines operating at or below 230 kV typically produce relatively low levels of corona activity under normal operating conditions, particularly when modern conductor designs and hardware are used.

Gap discharge is another potential source of electrical noise associated with transmission lines. Gap discharges occur when small separations develop between mechanically connected metal components, allowing intermittent electrical sparking across the gap. Such conditions can generate radio-frequency noise that may be detectable by nearby receivers. Gap discharges can occur at any voltage level; however, they are uncommon on well-designed and properly maintained transmission facilities. Transmission line hardware is typically engineered to minimize electrical discontinuities through proper bonding, secure mechanical connections, and corrosion-resistant materials.

Many reported cases of radio or television interference are ultimately traced to sources unrelated to transmission lines, such as household appliances, poorly shielded electronic equipment, or improperly installed antennas. When interference associated with a transmission line does occur, it is usually attributable to a specific hardware issue, such as a loose connector, damaged insulator, or corroded component. These issues can generally be identified through inspection and corrected through routine maintenance (EPRI 1982).

Transmission lines also do not typically interfere with modern wireless communication systems, including cellular networks and microwave communication links. In practice, transmission structures are sometimes used to support telecommunications equipment because their height can improve signal propagation. The common co-location of communication equipment on transmission structures demonstrates the general compatibility of transmission facilities with wireless communication infrastructure.

Considering the Project's operating voltage of 230 kV, the use of modern transmission line hardware and construction practices, and the substantial distance to nearby residences, radio-frequency noise or communication signal interference is not expected. Based on these factors, measurable communication interference associated with operation of the Project is not anticipated.

ELECTRIC AND MAGNETIC FIELDS

EMFs are naturally occurring phenomena produced by both natural processes and the use of electricity. Electric fields are created by voltage and exist whenever electrical equipment or power lines are energized, while magnetic fields are produced by the flow of electric current. These fields occur around all electrical devices, including household wiring, appliances, and transmission lines (National Institute of Environmental Health Sciences [NIEHS] 2002).

Electric fields are typically measured in kilovolts per meter (kV/m). Naturally occurring electric fields in the environment generally range from approximately 0.1 to 1 kV/m (World Health Organization [WHO] 2007). Many common electrical devices can produce higher localized electric fields at very short distances. For example, televisions and other video display units may produce electric fields in the range of approximately 5 to 10 kV/m immediately adjacent to the device surface (EPRI 2019).

Exhibit I-2 illustrates typical EMF levels associated with overhead transmission lines and how these fields decrease with distance from the conductors. For a typical 230-kV transmission line, electric field strength is approximately 2.0 kV/m directly beneath the line and decreases to approximately 0.7 kV/m at the edge of a 165-foot-wide ROW (BPA 1994). At greater distances, the electric field continues to decline, reaching approximately 0.05 kV/m at about 200 feet and approximately 0.01 kV/m at about 300 feet from the line.

Magnetic fields are commonly measured in milligauss (mG) or nanotesla (nT), where 1 mG equals 100 nT. As shown in Exhibit I-2, the mean magnetic field beneath a typical 230-kV transmission line is approximately 57.5 mG. Magnetic field strength decreases rapidly with distance from the conductors, declining to approximately 11.2 mG at the approximate edge of the 165-foot-wide ROW, 1.8 mG at about 200 feet, and approximately 0.8 mG at about 300 feet (BPA 1994).

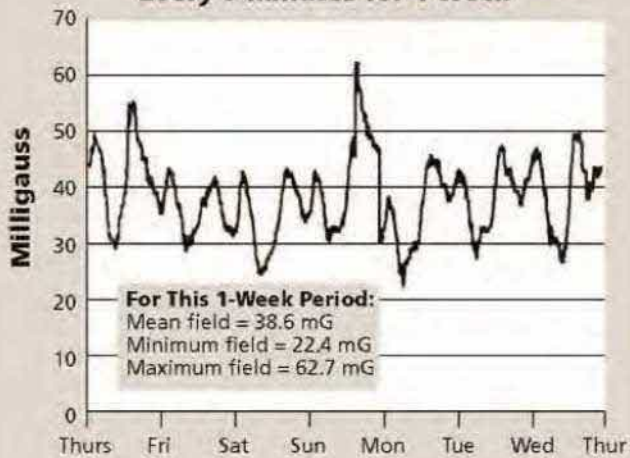
For context, magnetic fields are also produced by many common household electrical appliances. Devices such as hair dryers, microwave ovens, and vacuum cleaners can generate magnetic fields ranging from approximately 10 mG to several hundred milligauss at distances of a few inches from the appliance (NIEHS 2002; WHO 2007). Similar to transmission lines, magnetic field strength from these devices decreases rapidly with distance.

Both electric and magnetic fields decrease rapidly with increasing distance from transmission line conductors. This rapid attenuation results in substantially lower EMF levels at locations beyond the ROW.

Typical EMF Levels for Power Transmission Lines*



Magnetic Field from a 500-kV Transmission Line Measured on the Right-of-Way Every 5 Minutes for 1 Week



Electric fields from power lines are relatively stable because line voltage doesn't change very much. Magnetic fields on most lines fluctuate greatly as current changes in response to changing loads. Magnetic fields must be described statistically in terms of averages, maximums, etc. The magnetic fields above are means calculated for 321 power lines for 1990 annual mean loads. During peak loads (about 1% of the time), magnetic fields are about twice as strong as the mean levels above. The graph on the left is an example of how the magnetic field varied during one week for one 500-kV transmission line.

