DOCKETED	
Docket Number:	25-OPT-02
Project Title:	Prairie Song Reliability Project
TN #:	268651
Document Title:	Data Request Response 4_Part 2
Description:	Attachment 5
Filer:	Erin Phillips
Organization:	Dudek
Submitter Role:	Applicant Consultant
Submission Date:	2/13/2026 5:09:28 PM
Docketed Date:	2/17/2026

Attachment 5

Biota Report – Redline Version

Biota Report
Prairie Song Reliability Project

~~**DECEMBER 2025**~~**FEBRUARY 2026**

Prepared for:

PRAIRIE SONG RELIABILITY PROJECT LLC

Prepared by:

DUDEK
225 South Lake Avenue, Suite M210
Pasadena, California 91101
Contact: Michael Cady, Senior Biologist

Table of Contents

SECTION **PAGE NO.**

Acronyms and Abbreviations ..... v~~vi~~

1 Introduction 1
- 1.1 Project Location 1
- 1.2 Project Description 2
  - 1.2.1 Transmission and Interconnection 3

2 Environmental Setting 7
- 2.1 On-Site Conditions 7
- 2.2 Soils 7
- 2.3 Regional Conditions 8
  - 2.3.1 Hydrologic Features 8

3 Regulatory Context 13
- 3.1 Federal Regulations 13
- 3.2 State Regulations 14
- 3.3 Local Regulations 17

4 Methods 21
- 4.1 Literature/Database Review 21
- 4.2 Special-Status Plant and Wildlife Species Assessment 21
- 4.3 Field Effort 22
  - 4.3.1 Vegetation Community and Land Cover Mapping 24
  - 4.3.2 Aquatic Resource Delineation 24
  - 4.3.3 Rare Plants 25
  - 4.3.4 California Desert Native Plants Act 25
  - 4.3.5 Crotch's Bumble Bee Surveys 25
  - 4.3.6 Raptor Nest Survey 26
  - 4.3.7 Protected Tree Census 26

5 Results 27
- 5.1 Vegetation Communities and Land Covers 27
- 5.2 Special-Status Plant Species 34
- 5.3 Special-Status Wildlife Species 35
- 5.4 Potential Jurisdictional Wetlands and Waters 42
- 5.5 Wildlife Corridors and Habitat Linkages 46
- 5.6 California Desert Native Plant Act Covered Species 46
- 5.7 Significant Ecological Area Protected Trees 50

6 Project Impacts to Significant Ecological Area Resources 54

6.1 Definition of Impacts 54
6.1.1 Explanation of Project Consistency with Significant Ecological Area Conditional Use Permit Compatibility Criteria 54
6.2 Impacts to Special-Status Plants 55
6.3 Impacts to Special-Status Wildlife 56
6.4 Impacts to Vegetation Communities 5857
6.5 Impacts to Water Resources 6159
6.6 Impacts to Protected Trees 6159
7 Mitigation Measures 6663
8 Significant Ecological Areas Statement of Findings 7473
9 References 7877

TABLES

Table 1. Project Parcels 1
Table 2. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities 3
Table 3. Recommended Preservation Ratios for SEA CUP 19
Table 4. Schedule of Surveys 23
Table 5. Vegetation Communities and Land Covers in the Study Area 27
Table 6. Summary of Potential Jurisdictional Waters Within the Study Area 43
Table 7. California Desert Native Plant Act Covered Species in the Survey Area 46
Table 8. Summary of Trees in the Study Area 50
Table 9. Potential Impacts to Special-Status Wildlife Habitat Within the SEA 56
Table 10. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area Portion of the Study Area 58
Table 11. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) 6260
Table 12. Summary of Potential Impacts to SEA Protected Heritage Trees 6360
Table 12. Summary of Potential Individual Species Replacement Quantities 6461
Table 13. Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved 6865

FIGURES

1 Project Location 5
2 Soils 9
3 Hydrologic Setting 11
4 Vegetation Communities and Land Cover 29
5 Biological Survey Results 38
6 Potential Jurisdictional Aquatic Resources 44

7 California Desert Native Plant Act Covered Species in the Survey Area 48
8 Protected Trees 52

APPENDICES

A Protected Tree Report
B Biological Constraints Map
C Potential to Occur Tables and Compendia
D Conceptual Project Design

INTENTIONALLY LEFT BLANK

Acronyms and Abbreviations

Acronym	Definition
BESS	battery energy storage system
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of Los Angeles
CRPR	California Rare Plant Rank
CUP	Conditional Use Permit
FESA	federal Endangered Species Act
gen-tie	generation interconnection
MM	Mitigation Measure
OHWM	ordinary high-water mark
Project	Prairie Song Reliability Project
RWQCB	Regional Water Quality Control Board
SCE	Southern California Edison
SEA	Significant Ecological Area
SR	State Route
SSC	California Species of Special Concern
TPZ	tree protection zone
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

INTENTIONALLY LEFT BLANK

1 Introduction

This report presents the findings of a biological resources assessment conducted for the proposed Prairie Song Reliability Project (Project). The purpose of this assessment was to evaluate the existing biological conditions and provide an analysis of the Project's potential impacts on the County of Los Angeles (County) Significant Ecological Area (SEA) resources as identified within the Los Angeles County SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020). The generation interconnection (gen-tie) line route alignments for the Project are located in the Santa Clara River SEA, but the existing conditions are given for the Project as a whole.

1.1 Project Location

The Project is in unincorporated Los Angeles County, California, south of State Route (SR) 14. The Project is within the U.S. Geological Survey (USGS) 7.5-minute Acton and Pacifico Mountain quadrangles, Township 5N, Range 12W, Sections 27, 28, 33, and 34 (Figure 1, Project Location). The battery energy storage system (BESS) site consists of Assessor's Parcel Numbers 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the BESS facility will occur on an area of land situated between two existing transportation corridors, the Antelope Valley Freeway (SR-14) to the north and Southern Pacific Railroad lines and Carson Mesa Road to the south, which are approximately 1,200 feet apart.

The Project will utilize one (1) of two (2) potential gen-tie routes. Either route will extend south and east from the Project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceed northeast to the Point of Interconnection at the Vincent Substation. The Northern Gen-Tie Route is approximately 1.1 miles long and will be sited on portions of Assessor's Parcel Numbers 3056-015-008, 3056-015-023, 3056-017-026, ~~3056017904,~~ 3056-017-905, 3056-017-906, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.8 miles long and will be sited on portions of Assessor's Parcel Numbers 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802 (see Table 1 below). The full acreage of the parcels is provided in Table 1. The Project will also include three (3) fiber optic telecommunications lines: one (1) will be installed aboveground on the gen-tie structures (along whichever gen-tie route is ultimately selected), and the other two (2) will be installed underground within the Southern Gen-Tie Route corridor. The two (2) other fiber optic lines will be installed underground within the Southern Gen-Tie Route corridor regardless of which gen-tie route corridor option is selected. The Project's interconnection facilities will be located within the Southern California Edison (SCE) Vincent Substation. Land uses in the immediate vicinity of the Project include undeveloped and rural lands, multiple high-voltage transmission lines and an electrical substation, paved and rural roads, SR-14, and railroad lines.

Table 1. Project Parcels

Assessor's Parcel Number	Acreage
3056-005-816	1.28
3056-005-817	6.41
3056-005-818	15.18
3056-015-008	40.18
3056-015-023	39.89

Table 1. Project Parcels

Assessor's Parcel Number	Acreage
3056-015-801	23.43
3056-015-802	5.02
3056-017-016	5.14
3056-017-022	10.01
3056-017-026	10.16
3056-017-027	10.17
3056-017-028	10.25
~~3056-017-904~~	~~10.43~~
3056-017-905	10.15
3056-017-906	10.12
3056-027-007	40.41
3056-027-031	4.98

The nearest municipality to the Project site is the City of Palmdale, which is located approximately 4 miles to the northeast. There are a few single-family residences adjacent to the BESS facility site's northern and western boundaries, as well as a few other single-family residences in the vicinity of the gen-tie line.

1.2 Project Description

Prairie Song Reliability Project LLC, a Delaware limited liability company (applicant), a subsidiary of Coval Infrastructure DevCo LLC, a Delaware limited liability company, proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt Project located on up to approximately 107 acres in unincorporated Los Angeles County. The primary components of the Project include a containerized BESS facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance buildings, an on-site Project substation, a 500-kilovolt overhead gen-tie transmission line, and interconnection facilities within the existing SCE-owned and operated Vincent Substation.

Electrical energy will be transferred from the existing power grid to the Project for storage and from the Project to the power grid when additional electricity is needed. The Project will provide additional capacity to the electrical grid to assist with serving load during periods of peak demand by charging when demand is low and discharging when demand is high. This operating principle increases the integration of additional intermittent renewable energy, such as wind and solar, in California's energy mix and reduces the need to operate natural gas power plants. The Project will also serve as an additional local/regional capacity resource that will enhance grid reliability, particularly to the Los Angeles Basin local reliability area and may allow for the deferral or avoidance of regional transmission facilities.

The Project will be remotely operated and monitored year-round and supported by on-site operations and maintenance staff 7 days a week. The Project will be available to receive or deliver energy 24 hours a day and 365 days a year. During the operational life of the Project, qualified technicians will inspect the Project facilities and conduct necessary maintenance to ensure reliable and safe operational readiness.

Please refer to Appendix D for a Conceptual Project Design map.

1.2.1 Transmission and Interconnection

The Project will be interconnected to the regional electrical transmission grid via an approximately 1.1-mile-long or 1.8-mile-long new single-circuit 500kV gen-tie line within an up-to 150-foot-wide corridor between the Project substation and the SCE Vincent Substation. Construction of the gen-tie line is expected to start in December 2027 and conclude in July 2028.

- Site preparation, BMP installation, and civil work is expected to take approximately 2 months.
- Foundation setting and tower erection is expected to take approximately 4 months
- Transmission line stringing, pulling, and tensioning is expected to take approximately 1 month.

Additional specifics regarding gen-tie line construction are provided below:

The Applicant will construct and own the portion of the gen-tie line between the Project substation and the Point of Change of Ownership (POCO) transmission structure and SCE will construct and own the remaining portion of the gen-tie from the POCO to the POI within the Vincent Substation. The Project's transmission and interconnection facilities will include the following components:

- 500kV Gen-Tie Line including Transmission Structures and Conductors
- Fiber Optic Telecommunications Utility Poles and Fiber Optic Lines
- Access Paths
- Temporary Work Areas
- Interconnection Facilities within Existing SCE Vincent Substation Footprint (SCE constructed and owned)

The proposed route was selected to minimize the number of existing utility crossings, cross existing utilities at the optimum locations, minimize the total gen-tie line length and number of transmission structures required, minimize the number of turning structures required, and enter the Vincent Substation as close as possible to the POI. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Table 2 summarizes the preliminary new ground disturbance area associated with construction of the transmission and interconnection facilities (Southern Gen-Tie scenario).

Table 2. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

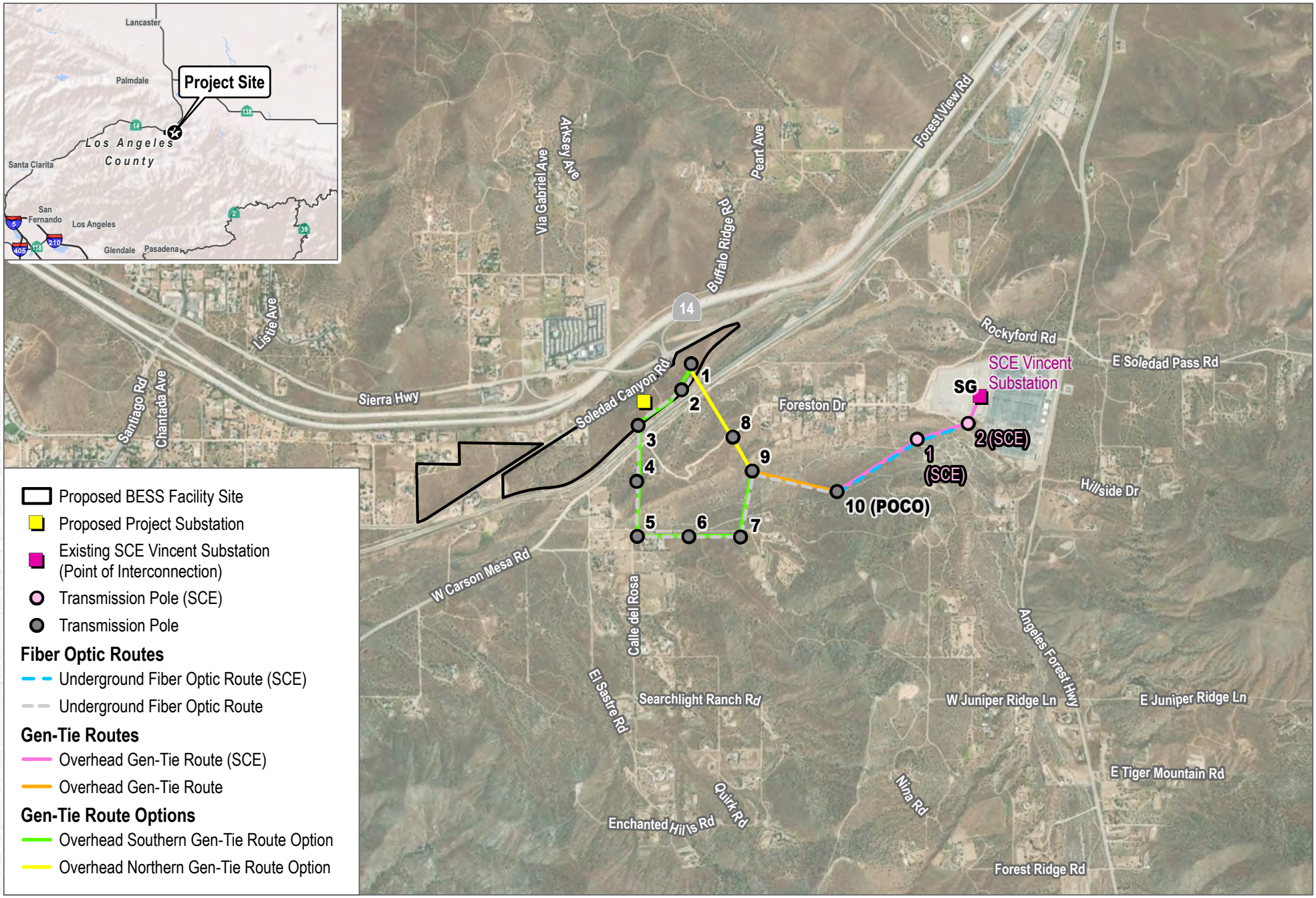
Component	Permanent Disturbance	Temporary Disturbance
Applicant Portion		
Transmission Structure Pads	2.48 acres	—
Transmission Structure Access Path	1.14 acres	—
Laydown Area	—	4.23 acres
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	19.4 acres
Applicant Total	**3.62 acres**	**~23.63 acres**

Table 2. Approximate New Ground Disturbance Area Associated with Transmission and Interconnection Facilities

Component	Permanent Disturbance	Temporary Disturbance
SCE Portion		
Transmission Structure Pad	0.3 acres	—
Transmission Structure Access Path	0.5 acres	—
Tension and Pulling Sites (i.e., Gen-Tie Work Area)	—	8.99 acres
SCE Total	**0.8 acres**	**8.99 acres**

Note: gen-tie = generation interconnection; SCE = Southern California Edison.

If determined to be required by the director or agency with primary responsibility for fire protection, Public Resources Code Sections 4292 and 4293 require 10 feet of vegetation clearance in all directions for any transmission line operating above 110 kilovolts (kV). The project's proposed 500 kV gen-tie line is designed to be higher than 35 feet above the ground surface during heavy sag conditions. The majority of the gen-tie line is greater than 45 feet above ground during heavy sag conditions, meaning that vegetation would need to be at least 35 feet tall to require maintenance for fuel modification. The vegetation communities in this area do not typically grow to be 35 feet tall so it is unlikely any fuel modification will be required. However, there are two areas where the proposed gen-tie line is near 35 feet above the ground. In these two areas, fuel modification may be necessary, on a spot basis, to limit the height of vegetation to comply with Public Resources Code Sections 4292 and 4293. These two areas are shown on Figure 3A, Conceptual Project Design – Graded Areas. Vegetation Maintenance area 1 (VM1) is a 40-foot by 40 foot area at the top of a ridge. There is a road on the top of the ridge making it unlikely that any vegetation maintenance will be necessary near where the gen-tie line approached 35 above the surface. Vegetation Management area 2 (VM2) is a 360-foot by 40-foot long area between gen-tie pole 9 and gen-tie pole 10 (POCO) where the proposed gen-tie line is less than 40 feet above the ground surface. There is the potential for vegetation management along VM2 for any vegetation that approaches 30 feet in height.



SOURCE: World Imagery

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK

2 Environmental Setting

2.1 On-Site Conditions

The Project site refers to the area that may be physically affected by construction activities associated with the Project, including the location of permanent structures (including both gen-tie options), as well as staging and other temporary disturbance areas described. For the purposes of the biological surveys, the Study Area encompasses the parcels that make up the Project site and additional parcels that have been acquired by the Project applicant. The Study Area for focused species surveys was expanded per protocol and where necessary to capture nearby resources.

APNs 3056-017-905, 3056-017-904, 3056-017-906, and 3056-017-907 are managed by the Mountains Recreation and Conservation Authority and are deed restricted for open space use (see Figure 9: Regional Setting). The Northern Gen-tie option would obtain an aerial easement and span these parcels, but would not generate any impacts on the ground, except for the use of an existing roadway. There are no protected lands adjacent to the Project site.

2.2 Soils

According to the U.S. Department of Agriculture (2025a) Web Soil Survey, there are seven (7) soil map units that occur within the Study Area, as shown in Figure 2, Soils: Greenfield sandy loam, 2% to 9% slopes (GsC); Hanford coarse sandy loam, 0% to 2% slopes (HbA); Hanford coarse sandy loam, 2% to 9% slopes (HbC); Hanford coarse sandy loam, 9% to 15% slopes (HbD); Hanford sandy loam, 2% to 9% slopes (HcC); Terrace escarpments (TsF); and Vista coarse sandy loam, 30% to 50% slopes (VsF). Of the seven (7) soil map units, only one (1) is ranked as partially hydric: Hanford coarse sandy loam, 0% to 2% slopes.

The Greenfield soil series consists of deep, well-drained soils formed in moderately coarse to coarse-textured alluvium derived from granitic and mixed rock sources. These soils are typically found on alluvial fans and terraces with slopes ranging from 0% to 30%. In Southern California, Greenfield soils experience a dry, subhumid climate with hot, dry summers and cool, moist winters, receiving approximately 9 to 20 inches of annual precipitation. The soils exhibit moderately rapid permeability and low organic matter content, supporting vegetation such as annual grasses, forbs, scattered shrubs, and occasional oak trees in uncultivated areas (USDA 2025a)

The Hanford soil series, common in alluvial valleys of Southern California, consists of well-drained, moderately permeable soils formed in coarse-loamy alluvium derived primarily from granitic sources. These soils typically occur on stream terraces and alluvial fans with slopes ranging from 0% to 15%. Hanford soils exhibit low organic content and are generally dry from late spring through fall, with seasonal moisture during winter months. Their physical characteristics support a range of land uses, including agriculture and urban development, and they typically host annual grasses and herbaceous vegetation in undeveloped areas (USDA 2025a).

The Vista soil series consists of moderately deep, well-drained soils formed in material weathered from decomposed granitic rocks. These soils typically occur on hills and mountainous uplands with slopes ranging from 2% to 85%. Vista soils exhibit coarse sandy loam textures, moderately rapid permeability, and low organic matter content. They are found in areas with a subhumid mesothermal climate, receiving approximately 10 to 22 inches of annual

precipitation. Native vegetation includes annual grasses, forbs, and drought-tolerant shrubs such as California sagebrush (*Artemisia californica*), chamise (*Adenostoma fasciculatum*), and scrub oak (*Quercus* spp.) (USDA 2025a).

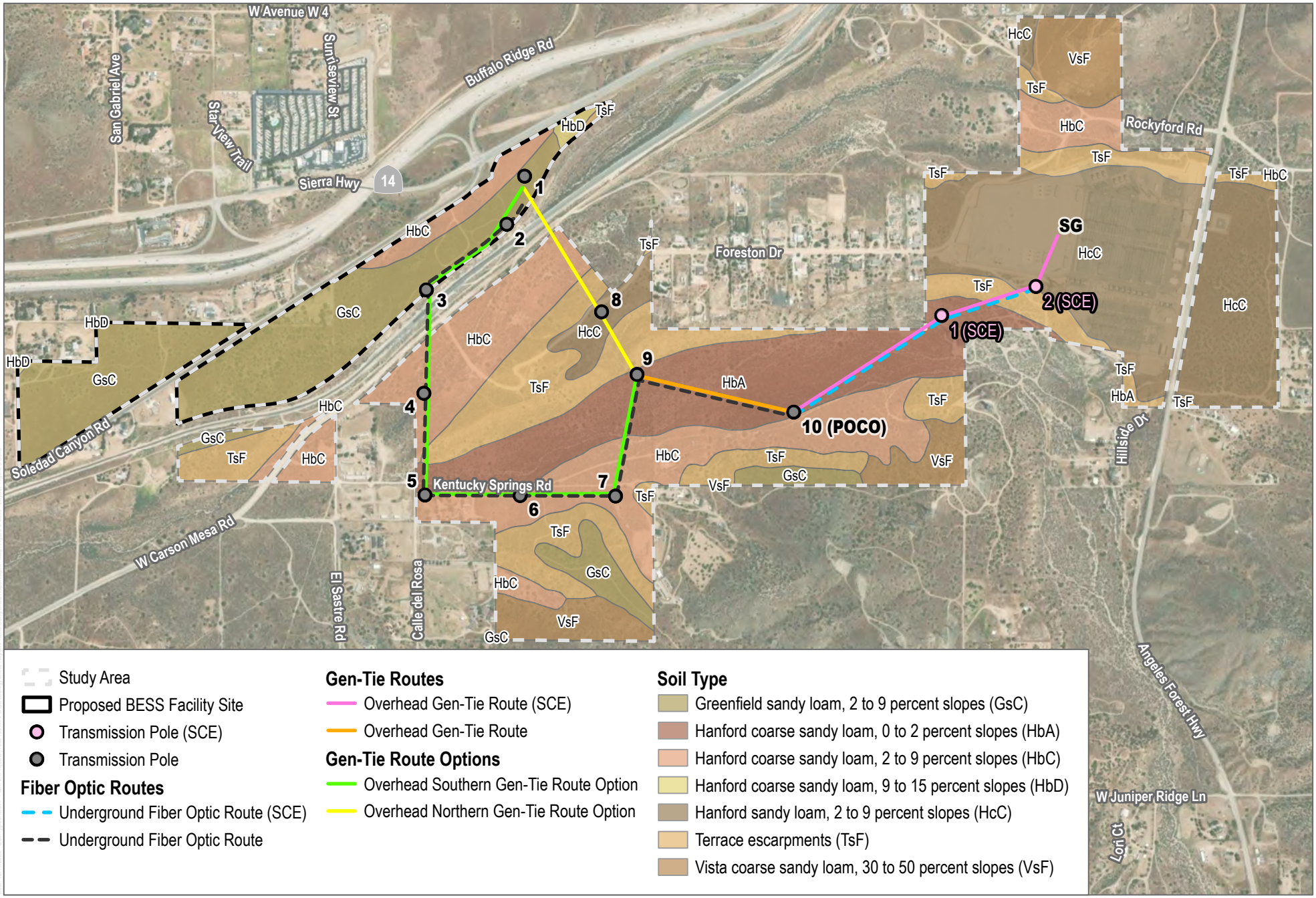
2.3 Regional Conditions

The Study Area is in the western San Gabriel Mountains, in the Transverse Ranges Geomorphic Province (CGS 2002). The Transverse Ranges are an east/west-trending series of steep mountains and valleys (CGS 2002). The Study Area is located at the conjunction of Soledad Canyon and Kentucky Springs Canyon (USGS 2022) and at the boundary of the Western Transverse Ranges ecological subregion and the Mojave Desert ecological region (Jepson Flora Project 2025). Elevations in the Study Area range from approximately 2,700 feet above mean sea level along the southwestern side to 3,500 feet above mean sea level along the northern hillsides (Google Earth 2025).

The Study Area has an arid climate with the site being located on the northern side of the San Gabriel Mountains and bordering the Antelope Valley. August is the average warmest month, with an average high of 93˚F, and December is the coolest month on average, with a low of 36˚F. Rainfall occurs primarily between November and April, with the maximum average precipitation occurring in February. The mean annual rainfall for the area is approximately 9 inches of rain per year (LACPW 2025).

2.3.1 Hydrologic Features

The Study Area is in the Santa Clara subbasin (HUC 18070102), Headwaters Santa Clara River watershed (HUC 1807010201), and primarily Kentucky Springs Canyon–Santa Clara River subwatershed, with the westernmost area of the Project overlapping into the Arrastre Canyon–Santa Clara River subwatershed. The Santa Clara River is the primary natural surface water feature in the vicinity of the Study Area. The Santa Clara River is the largest natural river remaining in Southern California and travels through two (2) counties, Los Angeles and Ventura (Kennedy/Jenks Consultants 2014). The northern portion in Los Angeles County is largely classified as an intermittent stream/river and only contains flowing water during certain times of the year (USGS 2023Kennedy/Jenks Consultants 2014). The intermittent stream channel traverses the southern end of the Study Area within parcels 3056-019-040, 3056-017-907, 3056-017-028, 3056-017-027, 3056-015-008, and 3056-015-023, as shown in Figure 3, Hydrologic Setting. Several other smaller, unnamed ephemeral washes from Soledad Canyon and Kentucky Springs Canyon drain across the northern and southern portions of the Study Area, respectively. The National Wetlands Inventory and National Hydrography Dataset were reviewed to identify wetland or hydrologic features in the Study Area (USFWS 2025a; USGS 2023). Figure 3 depicts the mapped wetland and hydrologic features in the Study Area.



SOURCE: World Imagery; USDA

DUDEK

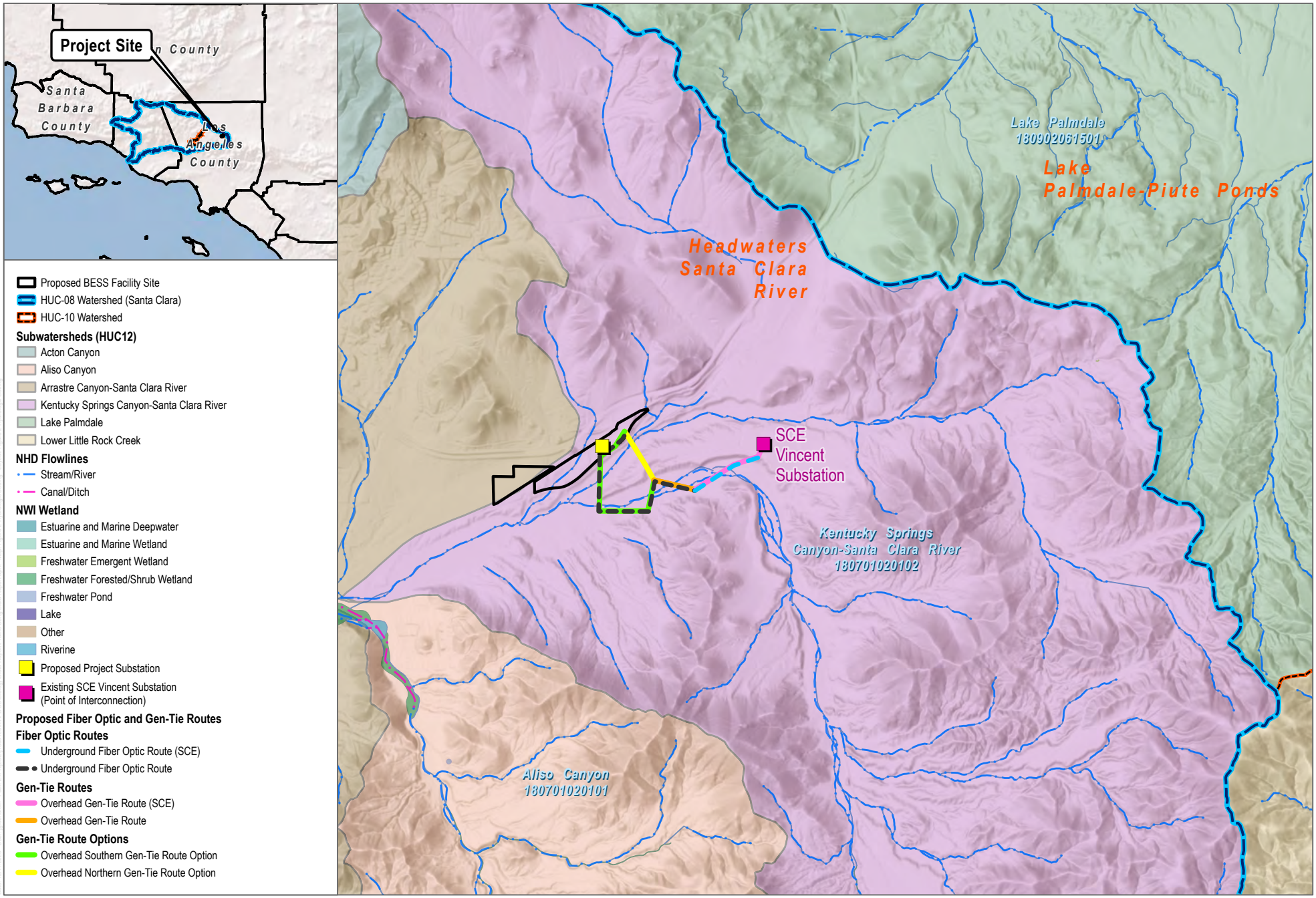
0 500 1,000 Feet

FIGURE 2

Soils

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK



SOURCE: World HIllshade; SWRQCB

DUDEK

0 2,300 4,600 Feet

FIGURE 3

Hydrologic Setting

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK

3 Regulatory Context

3.1 Federal Regulations

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and wildlife species and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. FESA is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and to provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. FESA defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under FESA, it is unlawful to take any listed species; "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of Incidental Take Permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon development of a habitat conservation plan, USFWS can issue Incidental Take Permits for listed species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 USC 703 et seq.), as amended, prohibits the intentional take of any migratory bird or any part, nest, or eggs of any such bird. Under the Migratory Bird Treaty Act, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so. Additionally, Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a Memorandum of Understanding. USFWS reviews actions that might affect these species.

Clean Water Act

The Clean Water Act provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project operator for a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the Clean Water Act. The Regional Water Quality Control Boards (RWQCBs) administer the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. USACE implementing regulations are found at 33 Code of Federal Regulations (CFR) 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the U.S. Environmental Protection Agency in conjunction with USACE

(40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies. USACE exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters, such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features.

The extent of waters of the United States is generally defined as that portion that falls within the limits of an ordinary high-water mark (OHWM). Typically, the OHWM corresponds to the water surface elevation of a 2-year flood event (USACE 2008b). In addition, waters of the United States may include wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, defined by USACE as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[c]). Indicators of three (3) wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE.

3.2 State Regulations

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the take of plant and wildlife species designated by the Fish and Game Commission as endangered or threatened in California. Under CESA Section 86, "take" is defined as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA declares the policy of the state that public agencies should not approve projects that would "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." CESA defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any wildlife determined by the commission as rare on or before January 1, 1985, is a 'threatened species.'" A candidate species is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." CESA does not list invertebrate species.