*These are typical EMFs at 1 m (3.3 ft) above ground for various distances from power lines in the Pacific Northwest. They are for general information. For information about a specific line, contact the utility that operates the line.
 Source: Bonneville Power Administration, 1994.

Exhibit I-2. Typical EMF levels for power transmission lines.

CONCLUSION

The existing sound environment in the Study Area reflects a combination of rural environmental sounds and intermittent human activity. Primary contributors include aircraft, distant roadway traffic and automotive noise from the proving grounds, landfill equipment, occasional agricultural equipment, and rural residential sources such as lawn care equipment and domestic animals. Natural sounds, including wind moving through vegetation, insects, and birds, also contribute to the ambient soundscape.

The nearest noise-sensitive receptors are a single-family home approximately 5,715 feet (1.08 miles) to the northwest and a potential residence approximately 5,500 feet (1.04 miles) west of the CEC Corridor, outside the Study Area (see Exhibit A-4). Additional residences occur approximately 1.3 miles north and 1.6 miles east of the corridor. The substantial distance between the Project and nearby residences, along with open desert terrain that provides natural screening, limits the potential for noise effects at these locations.

Construction activities would be temporary and intermittent, and sound levels decrease substantially with distance. Based on the distance to the nearest noise-sensitive receptors and the existing ambient noise conditions, construction noise is not expected to result in substantial impacts or exceed applicable noise regulations.

During operation, modeled corona noise levels remain below existing ambient conditions at and beyond the ROW under both fair and wet weather conditions, and perceptible noise increases at nearby receptors are not expected. Radio-frequency noise or communication interference is also not anticipated due to the Project's 230-kV design, modern transmission line hardware, and the distance to nearby residences. Measurable communication interference associated with operation of the Project is not anticipated.

EMFs from transmission lines are similar to or lower than many common electrical devices (such as televisions and other video display units, hair dryers, microwave ovens, and vacuum cleaners) and decrease rapidly with increasing distance from transmission line conductors. This rapid attenuation results in substantially lower EMF levels at locations beyond the ROW.

Overall, due to the existing sound environment, distance to noise-sensitive receptors, and anticipated noise levels during construction and operation, the Project is consistent with the existing soundscape of the immediate area and is not expected to result in substantial noise-related impacts.

LITERATURE CITED

- Bonneville Power Administration (BPA). 1994. *Electrical and Biological Effects of Transmission Lines: A Review*. DOE/BP-2938. Portland, Oregon: Bonneville Power Administration. Available at: <https://legalelectric.org/f/2022/01/Electrical-and-Biological-Effects-of-Transmission-Lines-A-review-December-1996.pdf>. Accessed April 2026.
- . 2013. *Corona and Field Effects Model*. User Manual. Portland, Oregon: Bonneville Power Administration. Referenced in: <https://www.wapa.gov/wp-content/uploads/2023/04/SWIPDEISChapter3Part3.pdf>. Accessed April 2026.
- California Department of Transportation. 2009. *Technical Noise Supplement to the Caltrans Traffic Noise Analysis Protocol*. Table 2 5, Typical Noise Levels. Sacramento, CA.
- Electric Power Research Institute (EPRI). 1982. *Transmission Line Reference Book: 345 kV and Above*. 2nd Edition. EPRI EL-2084. Palo Alto, California: Electric Power Research Institute.
- . 2019. *AC Transmission Line EMF Worker Safety Assessment Tool User Guide*. 3002014132. Palo Alto, California: Electric Power Research Institute.
- Federal Highway Administration (FHWA). 2006. *Roadway Construction Noise Model User's Guide (RCNM v1.1)*. FHWA-HEP-11-005. Washington, DC. Available at: https://rosap.ntl.bts.gov/view/dot/8895/dot_8895_DS1.pdf. Accessed April 2026.
- Maricopa County. 2004. *Maricopa County Hours of Construction Ordinance*. Planning and Development Department. Available at: <https://www.maricopa.gov/DocumentCenter/View/2013/P-22---Hours-of-Construction-Ordinance-PDF>. Accessed April 2026.
- Maricopa County. 2006. *Maricopa County Noise Control Ordinance P-23*. Board of Supervisors. Available at: <https://www.maricopa.gov/DocumentCenter/View/2014/P-23---Noise-Ordinance-PDF>. Accessed April 2026.
- National Institute of Environmental Health Sciences (NIEHS). 2002. *Electric and Magnetic Fields Associated with the Use of Electric Power: Questions and Answers*. NIH Pub. 02-5080. Available at: https://www.niehs.nih.gov/sites/default/files/health/materials/electric_and_magnetic_fields_associated_with_the_use_of_electric_power_questions_and_answers_english_508.pdf. Accessed April 2026.
- World Health Organization (WHO). 2007. *Environmental Health Criteria 238: Extremely Low Frequency Fields*. Geneva, Switzerland: World Health Organization. Available at: <https://iris.who.int/server/api/core/bitstreams/161a59b9-434a-4f2c-ab5e-4f4d320de2d4/content>. Accessed April 2026.

EXHIBIT J. SPECIAL FACTORS

As stated in the Arizona Corporation Commission Rules of Practice and Procedure R14-3-219, Exhibit 1:

Describe any special factors not previously covered herein, which applicant believes to be relevant to an informed decision on its application.

INTRODUCTION

This exhibit describes the public involvement program that was conducted for the Project. These outreach efforts provided information about the Project to agencies, stakeholders, and community members, and solicited feedback, comments, and information.

PROJECT CONTACT INFORMATION

Dedicated points of contact for public comments and questions were established for the Project. The following were included in public-facing communications:

Phone number: (949) 393-1094

Email address: CommunitySupport@BayWa-re.com

PUBLIC INVOLVEMENT

Informational Letters

The Applicant sent informational letters to the 41 landowners within 1 mile of the Certificate of Environmental Compatibility (CEC) Corridor. Additionally, the Applicant sent the letter to 31 agency and stakeholder contacts (see Table H-1). The informational letter was mailed on April 02, 2026 (Exhibits J-1a through J-1c). This letter introduced the Project and announced opportunities for comment, including an in-person open house at the Surprise Regional Library in Surprise, Arizona, on April 22, 2026.

Project Website

The Applicant created and is maintaining a dedicated website for the Project website (<https://us.baywa-re.com/en/projects/local-projects/landing-wild-stallion-energy-storage>) (Exhibit J-2). The website serves as a central location to provide stakeholders and interested parties with Project information and opportunities for public comment, including a comment form link and the in-person open house location, date, and time information. The website includes general information regarding the Project and the associated energy storage facility. The website was advertised through informational letters and social media advertisement.

Social Media Advertisement

A social media advertisement was published on Facebook for the Project. The advertisement ran from April 13 to April 22, 2026. The target area for this advertisement included a 3-mile buffer around the

CEC Corridor that included the entire 1-mile Study Area. The purpose of the Facebook advertisement was to announce the Project and provide notice of the in-person public open house. Individuals that clicked the advertisement were directed to the Project website, where additional information was available. Facebook advertising metrics indicate that the advertisement reached 19,520 unique accounts, was clicked on 486 times, and received 38 reactions, five comments (Table J-1), and one share. A screenshot of the social media advertisement is included in Exhibit J-3.

In-Person Open House Meeting

An in-person public open house meeting was held for the Project on Thursday, April 22, 2026, from 6:00 p.m. to 7:00 p.m. at the Surprise Regional Library (16089 North Bullard Avenue, Surprise, Arizona, 85374). The format of the meeting was an informal open house, allowing community members to attend at their convenience, review informational displays, and communicate with members of the Project team. A copy of the sign-in sheet and a blank comment form provided at the meeting are included in Exhibits J-4, J-5a, and J-5b. Two members of the public attended the open house and one person signed in. Photographs of the in-person open house are included as Exhibits J-6a and J-6b. The open house display boards are shown in Exhibits J-7a through J-7h.

Public Comment

Public comments received are shown in Table J-1.

Table J-1. Comments Received

Comment Number	Method of Comment	Comment	Applicant Response
1	Facebook comment	Maybe learn that batteries do not store but chemically produce electric!!	No response needed.
2	Facebook comment	Laughing face reaction	No response needed.
3	Facebook comment	When NY gets audited this company will be audited as well if they have received any money from NY taxpayers.	No response needed.
4	Facebook comment	Scam	No response needed.
5	Facebook comment	Say no to this green lie.	No response needed.



r.e.think energy

April 6, 2026

Subject: Wild Stallion Energy Storage Gen-Tie Project Community Meeting

Greetings,

You are invited to attend an open house for the Wild Stallion Energy Storage Gen-Tie Project (the Project) on April 22, 2026 at the Surprise Regional Library. The Project involves a new 230-kilovolt generation intertie transmission line (gen-tie) that would connect the planned Wild Stallion battery energy storage system (BESS) to the regional electric grid at the existing Arizona Public Service (APS) 230kV Trilby Wash Substation. The BESS will be located on Deer Valley Road in Maricopa County, AZ located within City of Surprise municipal limits, approximately 1.5 miles directly west of the Waste Management Northwest Regional Landfill. The Project is located on private land and State Trust Land managed by the Arizona State Land Department. Once connected to the regional electric grid, the Project will allow the BESS to contribute to grid reliability and stability while storing electricity for Arizonans to use when it is most needed, such as during peak demand or unexpected outages.

The meeting will consist of a booth-style event, and participants are invited to stop by anytime within the designated timeframe. Please note that no formal presentation will be provided. This notice is being sent to nearby property owners and associations to encourage public participation during the meeting and in the review process. Light snacks and beverages will be provided.

Please scan the QR code below to visit the project website for information about the community meeting, including the option to submit questions or comments ahead of the meeting. We also invite you to reach out to CommunitySupport@BayWa-re.com or by calling 949-393-1904 with questions regarding the Project or the event.

Date of Community Meeting: Wednesday, April 22nd

Time of Community Meeting:

- Start Time: 6:00pm
- Finish Time: 7:00pm

Location of the Community Meeting:

Surprise Regional Library, Regional Program Room
16089 N. Bullard Ave, Surprise, AZ 85374

Check Out the Project Website Below!