Porter–Cologne Water Quality Control Act

The intent of the Porter–Cologne Water Quality Control Act is to protect water quality and the beneficial uses of water, and it applies to both surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the nine (9) RWQCBs develop basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under the Porter–Cologne Water Quality Control Act include isolated waters that are no longer regulated by USACE. Developments with impact to jurisdictional waters must demonstrate compliance with the goals of the act by developing stormwater pollution prevention plans, standard urban stormwater mitigation plans, and other measures to obtain an order of Waste Discharge Requirement (or, in cases where a Clean Water Act Section 401 certification is required, a waiver of Waste Discharge Requirement).

California Fish and Game Code

Fully Protected Species

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code outline protection for fully protected species of birds, mammals, reptiles and amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. Toward that end, CDFW has designated certain vertebrate species as Species of Special Concern (SSC) because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

Section 1602

Under Section 1602 of the California Fish and Game Code, a project operator is required to notify CDFW prior to any project that would substantially divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a "stream" is defined as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life" (14 CCR 1.72). Based on this definition, a watercourse with "a surface or subsurface flows that supports or has supported riparian vegetation" is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW may require implementation of reasonable measures necessary to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the project.

Nesting Birds

Section 3503 of the California Fish and Game Code states that "it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof "may not be taken or possessed at any time," unless otherwise provide for by law or authorized by CDFW.

Section 3513 states that "it is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act."

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (see Section 1900 et seq. of the California Fish and Game Code) directed CDFW to carry out the legislature's intent to "preserve, protect and enhance rare and endangered plants in this state." The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take. CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the California Fish and Game Code. To align with federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" wildlife into the act as threatened species but did not do so for rare plants. Thus, there are three (3) listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in CESA, mitigation measures for impacts to rare plants are typically specified in a formal agreement between CDFW and the project proponent.

California Desert Native Plant Act

The purpose of the California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt, and the required tags and seals. The appropriate permits, tags, and seals must be obtained from the county sheriff or commissioner of the county where collecting will occur, and the county will charge a fee.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.) requires identification of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides guidelines and thresholds for use by lead agencies for evaluating the significance of potential impacts.

Special-Status Plants and Wildlife

CEQA Guidelines Section 15380(b)(1) defines endangered wildlife or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare wildlife or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not currently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the Federal Endangered Species Act." Additionally, a wildlife or plant species may be presumed to be endangered, rare, or threatened if it meets the criteria for listing as defined further in CEQA Guidelines Section 15380(c) or otherwise meets the criteria of Section 15380(b).

Special-Status Vegetation Communities

Section IV, Appendix G (Environmental Checklist Form) of the CEQA Guidelines (14 CCR 15000 et seq.) requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service."

3.3 Local Regulations

Los Angeles County 2035 General Plan

The General Plan includes guiding principles that inform the County's goals, policies, and implementation actions. The following goals and policies are relevant to the Project and applicable to biological resources (County of Los Angeles 2015):

Goal C/NR 1: Open space areas that meet the diverse needs of Los Angeles County.

> Policy C/NR 1.3: Support the acquisition of new available open space areas. Augment this strategy by leveraging County resources in concert with the compatible open space stewardship actions of other agencies, as feasible and appropriate.

Goal C/NR 2: Effective collaboration in open space resource preservation.

> Policy C/NR 2.2: Encourage the development of multi-benefit dedicated open spaces.

> Policy C/NR 3.8: Discourage development in areas with identified significant biological resources, such as SEAs.

County of Los Angeles Significant Ecological Areas

SEAs are officially designated areas "where the County deems it important to facilitate a balance between development and biological resource conservation" (see Figure 5). The SEA program objective is to conserve genetic and physical diversity within the County by designating biological resource areas that can sustain themselves into the future, and balancing that objective against other critical public needs. The SEA program also protects native trees and provides a list of the protected species and the size of the diameter of the trunk that triggers protection. The SEA Ordinance establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County's natural biodiversity with private property rights.

The SEA Ordinance identifies 60 tree species to be protected in addition to already protected oak trees (Los Angeles County Regional Planning 2020). The SEA Protected Tree List specifies the species of tree protected in each individual SEA and the size of the tree when regulations are applied. Per County Code 22.102.070 (Protected Tree Permit), development that complies with Section 22.102.090 (SEA Development Standards) shall require a Protected Tree Permit from the County except for Subsection 22.102.090.B (SEA Protected Trees) of the County Code, and which includes any of the following impacts:

1. Pruning or trimming of branches of SEA Protected Trees in excess of two inches in diameter or 25 percent of live foliage for one or more trees;

2. Encroachments of up to 30 percent into an SEA Protected Tree's protected zone. Any encroachment of more than 30 percent into the protected zone of a tree shall be considered as a tree removal…;

3. Removal of up to two SEA Protected Trees that are not designated as Heritage Trees [(single trunk that measures 36 inches or more in diameter or two trunks that collectively measure 54 inches or more in diameter)]; or

4. Tree relocation poses significant risk to the health or survival rate of a tree. Any relocation of an SEA Protected Tree shall, therefore, be processed as a removal.

A discretionary SEA Conditional Use Permit (CUP) application is required for development that cannot demonstrate compliance with Section 22.102.070 (Protected Tree Permit) or Sections 22.102.090 (SEA Development Standards) and 22.102.100 (Natural Open Space Preservation) of the County Code. Los Angeles County Regional Planning has issued the SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020) to help proposed development comply with the ordinance.

The gen-tie line route alignments for the Project are located in the Santa Clara River SEA. Depending on the final route and pole locations, the proposed Project may require an SEA CUP, but for the California Energy Commission's Opt-In Application for Certification process, because it may have impacts to SEA Resource Categories (as defined below) that are greater than those allowed by SEA Development Standards and may require removal of more than two SEA Protected Trees that also include heritage trees.

Significant Ecological Area Resource Categories

The SEA Ordinance includes SEA Resource Categories 1 through 5. These categories are defined as follows (Los Angeles County Regional Planning 2020):

- Category 1: FESA and CESA listed plant and wildlife species; CESA candidate species, California Rare Plant Ranks (CRPR) 1A or B, 2A or B, and 3 (CNPS 2025a), critically imperiled natural communities (those that have a Global [G] and/or State [S] ranking of 1) (NatureServe 2023), and water resources
- Category 2: CDFW SSC and their occupied habitat and imperiled natural communities (those that are G2/S2) (NatureServe 2023)
- Category 3: Vulnerable natural communities that are G3/S3 (NatureServe 2023), sensitive local native resources, and oak woodlands
- Category 4: Apparently secure natural communities that are G4/S4 (NatureServe 2023), secure natural communities that are G5/S5 (NatureServe 2023), and CRPR 4 species
- Category 5: All other lands including those "dominated by non-native [vegetation], agricultural fields, hedges, early successional vegetation that has yet to form into a distinct natural community, cleared or disturbed areas, and non-native trees and shrubs."

Natural Open Space for Significant Ecological Areas Conditional Use Permit

The County's SEA Ordinance and Implementation Guidelines provide for the provision of natural open space, whether on-site or off-site, as mitigation to offset impacts to SEA resources. To evaluate the appropriate location and mechanism for preserved natural open space, staff will first need to determine whether an adequate amount of suitable habitat is present on site. Projects that do not have an adequate amount of suitable habitat available to

protect on site will need to provide any necessary natural open space preservation off site. Mitigation areas that fall short of SEA recommended mitigation ratios. The amount of natural open space may vary, and proposed areas may be given added conservation value should they possess the following characteristics (Los Angeles County Regional Planning 2020):

> "Added value" can be given to proposed natural open space areas if they also contain unique or valuable habitat linkage resources, additional special-status species, surface waters, or sensitive habitats, etc. Proposed open-space with such added-value characteristics may be allowed to be smaller than the area that would typically be required and still be determined to be consistent with the SEA Program goals, subject to the discretion of the Department and a determination of consistency with the SEA Findings by SEATAC.

Table 3, Recommended Preservation Ratios for SEA CUP, lists the recommended preservation ratios for impacts to SEA Resources Categories for projects that require a CUP. These ratios can also be changed based on site specific factors.

Table 3. Recommended Preservation Ratios for SEA CUP

SEA Resources	Preservation Ratio
Category 1 • State or federally listed species and their habitats • California Rare Plant Ranks 1, 2, 3 • Natural communities ranked G1/S1 • Water resources (e.g., wetlands, streams, ponds, lakes, vernal pools, marshes) • Beach and dune	5:1
Category 2 • Natural communities ranked G2/S2 • Species of Special Concern and their habitats	4:1
Category 3 • Natural communities ranked G3/S3 • Oak woodland • Sensitive local native resources • Rock outcrops/rocklands	3:1
Category 4 • Natural communities ranked G4/S4/G5/S5 • California Rare Plant Rank 4 • Non-native grasslands	2:1
Category 5 • Wildlife linkage or corridor or open space buffer	1:1

Source: Los Angeles County Regional Planning 2020.
Note: SEA = Significant Ecological Area; CUP = Conditional Use Permit; G = Global; S = State.

INTENTIONALLY LEFT BLANK

4 Methods

4.1 Literature/Database Review

The following data sources were reviewed to assist with the assessment of biological resources:

- CDFW California Natural Diversity Database (CNDDB) (CDFW 2025a)
- USFWS Information for Planning and Consultation (USFWS 2025b)
- California Native Plant Society (CNPS) Rare Plant Inventory (CNPS 2025a)
- U.S. Department of Agriculture National Resources Conservation Service Web Soil Survey (USDA 2025a)
- CDFW Biogeographic Information and Observation System (CDFW 2025b)

Prior to conducting field surveys, Dudek reviewed regional CNDDB occurrence data (CDFW 2025a), the Rare Plant Inventory (CNPS 2025a), and USFWS occurrence data (USFWS 2025c) for USGS 7.5-minute Acton and Pacifico Mountain quadrangles and the surrounding 14 quadrangles. In addition, Dudek reviewed the USFWS Information for Planning and Consultation (USFWS 2025b), the National Wetlands Inventory (USFWS 2025a), and the U.S. Department of Agriculture's Natural Resources Conservation Service Web Soil Survey (USDA 2025a) to analyze the occurrence potential of special-status species and jurisdictional aquatic resources that are known to occur or may potentially occur within the study area.

Other literature reviewed included A Manual of California Vegetation, Online Edition (CNPS 2025b); the California Natural Community List (CDFW 2025c); State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2025d); State and Federally Listed Endangered and Threatened Animals of California (CDFW 2025e); and the CDFW California Wildlife Habitat Relationships Life History Accounts and Range Maps (CDFW 2025f).

The following available resources were reviewed to assess the potential for jurisdictional waters: aerial photographs (Google Earth 2025; NETR 2025), the USGS Newhall 7.5-minute topographic quadrangle map (USGS 2018), the National Hydrography Dataset and Watershed Boundary Dataset (USGS 2023), and the USFWS National Wetland Inventory (USFWS 2025a).

4.2 Special-Status Plant and Wildlife Species Assessment

Endangered, rare, or threatened plant species as defined in CEQA Guidelines Section 15380(b) are referred to as "special-status plant species" and, as used in this report, include (1) plant species listed, proposed for listing, or candidates for listing as endangered or threatened recognized in the context of CESA and FESA (CDFW 2025d); and/or (2) plant species with a CRPR of 1 through 4 as designated by CNPS (2025a). Additionally, the County of Los Angeles considers plant species that are locally important as rare within the county.

Endangered, rare, or threatened wildlife species as defined in CEQA Guidelines Section 15380(b) are referred to as "special-status wildlife species" and, as used in this report, include (1) wildlife species listed, proposed for listing, or candidates for listing as endangered or threatened recognized in the context of CESA and FESA (CDFW 2025e); (2) California SSC and Watch List species, as designated by CDFW (2025g); and (3) mammals and birds that are

fully protected species as described in the California Fish and Game Code, Sections 4700 and 3511 (CDFW 2025h), and (4) Birds of Conservation Concern as designated by USFWS (2021). Additionally, the County of Los Angeles considers wildlife species that are locally important as rare within the county.

The potential for special-status plant species to occur within the Study Area was assessed based on known geographic and elevation ranges as well as habitat and soil conditions that are known to support species occurring in the region. The potential for special-status wildlife species to occur within the Study Area was assessed based on known geographic ranges, the presence/absence of suitable habitat, and other natural history elements that might predict their occurrence. After completion of the reconnaissance surveys, the potential for special-status plant and wildlife species to occur on or near the Project site was summarized according to the following categories:

- Known to occur
- High potential to occur
- Moderate potential to occur
- Low potential to occur
- Not expected to occur

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:

- Known to occur: The species has been documented on the property by a reliable source.
- High potential to occur: The species has not been documented on the property but is known to recently occur in the vicinity, and suitable habitat is present.
- Moderate potential to occur: The species has not been documented on the property or in the vicinity, but the site is within the known range of the species, and suitable habitat for the species is present.
- Low potential to occur: The species has not been documented in the vicinity or on the property, but the site is within the known range of the species; however, suitable habitat for the species on site is of low quality.
- Not expected to occur: The property is outside the known geographic or elevational range of the species, and/or the site does not support suitable habitat for the species.

4.3 Field Effort

Surveys for the BESS facility site and Northern Gen-Tie option portions of the Study Area were conducted in 2023. In 2024, surveys were conducted on additional parcels for the Southern Gen-Tie option. Dudek conducted comprehensive surveys for sensitive plants for the BESS and Northern Gen-Tie option portions of the Study Area in the spring of 2023 following an above-average wet season. Dudek conducted surveys for Crotch's bumble bee (*Bombus crotchii*) in the summer of 2024 on the BESS and Northern Gen-Tie option portions of the Study Area. Dudek conducted supplemental Crotch's bumble bee surveys in 2025 for parcels associated with the Southern Gen-Tie option of the Study Area. Table 4, Schedule of Surveys, shows the survey type, date, time, conditions, and biologist(s) for each survey.

Table 4. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
1/6/2023	▪ Vegetation mapping ▪ Jurisdictional delineation	MM, ES	7:30 a.m.–2:55 p.m.	38°F–52°F; 0%–10% cloud cover; 1–8 mph wind
1/11/2023	▪ Vegetation mapping ▪ Jurisdictional delineation	MM, ES	Not recorded	Not recorded
1/12/2023	▪ Vegetation mapping ▪ Jurisdictional delineation	MM, ES	Not recorded	Not recorded
4/28/2023	▪ Rare plants	VG, TP	6:40 a.m.–3:04 p.m.	60°F–80°F; 0% cloud cover; 0–2 mph wind
4/28/2023	▪ Rare plants	TP	6:40 a.m.–2:46 p.m.	57°F–94°F; 0% cloud cover; 0–2 mph wind
5/1/2023	▪ Rare plants	CB, DM, SN, JR	7:30 a.m.–3:25 p.m.	48°F–61°F; 60%–90% cloud cover; 3–5 mph wind
5/2/2023	▪ Rare plants	DM, VG, SN, JR	7:30 a.m.–3:25 p.m.	48°F–70°F; 60%–90% cloud cover; 3–5 mph wind
6/12/2024	▪ Crotch's bumble bee	CA, AC, SL, KN	9:30 a.m.–10:17 a.m.	74°F–80°F; 0% cloud cover; 0–4 mph wind
6/22/2023–7/7/2023	▪ Protected tree mapping	ACa, ST, AP	Not recorded	Not recorded
7/1/2024	▪ Crotch's bumble bee	LB, JE, DS	7:41 a.m.–1:34 p.m.	73°F–90°F; 0% cloud cover; 0–8 mph wind
7/2/2024	▪ Crotch's bumble bee	JE	7:02 a.m.–9:07 a.m.	70°F–81°F; 1–7 mph wind
7/23/2024	▪ Crotch's bumble bee	LB	7:27 a.m.–10:54 a.m.	80°F–95°F; 0%–50% cloud cover; 0–1 mph wind
7/24/2024	▪ Crotch's bumble bee	LB	7:18 a.m.–11:01 a.m.	80°F–95°F; 0% cloud cover; 0–2 mph wind
11/18/2024	▪ Vegetation mapping ▪ Jurisdictional delineation	ES, ZP	8:50 a.m.–12:56 p.m.	49°F–56°F; 0% cloud cover; 5–16 mph wind
11/19/2024	▪ Vegetation mapping ▪ Jurisdictional delineation	TP, RS	9:30 a.m.–3:35 p.m.	53°F–54°F; 0% cloud cover; 1–7 mph wind
2/26/2025	▪ Raptor nest survey	TP, RS	8:28 a.m.–3:30 p.m.	63°F–78°F; 0% cloud cover; 2–15 mph wind
4/16/2025	▪ Crotch's bumble bee	CA, ES	8:21 a.m.–1:08 p.m.	48°F–59°F; 30%–100% cloud cover; 0–3 mph wind
5/21/2025	▪ Crotch's bumble bee	CA, ES	8:21 a.m.–1:08 p.m.	59°F–71°F; 0% cloud cover; 0–1 mph wind
6/5/2025	▪ Rare plants	RSw	7:00 a.m.–12:00 a.m.	84°F; 0% cloud cover; 0–5 mph wind

Table 4. Schedule of Surveys

Date	Focus	Biologists	Time	Survey Conditions
6/30/2025	▪ Crotch's bumble bee	ES, LB	9:16 a.m.–1:30 p.m.	79°F–86°F; 0% cloud cover
8/22/2025	▪ Jurisdictional delineation	ES, RS	Not recorded	Not recorded

Notes: °F = degrees Fahrenheit; mph = miles per hour.
Biologists: AC = Anna Cassidy; ACa = Aida Castro; AP = Ana Pfleeger; CA = Callie Amoaku; CB = Chelsea Bowers-Doerning; DM = Dilip Mahto; DS = Dahlia Serrato; ES = Eilleen Salas; JE = Joshua Elson; JR = Jacob Rogers; KN = Kimberly Narel; LB = Luz Badillo; MM = Max Murray; RS = Ryan Stanley; RSw = Robert Sweet; SL = Sony Leming; SN = Sandra Nash; ST = Sarah Tian; TP = Tracy Park; VG = Valerie Goodwin; ZP = Zarina Pringle.

4.3.1 Vegetation Community and Land Cover Mapping

Vegetation communities and land uses within the Study Area were mapped in the field using Esri Collector, a mobile data collection application, on a digital aerial-based background (Esri 2025). Following completion of the fieldwork, all vegetation linework was finalized using Esri ArcGIS software, and geographic information system coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover type within the Study Area was determined. Vegetation communities within the Study Area were mapped using CDFW's List of Vegetation Alliances and Associations (or California Natural Community List) (CDFW 2025c), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California Vegetation, Online Edition (CNPS 2025b), where feasible, with modifications made to accommodate the lack of conformity of the observed communities (e.g., developed/disturbed land cover types) using Oberbauer et al. (2008) and Jones and Stokes (1993). Vegetation communities were classified based on site factors, descriptions, distribution, and characteristic species present within an area. Each natural community was mapped to the association level, where feasible. Special-status vegetation communities are those communities identified as high priority for inventory in the California Natural Community List (CDFW 2025c).

4.3.2 Aquatic Resource Delineation

Prior to conducting the jurisdictional delineation, USFWS National Wetland Inventory data (USFWS 2025a) was reviewed to determine if the Study Area contained any features mapped by USFWS. Site-specific topographical data was reviewed in conjunction with aerials, both current and historical, to determine the potential presence of non-wetland waters. Current vegetation mapping was reviewed to assess whether the Study Area supported hydrophytic vegetation and potential wetlands. Jurisdictional boundaries were mapped in the field using Esri Collector on a mobile device with sub-meter accuracy. Remote sensing was not used for the delineation.

U.S. Army Corps of Engineers – Potential Waters of the United States

The USACE wetlands delineation was conducted in accordance with the 1987 USACE Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b) was used to determine the limits of non-wetland waters. Non-wetland waters were delineated on aerial maps in conjunction with Esri Collector on a mobile device. The widths of each non-wetland water were determined in the field according to the OHWM manual. USACE OHWM forms were completed at representative cross-sections of non-wetland waters to capture their characteristics and widths.

Regional Water Quality Control Board – Potential Waters of the United States and Waters of the State

Waters of the state regulated by RWQCB were mapped in accordance with the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (SWRCB 2021). As described in these procedures, wetland waters of the state are mapped based on the procedures in the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and its 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008a). Non-wetland waters are mapped at the OHWM based on the procedures defined in A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b).

California Department of Fish and Wildlife – Streams

Potential CDFW jurisdictional areas were mapped to include the bank of the stream/channel and outer dripline of adjacent riparian vegetation, as set forth under California Fish and Game Code Section 1602. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology) (Cowardin et al. 1979).

4.3.3 Rare Plants

The rare plant surveys were guided by the CNPS Botanical Survey Guidelines (CNPS 2001) and CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). The biologists walked transects in suitable habitat, spaced approximately 5 meters to 10 meters apart based on the density of vegetative cover, throughout the Study Area. Digital mobile maps and 200-scale topographic plots of vegetation polygons were utilized to navigate the survey area. Plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. When rare plants were encountered, field personnel recorded data points demarcating the edge of polygon surrounding the population and assessed population numbers using a GPS with sub-meter accuracy.

4.3.4 California Desert Native Plants Act

Dudek biologists conducted a focused desert native plant survey within the survey area (defined as the Project impact footprint and a 150-foot buffer, where accessible). The desert native plant survey was focused on the species subject to the CDNPA. Biologists walked meandering transects spaced approximately 10 meters apart to obtain 100% visual coverage of the survey area. If desert native plants identified under the CDNPA were encountered, field personnel recorded data points using a GPS with sub-meter accuracy (i.e., Trimble® GeoXT) and a data dictionary. The data dictionary included, at a minimum, the species name, the number of individuals, and the botanist collecting the data. The survey methodology and results were documented in a memorandum, with figures illustrating the location of the mapped desert native plants and representative photos of the species.

4.3.5 Crotch's Bumble Bee Surveys

The surveys for Crotch's bumble bee were conducted in accordance with the CDFW survey guidance (CDFW 2023). The survey passes were led by Callie Amoaku, who holds a Memorandum of Understanding and Scientific Collecting Permit to capture Crotch's bumble bee. Dudek conducted five (5) protocol level surveys for Crotch's bumble bee spaced in June and July 2024 (June 12, July 1, July 2, July 23, and July 24), and three (3) in April, May, and June

2025 (April 16, May 21, and June 30). The surveys were split across 2 years because the Project owner did not have access to the entire Project gen-tie area during the 2024 surveys. The 2024 surveys were conducted from June through July, during the Colony Active Period of April through August, which according to CDFW guidelines had the highest detection period, and were spaced between 2 and 4 weeks apart. The three (3) 2025 surveys, which covered the remainder of the Project site and the BESS location, were conducted between April and June, which is during the Colony Active Period. The 2025 surveys were spaced 4 weeks apart to cover a wider period during the Colony Active Period while also meeting recommended guidelines.

The surveys were conducted during optimal conditions when there were sunny to partly sunny skies with temperatures that were greater than 60°F. Suitable habitat within the Study Area was visually surveyed for 1 person-hour per 3 acres of potential habitat. Biologists walked wandering transects through these resources with a goal of observing bumble bees in passing and observing bumble bee nest sites associated with small mammal burrows or other appropriate soil cavities.

4.3.6 Raptor Nest Survey

Surveys for nesting raptors (i.e., eagles, hawks, kites, falcons, and owls) were conducted in early 2025. Dudek biologists conducted a 1-day survey for the Study Area and a 500-foot buffer, with a focus on areas with larger trees and shrubs, residential areas with large ornamental trees, and transmission towers that have potential to support raptor nests.

4.3.7 Protected Tree Census

The portions of the Study Area east of the railroad tracks, south of Carson Mesa Road and the SCE Vincent Substation, and east of the SCE substation are within a County of Los Angeles SEA (County of Los Angeles 2025). The County's SEA Ordinance includes 60 tree species to be protected, including all sizes of California juniper (*Juniperus californica*) (Los Angeles County Regional Planning 2020). Dudek biologists mapped SEA-protected trees within the SEA portions of the Study Area. Field personnel recorded data points and circumference for each individual plant using a mobile device with sub-meter accuracy. An evaluation of existing health for each California juniper was conducted. Appendix A, Protected Tree Report, has additional details on the census.

5 Results

The cumulative results of the surveys can be found in Appendix B, Biological Constraints Map.

5.1 Vegetation Communities and Land Covers

All plant species encountered during the field reconnaissance surveys and jurisdictional delineations were identified and recorded. Latin and common names for plant species with a CRPR (formerly CNPS List) follow the CNPS Rare Plant Inventory (CNPS 2025a). For plant species without a CRPR, Latin names follow Jepson eFlora (Jepson Flora Project 2025), and common names follow the California Natural Community List (CDFW 2025c) or the U.S. Department of Agriculture Natural Resources Conservation Service PLANTS Database (USDA 2025b). A list of plant species observed in the Study Area during initial surveys is presented in Appendix C, Potential to Occur Tables and Compendia.

Six (6) vegetation communities are considered sensitive by CDFW. The vegetation communities and land cover locations are summarized in Table 5, Vegetation Communities and Land Covers in the Study Area, and illustrated in Figure 4, Vegetation Communities and Land Cover. Vegetation communities within 1,000 feet of the gen-tie route options are expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

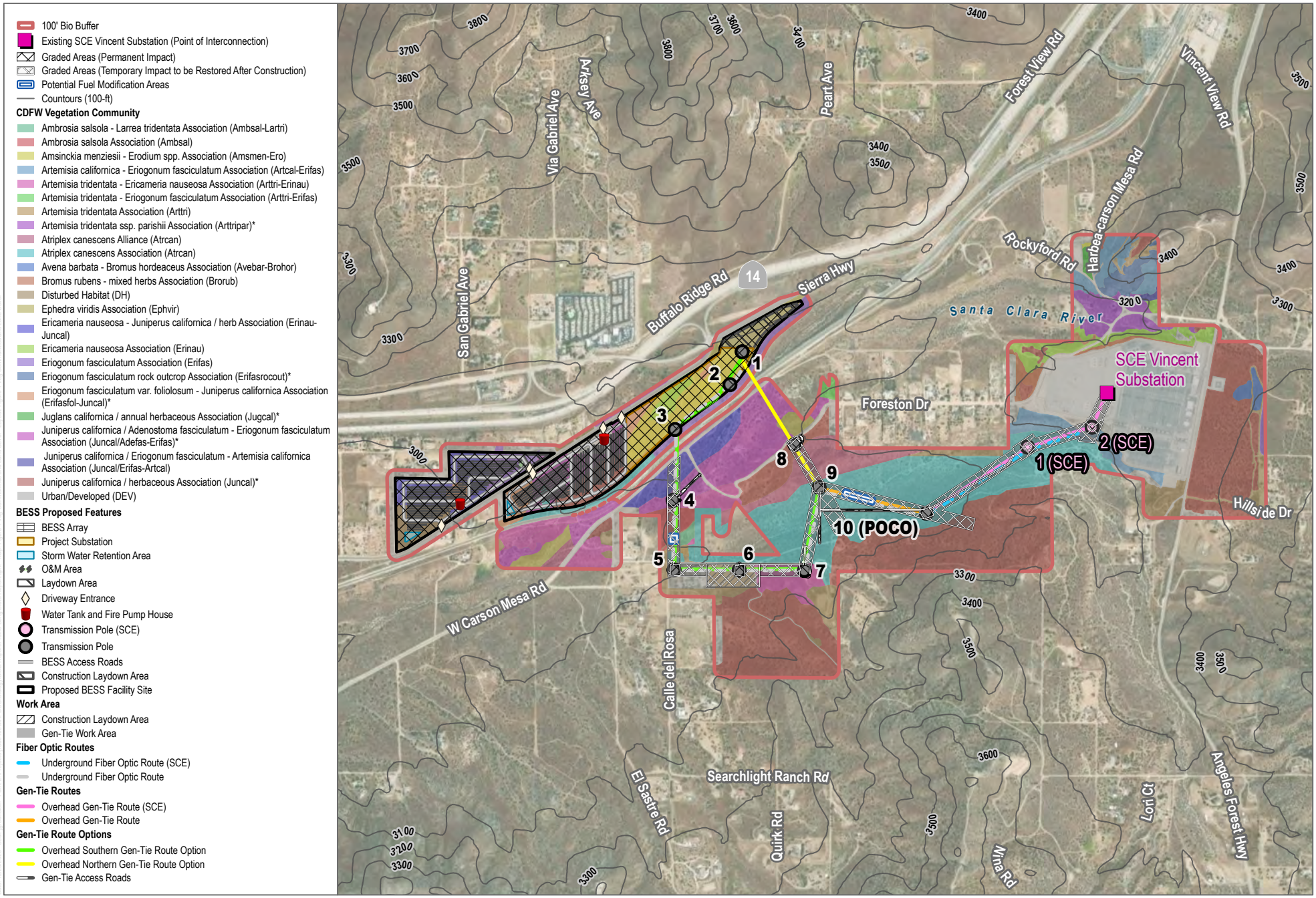
Table 5. Vegetation Communities and Land Covers in the Study Area

Alliance	Association	Acres
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	0.82
	Ambrosia salsola Association	2.60
Fiddleneck – phacelia fields	*Amsinckia menziesii – Erodium* spp.	2.21
California sagebrush – (purple sage) scrub	*Artemisia californica – Eriogonum fasciculatum*	12.68
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	15.42
	Artemisia tridentata – Eriogonum fasciculatum	3.98
	Artemisia tridentata	0.48
	Artemisia tridentata ssp. *parishii*	7.66
Fourwing saltbush scrub	*Atriplex canescens*	75.57
Mormon tea scrub	*Ephedra viridis*	20.87
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica* / herb	18.49
	Ericameria nauseosa	5.38
California buckwheat scrub	*Eriogonum fasciculatum*	4.75
	Eriogonum fasciculatum var. *foliolosum – Juniperus californica*	4.50
California buckwheat – Parish's goldeneye scrub	*Eriogonum fasciculatum* rock outcrop	3.82
California walnut groves	*Juglans californica / annual herbaceous*	0.89
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum – Eriogonum fasciculatum*	31.66
	Juniperus californica / herbaceous	106.67

Table 5. Vegetation Communities and Land Covers in the Study Area

Alliance	Association	Acres
	Juniperus californica / Eriogonum fasciculatum – Artemisia californica	0.23
	Subtotal:	*317.35*
Naturalized (Non-Native)		
Wild oats and annual brome grasslands	*Avena barbata – Bromus hordeaceus*	2.22
Red brome or Mediterranean grass grasslands	*Bromus rubens* – mixed herbs	2.99
	Subtotal:	*5.21*
Land Cover Types		
Disturbed habitat	Not applicable	19.38
Urban/Developed	Not applicable	71.95
	Subtotal:	*91.33*
	Total:	**413.88**

Notes: Totals may not sum due to rounding.



SOURCE: World Imagery

DUDEK

0 700 1,400 Feet

FIGURE 4

Vegetation Communities and Land Cover

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK

Native Vegetation Communities

Vegetation community descriptions are taken from A Manual of California Vegetation, Online Edition (CNPS 2025b).