<https://us.baywa-re.com/en/projects/local-projects/landing-wild-stallion-energy-storage>

Exhibit J-1a. Representative informational letter sent April 6, 2026 (1 of 3).



r.e.think energy

Subject: Wild Stallion Energy Storage Gen-Tie Project Community Meeting

Wild Stallion Energy Storage LLC (the Applicant), a wholly owned subsidiary of BayWa r.e. Development LLC, plans to file an application for a Certificate of Environmental Compatibility (CEC) with the Arizona Power Plant and Transmission Line Siting Committee ("Line Siting Committee") for the Wild Stallion Energy Storage Gen-Tie Project (the Project) located in Maricopa County, AZ. The Project involves a new 230-kilovolt generation intertie transmission line (gen-tie) that would connect the planned Wild Stallion battery energy storage system (BESS) to the regional electric grid at the existing Arizona Public Service (APS) 230kV Trilby Wash Substation. The Project would be an aboveground line on poles up to 120 feet tall. The Project would start at the planned BESS near Deer Valley Road and the 211th Avenue alignment, extend east up to 2 miles, and end at the APS Trilby Wash Substation at one of three interconnection locations (options A, B, or C) as shown on the enclosed map. The final alignment of the gen-tie will be determined at a later design stage, but will be within the identified CEC Corridor shown on the enclosed map. The CEC Corridor is located on private land and State Trust Land managed by the Arizona State Land Department in Maricopa County, AZ. Additional information is available on the Project website: <https://us.baywa-re.com/en/projects/local-projects/wild-stallion-energy-storage>

Planned Project and associated facilities include BESS components enclosed by a perimeter wall, a main power transformer, a substation, electrical infrastructure, the gen-tie, and access roadways. The BESS is a proposed 200MW / 800MWh facility located off of Deer Valley Road within City of Surprise municipal limits, approximately 1.5 miles directly west of the Waste Management Northwest Regional Landfill. The BESS, gen-tie, and supporting facilities will be engineered using industry best practices to comply with all applicable requirements while undergoing rigorous environmental, cultural, noise, and other impact studies before the start of construction, which is anticipated in mid-2029. Once connected to the regional electric grid, the Project will allow the BESS to contribute to grid reliability and stability while storing electricity for Arizonans to use when it is most needed, such as during peak demand or unexpected outages.

The Applicant is working with its environmental consultant, SWCA Environmental Consultants, to prepare the CEC application for the Project that will include environmental studies evaluating the proposed route for the gen-tie within the CEC Corridor. The Line Siting Committee will evaluate the CEC application at a public hearing currently scheduled for August 2026. If approved, the CEC will then be presented to the Arizona Corporation Commission for their consideration and final decision.

Arizona Administrative Code Rule R14-3-219 requires that CEC applications include an exhibit that identifies "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."

This letter is an opportunity for your organization to provide any information or comments regarding development plans for inclusion in the CEC application. We respectfully request your response in writing; specifically, please advise us of any relevant existing or future development plans in the vicinity of the proposed Project that you can identify at this time.

For Wild Stallion Energy Storage LLC to include your information with its CEC application, please forward your written comments to Wild Stallion Energy Storage LLC, by May 1, 2026, via email at communitysupport@baywa-re.com, or by physical mail: Attn: Annaka Egan, Wild Stallion Energy Storage LLC, 5901 Priestly Dr #300, Carlsbad, CA 92008. Additionally, you may reach the project team directly by phone at (949) 393-1904.

Sincerely,

Jeremy Akin
Project Manager for Wild Stallion Energy Storage LLC

Exhibit J-1b. Representative informational letter sent April 6, 2026 (2 of 3).

Project Overview Map for the Wild Stallion Energy Storage Gen-Tie Project

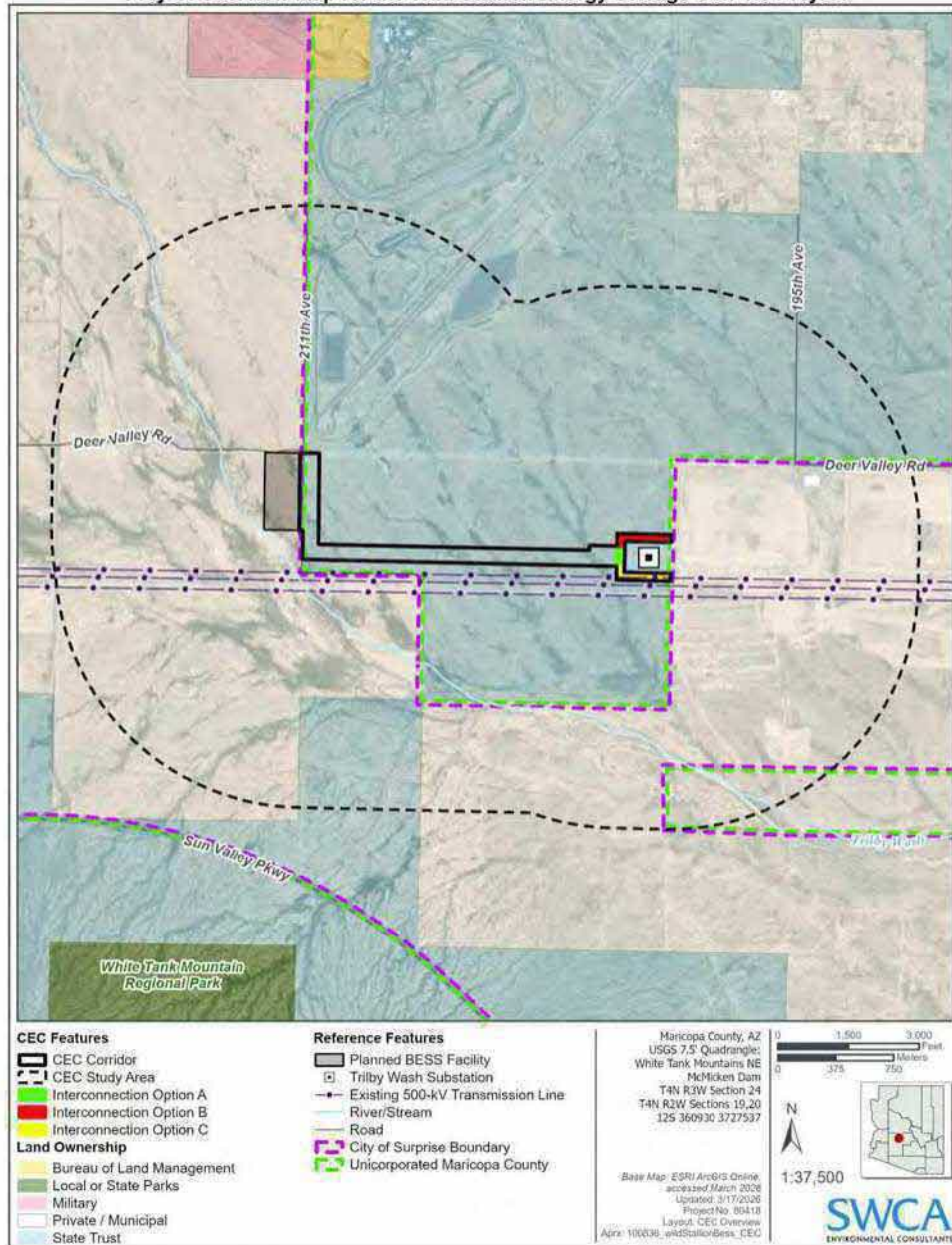


Exhibit J-1c. Representative informational letter sent April 6, 2026 (3 of 3).

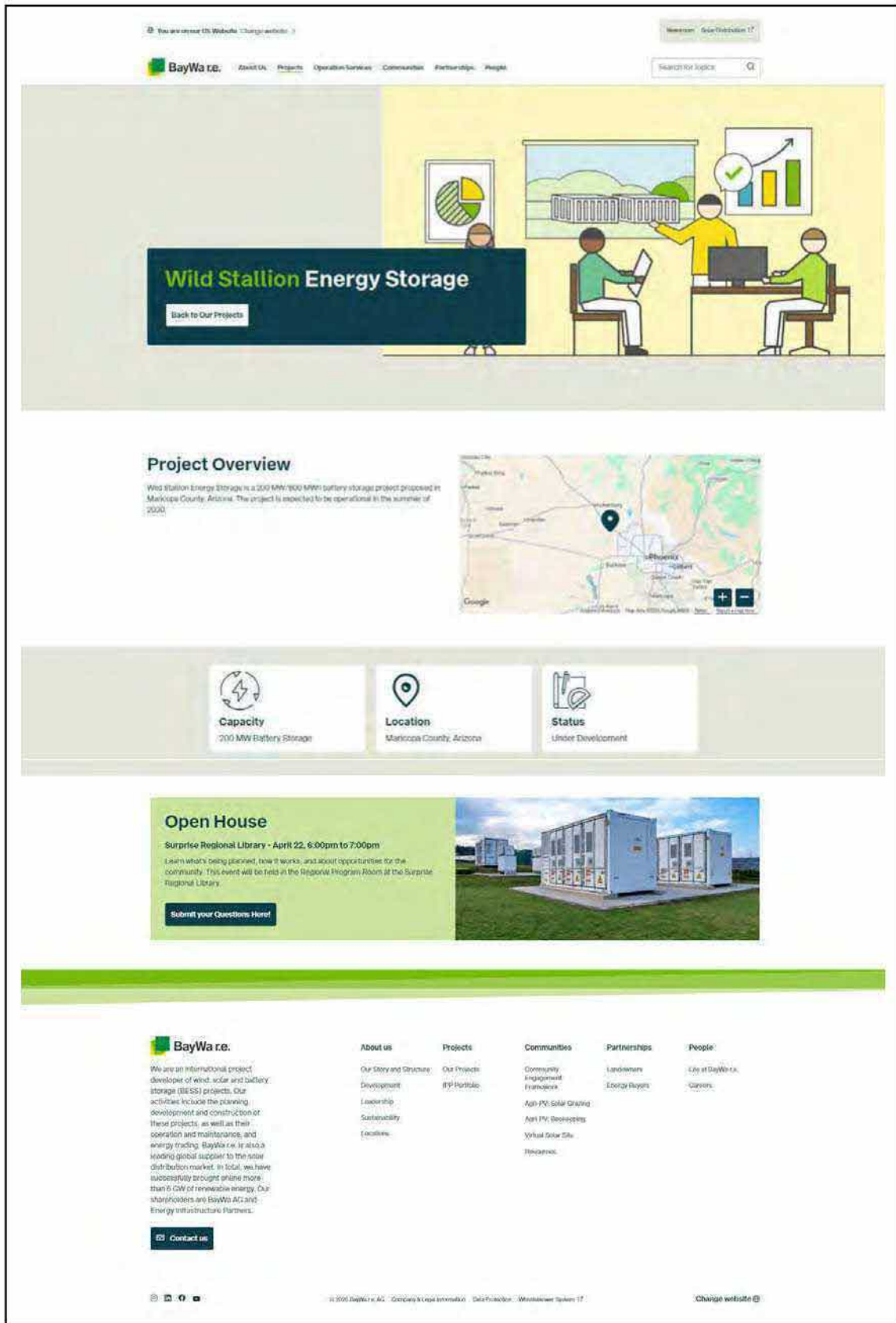



Exhibit J-2. Project website.