Cheesebush – Sweetbush Scrub

Cheesebush – sweetbush scrub (*Ambrosia salsola – Bebbia juncea* Shrubland Alliance) has cheesebush (*Ambrosia salsola*), sweetbush (*Bebbia juncea*), woolly brickellbush (*Brickellia incana*), and/or desertsenna (*Senna armata*) as dominant or co-dominant in the shrub canopy with Wiggins' cholla (*Cylindropuntia echinocarpa*), brittlebush (*Encelia farinosa*), California jointfir (*Ephedra californica*), Mojave rabbitbrush (*Ericameria paniculata*), California buckwheat (*Eriogonum fasciculatum*), white ratany (*Krameria grayi*), creosote bush (*Larrea tridentata*), and beavertail pricklypear (*Opuntia basilaris*). This alliance can be found on intermittently flooded channels, arroyos, washes, valleys, flats, and rarely flooded low-gradient deposits. Soils are alluvial, sandy and gravelly, and disturbed desert pavement. Two (2) associations of the alliance were mapped within the Study Area: *Ambrosia salsola – Larrea tridentata* and *Ambrosia salsola* Association. These associations were mapped in the gen-tie portion Study Area.

Fiddleneck – Phacelia Fields

Fiddleneck – phacelia fields (*Amsinckia* [*menziesii*, *tessellata*] – *Phacelia* spp. Herbaceous Alliance) has Menzies' fiddleneck (*Amsinckia menziesii*), bristly fiddleneck (*Amsinckia tessellate)* and/or *Phacelia* spp. or other *Amsinckia* sp. as seasonally co-dominant in the herbaceous layer. Additional local species present include California saltbush (*Atriplex californica*), *Avena* spp., ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), red brome (*Bromus rubens*), exserted Indian paintbrush (*Castilleja exserta*), and *Erodium* spp. Emergent shrubs may be present at low cover. This alliance can be found along upland slopes, broad valleys, ocean bluffs, grazed or recently burned hills, and fallow fields. Soils are well drained and loamy, and they are often subject to high levels of disturbance. One (1) association of the alliance, *Amsinckia menziesii – Erodium* spp., was mapped in the BESS portion of the Study Area.

California Sagebrush – (Purple Sage) Scrub

California sagebrush – (purple sage) scrub (*Artemisia californica* – [*Salvia leucophylla*] Shrubland Alliance) has California sagebrush and/or purple sage (*Salvia leucophylla*) as dominant or co-dominant in the shrub canopy with chamise, coyotebrush (*Baccharis pilularis*), bladderpod spiderflower (*Cleome isomeris*), orange bush monkeyflower (*Diplacus aurantiacus*), California brittlebush (*Encelia californica*), brittlebush, California jointfir, narrowleaf goldenbush (*Ericameria linearifolia*), California buckwheat, and chaparral yucca (*Hesperoyucca whipplei*). This alliance can be found on slopes of variable aspects, but usually steep and rarely flooded, low-gradient deposits along streams. Soils are alluvial or colluvial derived. One (1) association of the alliance, *Artemisia californica – Eriogonum fasciculatum*, was mapped in the gen-tie portion Study Area.

Big Sagebrush

Big sagebrush (*Artemisia tridentata* Alliance) has big sagebrush (*Artemisia tridentata*) as dominant or co-dominant in the shrub canopy with Acton's encelia (*Encelia actoni*), Mormon tea (*Ephedra viridis*), and California buckwheat. Shrub canopy is open to continuous, and emergent trees may be present at low cover. The herbaceous layer is usually sparse to intermittent and grassy. This alliance can be found on plains, alluvial fans, bajadas, pediments, lower slopes, valley bottoms, seasonal and perennial stream channels, and dry washes. Soils are well drained and

consist of loam or sand. Three (3) associations of the alliance were mapped within the Study Area: *Artemisia tridentata* Association, *Artemisia tridentata – Eriogonum fasciculatum* Association, and *Artemisia tridentata – Ericameria nauseosa* Association. These associations were found in the BESS and Southern Gen-tie portions of the Study Area.

Fourwing Saltbush Scrub

Fourwing saltbush scrub (*Atriplex canescens* Shrubland Alliance) has fourwing saltbush (*Atriplex canescens*) as dominant or co-dominant in the shrub canopy with burrobush (*Ambrosia dumosa*), cheesebush, spiny saltbush (*Atriplex confertifolia*), cattle spinach (*Atriplex polycarpa*), Mormon tea, hop sage (*Grayia spinosa*), and creosote bush. Emergent trees may be present at low cover. This alliance can be found along playas, old beaches and shores, lake deposits, dissected alluvial fans, rolling hills, or channel beds. Soils are carbonate rich, alkaline, sandy, or sandy clay loams. One (1) association, *Atriplex canescens*, was mapped in the gen-tie portion Study Area.

Mormon Tea Scrub

Mormon tea scrub (*Ephedra viridis* Shrubland Alliance) has Mormon tea as dominant or co-dominant in the shrub canopy with big sagebrush and rubber rabbitbrush (*Ericameria nauseosa*). Emergent trees may be present at low cover, including California juniper. This alliance can be found along ridges, hills, mountains, and channel beds. Soils are shallow and derived from alluvium, granitic substrate, bedrock, and colluvium. One (1) association, *Ephedra viridis*, was mapped primarily in the BESS portion of the Study Area.

Rubber Rabbitbrush Scrub

Rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance) has rubber rabbitbrush as dominant or co-dominant in the shrub canopy with big sagebrush, *Ephedra* spp., and California buckwheat. Emergent trees may be present at low cover, including California juniper. This alliance can be found along all topographic settings, especially in disturbed settings. Soils are well-drained sands and gravels. Two (2) associations, *Ericameria nauseosa* and *Ericameria nauseosa – Juniperus californica/*herb, were mapped within the BESS and gen-tie portions of the Study Area.

California Buckwheat Scrub

California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance) has California buckwheat or chaparral yucca as dominant or co-dominant in the shrub canopy in cismontane stands with California sagebrush, coyotebrush, orange bush monkeyflower, California brittlebush, brittlebush, and Menzies' goldenbush (*Isocoma menziesii*). Emergent trees may be present at low cover, including California juniper. This alliance can be found in upland slopes, intermittently flooded arroyos, channels and washes, and rarely flooded low-gradient deposits. Soils are coarse, well drained, and moderately acidic to slightly saline. Two (2) associations, *Eriogonum fasciculatum* and *Eriogonum fasciculatum* var. *foliolosum – Juniperus californica*, were mapped in the BESS and north of the Vincent Substation portions of the Study Area.

California Buckwheat – Parish's Goldeneye Scrub

California buckwheat – Parish's goldeneye scrub (*Eriogonum fasciculatum – Viguiera parishii* Shrubland Alliance) has California buckwheat and/or Parish's goldeneye (*Viguiera parishii*) as dominant or co-dominant in the shrub canopy with burrobush, cheesebush, big sagebrush, sweetbush, blackbrush (*Coleogyne ramosissima*), buck-horn

cholla (*Cylindropuntia acanthocarpa*), Wiggins' cholla, brittlebush, and Nevada jointfir (*Ephedra nevadensis*). This alliance can be found in wash and arroyo margins, rocky to bouldery alluvium, canyons, and moderate to steep colluvial slopes and ridges. Soils are well drained and derived from granitic or volcanic rock. One (1) association, *Eriogonum fasciculatum* rock outcrop, was mapped north of the Vincent Substation in the Study Area.

California Walnut Groves

California walnut groves (*Juglans californica* Forest and Woodland Alliance) have Southern California walnut (*Juglans californica*) as dominant or co-dominant in the tree canopy with other native trees. One (1) association, *Juglans californica*/annual herbaceous, was mapped adjacent to residential property (possibly ornamental plantings in origin) north of the Vincent Substation in the Study Area.

California Juniper Woodland

California juniper woodland has California juniper as dominant or co-dominant in the small tree canopy with single-leaf pinyon (*Pinus monophyla*) and blue oak (*Quercus douglasii*). Local shrubs may include big sagebrush *Ephedra* spp., chaparral yucca, and scale broom (*Lepidospartum squamatum*). This alliance can be found along ridges, slopes, valleys, alluvial fans, and valley bottoms. Soils are porous, rocky, coarse, sandy, or silty, and are often very shallow. Three (3) associations, *Juniperus californica*, *Juniperus californica – Adenostoma fasciculatum – Eriogonum fasciculatum*, and *Juniperus californica – Ericameria linearifolia*/annual-perennial herb, were mapped within the BESS and gen-tie portions of the Study Area.

Naturalized (Non-Native) Vegetation Communities

Wild Oats and Annual Brome Grasslands

Wild oats and annual brome grasslands (*Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance) has slender oat (*Avena barbata*), common wild oat (*Avena fatua*), stiff brome (*Brachypodium distachyon*), greater quaking-grass (*Briza maxima*), ripgut brome, soft brome, and/or wall barley (*Hordeum murinum*) as dominant or co-dominant with other non-natives in the herbaceous layer. Emergent trees and shrubs may be present at low cover. This alliance can be found along all topographic settings in foothills, waste places, rangelands, and openings in woodlands. One (1) association, *Bromus hordeaceus – Amsinckia menziesii – Hordeum murinum*, was mapped adjacent to the Vincent Substation in the Study Area.

Red Brome or Mediterranean Grass Grasslands

Red brome or Mediterranean grass grasslands (*Bromus rubens – Schismus* [*arabicus*, *barbatus*] *Bromus rubens* Alliance) has red brome, Arabian schismus (*Schismus arabicus*), and/or common Mediterranean grass (*Schismus barbatus*) as dominant or co-dominant with other non-natives in the herbaceous layer. Emergent shrubs may be present at low cover. This habitat can be found in all topography settings and soil textures. One (1) association, *Bromus rubens* – mixed herbs, was mapped adjacent to the Vincent Substation in the Study Area.

Disturbed and Developed Land Cover Types

Disturbed Habitat

Although not recognized by the Manual of California Vegetation, Online Edition (CNPS 2025b) or the California Natural Community List (CDFW 2025c), disturbed habitat is described in the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). Disturbed habitat is described as areas generally lacking vegetation due to high levels of existing or historical human disturbance that are no longer recognizable as a native or naturalized vegetation association. Areas mapped as disturbed habitat may include unpaved roads, trails, and graded areas (Oberbauer et al. 2008). Vegetation in these areas, if present at all, is usually sparse and dominated by non-native weedy herbaceous species (Oberbauer et al. 2008). Areas mapped as disturbed habitat were found throughout the Study Area and were usually associated with developments or infrastructure.

Urban/Developed

Although not recognized by the Manual of California Vegetation (CNPS 2025b) or the California Natural Community List (CDFW 2025c), the urban/developed mapping unit (or developed land) is described in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). This mapping unit describes areas supporting human-made structures, including homes, yards, sidewalks, and other highly modified lands supporting structures associated with dwellings or other permanent structures. Vegetation in these areas, if present at all, is typically associated with ornamental landscaping that has been included in the development footprint (Oberbauer et al. 2008). Most of the developed lands in the Study Area included the large, paved substation and roads.

5.2 Special-Status Plant Species

Appendix C (CDFW 2025a; CNPS 2025a; USFWS 2025b) lists the 80 plant species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 and that are known to occur within the 14 USGS 7.5-minute topographic quadrangles that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS' Information for Planning and Consultation. This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range, habitat associations, preferred soil substrate, life form, elevation, and blooming period. Special-status plant species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur on site.

Two (2) sensitive plant species, short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) and golden linanthus (*Leptosiphon aureus*), were mapped during the focused special-status plant surveys in 2023 within the proposed gen-tie route portion of the Study Area, as shown in Figure 5, Biological Survey Results. Two additional special-status plant species, Douglas' fiddleneck (*Amsinckia douglasiana*) and Raven's blazing-star (*Mentzelia ravenii*), were recorded on one day of the special-status plant surveys but were not mapped. Instances of Douglas' fiddleneck did not occur in database queries and was not a focal species based upon the initial habitat assessment for special-status. At the time rare plant surveys were conducted, Raven's blazing-star did not have a CRPR rank. Raven's blazing star received a rank in March 2025 (CNPS 2025a). Finally, two Southern California black walnut, which is a CRPR 4.2 species, were mapped within a residential property but are assumed to have been planted since the habitat in the Study Area is atypical for the species. As such, it will not be analyzed as a special-status species but are included in the protected tree analysis.

Short-Joint Beavertail

Short-joint beavertail has a CRPR of 1B.2, which is defined as plants rare, threatened, or endangered in California and elsewhere, with 20%–80% of occurrences threatened (CNPS 2025a). The species is a cactus that can be found in creosote bush scrub, chaparral, pinyon-juniper woodland, and Joshua tree woodland (CDFW 2025a). Short-joint beavertail was mapped within the proposed gen-tie alignment portion of the Study Area, as shown in Figure 5.

Golden Linanthus

Golden linanthus has a CRPR of 4.2, which is defined as a plant with limited distribution and is moderately threatened in California (CNPS 2025a). The species can be found in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland (CDFW 2025a). The species was mapped within the proposed gen-tie alignment portion of the Study Area, as shown in Figure 5.

Douglas' Fiddleneck

Douglas' fiddleneck has a CRPR of 4.2, which is defined as a plant with limited distribution and is moderately threatened in California (CNPS 2025a). The species can be found in cismontane woodland and valley and foothill grassland (CDFW 2025a). The species was inadvertently not mapped, but it is assumed to have occurred in juniper woodland.

Raven's Blazing-Star

Raven's blazing-star has a CRPR of 1B.3, which is defined as plants rare, threatened, or endangered in California and elsewhere, with less than 20% of occurrences threatened (CNPS 2025a). The species can be found in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland. The species was not mapped because it did not have a CRPR at the time of the survey. Raven's blazing-star received a CRPR rank in March 2025 (CNPS 2025a), so it was not considered a special-status plant at the time of the surveys.

5.3 Special-Status Wildlife Species

Appendix C (CDFW 2025a; CNPS 2025a; USFWS 2025b; Los Angeles Audubon 2009) lists the 62 wildlife species that are considered endangered, rare, or threatened under CEQA Guidelines Section 15380 and that are known to occur within the 14 USGS 7.5-minute topographic quadrangles that the Study Area is in and the quadrangles that the 10-mile buffer intersects, as well as the species provided by the query of the USFWS' Information for Planning and Consultation and Los Angeles County's Sensitive Bird Species. This appendix provides evaluations for each of the special-status species' occurrence in the Study Area vicinity and their potential to occur based on known range and habitat associations. Special-status wildlife species that have low potential or are not expected to occur are not further analyzed in this document because no direct, indirect, or cumulative impacts are expected based on the negative surveys and evaluation that these species do not have a moderate or high potential to occur on site. This includes three species that are included in Los Angeles County's Sensitive Bird Species (Los Angeles Audubon 2009), Scott's oriole (*Icterus parisorum*), vesper sparrow (*Pooecetes gramineus*), and western meadowlark (*Sturnella neglecta*). These three species were not observed during site surveys and have a low potential to occur in the Study Area and are not discussed further.

Two (2) special-status species were observed foraging in the BESS portion of the Study Area, loggerhead shrike (*Lanius ludovicianus*) and greater roadrunner (*Geococcyx californianus*). The following six (6) special-status species

had moderate to high potential to occur in the Study Area: Crotch's bumble bee, California legless lizard (*Anniella* spp.), Blainville's horned lizard (*Phrynosoma blainvillii*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Bell's sage sparrow (*Artemisiospiza belli belli*), and mountain lion (*Puma concolor*). One species in the previous list, mountain lion, has a high potential to occur as a transient. The 52 special-status species with a low potential to occur (six [6] species) or species that are not expected to occur (46 species) are excluded from further discussion below, except for western burrowing owl (*Athene cunicularia hypugaea*) and American badger (*Taxidea taxus*). A discussion of western burrowing owl is provided below; however, since burrowing owl is not expected in the Study Area, it is not further analyzed apart from the discussion in this section. Sensitive wildlife species potential within 1,000 feet of the gen-tie route options are expected to be similar to the Study Area because there are no significant changes in topography, geology, or hydrology within that distance.

Crotch's Bumble Bee

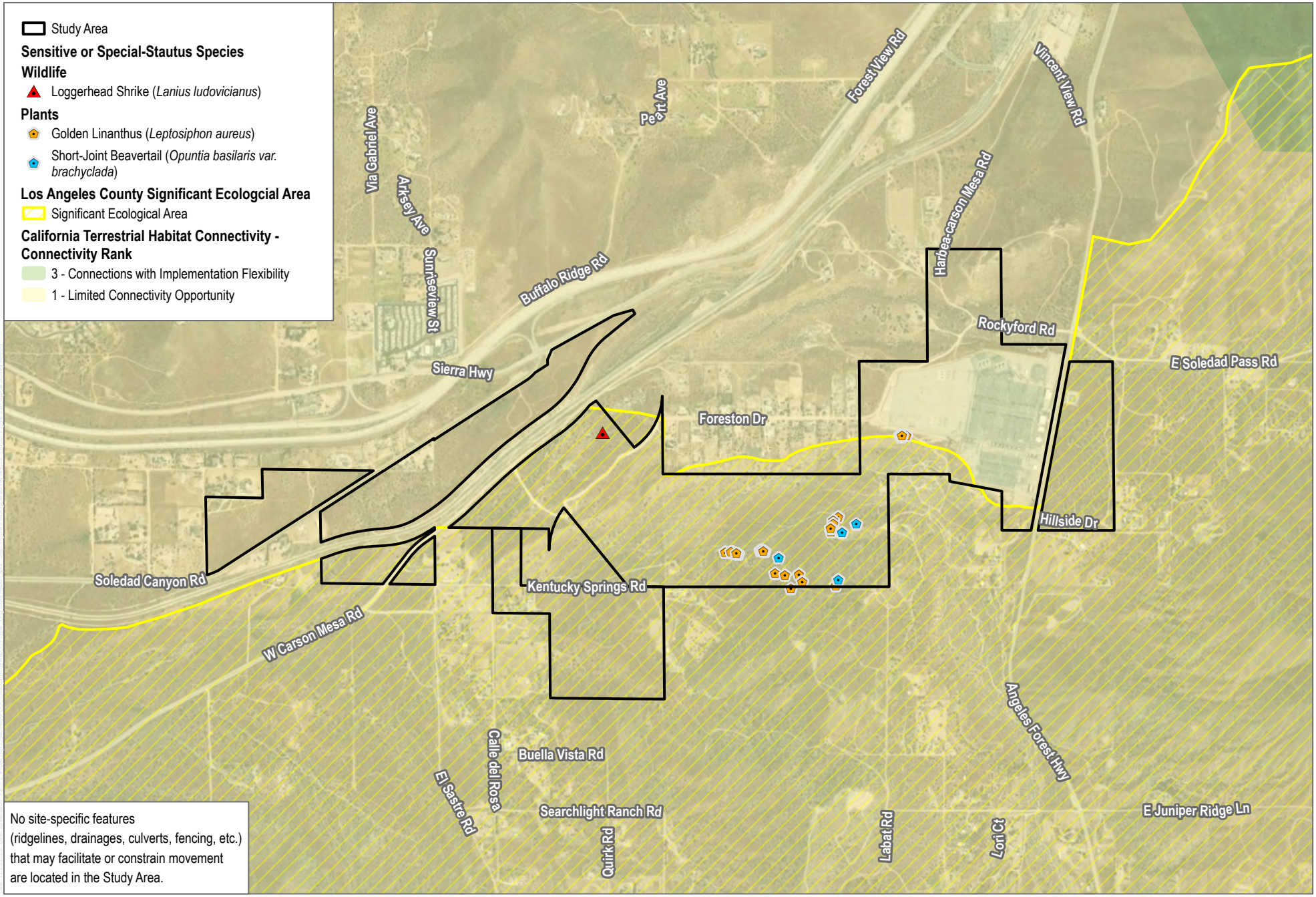
Crotch's bumble bee is a candidate for listing as "Endangered" under CESA and is afforded the protection of CESA while the California Fish and Game Commission decides if listing the species is warranted. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (The Xerces Society 2018). In California, the species inhabits open grassland and scrub habitats (The Xerces Society 2018). The size of Crotch's bumble bee colonies has not been well documented, but like most other species of bumble bees, the species primarily nests underground (The Xerces Society 2018). Bumble bees, including Crotch's bumble bee, are generalist foragers and have been reported visiting a wide variety of flowering plants. Since it has a very short tongue, Crotch's bumble bee is best suited to forage at open flowers with short corollas (The Xerces Society 2018). The plant families most associated with observations or collections of the species from California include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae (The Xerces Society 2018). Nectar plants known to be visited by Crotch's bumble bee include the genera *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014; Xerces Society et al. 2018), but it is assumed flowering plants in other genera could also support foraging by this species.

Crotch's bumble bee could use small mammal burrows within all the vegetation communities in the Study Area and forage on suitable plant species within those communities. However, no Crotch's bumble bee were observed during the surveys that occurred over two (2) survey seasons. No bumble bees of any kind were observed during that period. Floral resources for the species are present but in limited numbers, with the Study Area being dominated by California juniper woodland, fourwing saltbush scrub, and Mormon tea scrub, as shown in Table 3,~~.~~ Vegetation Communities and Land Covers in the Study Area. Additionally, there are few records for the occurrence of the species or any other bumble bee from the Acton region (CDFW 2025a; iNaturalist 2025; The Xerces Society 2025). Due to the limited foraging opportunities and the few records of bumble bees as a whole in the region, the Project is not expected to involve take of Crotch's bumble bee.

California Legless Lizard

This description provides information for three (3) potential species of legless lizard that may be found in the Study Area: Northern California legless lizard (*Anniella pulchra*), Southern California legless lizard (*Anniella stebbinsi*), and California legless lizard (*Anniella* spp.). This is due to the current uncertainty of the taxonomy of the genus in the Study Area's region (Nafis 2025). All three (3) are considered CDFW SSC. These species are most commonly found in coastal dunes and coastal scrub, but also oak woodland, Joshua tree woodland, and pinyon-juniper woodland (Hansen and Shedd 2025), and are generally found in moist, loose soil (CDFW 2025a). California legless lizard has

moderate potential to occur in the Study Area beneath the larger California junipers due to the expected higher moisture content of the soil.



SOURCE: World Imagery; CDFW 2025; County of Los Angeles 2025

DUDEK

0 750 1,500 Feet

FIGURE 5

Biological Survey Results

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK

Blainville's Horned Lizard

Blainville's horned lizard is a CDFW SSC that occurs throughout most of California in locations west of the desert and Cascade-Sierran highlands, in elevations from sea level to around 2,438 meters (8,000 feet) above mean sea level (Hansen and Shedd 2025). Despite a wide-ranging distribution, the species seems to be restricted to localized populations because of its association with loose soils that have a high sand content (Jennings and Hayes 1994). The species is found in a wide variety of vegetation types with the requisite loose sandy soils, including California sagebrush scrub, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest (Klauber 1939; Stebbins 1954). Up to 90% of the diet of Blainville's horned lizard consists of native harvester ants (*Pogonomyrmex* spp.) (Pianka and Parker 1975), and the species does not appear to eat non-native Argentine ants (*Linepithema humile*) (Jennings and Hayes 1994). The species has a moderate potential to occur in a variety of the vegetation communities in the Study Area.

Greater Roadrunner

Observations of greater roadrunner were made in the Study Area but were not mapped since the species is highly mobile and expected to occur throughout the area. The species habitats include areas dominated by creosote, mesquite, chaparral, and tamarisk, as well as grasslands, riparian woodlands, and canyons (Cornell Lab 2025). Greater roadrunner nest sites are 3 to 10 feet or more off the ground, on a horizontal branch or in the crotch of a sturdy bush, cactus, or small tree (Cornell Lab 2025). Greater roadrunner is considered sensitive by the County (Los Angeles Audubon 2009). The species could use the California juniper in the Study Area for nesting and could forage throughout the Study Area.

Loggerhead Shrike

A single observation of loggerhead shrike was made in the Study Area, as shown in Figure 5. The species is a CDFW SSC that occurs throughout the United States, Mexico, and portions of Canada and is widespread at the lower elevations in California (Humple 2008). Preferred habitats for the species are open areas that include scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or human-made structures (such as the top of chain-link fences or barbed wire) that provide a location to impale prey items for storage or manipulation (Humple 2008). Nest sites are chosen based more on the cover than the particular vegetation species and are usually constructed in a dense shrub or tree well below the crown and are well concealed (Yosef 1996). The species could use the California juniper in the Study Area for nesting and could forage throughout the Study Area.

Southern California Rufous-Crowned Sparrow

Southern California rufous-crowned sparrow is on the CDFW Watch List and occurs in sparse, mixed chaparral and coastal scrub habitats (CDFW 2025a). The species frequents relatively steep, often rocky hillsides with grass and forb patches and also grassy slopes without shrubs, if rock outcrops are present (CDFW 2025a). The species has a moderate potential to occur on the slopes of the gen-tie portion of the Study Area.

Bell's Sage Sparrow

Bell's sage sparrow is on the CDFW Watch List and occupies semi-open habitats with evenly spaced shrubs that are 1 meters to 2 meters (3.3 feet to 6.6 feet) high (County of Riverside 2025). CDFW still recognizes *A. belli belli*, but the subspecies has been reclassified as its own species Bell's sparrow (*A. belli*), with the other subspecies *A.*

belli nevadensis reclassified as sagebrush sparrow (*A. nevadensis*). For site selection, specific shrub species may be less important than overall vertical structure, habitat patchiness, and vegetation density (Wiens and Rotenberry 1981). At higher elevations in Southern California, Bell's sage sparrow often occurs in big sagebrush (County of Riverside 2008). Sage sparrows seek cover in fairly dense stands in chaparral and scrub habitats during the breeding season. Bell's sage sparrow has a moderate potential to occur in the *Artemisia tridentata* dominant and co-dominant vegetation communities in the Study Area.

Mountain Lion

Mountain lions associated with Southern California and Central Coast populations are designated as a State candidate endangered species. On April 16, 2020, the California Fish and Game Commission voted to designate the Southern California and Central Coast mountain lions as a candidate for listing as an endangered species under CESA. The vote triggered a 1-year review by CDFW to determine whether these mountain lion populations should be formally protected under CESA; however, the listing status of this species is still currently unresolved at the time of this report.

The California mountain lion occurs throughout much of California open space, occurring in or moving through nearly all but the most urbanized settings. This species inhabits a wide range of habitat types where prey items such as mule deer (*Odocoileus hemionus*) and bighorn sheep (*Ovis canadensis*) are present, from interior, arid rocky scrublands, to upper montane coniferous forest, to chaparral, coastal scrub, and woodland habits along the coastal plain.

According to the Mountain Lion Predicted Habitat dataset (CDFW 2025b), the proposed BESS portion of the Study Area consists primarily of high-quality habitat and most of the proposed gen-tie route is within low quality habitat. However, CDFW's Mountain Lion Habitat Suitability dataset has most of the proposed BESS portion of the Study Area and gen-tie alignment as low suitable habitat (Dellinger et al. 2020; CDFW 2025b). As such, the species could occur throughout most of the Project area during home range movement, dispersal, and foraging. The potential to occur is based on habitat suitability: scrub vegetation, presence of mule deer, and proximity to high-quality habitat on large swaths of public lands to the east in the Angeles Nation Forest. However, females keep their young in dens located in rocky terrain or in dense vegetation that provide cover but avoid roads and stay at a distance from human disturbance four (4) times greater (approximately 600 meters) than non-reproductive mountain lions (Center for Biological Diversity and the Mountain Lion Foundation 2019). The Study Area is located adjacent to residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14, all of which have associated human presence. As such, females of the species are not expected to establish natal dens in the Study Area.

Western Burrowing Owl

As of October 15, 2024, western burrowing owl is being considered for listing under CESA, and the species is provided with the protection of CESA. Primary habitat requisites for burrowing owl are the presence of burrows for roosting and nesting and vegetation structure that is relatively short and sparse (Center for Biological Diversity et al. 2024). The species was historically abundant throughout southwestern California, including up to the 610-meter (2,001.31 feet) elevation contour in the Transverse Ranges, but have been extirpated from Ventura, western Los Angeles, and Orange Counties and are near extirpation in San Diego County (Center for Biological Diversity et al. 2024). The petition to list the species does not include the Study Area in the breeding range of the species and does not include the Study Area in one (1) of the 16 burrowing owl regions in California (Center for Biological Diversity et al. 2024).

CDFW's range and predicted habitat for burrowing owl does not include the Study Area (CDFW 2025f). There are five (5) CNDDB records of the species within 10 miles that are in the Antelope Valley to the north of the Study Area, with the most recent being 2006 (CDFW 2025a). Citizen science-based databases have only five (5) records within 10 miles that are in the Antelope Valley to the north of the Study Area (eBird 2025; iNaturalist 2025).

The Study Area is dominated by shrub-dominant vegetation communities that have relatively high density. The Study Area elevation ranges from 2,700 feet to 3,500 feet above mean sea level, which is above the known historic occurrences of the species in the Transverse Ranges. California ground squirrel (*Otospermophilus beecheyi*) burrows are present but are sparse, and none of the extensive surveys of the Study Area have identified burrowing owl or diagnostic sign (i.e., pellets, feathers, and extensive whitewash). Based upon the lack of suitable habitat, the Study Area being above the known elevation occurrence of the species in the region, the lack of observations of the species during extensive surveys, and the limited number of records of the species within 10 miles, burrowing owl is not expected in the Study Area and will not be further analyzed.

American Badger

American badger is a CDFW SSC that is an uncommon, permanent resident found throughout most of the state, except in the northern North Coast (CDFW 2025f). Suitable habitat for the species is characterized by herbaceous, shrub, and open stages of most habitats with dry, friable soils (CDFW 2025f). American badger dig burrows in friable soil for dens and frequently reuse old burrows, although some may dig a new den each night, especially in summer (CDFW 2025f). American badger is a highly specialized burrowing mammal that primarily eats burrowing rats, mice, chipmunks, and especially ground squirrels and pocket gophers (CDFW 2025f).

There is one (1) CNDDB record of American badger within 20 miles of the Study Area from 1930 at Lake Los Angeles (CDFW 2025a). There is one (1) 2021 iNaturalist record of the species approximately 8.6 miles to the west near Agua Dulce (iNaturalist 2025). American badger has been determined to have a low potential to occur in the Study Area due to the presence of suitable habitat, but no individuals were observed and no diagnostic signs (i.e., burrows or digs with the species' conspicuous claw marks) were observed during the extensive surveys of the Study Area. As such, the species will not be further analyzed.