 **Wild Stallion Energy Storage** Ad  

We want to hear from you! Please join us for a community meeting for BayWa r.e.'s proposed Wild Stallion Energy Storage Gen-Tie Project, located in the City of Surprise and unincorporated Maricopa County, AZ. Click to learn more about the Project, the upcoming open house, and how to share your comments and questions.



us.baywa-re.com
Wild Stallion Energy Storage [Learn more](#)




 Like  Comment  Share

Exhibit J-3. Social media advertisement.

Questions or comments?
We welcome your feedback below:

Name : _____
Email : _____
Phone : _____

Exhibit J-5a. Blank comment form (front).



BayWa r.e.

r.e.think energy

Exhibit J-5b. Blank comment form (back).

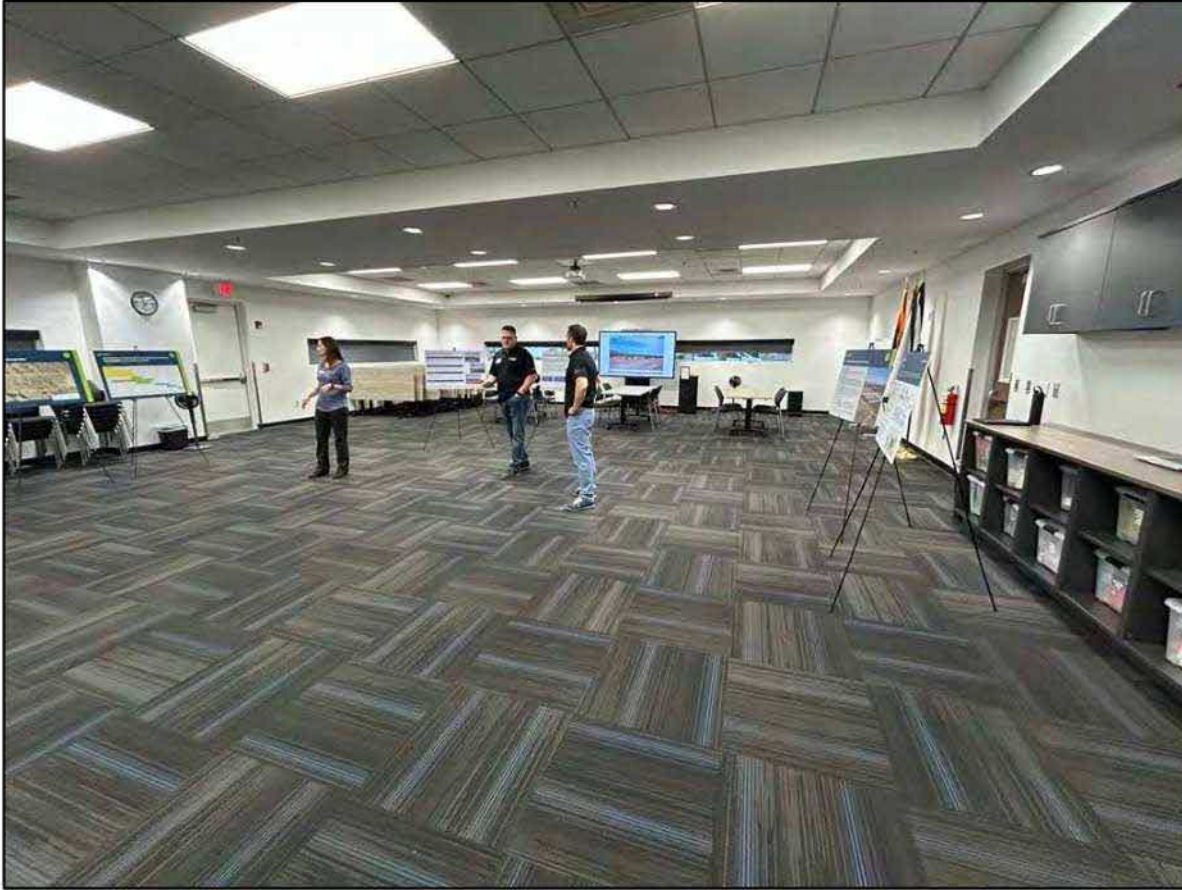


Exhibit J-6a. Photograph from the Public Open House April 22, 2026 (1 of 2).



Exhibit J-6b. Photograph from the Public Open House April 22, 2026 (2 of 2).



Exhibit J-7a. Open house display board (1 of 8).