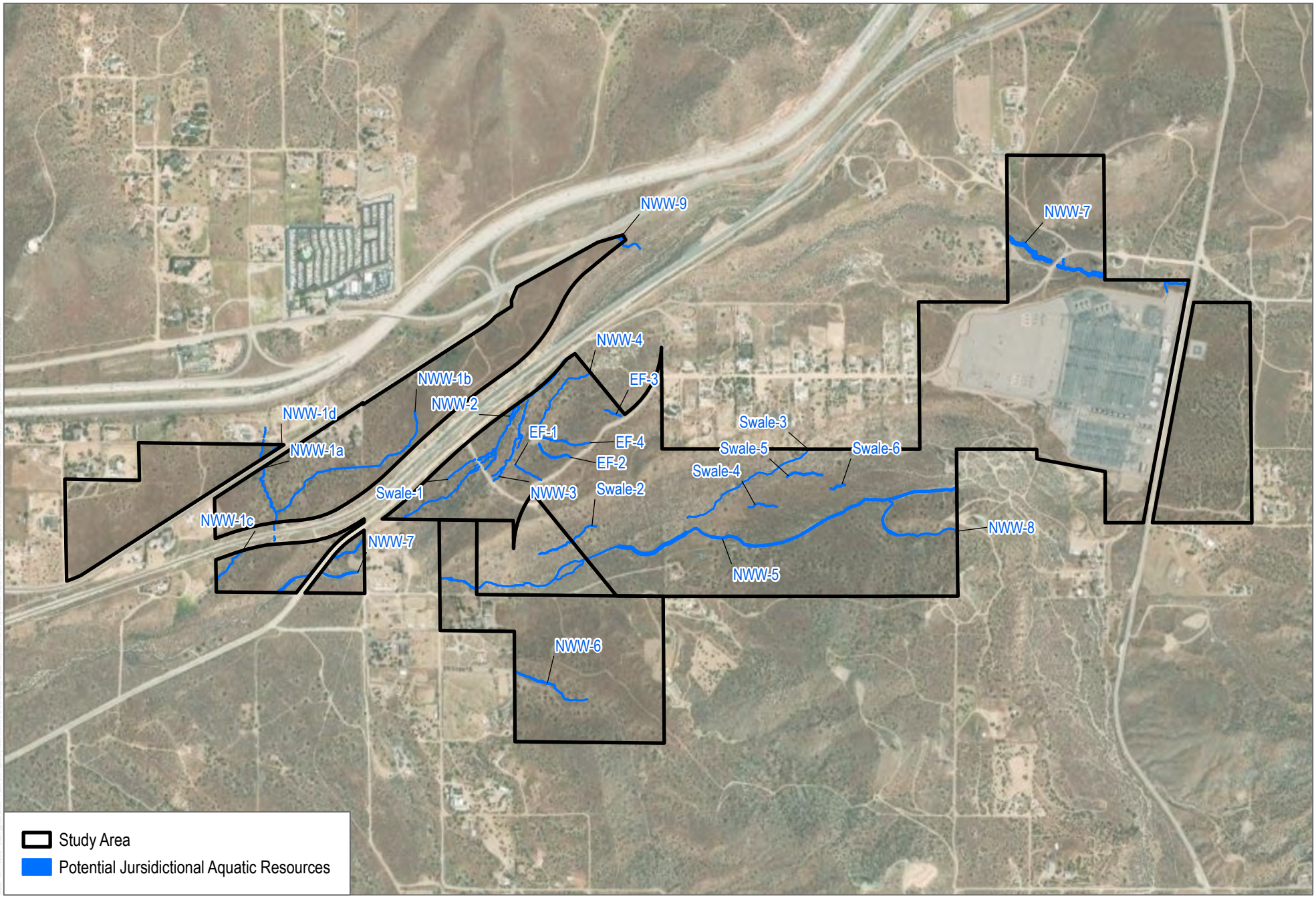
5.4 Potential Jurisdictional Wetlands and Waters

Approximately 3.80 acres of potential jurisdictional waters regulated by RWQCB and CDFW were found within the Study Area, as summarized in Table 6, Summary of Potential Jurisdictional Waters Within the Study Area, and illustrated in Figure 6, Potential Jurisdictional Aquatic Resources. Impacts to these features will require permits from RWQCB and, but for the CEC's jurisdiction, CDFW, before any Project activities take place. Based upon the current definition of waters of the United States per the Clean Water Act, no features were considered to be water of the United States under the jurisdiction of USACE due to the ephemeral-nature of each; however, an Approved Jurisdictional Determination will need to be sought from the agency to document this conclusion.

Table 6. Summary of Potential Jurisdictional Waters Within the Study Area

Jurisdiction	Study Area (acres)
RWQCB/CDFW	
Features	
Non-Wetland Waters	3.34
Swales	0.27
	0.05
Total	**3.80**

Note: RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife.



SOURCE: World Imagery

DUDEK

0 500 1,000 Feet

FIGURE 6

Potential Jurisdictional Aquatic Resources

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK

5.5 Wildlife Corridors and Habitat Linkages

Wildlife movement corridors have been recognized by federal and state agencies as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats) and provide non-migrant wildlife with the opportunity to move within their home range for food, cover, reproduction, and refuge. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may also serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

The Study Area does not overlap with any South Coast Missing Linkages, California Essential Habitat Connectivity Areas, or Natural Landscape Blocks (South Coast Wildlands 2020; CDFW 2014, 2017). Given that the existing vegetation is surrounded on three (3) sides by similar habitats, the Study Area likely provides habitat for local wildlife movement but is not recognized as an important regional wildlife corridor by any state agency or jurisdiction and is of limited linkage value on a landscape scale. Furthermore, although local wildlife may utilize the Study Area for movement, regional connectivity is highly limited by residential neighborhoods, Sierra Highway, the Southern Pacific Railroad lines, Carson Mesa Road, and SR-14 to the west. Thus, the Project is not expected to impose significant barriers to wildlife movement.

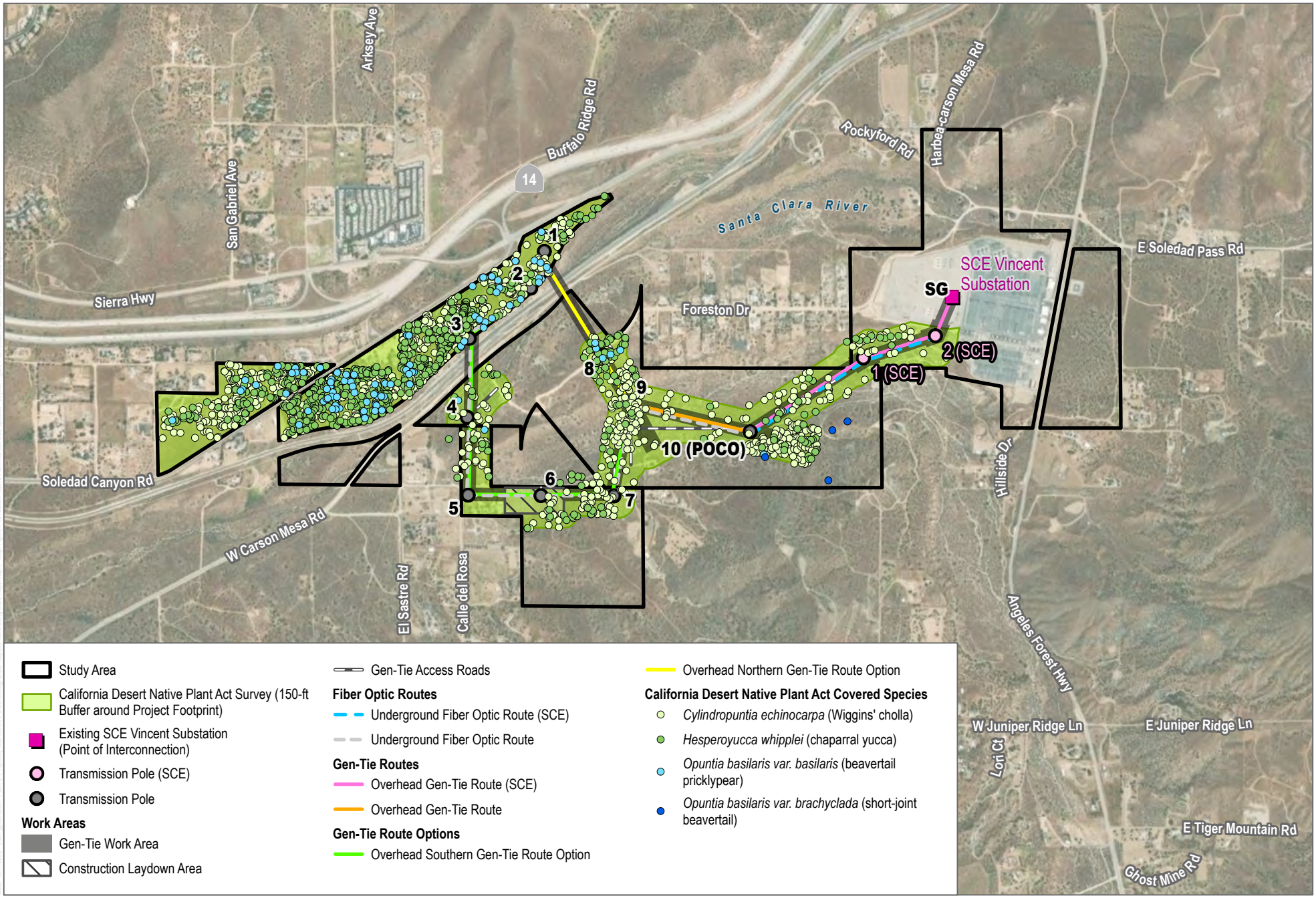
5.6 California Desert Native Plant Act Covered Species

Four (4) species covered by the CDNPA were mapped within the Project footprint and a 150-foot buffer (except for adjacent private properties), as shown in Figure 7, California Desert Native Plant Act Covered Species in the Survey Area: chaparral yucca, Wiggins' cholla, beavertail pricklypear (*Opuntia basilaris* var. *basilaris*) and short-joint beavertail. Table 7, California Desert Native Plant Act Covered Species in the Survey Area, summarizes the numbers within each area and Figure 7.

Table 7. California Desert Native Plant Act Covered Species in the Survey Area

Species	Amount
chaparral yucca	1,118
Wiggins' cholla	644
beavertail pricklypear	94
short-joint beavertail	4
Total	**1,860**

INTENTIONALLY LEFT BLANK



SOURCE: World Imagery

DUDEK

0 700 1,400 Feet

FIGURE 7

California Desert Native Plant Act Covered Species in the Survey Area

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK

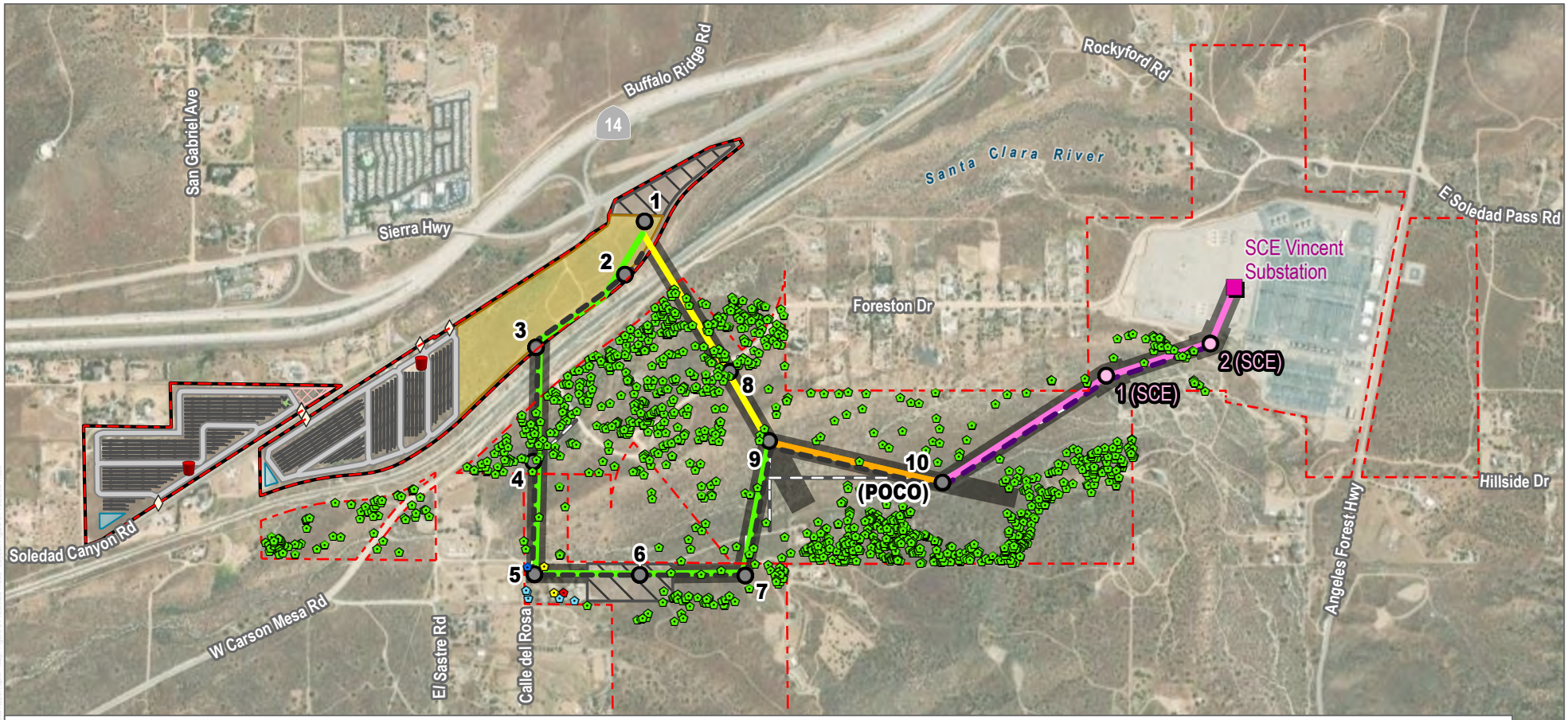
5.7 Significant Ecological Area Protected Trees

A total of 1,215 trees were documented within the survey area, as shown in Figure 8, Protected Trees, and summarized in Table 8, Summary of Trees in the Study Area. Of these, 1,191 trees are located within the Santa Clara River SEA, and 1,021 of those are classified as protected California junipers. The species is a shrub that is native to California and found only slightly beyond California borders (Calflora 2025). California juniper typically has several trunks and grows up to 13 feet (Jepson Flora Project 2025). Apart from the 1,078 California juniper, nine (9) other protected trees were identified (velvet ash, Southern California black walnut, California sycamore (*Platanus racemosa*), and Fremont cottonwood (*Populus fremontii*), however, no impacts would occur to California sycamore or Fremont cottonwood. Two of the trees, velvet ash and Southern California black walnut, were found within the SEA portion of the Study Area as ornamental trees associated with a residence. These species do not typically occur in the habitats in the Study Area. The protected trees include 1,00~~45~~ standard protected trees and ~~68~~ 74 heritage trees. The remaining 194 trees consist of 81 located outside the SEA and 113 trees within the SEA that are classified as dead; dead trees are not protected by the County of Los Angeles and do not require mitigation. Table 8 summarizes the protected trees, heritage trees, and non-protected trees that were mapped and evaluated within the Survey Area. Appendix A, Tree Location, of Appendix A of this report provides detailed methodology and locations of all individual trees assessed for the proposed Project. Full results are included in Appendix A.

Table 8. Summary of Trees in the Study Area

Scientific Name	Common Name	Total Number of Protected Trees	Number of Heritage Trees	Total Number of Non-Protected Trees	Total Number of Trees
Juniperus californica	California juniper	1,069	73	113	1,182
Fraxinus velutina	velvet ash	1	0	0	1
Juglans californica	Southern California black walnut	2	0	0	2
Platanus racemosa	California sycamore	1	0	0	1
Populus fremontii	Fremont cottonwood	~~4~~5	~~0~~1	0	5
	Total	**1,078**	**~~73~~74**	**113**	**1,191**

INTENTIONALLY LEFT BLANK



Study Area
Proposed BESS Facility Site

Tree Species
- California Juniper
- California Sycamore
- Fremont Cottonwood
- Southern California Black Walnut
- Velvet Ash

BESS Proposed Features
- BESS Array
- Project Substation
- Storm Water Retention Area
- O&M Area
- Laydown Area
- Driveway Entrance
- Water Tank and Fire Pump House
- Existing SCE Vincent Substation (Point of Interconnection)
- Transmission Pole (SCE)
- Transmission Pole
- BESS Access Roads

Work Areas
- Gen-Tie Work Area
- Construction Laydown Area
- Gen-Tie Access Roads

Fiber Optic Routes
- Underground Fiber Optic Route (SCE)
- Underground Fiber Optic Route

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: World Imagery

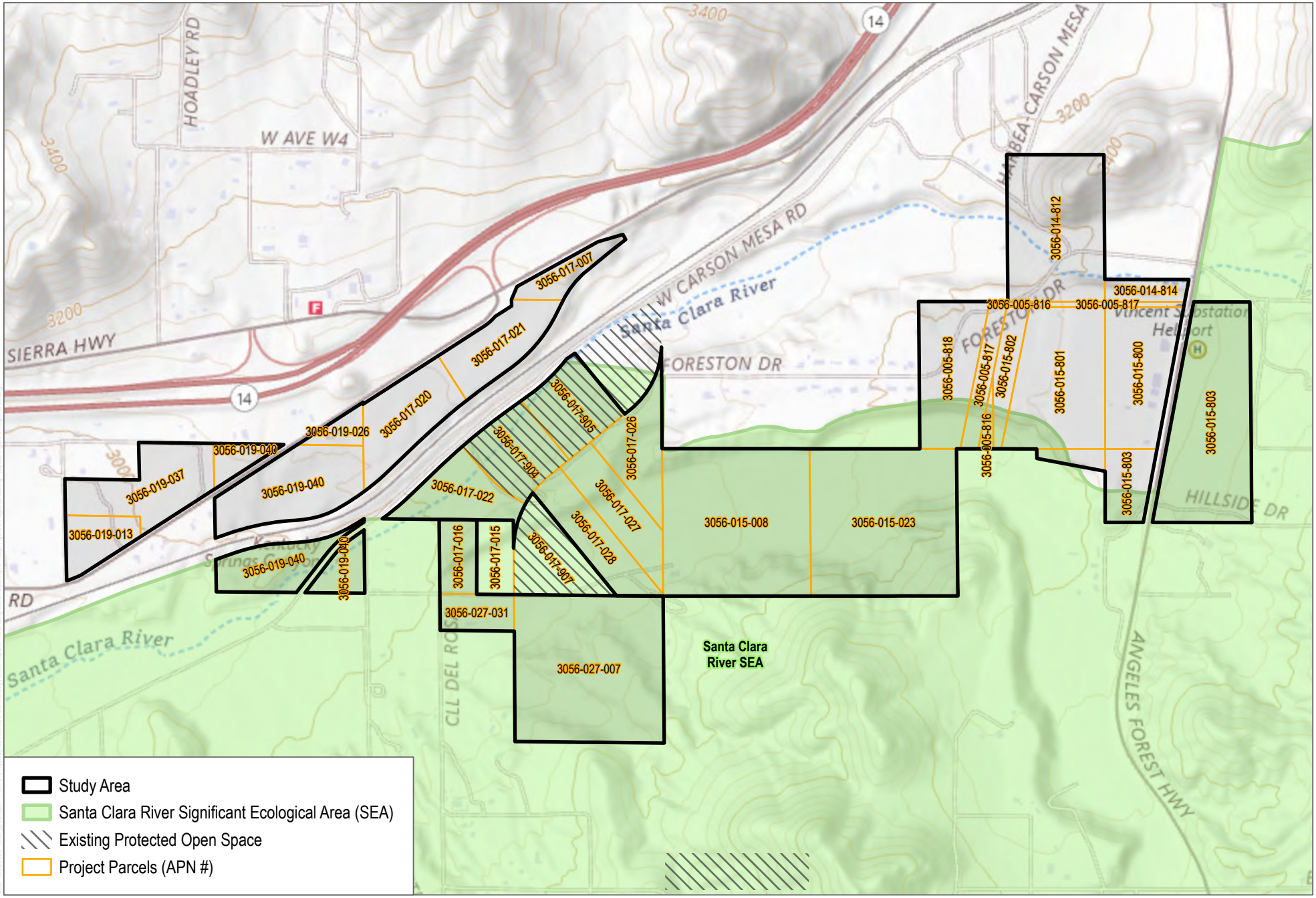
DUDEK

0 550 1,100 Feet

FIGURE 8

Protected Trees

Prairie Song Reliability Project



SOURCE: USGS Topo; CPAD 2025; County of Los Angeles 2025

DUDEK

0 500 1,000 Feet

FIGURE 9

Regional Setting

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK

6 Project Impacts to Significant Ecological Area Resources

This chapter addresses the maximum direct and indirect potential impacts to biological resources within the Santa Clara SEA that would result from implementation of the Project.

6.1 Definition of Impacts

Direct. Section 15358 of the CEQA Guidelines defines direct impacts as those that result from the project and "occur at the same time and place." Project-related activities, such as alteration, disturbance, or destruction of sensitive biological resources, are considered a direct impact. Direct impacts for this Project are those associated with the Project, including grading and development of the BESS facility site and gen-tie route.

Indirect. Section 15358 of the CEQA Guidelines defines indirect impacts as impacts that are caused by the project and "are later in time or farther removed in distance, but are still reasonably foreseeable." Indirect impacts associated with the proposed Project include effects to biological or aquatic resources as a result of dust, noise, vibration, or potential erosion.

Permanent. All impacts that result in the irreversible removal of biological resources are considered permanent. Permanent impacts for the proposed Project include the conversion of land for the BESS facility site and associated access facilities.

Temporary. Temporary impacts are considered to have reversible effects on biological resources. Temporary impacts associated with the proposed Project include tension/pulling sites along the gen-tie right of way, and other work associated with temporary access along the gen-tie line.

6.1.1 Explanation of Project Consistency with Significant Ecological Area Conditional Use Permit Compatibility Criteria

As noted in the SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020), "When development does not meet the SEA Development Standards, [but for the California Energy Commission's Opt-In Application for Certification process,] a SEA CUP will be required to consider whether the project is compatible with the goals and policies of the SEA Program." Additionally, "The natural open space preservation requirement for SEA CUPs is dependent on the amount of proposed development, degree of impact, type and quality (e.g., intactness) of SEA Resources being disturbed, location, and setting of those SEA Resources, and the project's ability to address the SEA Findings."

The SEA Ordinance Implementation Guide also notes the following (Los Angeles County Regional Planning 2020):

> Development in the SEAs must demonstrate how the proposed development is designed to:
>
> A. Be highly compatible with the SEA Resources, including the preservation of natural open space areas and providing for the long-term maintenance of ecosystem functions;...

B. Avoid or minimize impacts to the SEA Resources and wildlife movement through one or more of the following: avoiding habitat fragmentation, minimizing edge effects, or siting development in the least sensitive location;...

C. Buffer important habitat areas from development by retaining sufficient natural vegetation cover and/or natural open spaces and integrating sensitive design features;...

D. Maintain the ecological and hydrological functions of water bodies, watercourses, and their tributaries;...

E. Ensure that roads, access roads, driveways, and utilities do not conflict with Priority Biological Resources, habitat areas or migratory paths; and...

F. Promote the resiliency of the SEA to the greatest extent possible. For purposes of this finding, SEA resiliency cannot be preserved when the proposed development may cause any of the following:

   a. Significant unmitigated loss of contiguity or connectivity of the SEA;

   b. Significant unmitigated impact to a Priority Biological Resource;

   c. Removal of habitat that is the only known location of a new or rediscovered species; or

   d. Other factors as identified by SEATAC.

6.2 Impacts to Special-Status Plants

Two special-status plant species, Douglas' fiddleneck and Raven's blazing-star, were recorded on one day of the special-status plant surveys but were not mapped. As such the two species could be directly impacted during vegetation removal and grading activities. The loss of individuals during construction could be significant based upon the abundance of each being impacted and will require mitigation. **MM-BIO-1**, Special-Status Plant Species Surveys and seed collection, requires pre-construction surveys for the species to determine if the species are present and the collection of seeds should the species be present. However, some of the individuals of both species are in close proximity to the Project construction limits. Mitigation Measure (MM) BIO-2, Demarcation of Disturbance Limits, requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3, Biological Monitoring, requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the flagged limits are adhered to during construction. MM-BIO-4, Worker Education Awareness Program (WEAP), requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and Study Area and measures to avoid and minimize impacts to those resources. MM-BIO-5, On-Site Preservation, requires the establishment of a conservation area that will preserve up to approximately 136 acres of native vegetation communities (the non-impacted acres of the parcels associated with the gen-tie route) within the Study Area parcels associated with the gen-tie routes,, which will preserve individuals and habitat for the species should an ITP for the species be needed. MM-BIO-6, Habitat Mitigation and Monitoring Plan, requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use. Project implementation of MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will provide the mitigation for the Project to be compatible with SEA Resources.

Two (2) additional special-status plant species, short-joint beavertail and golden linanthus, were mapped in the gen-tie route portion of the Study Area during surveys in 2023. None of the mapped individuals will be directly impacted by the Project. However, some of the individuals of both species are in close proximity to the Project construction limits. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources

outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. Project implementation of MM-BIO-1 through MM-BIO-5 will reduce potential impacts to less than significant. Impacts will be less than significant with mitigation.

6.3 Impacts to Special-Status Wildlife

For all wildlife, MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring the integrity of any buffers established for active nests. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources. For Crotch's bumble bee, MM-BIO-7, Crotch's Bumble Bee Avoidance and Minimization Measures, requires pre-construction surveys for the Crotch's bumble nests, with buffers established around active nests until the nests are deemed inactive. For special-status reptiles, MM-BIO-8, Special-Status Wildlife Relocation Plan, will provide a process of clearance surveys and relocation of special-status wildlife into non-impacted portions of the Study Area. For nesting birds, including loggerhead shrike, Southern California rufous-crowned sparrow, and Bell's sage sparrow, MM-BIO-8, Nesting Bird Avoidance, requires pre-construction surveys and buffer establishment for active nests. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-7, MM-BIO-8, and MM-BIO-9 will provide the mitigation for the Project to be compatible with SEA Resources.

The Project may impact habitat in the SEA that supports or has the potential to support several special-status species that are candidates for listing under CESA or are CDFW SSC: Crotch's bumble bee, California legless lizard, Blainville's horned lizard, loggerhead shrike, Southern California rufous-crowned sparrow, and mountain lion. Each species is expected to have potentially suitable habitat in all of the native habitats in the Study Area, with the exception of California legless lizard, which is only expected in habitats with California juniper. Indirect impacts to these species will be from the substantial loss of foraging and breeding habitat, as shown in Table 9, Potential Impacts to Special-Status Wildlife Habitat Within the SEA.

Table 9a. Potential Impacts to Special-Status Wildlife Habitat Within the SEA – Northern Gen-Tie Route

Species	SEA Resource Category[1]	SEA Preservation Ratio[1]	Potential Impacted Habitat (acres)[2]	Restored Temporarily Impacted Habitat (Gross acreage)[2,3]	Needed Conserved Habitat (Gross acreage)[2,4,5,6]
Crotch's bumble bee	1	5:1	~~29.35~~23.15[7]	~~25.91~~20.70	~~120.84~~95.05
California legless lizard	2	4:1	~~3.59~~1.76[8]	~~2.67~~1.37	~~11.69~~5.67
Blainville's horned lizard	2	4:1	~~29.35~~23.15[7]	~~25.91~~20.70	~~91.49~~71.90
loggerhead shrike	2	4:1	~~29.35~~23.15[7]	~~25.91~~20.70	~~91.49~~71.90
greater roadrunner	3	3:1	~~29.35~~23.15[7]	~~25.91~~20.70	~~62.14~~48.75
mountain lion	1	5:1	~~33.06~~26.76[9]	~~29.26~~24.31[10]	~~136.04~~109.49

Notes: SEA = Significant Ecological Area; gen-tie = generation interconnection; MM = Mitigation Measure.
1 Los Angeles County Regional Planning 2020.
2 Includes impacts from ~~both gen-tie options~~the northern gen-tie route.
3 Restoration for areas that are temporary impacts (MM-BIO-6).
4 Total impacts multiplied by the ratio and minus the restored habitat (MM-BIO-5).
~~5 Includes preservation for impacts from both gen-tie options.~~
6 Acreages are not additive. Conserved habitat needed is overlapping since the species share suitable habitat, so the ~~136.04~~109.49 acres for mountain lion will cover all species.
7 Includes all native habitats impacted, as listed in Table 10.
8 Includes all habitats that support California juniper, as listed in Table 10.
9 Includes all native habitats and disturbed habitat impacted, as listed in Table 10.
10 Includes all restoration of native habitats and disturbed habitats.

Table 9b. Potential Impacts to Special-Status Wildlife Habitat Within the SEA – Southern Gen-Tie Route

Species	SEA Resource Category[1]	SEA Preservation Ratio[1]	Potential Impacted Habitat (acres)[2]	Restored Temporarily Impacted Habitat (Gross acreage)[2,3]	Needed Conserved Habitat (Gross acreage)[2,4,6]
Crotch's bumble bee	1	5:1	29.28[7]	26.23	120.17
California legless lizard	2	4:1	2.36[8]	1.83	7.61
Blainville's horned lizard	2	4:1	29.28[7]	26.23	90.89
loggerhead shrike	2	4:1	29.28[7]	26.23	90.89
greater roadrunner	3	3:1	29.28[7]	26.23	61.61
mountain lion	1	5:1	32.99[9]	29.58[10]	135.37

Notes: SEA = Significant Ecological Area; gen-tie = generation interconnection; MM = Mitigation Measure.
1 Los Angeles County Regional Planning 2020.
2 Includes impacts from the southern gen-tie route.
3 Restoration for areas that are temporary impacts (MM-BIO-6).
4 Total impacts multiplied by the ratio and minus the restored habitat (MM-BIO-5).
6 Acreages are not additive. Conserved habitat needed is overlapping since the species share suitable habitat, so the 135.37 acres for mountain lion will cover all species.
7 Includes all native habitats impacted, as listed in Table 10.
8 Includes all habitats that support California juniper, as listed in Table 10.
9 Includes all native habitats and disturbed habitat impacted, as listed in Table 10.
10 Includes all restoration of native habitats and disturbed habitats.

MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately ~~136~~ 135 acres of native vegetation communities within the Study Area parcels associated with the ~~gen-tie routes~~Southern Gen-Tie Route (or 110 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use. MM-BIO-2 requires that the limits of construction be clearly marked to avoid impacting biological resources outside those limits. MM-BIO-3 requires full-time monitoring during all vegetation removal and initial grading activities, and the Biological Monitor(s) will be responsible for ensuring that Project construction does not extend beyond Project limits. MM-BIO-4 requires that a program be developed that informs all construction personnel of the sensitive resources that occur on the Project site and measures to avoid and minimize impacts to those resources, which will include a discussion about sensitive vegetation communities. Project implementation of MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, and MM-BIO-6 will provide the mitigation for the Project to be compatible with SEA Resources.

6.4 Impacts to Vegetation Communities

Table 10, Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area Portion of the Study Area, summarizes the Project's potential direct impacts to vegetation communities and land covers in the Santa Clara River SEA. There will be approximately ~~3.44~~2.46 acres of permanent impacts and approximately ~~25.91~~25.43 acres of temporary impacts, ~~which includes both gen tie options~~under the Northern Gen-Tie Route. There will be approximately 3.80 acres of permanent impacts and approximately 31.37 acres of temporary impacts, under the Southern Gen-Tie Route. Of the approximate 269.78 acres of vegetation communities in the Study Area, about ~~240.42~~241.89 acres (~~90~~89%) will be unaffected by Project activities under the Northern Gen-Tie Route, and 234.61 acres (~87%) under the Southern Gen-Tie Route. Potential direct impacts will occur due to removal of vegetation, alteration of soils from grading, and the development of the Project.