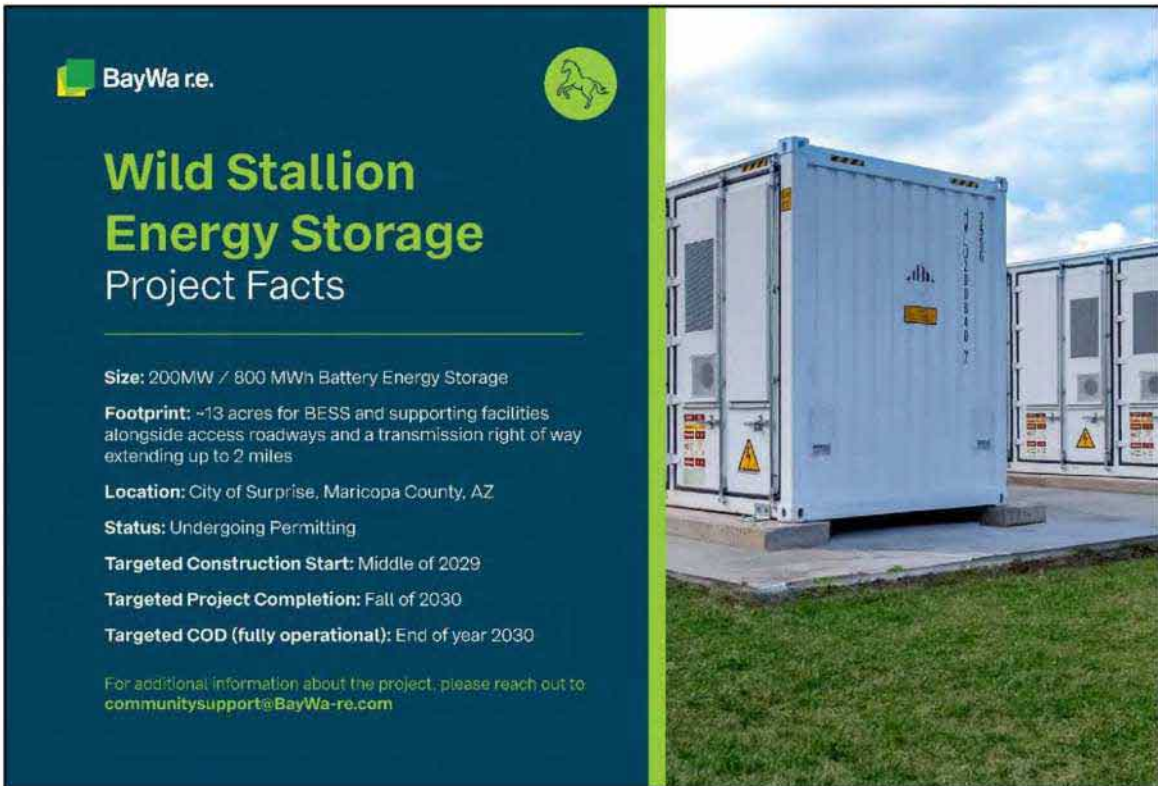


Exhibit J-7b. Open house display board (2 of 8).



Connecting Energy Storage to the Grid

What is a gen-tie?

A gen-tie, short for generation intertie, is a high-voltage power line that connects an energy project, such as a Battery Energy Storage System (BESS), to the regional power grid.

Why is it needed?

The gen-tie line allows the project to both send electricity to the grid and store energy from the grid when it's available. This two-way connection contributes to grid reliability and stability, allowing the BESS to store electricity for Arizonans to use when it is most needed, such as during peak demand or unexpected outages.

What will it look like?

The gen-tie line will be overhead, supported by steel poles along the route, starting at the planned BESS, extending up to 2 miles and ending at the Arizona Public Service (APS) Tribby Wash Substation. It will look similar to other power lines already installed and operating in the area. The route has been carefully planned to minimize any local and environmental impacts.

Gen-Tie Pole Illustrations



Tangent Pole

Supports the line where it runs straight; keeps wires in place.



Dead-End Pole

Used at ends or turns; built stronger to hold wire tension and connect sections.

Images shown are for illustrative purposes only and represent examples of similar BESS projects and transmission infrastructure. Actual project and transmission infrastructure appearance may vary based on final design and site-specific conditions.

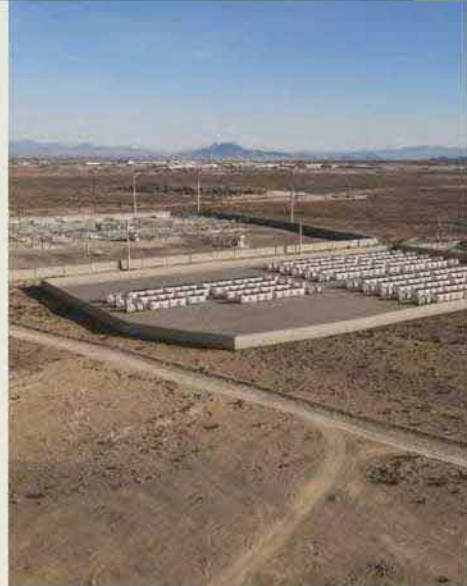


Exhibit J-7c. Open house display board (3 of 8).



Wild Stallion Energy Storage Map



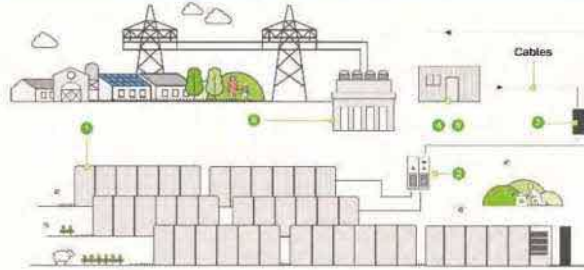
Exhibit J-7d. Open house display board (4 of 8).