Table 10a. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area Portion of the Study Area – Northern Gen-Tie Route

Alliance/Type	Association	NatureServe Global / State Rank[1]	SEA Category[2]	Ratio[2]	Permanent Impacts (gross acreage)[3]	Temporary Impacts (gross acreage)[3]	Total Impacts (gross acreage)[3]
Native Communities							
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	NA/NA	4	2:1	–	~~–0.05~~	~~–0.05~~
	Ambrosia salsola Association	NA/NA	4	2:1	–	~~1.57~~0.54	~~1.57~~0.54
California sagebrush – (purple sage) scrub	*Artemisia californica – Eriogonum fasciculatum*	G4/S4	4	2:1	–	1.15	1.15
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	NA/NA	4	2:1	~~–0.46~~	~~2.21~~1.15	~~2.67~~1.15
	Artemisia tridentata ssp. *parishii*	G2/S2	4	2:1	–	~~0.20~~0.06	~~0.20~~0.06
Fourwing saltbush scrub	*Atriplex canescens*	G5/NA	4	2:1	2.0~~67~~	~~18.09~~ 16.06	~~20.15~~ 18.12
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica* / herb	NA/NA	4	2:1	–	~~1.12~~0.37	~~1.12~~0.37
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum* –	NA/NA	3	3:1	~~–0.53~~	~~0.35~~0.21	~~0.87~~0.21

Table 10a. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area Portion of the Study Area – Northern Gen-Tie Route

Alliance/Type	Association	NatureServe Global / State Rank[1]	SEA Category[2]	Ratio[2]	Permanent Impacts (gross acreage)[3]	Temporary Impacts (gross acreage)[3]	Total Impacts (gross acreage)[3]
	Eriogonum fasciculatum						
	Juniperus californica / herbaceous	NA/NA	3	3:1	0.39	1.16	1.55
Land Covers							
Disturbed Habitat	NA	NA	NA	NA	~~–~~0.36	~~3.34~~3.61	~~3.70~~3.61
Urban/ Developed	NA	NA	NA	NA	~~0.40~~0.01	~~1.78~~1.12	~~2.18~~1.13
				Total:	~~4.20~~ 2.46	~~31.04~~ 25.43	~~35.24~~ 27.89

Notes:

1 Vegetation types listed with global/state ranks 1-3 are considered sensitive; ranks 4-5 are considered secure (CNPS 2023). NA = this vegetation association does not have an assigned NatureServe global or state conservation rank because it either is not considered rare or imperiled, or it has not been formally evaluated or ranked by NatureServe.

2 Significant Ecological Area Ordinance Implementation Guide (Los Angeles County Regional Planning 2020).

3 Includes impacts from ~~both gen-tie options~~the Northern Gen-Tie Route and permanent and temporary impacts.

~~4 Impacts also include 3.70 acres of Disturbed Habitat and 2.18 acres of Urban/Developed.~~

Table 10b. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
Native Communities						
Cheesebush – sweetbush scrub	*Ambrosia salsola - Larrea tridentata*	4	2:1	–	0.05	0.05
	Ambrosia salsola Association	4	2:1	–	1.57	1.57
California sagebrush – (purple sage) scrub	*Artemisia californica - Eriogonum fasciculatum*	4	2:1	–	1.15	1.15
Big sagebrush	*Artemisia tridentata - Ericameria nauseosa*	4	2:1	0.46	2.21	2.67

Table 10b. Potential Impacts to Vegetation Communities and Land Covers in the Santa Clara River Significant Ecological Area – Southern Gen-Tie Route

Alliance	Association	SEA Category[1]	Ratio[1]	Permanent Impacts (gross acreage)[2]	Temporary Impacts (gross acreage)[2]	Total Impacts (gross acreage)[2]
	Artemisia tridentata ssp. *parishii*	4	2:1	--	0.20	0.20
Fourwing saltbush scrub	*Atriplex canescens*	4	2:1	2.06	18.09	20.15
Rubber rabbitbrush scrub	*Ericameria nauseosa - Juniperus californica* / herb	4	2:1	--	1.12	1.12
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum*	3	3:1	0.53	0.35	0.87
	Juniperus californica / herbaceous	3	3:1	--	1.49	1.49
Disturbed Habitat	N/A	N/A	N/A	0.36	3.35	3.71
Urban/Developed	N/A	N/A	N/A	0.39	1.79	2.17
			Total:	**3.80**	**31.37**	**35.16**

As shown in Table 10, the *Artemisia tridentata ssp. parishii* association is the only vegetation community in the Study Area ranked as sensitive under NatureServe's conservation status system. Classified as globally and state imperiled (G2/S2), this community faces a high risk of extinction or elimination (NatureServe 2025). Project activities will result in approximately ~~0.20~~0.06 acres of temporary impacts to this vegetation community association under the Northern Gen-Tie Route or 0.20 acres of temporary impacts to this vegetation community association under the Southern Gen-Tie Route.

MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately 135~~6~~ acres of native vegetation communities within the Study Area parcels associated with the ~~gen-tie routes~~Southern Gen-Tie Route (or 110 acres if the Northern Gen-Tie Route is selected), which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore the approximately 26 acres of temporarily impacted areas within the conservation area associated with the Southern Gen-Tie (or 21 acres of temporarily impacted areas under the Northern Gen-Tie Route). Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

6.5 Impacts to Water Resources

The Project will have potential impacts to up to approximately ~~0.34~~0.25 acres (approximately 0.01 acres of permanent impacts and ~~0.33~~0.24 acres of temporary impacts) of SEA Water Resources (i.e., streams and swales), ~~which includes both gen-tie options~~if the Northern Gen-Tie Route is selected, and approximately 0.34 acres (approximately 0.01 permanent impacts and 0.33 acres temporary impacts) of SEA Water Resources (i.e., streams and swales) if the Southern Gen-Tie Route is selected. Potential direct impacts will occur due to grading and the development of the Project. Water Resources are to be preserved at 5:1, resulting in the need for up to 1.70 acres of preservation. MM-BIO-5 requires the establishment of a conservation area that has the potential to preserve up to 2.28 acres of unimpacted Water Resources in the Study Area parcels associated with the gen-tie routes, which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore an additional approximately 0.24 acres or 0.33 acres of temporarily impacted Water Resources within the conservation area. Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

6.6 Impacts to Protected Trees

Direct impacts are associated with tree removal or encroachment within the tree protection zone (TPZ; i.e., canopy dripline plus 5 feet or 15 feet from trunk, whichever is greater) of a protected tree. Specifically, potential tree impacts were determined using geographic information system technology, spatial locations of tree crowns, and a minimum distance of each tree relative to the project impact. A tree is considered removed if it falls within the Project's limits of disturbance or if 30% or more of its TPZ is impacted. A tree is considered encroached upon if less than 30% of its TPZ is affected by project activities, including soil or root disturbance and/or pruning, but the tree is not removed, and a tree is considered preserved if they are not removed and do not experience any TPZ disturbance. Impact totals presented herein are based on proposed disturbance limits, fuel modification zones, and development plans as of the date of this report. The following tree impact findings are organized into two categories: non-heritage tree impacts and heritage tree impacts. Heritage tree status is based on the SEA tree classifications (i.e., riparian, coniferous, upland hardwood) and minimum trunk diameter for protected and heritage trees.

Non-Heritage Tree Impacts (Protected Trees)

Of the 953 protected trees that occur within the Survey Area (non-inclusive of heritage trees), ~~47~~ 41 protected non-heritage trees would be directly impacted by the proposed ~~Project's gen-tie line route alignments~~Northern gen-tie route. The ~~47~~ 41 protected non-heritage tree impacts consist of ~~38~~ 30 potential removals (trees are within the grading limits or grading activities affect more than 30% of a TPZ) and ~~nine (9)~~eleven potential encroachments (trees that are not removed, but root damage, soil excavation and compaction, grade changes, loss of canopy, and trunk wounds are anticipated). ~~The nine (9) encroachment trees, as presented in Appendix A, have encroachments that range from 1% to 24%.~~ The remaining ~~906~~ 963 protected non-heritage trees would not be directly impacted by the Project. Fifty-five protected non-heritage trees could be directly impacted by the proposed Southern Gen-Tie Route option. The 55 protected non-heritage tree impacts consist of 47 potential removals and eight (8) potential encroachments. The remaining 949 protected non-heritage trees would not be directly impacted by the Southern Gen-Tie Route option.

Table 11, Summary of Potential Impacts to SEA Protected Trees (Non-Heritage), provides a summary of the proposed impacts to non-heritage SEA protected trees within and adjacent to the Project.

Table 11a. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) – Northern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Juniperus californica	California juniper	~~46~~29	~~9~~11	~~55~~40
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	~~1~~ 0	0	~~1~~ 0
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	~~48~~30	~~9~~11	~~57~~41

Note: SEA = Significant Ecological Area.

Table 11b. Summary of Potential Impacts to SEA Protected Trees (Non-Heritage) – Southern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Juniperus californica	California juniper	45	8	53
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	1	0	1
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	47	8	55

Note: SEA = Significant Ecological Area.

Appendix A presents the locations of the individual trees that would be subject to impacts by the proposed Project.

Heritage Tree Impacts

California juniper, which have naturally thin trunks, must have a height of 20 feet or a canopy spread of 35 feet to be designated as a heritage tree (Los Angeles County Regional Planning 2020).

A total of 74 heritage trees are found on site, of which six (6) could be directly impacted if the Northern Gen-Tie Route were selected. The six (6) heritage tree impacts comprise five potential removals and one potential encroachment. The remaining 68 heritage trees would not be directly impacted by the Northern Gen-Tie Route. Eight (8) heritage trees could be directly impacted by the Southern Gen-Tie Route option. The eight (8) heritage tree impacts comprise seven potential removals and one potential encroachment. The remaining 66 heritage trees would not be directly impacted by the project if the Southern Gen-Tie Route were selected.

~~A total of 68 heritage trees are found on the Project site, of which eight (8) could be directly impacted by the Project. The eight (8) heritage tree impacts comprise six (6) potential removals and two (2) potential encroachments. The remaining 60 heritage trees would not be directly impacted by the Project.~~

Table 12, Summary of Potential Impacts to SEA Protected heritage trees, provides a summary of the proposed impacts to SEA protected heritage trees within and adjacent to the Project.

Table 12a. Summary of Potential Impacts to SEA Protected Heritage Trees – Northern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Juniperus californica	California juniper	~~7~~5	1	~~8~~6
Fraxinus velutina	velvet ash	0	0	0
Juglans californica	Southern California black walnut	0	0	0
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	~~7~~5	**1**	~~8~~6

Note: SEA = Significant Ecological Area.

Table 12b. Summary of Potential Impacts to SEA Protected Heritage Trees – Southern Gen-Tie Route

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Juniperus californica	California juniper	7	1	8
Fraxinus velutina	velvet ash	0	0	0
Juglans californica	Southern California black walnut	0	0	0
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	7	1	8

Note: SEA = Significant Ecological Area.

Appendix A presents the locations of the individual trees that would be potentially subject to impacts by the proposed Project.

Per the County requirements, the removal of any SEA protected tree requires mitigation in the form of two (2) replacement plantings, and the removal of a heritage tree requires mitigation in the form of 10 replacement plantings. Replacement trees should be seedlings of the same species as those being removed and should be planted in an area of the Project site where there is suitable habitat and where the trees would be able to remain in perpetuity. As such, based on the August 2025 and December 2025 impact analysis of the current design, if the Northern Gen-Tie Route were selected, ~~that identified 55~~ 35 potential direct tree removals (~~seven~~ five [~~7~~5] heritage trees and ~~48~~ 30 non-heritage protected trees), the SEA rules may require a minimum of ~~166~~ 110 mitigation trees to be planted in an area of the Project site where there is suitable habitat and where the trees would be able to remain in perpetuity. If the Southern Gen-Tie Route option is selected up to 54 potential direct tree removals (seven [7] heritage trees and 47 non-heritage protected trees), the County would require up to 164 mitigation trees to be planted in an area of the project site. ~~This number is based on the potential impacts from both gen tie options. The final number of impacted trees is expected to be less due to only one gen-tie option being constructed and impact avoidance during final design and field survey.~~ Per the County, Table 13, Summary of Potential Individual Species Replacement Quantities, details the quantity of each species required for planting.

Table 13a. Summary of Potential Individual Species Replacement Quantities – Northern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica	California juniper	~~46~~29	2:1	~~92~~58
Juniperus californica (Heritage Tree)	California juniper	~~7~~5	10:1	~~70~~50
Fraxinus velutina	velvet ash	1	2:1	2[1]
~~*Juglans californica*~~	~~Southern California black walnut~~	~~1~~	~~2:1~~	~~2[1]~~
	Total:	~~55~~35	N/A	~~166~~110

Note: N/A = not applicable. [1] The velvet ash ~~and Southern California black walnut~~ that would be impacted by the Project ~~are~~ is an ornamental tree~~s~~ associated with a residence and these species do not typically occur in the habitats in the Study Area, so California juniper would be used for the replacement of these species.

Table 13b. Summary of Potential Individual Species Replacement Quantities – Southern Gen-Tie Route

Scientific Name	Common Name	Total Impacted	Replacement Ratio	Total Replacement Required
Juniperus californica	California juniper	45	2:1	90
Juniperus californica (Heritage Tree)	California juniper	7	10:1	70
Fraxinus velutina	velvet ash	1	2:1	2[1]
Juglans californica	Southern California black walnut	1	2:1	2[1]
	Total:	54	N/A	164

Note: N/A = not applicable. [1] The velvet ash and Southern California black walnut that would be impacted by the Project are ornamental trees associated with a residence and these species do not typically occur in the habitats in the Study Area, so California juniper would be used for the replacement of these species.

MM-BIO-5 requires the establishment of a conservation area. The currently contemplated conservation area has the potential to preserve up to 749 California junipers, however this will be determined upon selection of the gen-tie line route and the design of the project prior to final site plans. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas within the conservation area, including areas mapped as California juniper woodland. Based on current design, up to ~~166~~ 110 or 164 replacement California juniper would be planted and monitored as part of the implementation of MM-BIO-6 if the Northern Gen-Tie Route or Southern Gen-Tie Route is selected, respectively. Project implementation of MM-BIO-5 and MM-BIO-6 will provide the preservation needed for the Project to be compatible with SEA Resources.

INTENTIONALLY LEFT BLANK

7 Mitigation Measures

The following mitigation measures shall be implemented for the Project to make the Project compatible with SEA Resources.

MM-BIO-1 Pre-Construction Special-Status Plant Species Survey and Seed Collection.

Prior to the beginning of vegetation removal and grading, CEC-approved biologists shall conduct a focused rare plant survey for Douglas' fiddleneck and Raven's blazing-star during the appropriate blooming period (March through May). Reference site checks will be made for the species to determine if the species are blooming in the Project vicinity. The surveys will conform to CNPS' Botanical Survey Guidelines; CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities; and USFWS' Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants. The results of the surveys will be documented in a report and submitted to the City.

Should any of the species be found at a count of 20 or higher, then construction of the occupied location shall be delayed until the individuals have gone to seed. Seeds shall be collected once the seed has matured, but prior to the seed capsules opening to disperse the seed. Seeds shall be stored in breathable paper bags in a cool, dry, and dark place. The seeds will then be used in the habitat restoration for the Project (see MM-BIO-6).

MM-BIO-2 Demarcation of Disturbance Limits

Prior to commencement of ground-disturbing activities for each phase of Project construction, the construction limits shall be clearly demarcated (e.g., installation of flagging or temporary high visibility construction fence), as recommended by the California Energy Commission–approved Biological Monitor. All construction activities including equipment staging and maintenance shall be conducted within the marked disturbance limits to prevent inadvertent disturbance to sensitive vegetation communities outside the limits of work. The flagging shall be maintained throughout construction.

MM-BIO-3 Biological Monitoring

Prior to ground-disturbing activities, the applicant shall submit the qualifications of potential Biological Monitor(s) to the California Energy Commission (CEC) for review and approval. The CEC-approved Biological Monitors shall monitor construction activities and ensure compliance with all mitigation measures. The Biological Monitors shall be present on site during all vegetation removal and each day prior to the commencement of grading activities. The Biological Monitors shall be responsible for conducting a pre-construction clearance survey, and any special-status species shall be relocated to areas of the Study Area that will not be impacted by the Project (see MM-BIO-5). Pre-construction clearance surveys shall be conducted prior to construction of each new phase of the development. The Biological Monitors shall monitor to ensure that wildlife does not become entrapped in excavation or trenching areas. Safeguards shall be implemented during daytime periods of non-activity and overnight, such as placing a platform over trenches, flush with the ground surface; installing escape ramps in trenches; or installing exclusionary fencing. Should relocation of any trapped wildlife be required, construction shall be halted until a Biological Monitor arrives on site and clears the work area (in compliance with all applicable permits and authorizations).

The Biological Monitors shall regularly inspect the Project site as needed after the completion of all grading activities. Monthly spot-check monitoring is anticipated to be required throughout the construction of the Project for those areas that are graded but not yet developed/landscaped. During monthly visits, a Biological Monitor shall address the following: (1) the potential establishment of invasive species and require weed abatement (if necessary) in accordance with Mitigation Measure BIO-10; (2) address the potential establishment of native vegetation/habitat to reduce the potential for impacts between phases of construction; and (3) identify deficiencies, if applicable, with any erosion control measures that have the potential to negatively impact biological resources.

Daily monitoring reports shall be prepared by the Biological Monitors that document the results of any surveys conducted, wildlife relocated, construction activities performed, compliance issues observed, or corrective actions taken during the reporting period. The monitoring reports shall include photos as appropriate and be made available to the CEC at their request. Following the completion of the Project construction, a construction monitoring report will be prepared by the applicant to document compliance with the minimization measures and permit conditions for the Project.

MM-BIO-4 Worker Education Awareness Program (WEAP)

Prior to the initiation of the initial ground-disturbing activities, all personnel associated with those activities shall attend a worker education awareness program (program) prepared by a qualified biologist approved by the California Energy Commission (CEC). In general, the program shall discuss any potentially occurring sensitive biological resources or species and habitat preference(s), occupied habitat in the area, and life histories; potential construction impacts; protection measures; and Project limits. Legal protections and regulations pertinent to the biological resources that may be present shall also be included in the program. A species and habitat fact sheet shall be developed prior to the training program and distributed at the training program to all contractors, employers, and other personnel involved with the construction of the Project.

After the kickoff meeting, the Project applicant shall notify the CEC-approved qualified biologist in advance if additional contractors are employed during the initial vegetation removal or initial grading activities. A sign-in sheet will be circulated for signatures to all personnel that attend the workers' educational training to confirm that program materials were received and that they understand the information presented.

MM-BIO-5 On-Site Preservation

The applicant shall demonstrate recordation of a conservation easement, as defined by California Civil Code Section 815.1, that permanently preserves up to approximately ~~136~~ 135 acres of non-impacted vegetation communities and up to approximately 26 acres of temporary impacted areas that will be restored within the Project boundaries for long-term conservation and management as a natural conservation area. Final acreages proposed for mitigation shall be determined once the generation interconnection line route is finalized. The Conservation Area will be up to approximately ~~162~~ 161 acres and located within portions of the Study Area within the Santa Clara River SEA when considering the Southern Gen-Tie Route option. Table 13, Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved, summarizes the potential vegetation communities and land cover that could be preserved.

Table 13. Unimpacted Vegetation Communities and Land Cover Types in the Santa Clara River Significant Ecological Area Portion of the Study Area That Could Be Conserved

Alliance	Association	SEA Category[1]	Acres
Vegetation Communities			
Cheesebush – sweetbush scrub	*Ambrosia salsola – Larrea tridentata*	4	0.82
	Ambrosia salsola Association	4	2.60
Big sagebrush	*Artemisia tridentata – Ericameria nauseosa*	4	14.04
	Artemisia tridentata – Eriogonum fasciculatum	4	0.06
	Artemisia tridentata ssp. *parishii*	4	0.48
Fourwing saltbush scrub	*Atriplex canescens*	4	66.69
Mormon tea scrub	*Ephedra viridis*	4	1.99
Rubber rabbitbrush scrub	*Ericameria nauseosa – Juniperus californica* / herb	4	3.85
California juniper woodland	*Juniperus californica / Adenostoma fasciculatum – Eriogonum fasciculatum*	3	5.60
	Juniperus californica / herbaceous	3	69.90
		Vegetation Communities Subtotal:	*166.03*
Land Cover Types			
Disturbed Habitat	N/A	N/A	6.39
Urban Developed	N/A	N/A	2.76
		Land Cover Types Subtotal:	*9.15*
		Total:	**175.18**

Notes: SEA = Significant Ecological Area; N/A = not applicable.
[1] SEA Ordinance Implementation Guide (Los Angeles County Regional Planning 2020).

A cost estimate shall be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source shall be in the form of an endowment to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount shall be established following the completion of a Project-specific Property Analysis Record (PAR) to calculate the costs of in-perpetuity land management. The PAR shall take into account all management activities required if an Incidental Take Permit for Crotch's bumble bee (*Bombus crotchii*) is needed for the Project.

The conservation easement holder shall be an entity that has as part of its mission the protection of the environment, including lands, plant species, and/or wildlife species, and can be expected by its organization and history to remain in existence for the foreseeable future. The California Department of Fish and Wildlife per Government Code Section 65967(c) shall review the entity. The entity that holds the endowment shall first meet the criteria outlined in Government Code Section 65968(b).

Conservation Management Plan. As part of recording the conservation easement, a Conservation Management Plan (CMP) applicable to the Conservation Area shall be prepared and submitted to the California Energy Commission for approval. The CMP shall identify the required resource management activities and the entities that shall be responsible for managing those activities in perpetuity. The CMP shall set forth requirements that shall be

implemented by the entity that holds the conservation easement and/or manages and stewards the Conservation Area, and may include the following: (1) there shall be no grading or other construction activities within the Conservation Area, except for the proposed habitat enhancement/restoration; (2) no fencing or other barriers to wildlife movement shall be installed; (3) commercial honeybee operations shall not be allowed to use the Conservation Area for storing their apiaries; (4) rodenticides shall be prohibited; (5) herbicides and pesticides shall be discouraged, and only those typically used for invasive plant management in California wildlands shall be allowed, per the California Invasive Plant Council and Pesticide Research Institute's 2015 Best Management Practices (BMPs) for Wildland Stewardship; (6) at least one (1) annual walk-through survey shall be conducted by a biologist to qualitatively monitor the general condition of on-site habitats and to check for any new introduction or expansion of invasive plant species; (7 trash shall be collected and removed, vandalized signs shall be repaired, and trespass impacts shall be rectified; and (8) annual reporting that document the conditions of the Conservation Area shall be provided. Approved work shall be outlined in the CMP and in the conservation easement, including monitoring and maintenance efforts or for other activities associated with preserve management, and prohibited activities shall be delineated.

MM-BIO-6 Habitat Mitigation and Monitoring Plan

Prior to ground-disturbing activities, a qualified biologist shall be retained to prepare a Habitat Mitigation and Monitoring Plan (HMMP) detailing the specific approach for each type of habitat restoration and establishment area in the Conservation Area and short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) transplant location, and shall outline detailed performance standards and monitoring requirements for each, following the monitoring and reporting methods and performance standards listed below. The HMMP shall be submitted to and approved by the California Energy Commission prior to the onset of Project-related ground-disturbing activities. The acreages allotted for on-site establishment apply to approximately 32 acres within the Conservation Area, including 0.19 acres of ephemeral streams. Up to ~~166~~ 110 or 164 California juniper (*Juniperus californica*) (depending on actual Project impacts and Gen-Tie Route selected) shall be planted, and individuals of the plant species covered by the California Desert Native Plant Act shall be evaluated to be used in the installation of native plants. The HMMP shall set out measures for habitat restoration/enhancement implementation, including but not limited to the following:

- Identification of proposed plant materials
- Signage in the habitat restoration area
- Schedule for habitat restoration/enhancement work
- Use of pesticides and elimination of non-native vegetation
- Habitat monitoring and reporting
- Performance standards

MM-BIO-7 Crotch's Bumble Bee Avoidance and Minimization Measures

If Crotch's bumble bee (*Bombus crotchii*) is still a candidate for listing under the California Endangered Species Act (CESA) or has been listed under CESA at the time of the start of construction of the Project, a pre-construction survey for Crotch's bumble bee shall be conducted within the construction footprint prior to the start of initial ground-disturbing activities occurring during the Crotch's bumble bee nesting period (February 1 through October 31). If construction commences outside of that period (November 1 through January 31), surveys would not be warranted since the daughter queens (gynes) disperse following a nest's life cycle and conducting surveys for dormant gynes would not be practical.

The pre-construction survey will be based on recommendations described in the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species, released by the California Department of Fish and Wildlife (CDFW) on June 6, 2023, or the most current at the time of construction. The pre-construction survey will be performed by a biologist with expertise in surveying for bumble bees and include at least three (3) survey passes that are not on sequential days or in the same week. The biologist shall watch the nest resources for up to 5 minutes, looking for exiting or entering worker bumble bees. Worker bees should arrive and exit an active nest site with frequency, such that their presence will be apparent after 5 minutes of observation.

During the bumble bee active nesting season (April 1 through August 30), the Biological Monitors approved by the California Energy Commission (CEC) (Mitigation Measure [MM] BIO-2) shall continue to conduct daily sweeps of areas proposed for initial vegetation removal and ground disturbance.

If nest resources occupied by Crotch's bumble bee are detected within the construction area, no construction activities shall occur within 50 feet of the nest or as determined by a qualified biologist through evaluation of topographic features or distribution of floral resources. The nest resources shall be avoided for the duration of the Crotch's bumble bee nesting period (February 1 through October 31). The CEC-approved Biological Monitors (MM-BIO-2) shall ensure that the nest buffer is complied with during that period. Outside of the nesting season, it is assumed that no live individuals will be present within the nest as the gynes usually leave by September and all other individuals (original queen, workers, males) die. The gyne is highly mobile and can independently disperse to outside of the construction footprint to proposed open space or other suitable areas beyond that have suitable hibernacula resources. Because construction will have occurred in the area outside of the occupied nesting resources, no suitable habitat will be present in the impact area, and it is assumed that new queens will disperse to habitat outside of the construction area.

If the nest resources cannot be avoided, as outlined in this measure, the Project applicant shall consult with CEC and CDFW regarding the need to obtain an Incidental Take Permit. In the event an Incidental Take Permit is needed, mitigation for direct impacts to Crotch's bumble bee shall be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the Project or as otherwise determined through the Incidental Take Permit process. The compensatory habitat mitigation would be accomplished by on site preservation of suitable habitat.

MM-BIO-8 Special-Status Wildlife Relocation Plan

Prior to commencement of any ground-disturbing activities or the pre-construction staging of equipment on the Project site, the Project applicant shall contract with a biologist approved by the California Energy Commission (CEC) to develop a Pre-Construction Wildlife Survey and Relocation Plan for terrestrial reptiles, including California legless lizard (*Anniella* spp.) and Blainville's horned lizard (*Phrynosoma blainvillii*). The Pre-Construction Wildlife Survey and Relocation Plan shall be submitted to the CEC for review prior to any ground-disturbing activities within potentially occupied habitat.

The plan shall include, at a minimum, the following:

- Protocols for pre-construction surveys to flush out and/or move identified special-status wildlife within the Project site, as feasible
- Relocation to the portions of the Study Area outside of the Project construction limits and within the Conservation Area

- The timing, frequency, and locations where surveys should be conducted
- That surveys shall be conducted 24 hours prior to construction activities and repeated the morning of the proposed activity
- That surveys shall be conducted in all areas anticipated to be subject to vegetation clearing
- The habitat and conditions in the proposed relocation site(s)
- The methods that shall be used for trapping and relocating identified species
- That all equipment used in the effort shall be cleaned and decontaminated to minimize the spread of herpetofaunal pathogens, as noted by Julian and colleagues in their 2020 article in the Herpetological Review, Minimizing the Spread of Herpetofaunal Pathogens in Aquatic Habitats by Decontaminating Construction Equipment
- That any wildlife handling and relocation methodology from the Streambed Alteration Agreement issued by the California Department of Fish and Wildlife (CDFW), if any, shall be incorporated in the Pre-Construction Wildlife Survey and Relocation Plan
- Protocols for documentation/recordation of the species and number of animals relocated
- That relocations shall be logged and made available to the CEC, if requested
- Protocols for notifying CDFW if identified species cannot be relocated
- That attempts at relocation shall be logged and notification shall occur within 24 hours
- The timing and frequency of reports documenting the results of the surveys

MM-BIO-9 Nesting Bird Avoidance

Project construction shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act and California Fish and Game Code consistent with methods approved by the California Department of Fish and Wildlife to protect active bird/raptor nests. Vegetation removal shall occur during the non-breeding season for nesting birds and nesting raptors to avoid impacts to nesting birds and raptors.

For the remaining Project activities initiated during the breeding season for nesting birds and nesting raptors, a pre-construction survey shall be conducted by the Biological Monitor (Mitigation Measure BIO-3) for nesting birds and/or raptors within 3 days prior to any work within 300 feet for suitable nesting habitat for non-raptors and within 500 feet for suitable nesting habitat for raptors. If the Biological Monitor does not find any active nests immediately adjacent to the impact areas, the Project activity shall be allowed to proceed.

If the Biological Monitor finds an active nest adjacent to the construction area and determines that the nest may be indirectly impacted or breeding activities substantially disrupted, the Biological Monitor shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. Any nest found during survey efforts shall be mapped on the construction plans, which shall be included in the report(s) documenting the survey(s) that shall be submitted to the California Energy Commission upon completion of the survey. The active nest shall be protected until nesting activity has ended. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by the Biological Monitor: (1) work limits shall be established within a buffer around any occupied nest (the buffer shall be 100–300 feet for nesting non-raptors and 300–500 feet for nesting raptors), unless otherwise determined by the Biological Monitors; and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by the Biological Monitor. Encroachment into the buffer area around a known nest shall only be allowed if the Biological Monitor determines that the proposed activity will not disturb

the nest occupants. Construction can proceed when the Biological Monitor has determined that fledglings have left the nest or the nest has failed.

MM-BIO-10 Invasive Species Prevention Plan

To prevent the spread of invasive plant species during construction and until the establishment of common landscaped areas associated with the Project, the following measures shall be implemented:

- The Worker Education Awareness Program (see Mitigation Measure [MM] BIO-3) shall include invasive species prevention measures implemented by the Project.
- All mobile vehicles and construction equipment shall be washed prior to entering the Project site in an upland location where any seed material from invasive species shall be contained and not carried onto the Project site. Logs of the washing shall be submitted monthly to the California Energy Commission (CEC).
- Following the completion of grading activities, for those areas of the Project site that are graded but not yet developed/landscaped, the CEC-approved Biological Monitor shall conduct monthly spot checks to prevent the introduction or establishment of invasive plant species onto the graded areas (see MM BIO-2). If abundant invasive species are identified, the Biological Monitor shall inform the construction contractor about the infested area and recommend that the invasive species be removed. The recommendation shall be included in the daily report.
- All vegetative material removed from the Project footprint shall be transported in a covered vehicle and shall be disposed of at a certified disposal site.

MM-BIO-11 Jurisdictional Waters Compensation

Mitigation for up to approximately 0.99 acres of jurisdictional waters shall be implemented through off-site acquisition, such as mitigation bank credits, and/or turnkey projects with mitigation banks (as approved by the California Energy Commission) following the issuance of permits from the U.S. Army Corps of Engineers, and Los Angeles Regional Water Quality Control Board, as applicable, and those agencies' approval of the mitigation bank, and prior to the issuance of the grading permit. A turnkey mitigation project (establishment of the riparian habitat) will be used should credits not be available at the time of the jurisdictional waters permitting.

INTENTIONALLY LEFT BLANK

8 Significant Ecological Areas Statement of Findings

A Be highly compatible with the SEA Resources, including the preservation of natural open space areas and providing for the long-term maintenance of ecosystem functions

The Santa Clara River SEA covers approximately 45,496 acres, and its overall boundaries extend upstream along several major tributary creeks and where contiguous drainage areas connect to the river basin through open habitat. On a regional basis, the Santa Clara River SEA contains biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution. These include native grassland, coast live oak riparian forest, southern willow scrub, bigcone spruce-canyon oak forest, southern sycamore-alder woodland, southern cottonwood-willow riparian woodland and forest, freshwater marsh, alluvial fan sage scrub, and vernal pool (PCR 2000).