BESS 101

BESS, standing for Battery Energy Storage Systems, are large rechargeable batteries that store electricity generated from sources like solar panels, wind turbines, or the power grid. At their core lies a simple yet powerful concept: storing excess energy during low-demand periods and releasing it rapidly when demand peaks.

BESS Site Layout

- 1 **Batteries:** Store energy utilizing lithium iron phosphate batteries, ideal because of their high energy density and lightweight structure.
- 2 **Power Conversion System (PCS):** Converts direct current (DC) stored in the batteries to alternating current (AC) for grid use and vice versa.
- 3 **Transformers:** Step voltage up so that the energy can be exported onto the grid.
- 4 **Energy Management System (EMS):** Controls energy charging and discharging; it also coordinates the PCS, BMS and fire control system to ensure safety and optimize system operation.
- 5 **Supervisory Control and Data Acquisition System (SCADA):** Ensures all components work together seamlessly and releases information to electric meters and transformers.
- 6 **Substation:** Connects BESS and distributes energy to the power grid



Inside a BESS Container

- 1 **Battery Racks**
- 2 **Battery Management System (BMS):** Monitors voltage, current, and temperature to ensure optimal and safe operation.
- 3 **HVAC System:** Maintains optimal temperature within a BESS to ensure peak performance.
- 4 **Fire Detection and Suppression System:** Contains multiple gas sensors. Internal barriers and walls also limit heat transfer.

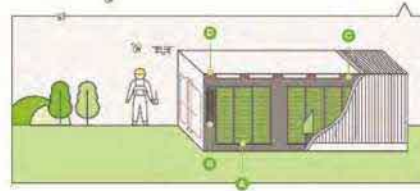


Exhibit J-7e. Open house display board (5 of 8).



Wild Stallion Energy Storage Project Development Phases

- | Phase 1: Early Stage | Phase 2: Mid Stage | Phase 3: Late Stage |
|---|--|---|
| <ul style="list-style-type: none"> Preliminary Site Analysis Site Control Due Diligence Interconnection | <ul style="list-style-type: none"> Project Permitting Engineering Utility Offer Secured | <ul style="list-style-type: none"> Construction Operations and Maintenance Decommissioning |

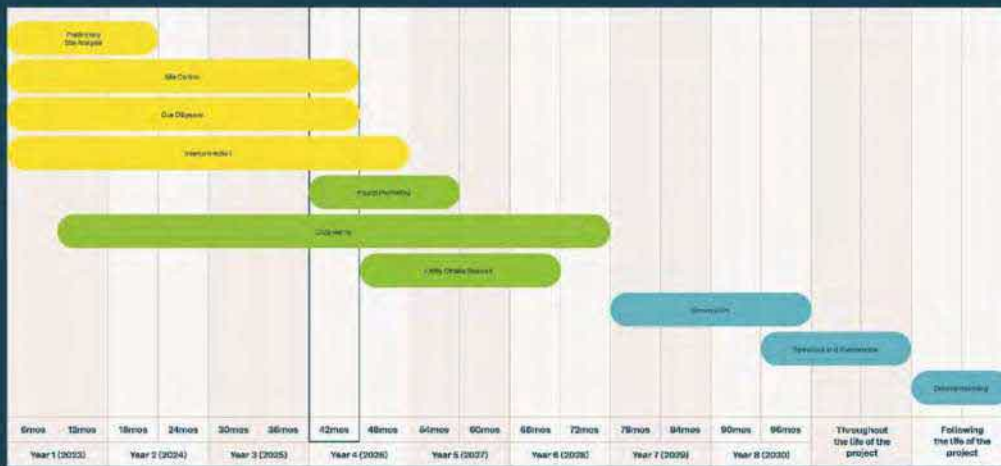


Exhibit J-7f. Open house display board (6 of 8).

Certificate of Env. Compatibility

- The Project will require a Certificate of Environmental Compatibility (CEC) from the Arizona Corporation Commission (ACC). The CEC is a state permit required for new transmission lines that operate at or above 115 kV.
- CEC applications are first reviewed by the Arizona Power Plant and Transmission Line Siting Committee (Committee) at a public hearing.
- The Committee then provides a recommendation to the ACC whether to approve the CEC, approve it with conditions, or deny it. Subsequently, the ACC makes a final determination on the CEC application.



Exhibit J-7g. Open house display board (7 of 8).

Key Environmental Studies

Biological and Water Resources

- Desktop and field reconnaissance surveys for biological and water resources have been completed and evaluations to support the CEC application are ongoing.
- The Project will comply with the Endangered Species Act, Clean Water Act, and other applicable laws and policies.

Visual Resources

- Photo-realistic visual simulations of the Project have been completed to support the CEC application.
- Evaluation of potential visual resource impacts to support the CEC application are ongoing.

Cultural Resources Inventory

- A records review and field survey for cultural and historic resources have been conducted to support the Project.
- Evaluations are ongoing and consultation will be conducted with the Arizona State Historic Preservation Office.

Noise Study

- A noise study is underway to evaluate noise levels during construction and operation.



Exhibit J-7h. Open house display board (8 of 8).