The portions of the Project within the Santa Clara River SEA consist of an approximately 1.1-mile-long or 1.8-mile-long new gen-tie line, depending on the alignment chosen. There will be a maximum of approximately 11 monopole or steel lattice tower structures. The proposed transmission structures were sited to avoid potential impacts to environmental resources. Where possible, the transmission structure access path will utilize existing access roads to minimize new ground disturbance. Fiber optic or other cabling required for the monitoring system typically will be installed in buried conduit within the access road or planned trenching.

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint within the Santa Clara River SEA following the completion of construction activities. MM-BIO-5 requires the establishment of a conservation area that will preserve up to approximately 162 acres of native vegetation communities within the Study Area parcels associated with the gen-tie routes, which will preserve individuals and habitat for the species. MM-BIO-6 requires the preparation of a restoration plan, its implementation, and a monitoring period to restore temporarily impacted areas and will include flora resources that the species could use.

B Avoid or minimize impacts to the SEA Resources and wildlife movement through one or more of the following:

1 Avoiding habitat fragmentation

The monopole or steel lattice tower structures, access roads, and buried lines create a small footprint within the Santa Clara River SEA following the completion of construction activities, and with the restoration of the temporary impacted areas, the Project is not expected to fragment the habitats with the Study Area. Wildlife is expected to be able to pass through the Project post-construction because the transmission lines are not a barrier to movement.

2 Minimizing edge effects

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint (approximately 4.12 acres) within the Santa Clara River SEA following the completion of construction activities. The up to approximately 32.25 acres of temporary impacts produced by the Project will be

restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately 162 acres of natural habitat. During the operation of the Project, maintenance work on the gen-tie and associated infrastructure is expected to be infrequent, so indirect impacts to wildlife are expected to be low.

3 Siting development in the least sensitive location

The Project has been sited to avoid impacts to special-status plants and only have temporary impacts to Water Resources, which will be restored per MM-BIO-6.

C Buffer important habitat areas from development by retaining sufficient natural vegetation cover and/or natural open spaces and integrating sensitive design features

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint (approximately 4.12 acres) within the Santa Clara River SEA following the completion of construction activities. The up to approximately 32.25 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately 162 acres of natural habitat.

D Maintain the ecological and hydrological functions of water bodies, watercourses, and their tributaries

The gen-tie portion of the Project will impact up to approximately 0.34 acres of ephemeral Water Resources within the Santa Clara River SEA. The up to approximately 0.33 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately 2.28 acres of Water Resources.

E Ensure that roads, access roads, driveways, and utilities do not conflict with Priority Biological Resources, habitat areas or migratory paths

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines that create a small footprint (approximately 4.12 acres) within the Santa Clara River SEA following the completion of construction activities. The Project has potential impacts to Priority Biological Resources (SEA Resource Categories 1 through 3) in the form of special-status plants and wildlife, Water Resources, and vegetation communities; however, all such impacts are mitigated in accordance with the SEA Ordinance and CEQA Guidelines.

The Project transmission facilities will be designed consistent with the Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC 2006) where feasible. Transmission facilities will also be evaluated for potential collision reduction devices in accordance with Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC 2012). Based upon the low volume of human activity and the proposed avian-protecting Project design features, potential impacts to wildlife habitat and movement during Project operation are expected to be less than significant.

F Promote the resiliency of the SEA to the greatest extent possible. For purposes of this finding, SEA resiliency cannot be preserved when the proposed development may cause any of the following:

1 Significant unmitigated loss of contiguity or connectivity of the SEA

The gen-tie portion of the Project consists of steel lattice tower structures, access roads, and buried lines. These facilities create a small footprint (approximately 4.12 acres) within the Santa Clara River SEA following the completion of construction activities. The up to approximately 32.25 acres of temporary impacts produced by the Project will be restored per MM-BIO-6, and MM-BIO-5 will conserve up to approximately 162 acres of native vegetation communities within the SEA. These types of features do not create barriers for connectivity or contiguity within the SEA.

2 Significant unmitigated impact to a Priority Biological Resource

The Project has potential impacts to Priority Biological Resources (SEA Resource Categories 1 through 3) in the form of special-status plants and wildlife, Water Resources, and vegetation communities; however, all such potential impacts are mitigated in accordance with the SEA Ordinance and CEQA Guidelines. Ten preservation, avoidance, and minimization measures have been provided as a part of the Project (MM-BIO-1 through MM-BIO-10), including conserving in perpetuity up to approximately 162 of on-site natural open space; requiring pre-construction surveys, planning, and biological monitoring during construction; measures protecting against invasive species establishment and spread; preparation of conservation management plans; nesting bird avoidance; and strategically locating development as close as possible to existing urban uses/infrastructure. These measures serve to preserve and limit potential impacts to Priority Biological Resources. As such, potential impacts to Priority Biological Resources will be reduced to less than significant.

3 Removal of habitat that is the only known location of a new or rediscovered species

No new or rediscovered species are present on the Project site. As such, the Project complies with this finding.

4 Other factors as identified by SEATAC

This finding is not applicable due to the California Energy Commission Opt-In process.

INTENTIONALLY LEFT BLANK

9 References

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

APLIC. 2012. *Reducing Avian Collisions with Power Lines: The State of the Art in 2012*. Edison Electric Institute and APLIC. Washington, D.C. October 2012.

Calflora. 2025. The Calflora Database: Information on California plants for education, research, and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria [web application]. Berkeley, California. Accessed February 2025. https://www.calflora.org/.

CDFW (California Department of Fish and Wildlife). 2014. "Essential Connectivity Areas – California Essential Habitat Connectivity (CEHC) [ds620]." GIS data viewed on BIOS 6. CDFW Biogeographic Data Branch. Last updated in BIOS on January 13, 2014. Accessed April 2025. https://map.dfg.ca.gov/metadata/DS0620.html.

CDFW. 2017. "Natural Landscape Blocks – California Essential Habitat Connectivity (CEHC) [ds621]." GIS data viewed on BIOS 6. Prepared by Conservation Biology Institute for CDFW. Last updated in BIOS on October 4, 2017. Accessed April 2025. https://map.dfg.ca.gov/metadata/DS0621.html.

CDFW. 2018. "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities." March 20, 2018. Accessed April 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959.

CDFW. 2023. "Survey Considerations for California Endangered Species Act (CESA) Bumble Bee Species." June 6, 2023. Accessed April 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline.

CDFW. 2025a. California Natural Diversity Database (CNDDB). RareFind 5.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed April 2025. https://nrmsecure.dfg.ca.gov/cnddb/Default.aspx.

CDFW. 2025b. Biogeographic Information and Observation System (BIOS); online viewer. Accessed April 2025. https://wildlife.ca.gov/Data/BIOS.

CDFW. 2025c. "California Natural Community List." February 27, 2025. Sacramento, California: CDFW. Accessed April 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline.

CDFW. 2025d. "State and Federally Listed Endangered, Threatened, and Rare Plants of California." California Natural Diversity Database (CNDDB). Sacramento: CDFW, Biogeographic Branch. April 2025. Accessed April 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline.

CDFW. 2025e. "State and Federally Listed Endangered and Threatened Animals of California." California Natural Diversity Database (CNDDB). Sacramento: CDFW, Biogeographic Data Branch. April 2025. Accessed April 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline=1.

CDFW. 2025f. "California Wildlife Habitat Relationships." Accessed April 2025. https://www.wildlife.ca.gov/Data/CWHR.

CDFW. 2025g. "Species of Special Concern." Accessed April 2025. https://www.wildlife.ca.gov/Conservation/SSC.

CDFW. 2025h. Fully Protected Animals. Accessed April 2025. https://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html.

Center for Biological Diversity and the Mountain Lion Foundation. 2019. *A Petition to List the Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as Threatened under the California Endangered Species Act (CESA)*. June 25, 2019. Accessed April 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=171208&inline.

Center for Biological Diversity, Defenders of Wildlife, Burrowing Owl Preservation Society, Santa Clara Valley Audubon Society, Urban Bird Foundation, Central Valley Bird Club, and San Bernardino Valley Audubon. Society. 2024. *Petition Before the California Fish and Game Commission To List California Populations of the Western Burrowing Owl (*Athene cunicularia hypugaea*) as Endangered or Threatened Under the California Endangered Species Act*. March 5, 2024. Accessed May 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=221396&inline.

CGS (California Geological Survey). 2002. "California Geomorphic Provinces: Note 36." Accessed April 2025. https://filelib.wildlife.ca.gov/FileLib/Ballona_Restoration_EIR_Reference_Material/3-06_GeoSoils_Refs/CGS_2002a.pdf.

CNPS (California Native Plant Society). 2001. "CNPS Botanical Survey Guidelines." December 9, 1983; revised June 2, 2001. Accessed April 2025. https://cnps.org/wp-content/uploads/2018/03/cnps_survey_guidelines.pdf.

CNPS. 2025a. *Rare Plant Inventory* (online edition, v9.5.1a). Accessed April 2025. https://www.rareplants.cnps.org.

CNPS. 2025b. *A Manual of California Vegetation* (online edition). Accessed April 2025. https://www.cnps.org/vegetation.

CNPS. 2023. "Guidelines for Mapping Sensitive Natural Communities" February 2023. Accessed December 2025. https://www.cnps.org/wp-content/uploads/2023/02/veg-guidelines-mapping_sensitive_natural_communities.pdf

Cornell Lab. 2025. "Greater Roadrunner Life History." All About Birds. Accessed September 2025. https://www.allaboutbirds.org/guide/Greater_Roadrunner/lifehistory#habitat.

County of Los Angeles. 2015. *Los Angeles County General Plan*. Adopted October 6, 2015. https://planning.lacounty.gov/long-range-planning/general-plan/general-plan-elements/.

County of Los Angeles. 2025. Los Angeles County GIS Data Portal. Accessed April 2025. https://planning.lacounty.gov/maps-and-gis/gis-data/.

County of Riverside. 2008. Western Riverside County Multiple Species Habitat Conservation Plan Species Accounts - Birds. County of Riverside Transportation and Land Management Agency (TLMA). Accessed April 2025. https://rctlma.org/western-riverside-county-mshcp-species-accounts-birds.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-79/31. Prepared for U.S. Fish and Wildlife Service. December 1979. Reprinted 1992. Accessed April 2025. https://www.epa.gov/sites/default/files/2017-05/documents/cowardin_1979.pdf.

Dellinger, J.A., B. Cristescu, J. Ewanyk, D.J. Gammons, D. Garcelon, P. Johnston, Q. Martins, C. Thompson, T.W. Vickers, C.C Wilmers, H.U. Wittmer, and S.G. Torres. 2020. "Using Mountain Lion Habitat Selection in Management." *Journal of Wildlife Management* 84(2): 359–371. California Department of Fish and Wildlife.

eBird. 2025. eBird: An online database of bird distribution and abundance [web application]. Ithaca, New York: eBird, Cornell Lab of Ornithology. Accessed April 2025. http://www.ebird.org.

Esri. 2025. "World Topographic Map." "World Imagery" [basemap]. Scale Not Given. Accessed April 2025. http://www.arcgis.com/home/item.html?id=30e5fe3149c34df1ba922e6f5bbf808f.

Google Earth. 2025. "Subject Property." Google Earth (Version 7). Mountain View, California: Google Earth Mapping Service. Accessed April 2025.

Hansen, R., and J. Shedd. 2025. *California Amphibians and Reptiles*. New Jersey. Princeton University Press. January 2025.

Humple, D. 2008. "Loggerhead Shrike (*Lanius ludovicianus*) (mainland populations)." In *California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California*, edited by W.D. Shuford and T. Gardali. Studies of Western Birds No. 1. Camarillo, California: Western Field Ornithologists, and Sacramento, California: California Department of Fish and Game.

iNaturalist. 2025. Observations of burrowing owl from Los Angeles County. Accessed April 2025. https://www.inaturalist.org.

Jennings, M.R., and M.P. Hayes. 1994. *Amphibian and Reptile Species of Special Concern in California*. Final report submitted to the California Department of Fish and Game, Rancho Cordova, California. Contract 8023.

Jepson Flora Project. 2025. *Jepson eFlora*. Berkeley, California: University of California. Accessed April 2025. http://ucjeps.berkeley.edu/interchange/.

Jones and Stokes (Jones & Stokes Inc). 1993. *Methods Used to Survey the Vegetation of Orange County Parks and Open Space Areas and The Irvine Company Property*. February 10, 1993.

Kennedy/Jenks Consultants. 2014. *Upper Santa Clara River Integrated Regional Water Management Plan*. February 2014. Accessed February 2025. https://pw.lacounty.gov/core-service-areas/water-resources/upper-santa-clara-irwm/resources/.

Klauber, L.M. 1939. *Studies of Reptiles Life in the Arid Southwest*. Bulletin of the Zoological Society of San Diego No. 14, 1–100. San Diego, California: Zoological Society of San Diego. February 24, 1939.

LACPW (Los Angeles County Public Works). 2025. Precipitation – Acton Camp Station. Accessed April 2025. http://ladpw.org/wrd/precip/.

Los Angeles Audubon. 2009. Los Angeles County's Sensitive Bird Species. Western Tanager, vol. 75, no. 3, January/February 2009. Accessed September 2025. https://planning.lacounty.gov/wp-content/uploads/2022/11/LA-Countys-Sensitive-Bird-Species.pdf.

Los Angeles County Regional Planning. 2020. *Significant Ecological Areas (SEA) Ordinance Implementation Guide*. 133 pp. Effective January 16, 2020. Accessed April 2025. https://planning.lacounty.gov/long-range-planning/significant-ecological-areas-program/.

Nafis, G. 2025. "San Diegan Legless Lizard - *Anniella stebbinsi*." Accessed April 2025. https://www.californiaherps.com/lizards/pages/a.stebbinsi.html.

NatureServe. 2025. Conservation Status Categories and Ranks. Accessed December 2025. https://www.natureserve.org/nsexplorer/about-the-data/statuses/conservation-status-categories

NETR (Nationwide Environmental Title Research). 2025. Historic Aerials, online viewer. Accessed April 2025. https://www.historicaerials.com/viewer.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County*. March 2008. Accessed April 2025. https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/Soitec-Documents/Final-EIR-Files/references/rtcref/ch9.0/rtcrefaletters/014%202014-12-19_OberbauerTM2008.pdf.

PCR (PCR Services Corporation). 2000. *Biological Resources Assessment of the Proposed Santa Clara River Significant Ecological Area*. November 2000. Accessed April 2025. https://planning.lacounty.gov/wp-content/uploads/2022/11/sea_2000-BRA-SantaClaraRiver.pdf.

Pianka, E.R., and W.S. Parker. 1975. "Ecology of Horned Lizards: A Review with Special Reference to *Phrynosoma platyrhinos*." *Copeia* 1975:141–162.

Sawyer, J., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*. 2nd ed. Sacramento: California Native Plant Society.

South Coast Wildlands. 2020. "South Coast Missing Linkages [ds419]." IS data viewed on BIOS 6. Last updated in BIOS on August 18, 2020. Accessed February 2025. https://map.dfg.ca.gov/metadata/ds0419.html.

Stebbins, R.C. 1954. *Amphibians and Reptiles of Western North America*. Boston, Massachusetts: McGraw Hill Book Company.

SWRCB (State Water Resources Control Board). 2021. *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. Adopted April 2, 2019; revised April 6, 2021. Accessed April 2025. https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/2021/procedures.pdf.

The Xerces Society. 2018. "A Petition to the State of California Fish and Game Commission to List the Crotch's Bumble Bee (*Bombus crotchii*), Franklin's Bumble Bee (*Bombus franklini*), Suckley Cuckoo Bumble Bee (*Bombus suckleyi*), and Western Bumble Bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act." October 2018. Accessed April 2025. https://fgc.ca.gov/CESA/index.

The Xerces Society. 2025. Bumble Bee Atlas [online database]. Accessed September 2025. https://www.bumblebeeatlas.org/.

USACE (U.S. Army Corps of Engineers). 1987. *Corps of Engineers Wetlands Delineation Manual*. Online ed. Environmental Laboratory, Wetlands Research Program Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station. January 1987. Accessed April 2025. https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/4530.

USACE. 2008a. *Regional Supplement to the Corps of Engineers Wetland 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. September 2008. Accessed April 2025. https://usace.contentdm.oclc.org/utils/getfile/collection/p266001coll1/id/7627.

USACE. 2008b. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual*. ERDC/CRREL TR-08-12. Prepared by R.W. Lichvar and S.M. McColley. Hanover, New Hampshire: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. August 2008. Accessed April 2025. https://www.spk.usace.army.mil/Portals/12/documents/regulatory/pdf/Ordinary_High_Watermark_Manual_Aug_2008.pdf.

USDA (United States Department of Agriculture). 2025a. Web Soil Survey. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed April 2025. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

USDA. 2025b. "California." State PLANTS Checklist. USDA Natural Resources Conservation Service. Accessed April 2025. https://plants.usda.gov/state-search.

USFWS (U.S. Fish and Wildlife Service). 2025a. "National Wetlands Inventory." Accessed April 2025. https://www.fws.gov/program/national-wetlands-inventory.

USFWS. 2025b. "Information, Planning, and Conservation System (IPaC)." Environmental Conservation Online System. Accessed April 2025. https://ecos.fws.gov/ipac/.

USFWS. 2025c. "Critical Habitat and Occurrence Data." Accessed April 2025. https://gis-fws.opendata.arcgis.com/.

USGS (U.S. Geologic Survey). 2022. Acton, California and Pacifico Mountain, California 7.5-minute topographic quadrangles. Accessed April 2025. https://www.usgs.gov/tools/75-15-minute-topographic-maps-usgs-store.

USGS. 2023. "National Hydrography and Watershed Boundary Dataset." USGS National Hydrography Products. Accessed April 2025. https://www.usgs.gov/national-hydrography.

Wiens, J.A., and J.T. Rotenberry. 1981. "Habitat Associations and Community Structure of Birds in Shrubsteppe Environments." *Ecological Monographs* 51:21–41.

Williams, P.H., R.W. Thorp, L.L. Richardson, and S.R. Colla. 2014. *Bumble Bees of North America: An Identification Guide*. Princeton University Press.

Yosef, R. 1996. "Loggerhead Shrike (*Lanius Ludovicianus*)." In *The Birds of North America*, edited by A. Poole and F.B. Gill.

Appendix A
Protected Tree Report

Significant Ecological Area Protected Tree Report

Prairie Song Reliability Project

~~**DECEMBER 2025**~~

JANUARY 2026

Prepared for:

PRAIRIE SONG RELIABILITY PROJECT LLC
Contact: Garrett Lehman

Prepared by:

DUDEK

225 South Lake Avenue, Suite M210
Pasadena, California 91101
Contact: Aida Castro

Table of Contents

SECTION **PAGE NO.**

~~Acronyms and Abbreviations ..... iii~~

~~1 Introduction ..... 1~~

~~2 Project Location and Description ..... 3~~

~~2.1 Project Location ..... 3~~

~~2.2 Project Description ..... 3~~

~~3 Methods ..... 11~~

~~3.1 Tree Inventory ..... 11~~

~~3.2 Impact Evaluation ..... 12~~

~~3.3 Scope of Work Limitations ..... 13~~

~~4 Regulatory Setting ..... 15~~

~~4.1 Los Angeles County SEA Ordinance ..... 15~~

~~4.1.1 Significant Ecological Area Protected Trees ..... 15~~

~~4.1.2 Tree Protection Zone ..... 16~~

~~5 Results ..... 17~~

~~5.1 Tree Inventory Summary ..... 17~~

~~5.2 Tree Impacts ..... 18~~

~~5.2.1 Protected Non-heritage Tree Impacts ..... 19~~

~~5.2.2 Heritage Tree Impacts ..... 21~~

~~5.2.3 Dead Tree Analysis ..... 22~~

~~6 Mitigation ..... 24~~

~~6.1 Mitigation Requirements ..... 24~~

~~7 Tree Protection ..... 26~~

~~8 Conclusion ..... 28~~

~~9 Arborist's Disclosure ..... 30~~

~~10 References Cited ..... 32~~

Acronyms and Abbreviations v

1 Introduction 1

2 Project Location and Description 3

2.1 Project Location 3

2.2 Project Description 3

3 Methods 11
3.1 Tree Inventory 11
3.2 Impact Evaluation 12
3.3 Scope of Work Limitations 12
4 Regulatory Setting 13
4.1 Los Angeles County SEA Ordinance 13
4.1.1 Significant Ecological Area Protected Trees 13
4.1.2 Tree Protection Zone 14
5 Results 15
5.1 Tree Inventory Summary 15
5.2 Tree Impacts 16
5.2.1 Northern Gen-tie Route Impacts 17
5.2.2 Southern Gen-tie Route Impacts 19
6 Mitigation 24
6.1 Mitigation Requirements 24
7 Tree Protection 26
8 Conclusion 28
9 Arborist's Disclosure 30
10 References Cited 32

TABLES

~~Table 1. Summary of Trees at the Prairie Song Reliability Project ..... 17~~
~~Table 2. Summary of All Protected Tree Impacts (Heritage and Non-heritage) ..... 19~~
~~Table 3. Summary of Impacts to Protected Non-heritage Trees ..... 20~~
~~Table 4. Summary of Overall Health Ratings for Impacted Protected Non-heritage Trees ..... 21~~
~~Table 5. Summary of Impacts to SEA Protected Heritage Trees ..... 21~~
~~Table 6. Summary of Overall Health Ratings for Impacted SEA Heritage Trees ..... 22~~
~~Table 7. Summary of Dead Trees ..... 22~~
~~Table 8. Summary of Individual Species Estimated Replacement Quantities ..... 24~~
Table 1. Summary of Trees at the Prairie Song Reliability Project 15
Table 2. Summary of Northern Route Protected Tree Impacts (Heritage and Non-heritage) 17
Table 3. Summary of Impacts to Northern Route Protected Non-heritage Trees 17
Table 4. Summary of Overall Health Ratings for Northern Route Impacted Protected Non-heritage Trees 18
Table 5. Summary of Impacts to Northern Route SEA Protected Heritage Trees 18
Table 6. Summary of Overall Health Ratings for Northern Route Impacted SEA Heritage Trees 19
Table 7. Summary of Northern Route Dead Trees 19
Table 8. Summary of Southern Route Protected Tree Impacts (Heritage and Non-heritage) 20
Table 9. Summary of Impacts to Southern Route Protected Non-heritage Trees 20
Table 10. Summary of Overall Health Ratings for Southern Route Impacted Protected Non-heritage Trees 20
Table 11. Summary of Impacts to Southern Route SEA Protected Heritage Trees 21
Table 12. Summary of Overall Health Ratings for Southern Route Impacted SEA Heritage Trees 21
Table 13. Summary of Southern Route Dead Trees 22
Table 14. Summary of Individual Species Estimated Replacement Quantities for the Northern Route Option 24
Table 15. Summary of Individual Species Estimated Replacement Quantities for the Southern Route Option 25

FIGURES

~~Figure 1 Project Location ..... 5~~
~~Figure 2 SEA Location ..... 7~~
~~Figure 3 Survey Area ..... 9~~
Figure 1 Project Location 5
Figure 2 SEA Location 7
Figure 3 Survey Area 9

APPENDICES

A Tree Locations
B SEA Protected Tree List
C Tree Information Matrix

D Potential Tree Impacts

E Tree Protection Measures

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
County	County of Los Angeles
CUP	Conditional Use Permit
DBH	diameter at breast height
project	Prairie Song Reliability Project
SEA	Significant Ecological Area
TPZ	tree protection zone

INTENTIONALLY LEFT BLANK

1 Introduction

This Significant Ecological Area (SEA) Protected Tree Report provides an inventory and evaluation of the Protected Trees located within the Santa Clara River Significant Ecological Area (SEA) that are potentially impacted by the Prairie Song Reliability Project (project). This report also provides an analysis of the project's impact on the County of Los Angeles (County) SEA resources as identified within the Los Angeles County SEA Ordinance and SEA Implementation Guide (Implementation Guide; Los Angeles County Planning 2020).

The project will be located on up to approximately 107-acres in unincorporated Los Angeles County (County), California, south of State Route 14 (Figure 1, Project Location). Approximately 35.24 acres associated with the two gen-tie tie line route options are located within the Santa Clara River SEA and are the focus of this report. The remainder of the project is located outside of the SEA and was not included in the arborists' survey area. The field inventory and assessments of tree resources were conducted in June and July 2023 and again in February and December 2025. The focus of Dudek's field evaluations was to identify and inventory all trees in the SEA survey area that are subject to regulation by the Los Angeles County Regional Planning Significant Ecological Areas Ordinance that could be affected by the proposed development. This report meets the requirements of Los Angeles County Regional Planning Significant Ecological Areas Ordinance and includes a discussion of the tree inventory, evaluation, and analysis methods; a summary of findings; identification of anticipated impacts; and tree impact mitigation recommendations.

INTENTIONALLY LEFT BLANK

2 Project Location and Description

2.1 Project Location

The project would be located in unincorporated Los Angeles County (County), California, south of State Route 14 approximately 3 miles northeast of the center of the unincorporated community of Acton (Figure 1, Project Location). The project is within the U.S. Geological Survey 7.5-minute Acton and Pacifico Mountain Quadrangles, Township 5N, Range 12W, Sections 27, 28, 33 and 34. The battery energy storage system (BESS) site, located outside of the SEA, is comprised of Assessor's Parcel Numbers 3056-017-007, 3056-017-020, 3056-017-021, 3056-019-013, 3056-019-026, 3056-019-037, and 3056-019-040. Development of the battery energy storage system facility would occur on an area of land located between two existing transportation corridors, the Antelope Valley Freeway (State Route 14) to the north and Los Angeles County Metropolitan Transportation Authority-owned Southern Pacific Railroad lines and Carson Mesa Road to the south, that are approximately 1,200 feet apart.

The project would utilize one of two potential gen-tie routes. Either route would traverse the SEA by extending south and east from the project substation, crossing Southern Pacific Railroad tracks and West Carson Mesa Road, and then proceeding northeast to the Point of Interconnection at the Vincent Substation. The Northern Gen-Tie Route is approximately 1.1 miles long and would be sited on Assessor's Parcel Numbers 3056-015-008, 3056-015-023, 3056-017-026, 3056-017-904, and 3056-017-905, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The Southern Gen-Tie Route is approximately 1.8 miles long and would be sited on Assessor's Parcel Numbers 3056-015-008, 3056-015-023, 3056-017-016, 3056-017-022, 3056-017-026, 3056-017-027, 3056-017-028, 3056-027-007, 3056-027-031, 3056-005-816, 3056-005-817, 3056-005-818, 3056-015-801, and 3056-015-802. The project would also include three fiber optic telecommunications lines: one would be installed aboveground on the gen-tie structures (along whichever gen-tie route is ultimately selected), and the other two would be installed underground within the Southern Gen-Tie Route corridor. The two other fiber optic lines would be installed underground within the Southern Gen-Tie Route corridor regardless of which Gen-Tie Route corridor option is selected. The project's interconnection facilities would be located within the Southern California Edison Vincent Substation. Land uses in the immediate vicinity of the project include undeveloped and rural lands, multiple high-voltage transmission lines and an electrical substation, paved and rural roads, State Route 14, and railroad lines.

For the purposes of this report, the survey area included parcels comprising the potential gen-tie routes located south and east of the railroad tracks and Carson Mesa Road, and south and west of Southern California Edison's Vincent Substation (Survey Area). The Survey Area is depicted on Figure 3 and is within a County of Los Angeles SEA (County of Los Angeles 2025), Los Angeles County Significant Ecological Area (Figure 2, SEA Location). The SEA Ordinance establishes the permitting, design standards, and review process for development within SEAs, balancing preservation of the County's natural biodiversity with private property rights.

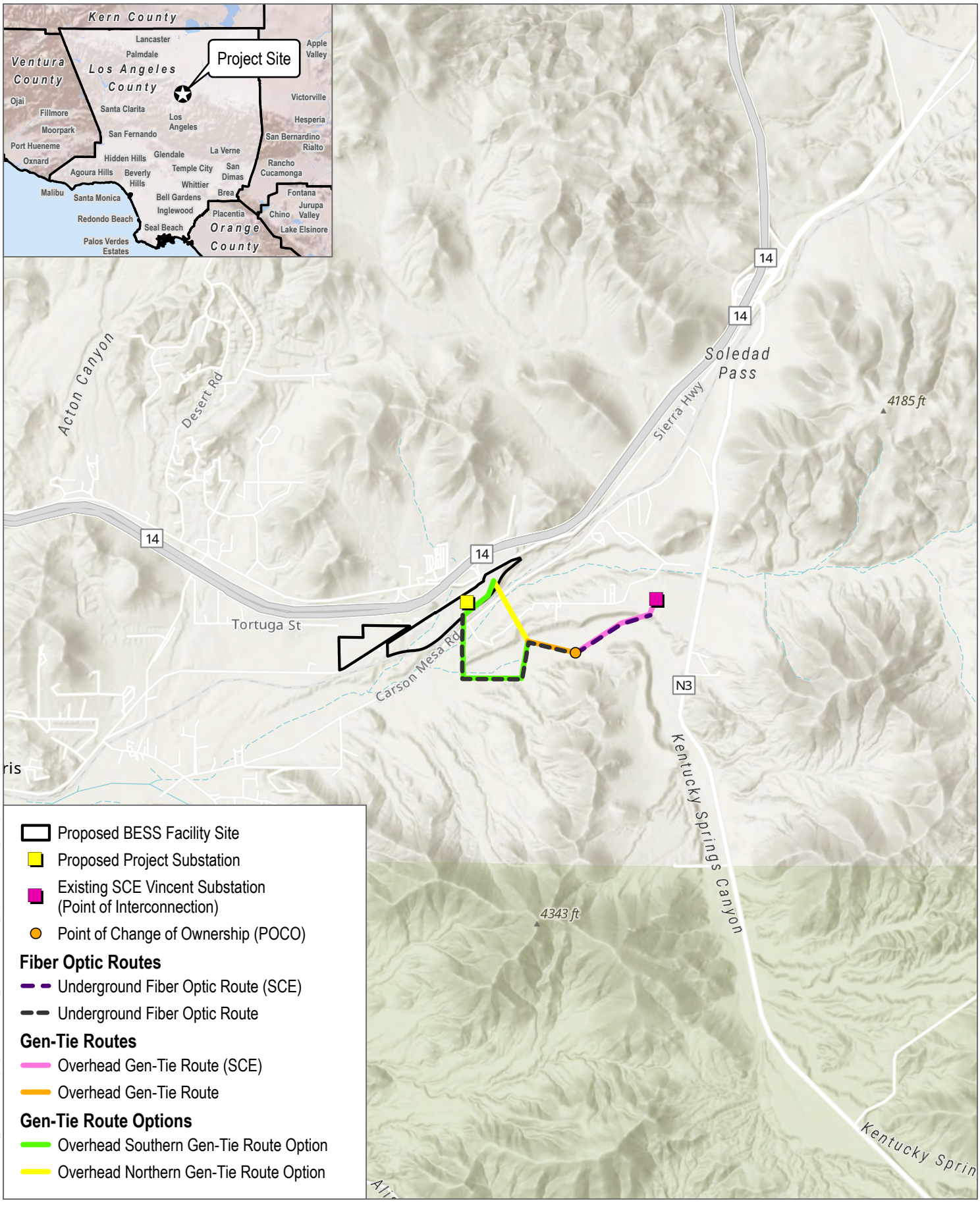
2.2 Project Description

Prairie Song Reliability Project LLC, a Delaware limited liability company (Applicant), a subsidiary of Coval Infrastructure DevCo LLC, a Delaware limited liability company, proposes to construct, operate, and eventually repower or decommission the up to 1,150-megawatt Prairie Song Reliability Project (project) located on up to approximately 107 acres in unincorporated Los Angeles County, of which approximately 35.24 acres associated

with the two gen-tie line routes are located within the Santa Clara River SEA. The primary components of the project include a containerized battery energy storage system facility utilizing lithium-iron phosphate cells, or similar technology, operations and maintenance buildings, an on-site project substation, a 500-kilovolt overhead generation interconnection (gen-tie) transmission line, and interconnection facilities within the existing Southern California Edison-owned and operated Vincent Substation.

Electrical energy would be transferred from the existing power grid to the project for storage and from the project to the power grid when additional electricity is needed. The project would provide additional capacity to the electrical grid to assist with serving load during periods of peak demand by charging when demand is low and discharging when demand is high. This operating principle increases the integration of additional intermittent renewable energy, such as wind and solar, in California's energy mix and reduces the need to operate natural gas power plants. The project would also serve as an additional local/regional capacity resource that would enhance grid reliability, particularly to the Los Angeles Basin local reliability area and may allow for the deferral or avoidance of regional transmission facilities.

The project would be remotely operated and monitored year-round as well as supported by on-site operations and maintenance staff 7 days a week. The project would be available to receive or deliver energy 24 hours a day and 365 days a year. During the operational life of the project, qualified technicians would inspect the project facilities and conduct necessary maintenance to ensure reliable and safe operational readiness.



SOURCE: World Topographic

DUDEK

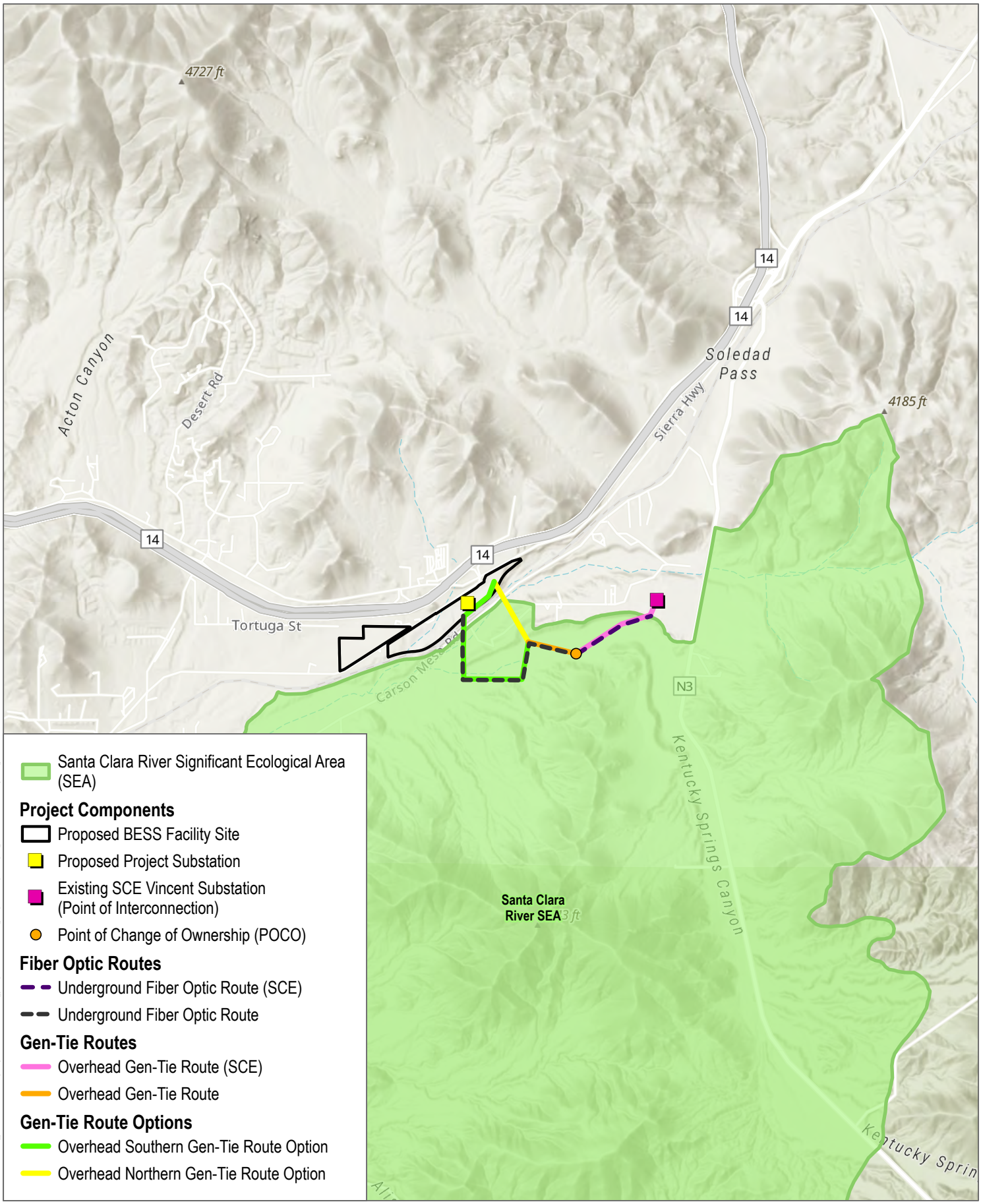
0 1,500 3,000 Feet

FIGURE 1

Project Location

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK



SOURCE: World Topographic; Los Angeles County

DUDEK

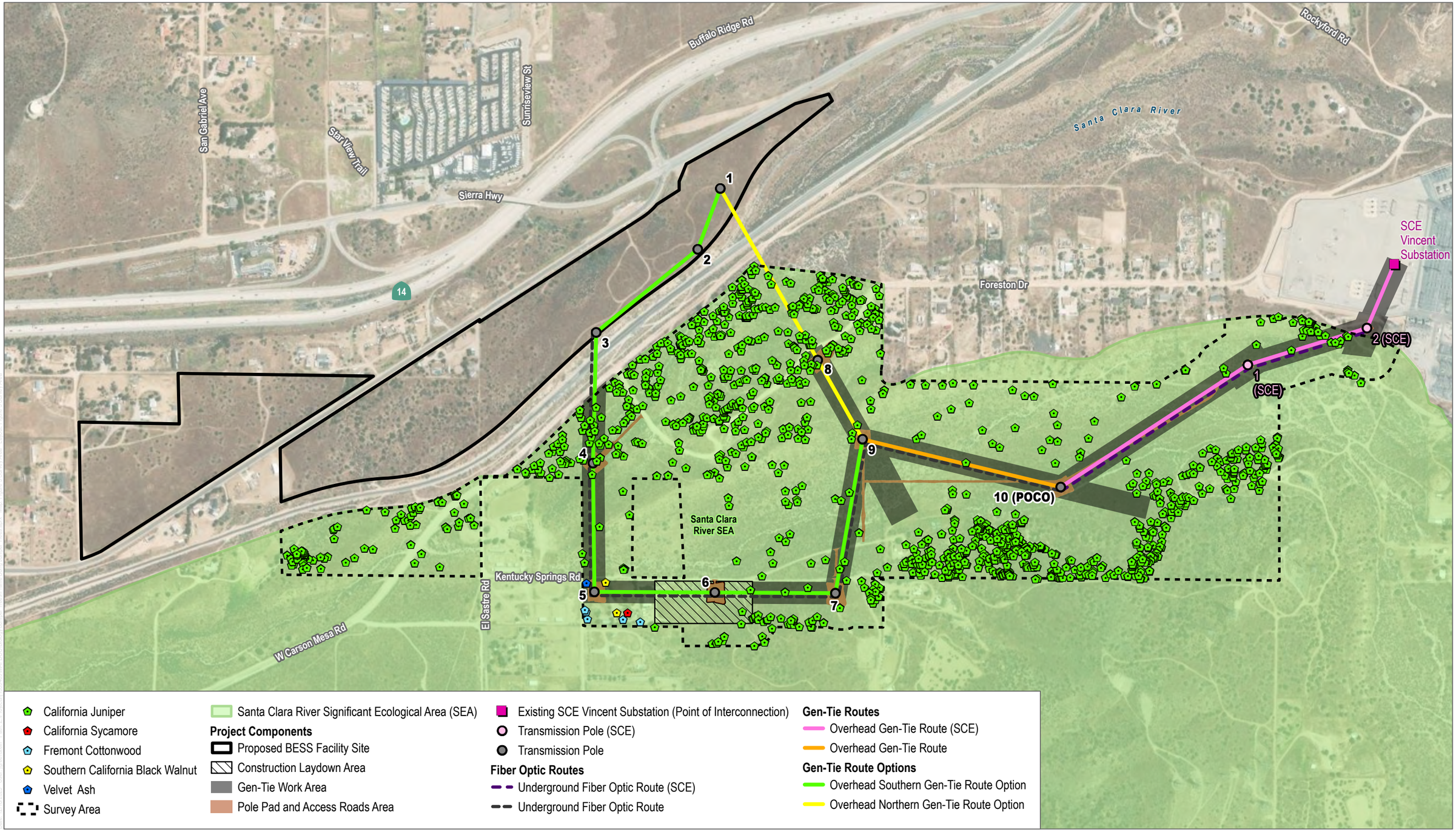
0 1,500 3,000 Feet

FIGURE 2

SEA Location

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

0 300 600 Feet

FIGURE 3

Survey Area

Prairie Song Reliability Project

INTENTIONALLY LEFT BLANK

3 Methods

3.1 Tree Inventory

Dudek's International Society of Arboriculture Certified Arborists Aida Castro, Sarah Tian, Jannette Ly, and Anna Pfleeger performed a comprehensive tree inventory update in June and July 2023. As a follow-up survey, International Society of Arboriculture Certified Arborists, Aida Castro and Ryan Allen conducted a supplemental survey on February 21, 2025. An additional survey was conducted by International Society of Arboriculture Certified Arborists Aida Castro and Katrina Burritt on December 3rd and 4th, 2025 to include additional areas within the SEA and to confirm that no blue elderberry (*Sambucus nigra ssp. Caerulea*) occurs within the Survey Area. As previously mentioned, the Survey Area used in this report only includes areas associated with the two gen-tie tie line route options that are located within the Santa Clara River SEA. The remainder of the project area outside of the SEA was excluded from the tree Survey Area.

The location of the Survey Area, including the SEA is depicted in Figure 3, Survey Area. During the survey, Dudek mapped and evaluated all trees that met the minimum requirements for protection under the Los Angeles County SEA Ordinance within the Survey Area.

Requirements for individual and multi-stem diameter thresholds that determine protection status for native tree species within the Santa Clara River SEA are discussed in section 4 of this report and further detailed in Appendix B, SEA Protected Tree List.

Per the Los Angeles County SEA Ordinance, trunk diameter measurements were taken at 54 inches above the natural grade. In cases where the trunk of a tree split into multiple stems at approximately 54 inches above natural grade, the measurement was made at the location that best represented the trunk's diameter.

Tree attribute data collected during the field survey included species, height, canopy width, number of stems, trunk diameter, and general health and structure conditions. Trunk diameters were measured using a diameter tape, which provides adjusted numbers for diameter measurements when wrapping the tape around the circumference of a tree trunk. Diameter measurements were collected using standard protocol described by the Council of Tree and Landscape Appraisers in its Guide for Plant Appraisal (CTLA 2020), published by the International Society of Arboriculture, and in accordance with guidance given in the County's SEA Ordinance.

Pursuant to the Guide for Plant Appraisal (CTLA 2020), tree health was evaluated with respect to five distinct tree components: roots, trunk, scaffold branches, small branches, and foliage. Health and structure were graded as good, good/fair, fair, fair/poor, or poor. Good condition trees exhibit acceptable vigor, healthy foliage, minor if any structural issues, and no apparent maladies. Fair condition trees are typical, with few maladies and moderate structural issues, and may exhibit less vigor in foliage and new growth. Trees assigned a poor condition rating exhibit significant health or structural problems or damage.

Each regulated tree was mapped using Apple iPhones or iPads paired with external Bluetooth antennas (EOS Arrow 100 and Trimble R1) to enhance positional accuracy. Tree location data was collected and managed in the field using ArcGIS Field Maps. Each tree was assigned a unique digital identifier, which corresponds to the mapped locations in Appendix A, Tree Location, and the associated attributes in Appendix C, Tree Information Matrix.

Upon completion of field data collection and mapping, raw data was post-processed and individual tree location data was compiled and updated utilizing geographic information system technology. The digital tree locations were linked to individual tree identification numbers and associated tree attribute data. These data were then analyzed to evaluate the protection status of each tree (Protected or heritage) and each tree's impact status, as presented in this report. For SEA Protected Trees with multiple trunks, the combined diameter at breast height (DBH) of the two largest trunks was calculated to determine the aggregate DBH for such trees. DBH was used to characterize individual trees as being a Protected or heritage Tree under the SEA guidelines. Those specific measurements are provided in Appendix B, SEA Protected Tree List. Additional details regarding protection status (Protected or heritage) are discussed in detail in Section 4, Regulatory Setting.

3.2 Impact Evaluation

There is wide variation in tolerance to construction impacts among tree species, and the response of an individual tree to impacts also varies with age and condition. Impacts assessed for this project include trees with protected zones within the proposed improvement and disturbance areas, as defined in the project's site plan as of the date of this report. Per the County Code, which establishes minimum setbacks for SEA Protected Trees, the tree protection zone (TPZ) is defined as the area that extends 5 feet out from the dripline of the Protected Tree or 15 feet from the trunk, whichever distance is greater. For the tree impact analysis conducted in December 2025, Dudek applied the SEA Protected Tree Ordinance criteria. Tree removal is anticipated when proposed grading activities affect more than 30% of a TPZ. Encroachment is expected when less than 30% of the TPZ is disturbed, such as through soil or root disruption, or when pruning is required. To determine impact designations, Dudek arborists used the County's definition of direct impact, which includes tree removal, root disturbance, soil excavation and compaction, grade changes, canopy loss, and trunk damage. Based on these criteria, project-related impacts are classified as either direct impacts (removal or encroachment) or no impact (trees preserved without disturbance).

3.3 Scope of Work Limitations

No root crown excavations or investigations or internal probing were performed during the tree assessment. Therefore, the presence or absence of internal decay or other hidden inferiorities in individual trees could not be confirmed. It is recommended that any large tree proposed for preservation or relocation be thoroughly inspected for internal and subterranean decay by a qualified arborist before finalizing a preservation or relocation plan.

Data for trees located on private property was visually estimated.

4 Regulatory Setting

The following section summarizes the relevant policies regulating tree impacts and removals associated with the project.

4.1 Los Angeles County SEA Ordinance

The Survey Area encompassing the two gen-tie line routes under consideration by the project are in the Santa Clara River SEA. The following section summarizes portions of the ordinance that are specifically pertinent to this tree report (Los Angeles County Regional Planning 2020).

4.1.1 Significant Ecological Area Protected Trees

Chapter 3 (SEA Protected Trees) of the Los Angeles County SEA Ordinance Implementation Guide (County of Los Angeles 2020) describes tree protection regulations. Protected Trees are designated by species and trunk diameter of a minimum listed size specific to each SEA. The minimum size at which native tree species become protected within the project area SEA is as follows:

- Riparian species and trees listed as rare by California Native Plant Society ("CNPS") are generally protected at 3-inch DBH for single trunk and 4-inch DBH for multi-trunk,
- Non-riparian native tree species, as detailed in Appendix B, SEA Protected Tree List, are generally protected at 6-inch DBH for single trunk and 8-inch DBH for multi-trunk,
- All California junipers (*Juniperus californica*) regardless of diameter are protected.

Additionally, according to SEA, Protected trees are considered heritage trees if they meet the following criteria:

- Riparian species and trees listed as rare by California Native Plant Society ("CNPS") are generally considered heritage trees at 18-inch DBH for single trunk and 28-inch DBH for multi-trunk,
- Non-riparian native tree species, as detailed in Appendix B, SEA Protected Tree List, are generally protected at 36-inch DBH for single trunk and 56-inch DBH for multi-trunk,
- California junipers with a canopy spread of 35' or greater are considered heritage trees.

Detailed requirements for individual and multi-stem diameter thresholds that determine protection status for native tree species within the Santa Clara River SEA are provided in Appendix B, SEA Protected Tree List

As discussed in the following sections, because the number of project-related impacts is greater than two trees, the project requires a discretionary SEA Conditional Use Permit (CUP) review but for the California Energy Commission's Opt-In Application for Certification process, which is currently ongoing. Furthermore, mitigation and monitoring requirements for SEA CUPs should meet or exceed the mitigation and monitoring requirements of a Protected Tree permit.

4.1.2 Tree Protection Zone

Chapter 3 of the Implementation Guide establishes minimum setbacks for SEA Protected Trees, known as a TPZ. Since tree roots extend well beyond the visible crown of the tree and can be greatly impacted by disturbances to the ground around them, the TPZ extends 5 feet out from the dripline of the Protected Tree or 15 feet from the trunk, whichever distance is greater.

5 Results

5.1 Tree Inventory Summary

A total of 1,191 trees were documented within the Survey Area, 1,078 of which are classified as Protected. The Protected Trees include 1,~~005~~004 Protected non-heritage trees and ~~73~~74 heritage trees. The remaining 113 trees are dead and as such are not considered Protected. Table 1 summarizes all trees that were mapped and evaluated within the Survey Area. Appendix A, Tree Location, provides detailed locations of all individual trees assessed for the proposed project.

Table 1. Summary of Trees at the Prairie Song Reliability Project

Scientific Name	Common Name	Number of Protected Non-heritage Trees	Number of Protected Heritage Trees	Total Number of Protected Trees	Number of Non-Protected Trees	Total Number of Trees
Fraxinus velutina	velvet ash	1	0	1	0	1
Juglans californica	Southern California black walnut	2	0	2	0	2
Juniperus californica	California juniper	~~-~~996	~~-~~73	1,069	113	1,182
Platanus racemosa	California sycamore	1	0	1	0	1
Populus fremontii	Fremont cottonwood	~~5~~4	~~0~~1	5	0	5
	Total	**1,~~005~~004**	**~~73~~74**	**1,078**	**113**	**1,191**

Trees in the Survey Area vary in size and stature and exhibit conditions typical of their locations as native trees in a natural setting. As presented in Appendix C, Tree Information Matrix, of the 1,078 Protected Trees (Protected non-heritage trees and heritage trees):

- 121 trees (11.22%) are in good health
- 517 trees (47.96%) are in fair health
- 332 trees (30.80%) are in poor health
- 108 trees (10.02%) are in critical health

The remaining 113 trees located in the SEA are classified as dead and are therefore not Protected.

Trees in good condition exhibit acceptable vigor, healthy foliage, adequate structure, and lack major defects. Trees in fair condition show multiple defects and/or potentially declining vigor. Poor condition trees exhibit declining vigor,

unhealthy foliage, poor structure, and multiple defects. Trees in critical condition exhibit a severe decline in vigor, major structural defects, or severe irreversible physiological deterioration.

Among the 1,078 Protected Trees surveyed, single and aggregate trunk diameters for the two largest stems range from 1 inch to 27 inches. Tree heights vary from 1 foot for juvenile specimens to 50 feet for mature trees.

Heritage tree status is based on the SEA tree classifications (i.e., riparian, coniferous, upland hardwood) and minimum trunk diameter for protected and heritage trees. Of the 1,078 Protected Trees within the Survey Area, a total of ~~73~~74 heritage trees were identified, ~~all~~73 of which are multi-trunk California junipers and one is a single trunk Fremont cottonwood.

The health of the ~~73~~74 heritage trees ranges from good to critical. As detailed in Appendix C, Tree Information Matrix:

- 7 trees (9.~~59~~46%) are in good health
- ~~37~~38 trees (~~50.68~~51.35%) are in fair health
- 24 trees (32.~~88~~43%) are in poor health
- 5 trees (6.~~85~~76%) are in critical health

Among the ~~73~~74 heritage trees surveyed, single and aggregate trunk diameters for the two largest stems range from 2 inches to 23 inches. Tree heights vary from 1 foot for juvenile specimens to ~~25~~45 feet for mature trees.

5.2 Tree Impacts

As previously stated, for the purposes of this arborist report, potential direct impacts are associated with tree removal or encroachment within the tree protection zone (5 feet beyond the dripline or 15 feet from the trunk, whichever is greater). Specifically, tree impacts were determined using geographic information system technology, spatial locations of tree crowns, and a minimum distance of each tree relative to the potential project impact. A tree is considered removed if more than 30% of its TPZ falls within the project's proposed limits of disturbance. A tree is considered encroached upon if 0.01% to 30% of its TPZ is affected by proposed project activities. A tree is considered preserved if it does not experience any TPZ disturbance. Impact totals presented herein are based on proposed disturbance limits, fuel modification zones, and development plans as of the date of this report. ~~This impact evaluation includes~~As of the date of this report, both the Northern and Southern gen-tie ~~route options~~routes are under consideration, although only one will ultimately be selected~~, and~~. Impact evaluations have therefore been prepared for each alignment to illustrate the potential effects associated with both options. It is assumed that the entirety of the 150' gen-tie right of way and pull areas will be temporarily impacted~~. As a result, the~~ for whichever route is selected. The total number of impacted trees ~~is expected to be lower depending~~will depend on the chosen route and actual construction and gen~~-~~tie pulling impacts. ~~Additionally, field adjustments are likely to further minimize impacts to Protected Trees.~~ The impact figures presented in this report represent a maximum potential impact~~, and actual impacts are expected to be reduced~~ for each route option. Field adjustments are likely to further minimize impacts to Protected Trees.

The locations of the individual trees that would be subject to impacts ~~by~~from each of the proposed gen-tie route options for the proposed project are presented in Appendix D.

-5.2.1 Northern Gen-tie Route Impacts

Of the 1,078 in the Survey Area (Protected non-heritage trees and heritage trees), ~~65~~47 could be directly impacted by the ~~project.~~Northern gen-tie route option. The ~~65~~47 Protected Tree impacts comprise ~~55~~35 potential removals and ~~10~~12 potential encroachments. The remaining 1,013 Protected Trees would not be directly impacted by the ~~project~~Northern gen-tie route option. Table 2 provides a summary of the proposed impacts to all SEA Protected Trees within the Survey Area if the Northern gen-tie route were selected.

Table 2. Summary of ~~All~~Northern Route Protected Tree Impacts (Heritage and Non-heritage)

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	~~1~~0	0	~~1~~0
Juniperus californica	California juniper	~~53~~34	~~10~~12	~~63~~46
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**~~55~~35**	**~~10~~12**	**~~65~~47**

5.2.1~~———~~.1 Northern Gen-tie Route Protected Non-heritage Tree Impacts

Of the 1,~~005~~004 Protected non-heritage trees that occur within the Survey Area, ~~57~~41 could be directly impacted by the proposed ~~project.~~Northern gen-tie route. The ~~57~~41 Protected non-heritage tree impacts consist of ~~48~~30 potential removals and ~~9~~11 potential encroachments. ~~The nine potential encroachment trees have encroachments that range from 0.92% to 30%.~~ The remaining ~~948~~963 Protected non-heritage trees within the Survey Area would not be directly impacted by the ~~project~~Northern gen-tie route. Table 3 provides a summary of the proposed impacts to non-heritage SEA Protected Trees within the Survey Area if the Northern gen-tie route were selected.

Table 3. Summary of Impacts to Northern Route Protected Non-heritage Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	~~1~~0	0	~~1~~0
Juniperus californica	California juniper	~~46~~29	~~9~~11	~~55~~40
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**~~48~~30**	**~~9~~11**	**~~57~~41**

Table 4 provides a summary of the overall health ratings for the proposed impacted Protected non-heritage trees within the Survey Area if the Northern gen-tie route were selected.

Table 4. Summary of Overall Health Ratings for Northern Route Impacted Protected Non-heritage Trees

Scientific Name	Common Name	Overall Health Rating				
		Critical	Poor	Fair	Good	Total
Fraxinus velutina	velvet ash	0	0	1	0	1
Juglans californica	Southern California black walnut	0	0	~~1~~0	0	~~1~~0
Juniperus californica	California juniper	3	~~9~~6	~~35~~24	~~8~~7	~~55~~40
Platanus racemosa	California sycamore	0	0	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0	0	0
	Totals	3	~~9~~6	~~37~~25	~~8~~7	~~57~~41

Note: Dead trees are not protected by the County of Los Angeles and do not require mitigation.

5.2.1.2 Northern Gen-tie Route Heritage Tree Impacts

A total of ~~73~~74 heritage trees are found on site, of which ~~eight~~six could be directly impacted by the ~~project. The eight heritage tree impacts comprise seven potential removals and one potential encroachment.~~ if the Northern gen-tie route were selected. The six heritage tree impacts comprise five potential removals and one potential encroachment. The remaining ~~65~~68 heritage trees would not be directly impacted by the ~~project~~Northern gen-tie route. Table 5 provides a summary of the proposed impacts to SEA Protected heritage trees within the Survey Area if the Northern gen-tie route were selected.

Table 5. Summary of Impacts to Northern Route SEA Protected Heritage Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	0	0	0
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	~~7~~5	1	~~8~~6
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
Total		~~7~~5	1	~~8~~6

Table 6 provides a summary of overall health ratings for the eight heritage trees that could be impacted by the project if the Northern gen-tie route were selected.

Table 6. Summary of Overall Health Ratings for Northern Route Impacted SEA Heritage Trees

Scientific Name	Common Name	Overall, Health Rating (Number)				
		Critical	Poor	Fair	Good	Total
Fraxinus velutina	velvet ash	0	0	0	0	0
Juglans californica	Southern California black walnut	0	0	0	0	0
Juniperus californica	California juniper	0	3	~~5~~3	0	~~8~~6
Platanus racemosa	California sycamore	0	0	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0	0	0
	Totals	**0**	**3**	**~~5~~3**	**0**	**~~8~~6**

Note: Dead trees are not protected by the County of Los Angeles and do not require mitigation.

5.2.1.3 Northern Gen-tie Route Dead Tree Analysis

A total of 113 trees in the Survey Area are dead and as such are not considered Protected. ~~Four~~Two non-Protected Trees could be directly impacted by the proposed ~~project.~~Northern gen-tie route option. The ~~four~~two non-Protected Tree impacts consist of ~~three~~one potential ~~removals~~removal and one potential encroachment. The remaining ~~109~~111 non-Protected trees would not be directly impacted by the project~~.~~ if the Northern gen-tie route were selected. All of the non-Protected Tree ~~removals~~impacts are dead California juniper trees. Table 7 provides a summary of the proposed impacts to non-Protected Trees within thve Survey Area if the Northern gen-tie route were selected.

Table 7. Summary of Northern Route Dead Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	*velvet ash*	0	0	0
Juglans californica	*Southern California black walnut*	0	0	0
Juniperus californica	California juniper	~~3~~1	1	~~4~~2
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**~~3~~1**	**1**	**~~4~~2**

5.2.2 Southern Gen-tie Route Impacts

Of the 1,078 in the Survey Area (Protected non-heritage trees and heritage trees), 63 could be directly impacted by the Southern gen-tie route option. The 63 Protected Tree impacts comprise 54 potential removals and nine potential encroachments. The remaining 1,015 Protected Trees would not be directly impacted by the Southern gen-tie route option. Table 8 provides a summary of the proposed impacts to all SEA Protected Trees within the Survey Area if the Southern gen-tie route were selected.

Table 8. Summary of Southern Route Protected Tree Impacts (Heritage and Non-heritage)

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	1	0	1
Juniperus californica	California juniper	52	9	61
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	54	9	63

5.2.2.1 Southern Gen-tie Route Protected Non-heritage Tree Impacts

Of the 1,004 Protected non-heritage trees that occur within the Survey Area, 55 could be directly impacted by the proposed Southern gen-tie route option. The 55 Protected non-heritage tree impacts consist of 47 potential removals and eight potential encroachments. The remaining 949 Protected non-heritage trees would not be directly impacted by the Southern gen-tie route option. Table 3 provides a summary of the proposed impacts to non-heritage SEA Protected Trees within the Survey Area if the Southern gen-tie route were selected.

Table 9. Summary of Impacts to Southern Route Protected Non-heritage Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	1	0	1
Juglans californica	Southern California black walnut	1	0	1
Juniperus californica	California juniper	45	8	53
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	47	8	55

Table 10 provides a summary of the overall health ratings for the proposed impacted Protected non-heritage trees within the Survey Area if the Southern gen-tie route were selected.

Table 10. Summary of Overall Health Ratings for Southern Route Impacted Protected Non-heritage Trees

Scientific Name	Common Name	Overall Health Rating				
		Critical	Poor	Fair	Good	Total
Fraxinus velutina	velvet ash	0	0	1	0	1
Juglans californica	Southern California black walnut	0	0	1	0	1
Juniperus californica	California juniper	3	9	33	8	53
Platanus racemosa	California sycamore	0	0	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0	0	0
	Totals	3	9	35	8	55

Note: Dead trees are not protected by the County of Los Angeles and do not require mitigation.

5.2.2.2 Southern Gen-tie Route Heritage Tree Impacts

A total of 74 heritage trees are found within the Survey Area, of which eight could be directly impacted by the Southern gen-tie route option. The eight heritage tree impacts comprise seven potential removals and one potential encroachment. The remaining 66 heritage trees would not be directly impacted by the project if the Southern gen-tie route were selected. Table 11 provides a summary of the proposed impacts to SEA Protected heritage trees within the Survey Area if the Southern gen-tie route were selected.

Table 11. Summary of Impacts to Southern Route SEA Protected Heritage Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	velvet ash	0	0	0
Juglans californica	Southern California black walnut	0	0	0
Juniperus californica	California juniper	7	1	8
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	**7**	**1**	**8**

Table 12 provides a summary of overall health ratings for the eight heritage trees that could be impacted by the project.

Table 12. Summary of Overall Health Ratings for Southern Route Impacted SEA Heritage Trees

Scientific Name	Common Name	Overall, Health Rating (Number)				
		Critical	Poor	Fair	Good	Total
Fraxinus velutina	velvet ash	0	0	0	0	0
Juglans californica	Southern California black walnut	0	0	0	0	0
Juniperus californica	California juniper	0	3	5	0	8
Platanus racemosa	California sycamore	0	0	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0	0	0
	Totals	**0**	**3**	**5**	**0**	**8**

Note: Dead trees are not protected by the County of Los Angeles and do not require mitigation.

5.2.1.3 Southern Gen-tie Route Dead Tree Analysis

A total of 113 trees in the Survey Area are dead and as such are not considered Protected. Four non-Protected Trees could be directly impacted by the proposed Southern gen-tie route option. The four non-Protected Tree impacts consist of three potential removals and one potential encroachment. The remaining 109 non-Protected trees would not be directly impacted by the project if the Southern gen-tie route were selected. All of the non-Protected Tree impacts are dead California juniper trees. Table 13 provides a summary of the proposed impacts to non-Protected Trees within the Survey Area if the Southern gen-tie route were selected.

Table 13. Summary of Southern Route Dead Trees

Scientific Name	Common Name	Removals	Encroachments	Total Impacts
Fraxinus velutina	*velvet ash*	0	0	0
Juglans californica	*Southern California black walnut*	0	0	0
Juniperus californica	California juniper	3	1	4
Platanus racemosa	California sycamore	0	0	0
Populus fremontii	Fremont cottonwood	0	0	0
	Total	3	1	4

INTENTIONALLY LEFT BLANK

6 Mitigation

The proposed project's mitigation effort would include tree planting mitigation for incurred tree impacts, which would be consistent with the goals and intent of the County.

6.1 Mitigation Requirements

Per the County SEA Ordinance, any development that would remove a heritage tree or would remove more than two non-heritage-size SEA Protected Trees requires a CUP. Mitigation and monitoring for such removals are determined as part of the discretionary SEA CUP review and included as conditions of approval in the CUP. Mitigation and monitoring requirements for SEA CUPs must meet or exceed the mitigation and monitoring requirements of a Protected Tree permit.

Per the County requirements, the removal of any SEA Protected Tree requires mitigation in the form of 2 replacement plantings, and the removal of a heritage tree requires mitigation in the form of 10 replacement plantings. Replacement trees should be seedlings of the same species as those being removed, planted in an area of the project site where there is suitable habitat, and where the trees would be able to remain in perpetuity. As such, based on the December 2025 impact analysis ~~that identified~~, if the Northern gen-tie route option is selected up to ~~55~~35 direct Protected Tree removals (~~7~~5 heritage trees and ~~48~~30 Protected non-heritage trees), the County would require up to ~~166~~110 mitigation trees to be planted in an area of the project site where there is suitable habitat and where the trees would be able to remain in perpetuity. If the Southern gen-tie route option is selected up to 54 direct Protected Tree removals (7 heritage trees and 47 Protected non-heritage trees), the County would require up to 164 mitigation trees to be planted in an area of the project site. Per the County requirements, Table ~~8~~14, Summary of Individual Species Replacement Quantities for the Northern Route Option, and Table 15, Summary of Individual Species Replacement Quantities for the Southern Route Option, details the quantity of each species required for planting based on the route option selected.

Table ~~8~~14. Summary of Individual Species Estimated Replacement Quantities for the Northern Route Option

Scientific Name	Common Name	Total Protected Removals	Replacement Ratio	Total Replacement Required
Fraxinus velutina	velvet ash	1	2:1	2
Juglans californica	Southern California black walnut	~~1~~0	2:1	~~2~~0
Juniperus californica	California juniper	~~46~~29	2:1	~~92~~58
Juniperus californica (heritage tree)	California juniper	5	10:1	50
Platanus racemosa	California sycamore	0	2:1	0
Populus fremontii	Fremont cottonwood	0	2:1	0
	Totals	35	N/A	110

Table 15. Summary of Individual Species Estimated Replacement Quantities for the Southern Route Option

Scientific Name	Common Name	Total Protected Removals	Replacement Ratio	Total Replacement Required
Fraxinus velutina	velvet ash	1	2:1	2
Juglans californica	Southern California black walnut	1	2:1	2
Juniperus californica	California juniper	45	2:1	90
Juniperus californica (heritage tree)	California juniper	7	10:1	70
Platanus racemosa	California sycamore	0	2:1	0
Populus fremontii	Fremont cottonwood	0	2:1	0
	Totals	~~55~~54	N/A	~~166~~164

It should be noted that mitigation can include the protection of undersized, naturally sprouted trees of the same species growing on site. In addition, per the County Code, the County may require additional mitigation and monitoring requirements following review of the SEA CUPs. At a minimum, the County requires that the replacement trees need to be nurtured and maintained in a healthy condition and be monitored for a period of 7 years. If any of the replacement plantings fail during the monitoring period of 7 years, the applicant would be responsible for replanting and nurturing those new trees.

The final number of impacts and subsequent mitigation will be based upon final project design. As a result, the total number of impacted trees is expected to be lower depending on the selected gen-tie route. The impact figures presented in this report represent a maximum potential impact, and actual impacts are expected to be reduced.

7 Tree Protection

~~Of~~If the Northern gen-tie route is selected, up to 35 of the 1,078 Protected Trees within the Survey Area (Protected non-heritage trees and heritage trees~~), up to 55~~) would require removal to accommodate the proposed project. ~~As such, it is recommended that the~~The remaining 1,013 Protected Trees, along with up to ~~10~~12 Protected Trees subject to encroachment, shall be protected in place to avoid further impacts.

If the Southern gen-tie route is selected, up to 54 of the 1,078 Protected Trees within the Survey Area (Protected non-heritage trees and heritage trees) would need to be removed to accommodate the proposed project. Accordingly, the remaining 1,015 Protected Trees, in addition to the nine Protected Trees subject to encroachment, shall be safeguarded from ~~damage during construction in accordance with the tree~~ project related impacts.

Tree protection standards to safeguard all Protected Trees not subject to removal are found in Appendix E, Tree Protection Measures.

An additional 113 trees found within the Survey Area have been identified as dead; these are not considered Protected and therefore do not require tree protection measures.

INTENTIONALLY LEFT BLANK

8 Conclusion

A total of 1,191 trees were found within the Survey Area, 1,078 of which are classified as Protected. The Protected Trees include 1,~~005~~004 Protected non-heritage trees and ~~73~~74 heritage trees. The remaining 113 trees are dead and are not considered Protected or require mitigation for removal.

~~Up to 69~~If the Northern gen-tie route option is selected, up to 47 trees could be directly impacted, with up to ~~11~~13 encroachments (1 heritage tree, ~~9~~11 Protected non-heritage trees, and 1 non-Protected Tree) and ~~58~~36 removals (~~7~~5 heritage trees, ~~48~~30 Protected non-heritage trees, and ~~3~~1 non-Protected ~~Trees~~Tree). Mitigation will be necessary for the removal of up to ~~55~~35 Protected Trees (~~7~~5 heritage and ~~48~~30 Protected non-heritage) and will require replacement using seedlings of the same species, at a ratio of 2:1 for Protected non-heritage trees and 10:1 for heritage trees. Based on these requirements, up to ~~166~~110 mitigation trees may be needed to satisfy County standards. The remaining 1,013 Protected Trees, along with up to 12 Protected Trees subject to encroachment, shall be protected in place to avoid further impacts.

~~Of the remaining 1,023 Protected Trees, 1,013 preserved trees and up to 10 encroached upon trees~~If the Southern gen-tie route option is selected, up to 67 trees could be directly impacted, with up to 10 encroachments (1 heritage trees, 8 Protected non-heritage trees, and 1 non-Protected Tree) and 57 removals (7 heritage trees, 47 Protected non-heritage trees, and 3 non-Protected Trees). Mitigation will be necessary for the removal of up to 54 Protected Trees (7 heritage and 47 Protected non-heritage) and will require replacement using seedlings of the same species, at a ratio of 2:1 for Protected non-heritage trees and 10:1 for heritage trees. Based on these requirements, up to 164 mitigation trees may be needed to satisfy County standards. The remaining 1,015 Protected Trees, in addition to the nine Protected Trees subject to encroachment, shall be safeguarded from project related impacts.

All Protected Trees not subject to removal located throughout the Survey Area will be safeguarded from damage during construction in accordance with the tree protection standards found in Appendix E Tree Protection Measures.

As previously noted, ~~this impact evaluation includes~~ both the Northern and Southern gen-tie ~~route options~~routes are under consideration, although only one will ultimately be selected. ~~Consequently, the total number of impacted trees is expected~~Impact evaluations have therefore been prepared for each alignment to ~~be lower depending on~~illustrate the ~~chosen gen tie route~~potential effects associated with both options. In addition, field adjustments during implementation are likely to further reduce impacts to Protected Trees. The impact figures presented in this report represent a maximum potential impact for each route option, and actual impacts ~~are expected to~~may be lower.

INTENTIONALLY LEFT BLANK

9 Arborist's Disclosure

This report provides conclusions and recommendations based only on a visual examination of the trees and surrounding site by an International Society of Arboriculture Certified Arborist and reasonable reliance upon the completeness and accuracy of the information provided to the arborist. The examination did not include subterranean or internal examination of the trees.

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near them. Although trees provide many benefits to those who live near them, they also include inherent risks from breakage or failure that can be minimized but not eliminated.

Arborists cannot detect every condition that could possibly lead to the failure of a tree. Trees are living organisms subject to attack by disease, insects, fungi, weather, and other forces of nature, and conditions that lead to failure are often hidden within trees and below ground. There are some inherent risks with trees that cannot be predicted with any degree of certainty, even by a skilled and experienced arborist. Arborists cannot predict acts of nature that can cause even an apparently healthy tree to fail, including storms of sufficient strength. Additionally, arborists cannot guarantee that a tree will be healthy or safe under all circumstances or for any specific period of time. A tree's condition could change over a short or long period of time due to climatic, cultural, or environmental conditions. Further, there is no guarantee or certainty that recommendations or efforts to correct unsafe conditions will prevent future breakage or failure of a tree.

To live or work near trees is to accept some degree of risk. Neither the author of this report nor Dudek have assumed any responsibility for, nor will either of them be liable for, any claims, losses, or damages for damage to any tree, death or injury to any person, or any loss of or damage to any personal or real property.

INTENTIONALLY LEFT BLANK

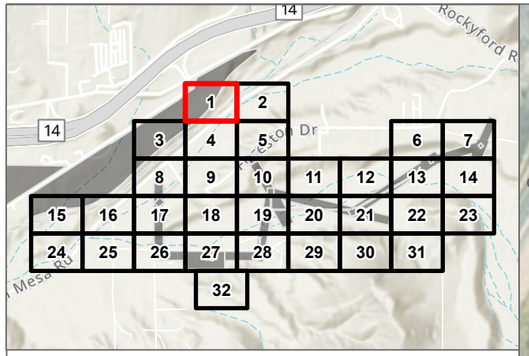
10 References Cited

CTLA (Council of Tree and Landscape Appraisers). 2020. Guide for Plant Appraisal. 10th Edition, Revised (digital edition). Council of Tree and Landscape Appraisers.

Los Angeles County Regional Planning. 2020. *Significant Ecological Areas (SEA) Ordinance Implementation Guide*. January 16, 2020. LA County SEA Program. Accessed November 9, 2023. https://planning.lacounty.gov/wp-content/uploads/2022/11/SEA-IG-6-30-20_Full.pdf.

INTENTIONALLY LEFT BLANK

Appendix A
Tree Locations



Tree Species

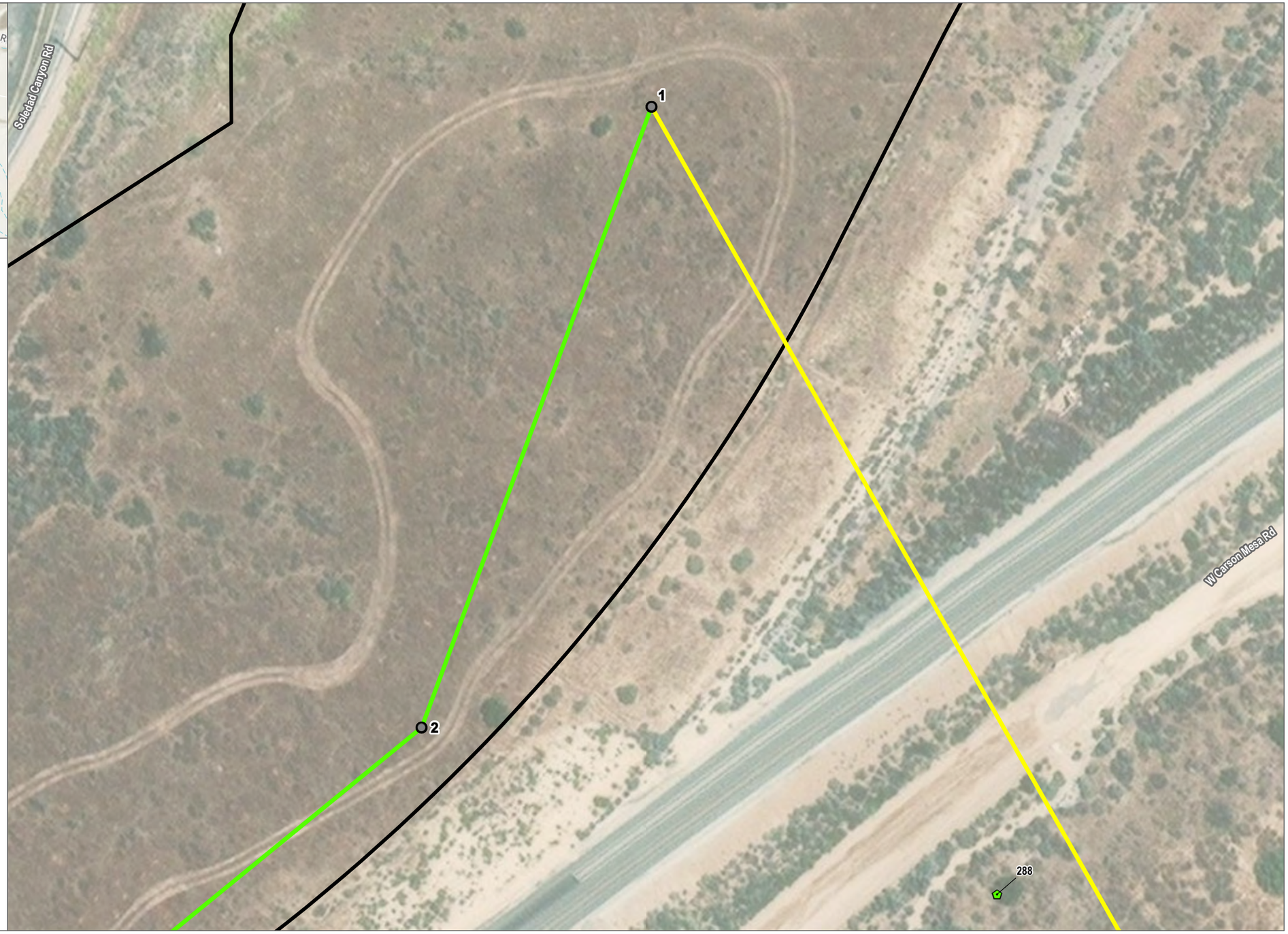
- California Juniper

Project Components

- Proposed BESS Facility Site
- Transmission Pole

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

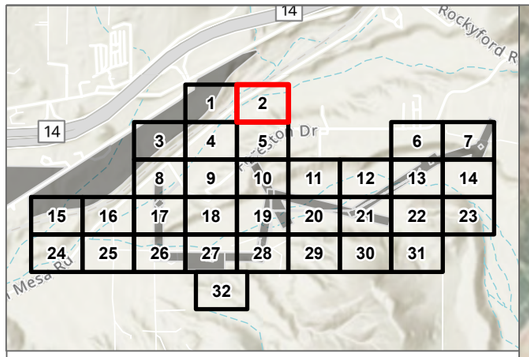
DUDEK

0 30 60 Feet

APPENDIX A1

Tree Location

Prairie Song Reliability Project



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

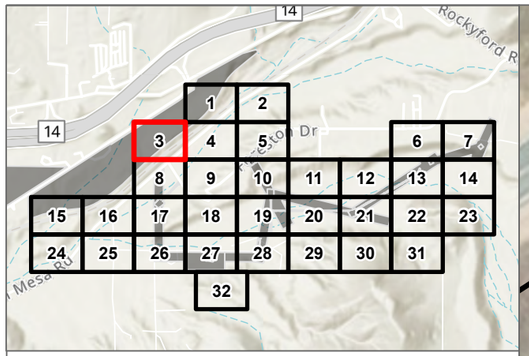
DUDEK

0 30 60 Feet

APPENDIX A2

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Proposed BESS Facility Site
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

0 30 60 Feet

APPENDIX A3

Tree Location

Prairie Song Reliability Project

Tree Species

- California Juniper

Project Components

- Proposed BESS Facility Site

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

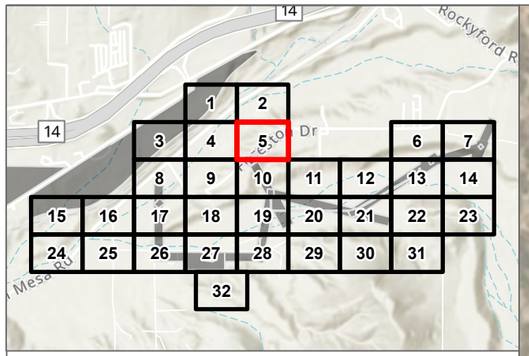
DUDEK

0 30 60 Feet

APPENDIX A4

Tree Location

Prairie Song Reliability Project



Tree Species

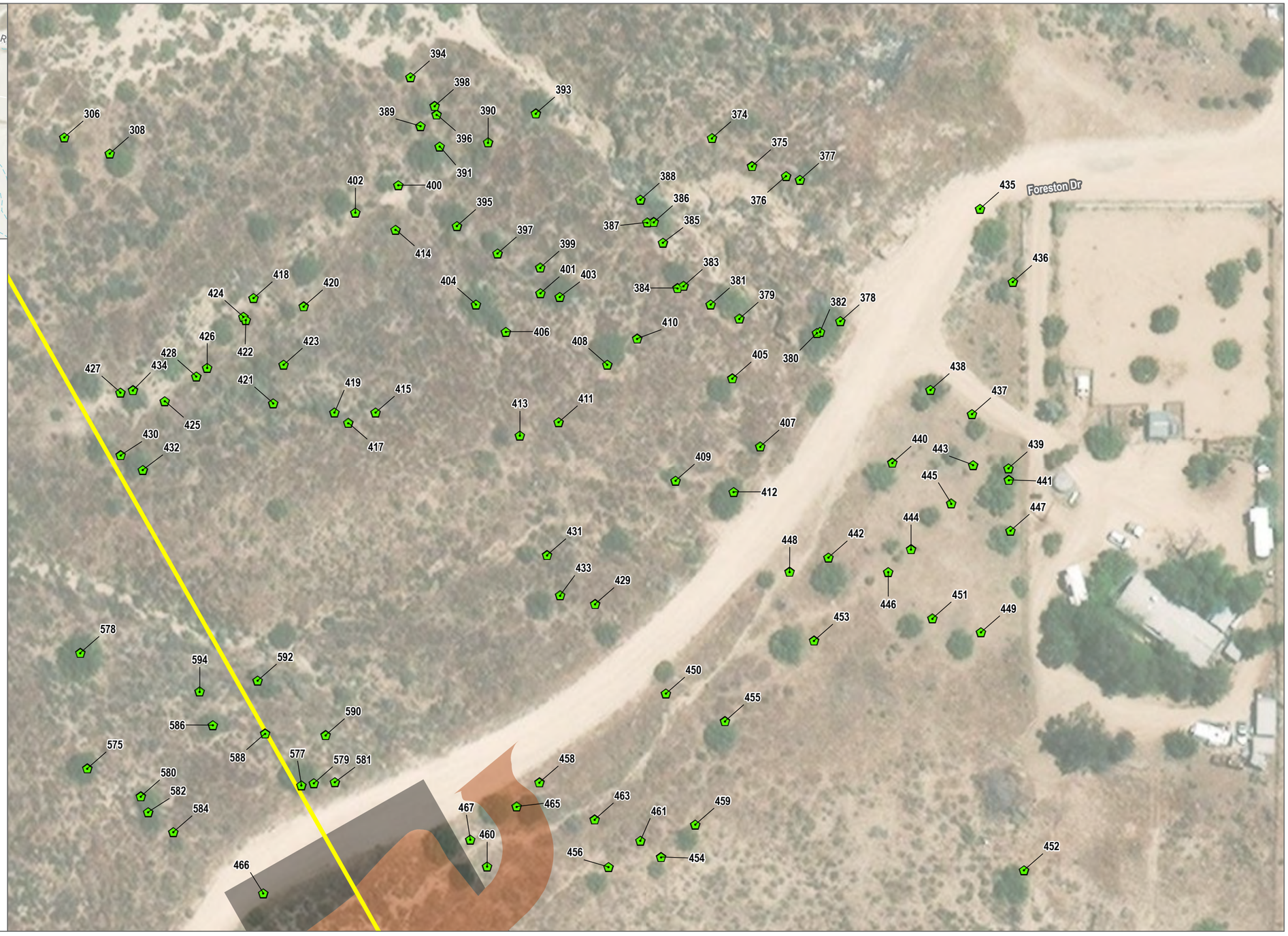
- California Juniper

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Gen-Tie Route Options

- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

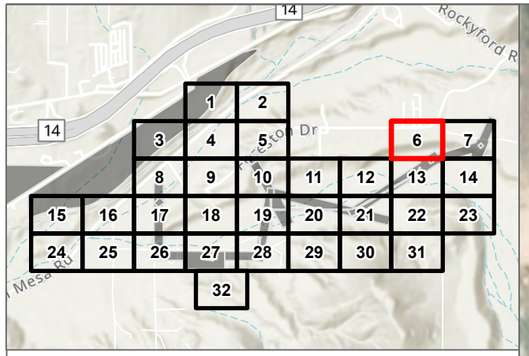
DUDEK

0 30 60 Feet

APPENDIX A5

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

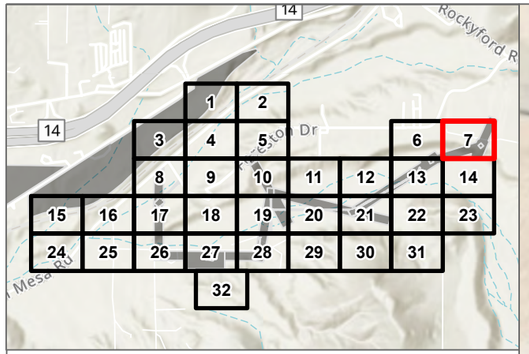
N

0 30 60 Feet

APPENDIX A6

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole (SCE)

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

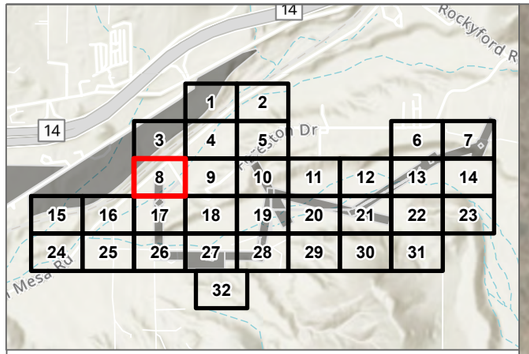
N

0 30 60 Feet

APPENDIX A7

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Proposed BESS Facility Site
- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option

W Carson Mesa Rd

Foreston Dr

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

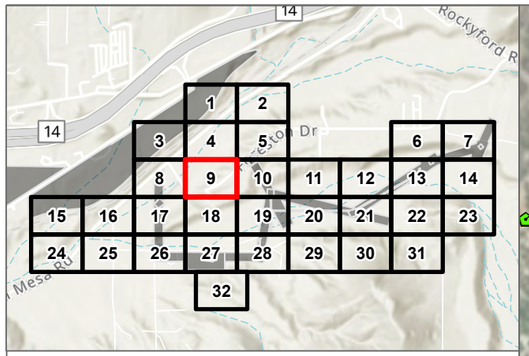
DUDEK

0 30 60 Feet

APPENDIX A8

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

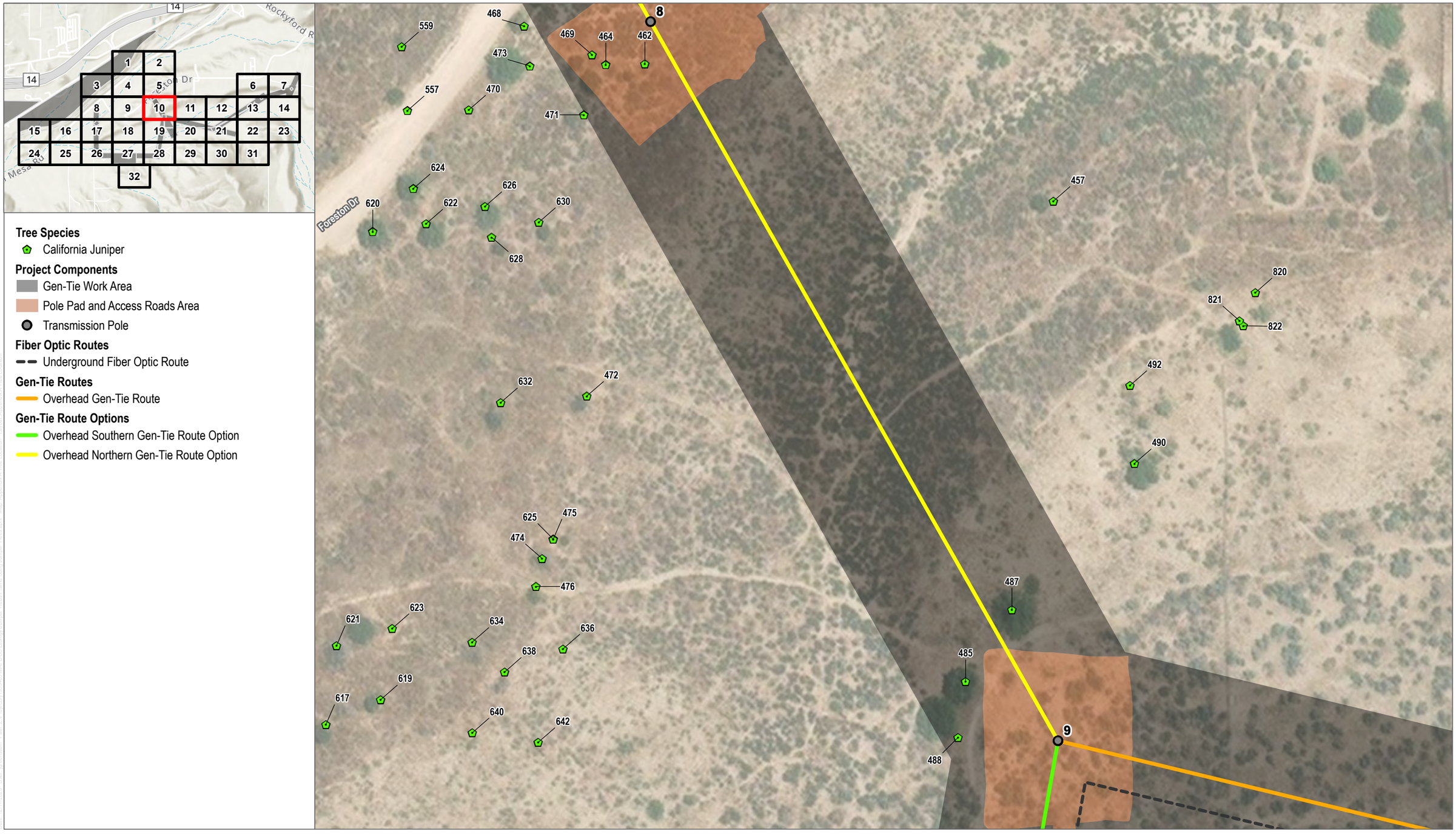
DUDEK

0 30 60 Feet

APPENDIX A9

Tree Location

Prairie Song Reliability Project



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

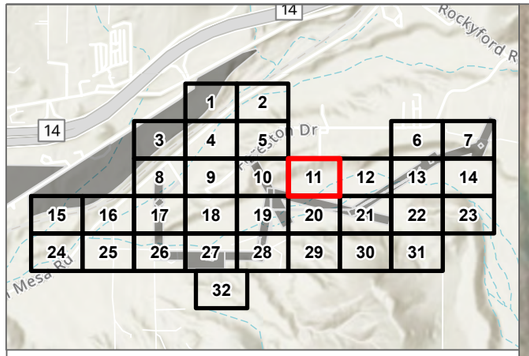
DUDEK

0 30 60 Feet

APPENDIX A10

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Gen-Tie Work Area

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

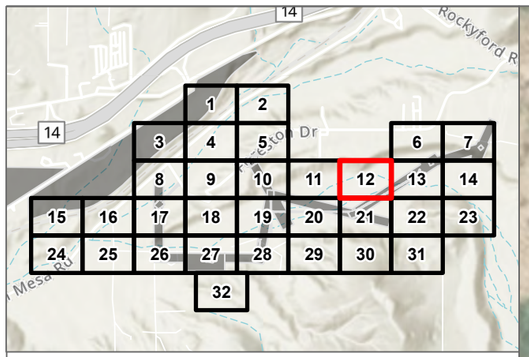
N

0 30 60 Feet

APPENDIX A11

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

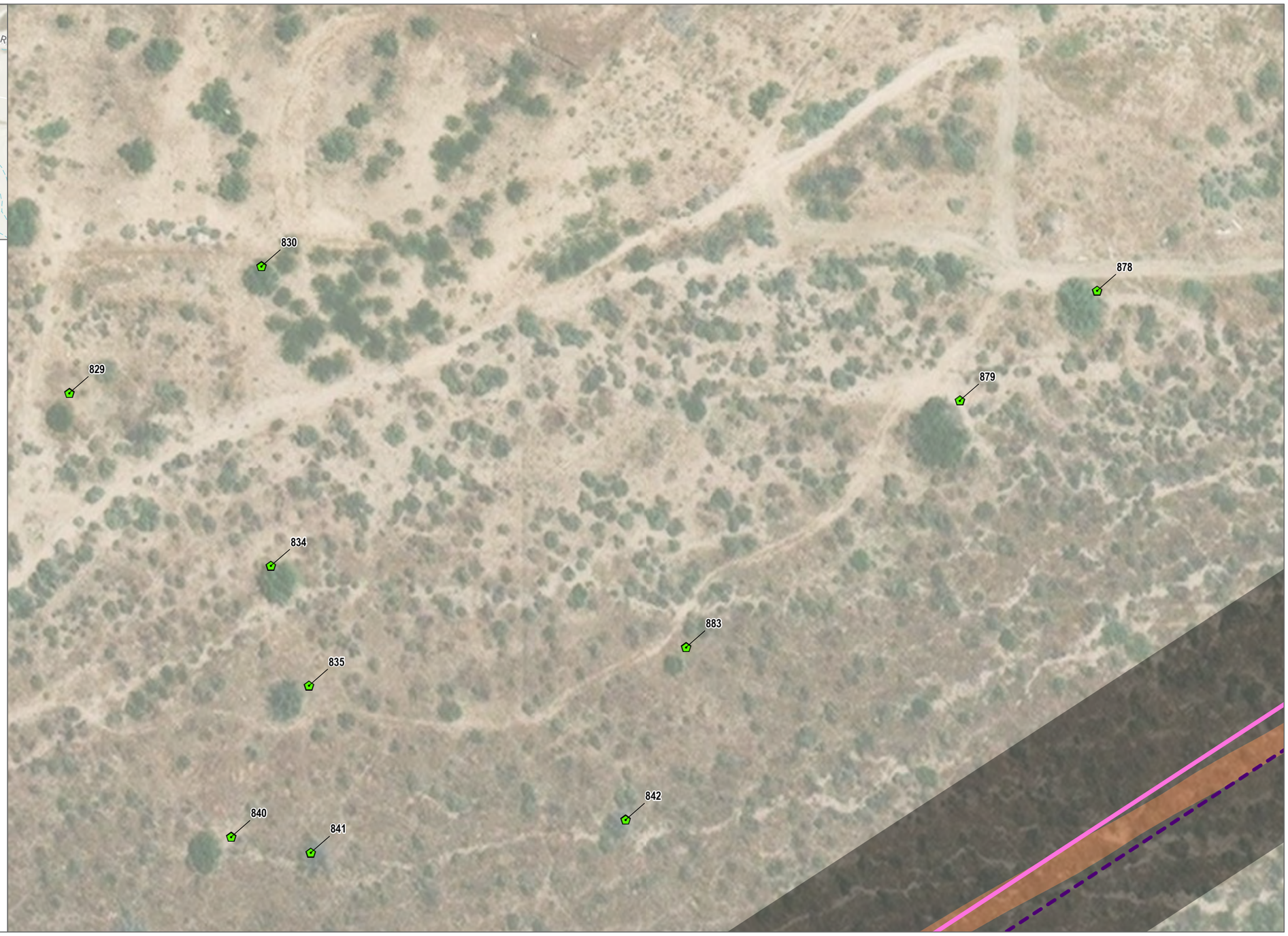
- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

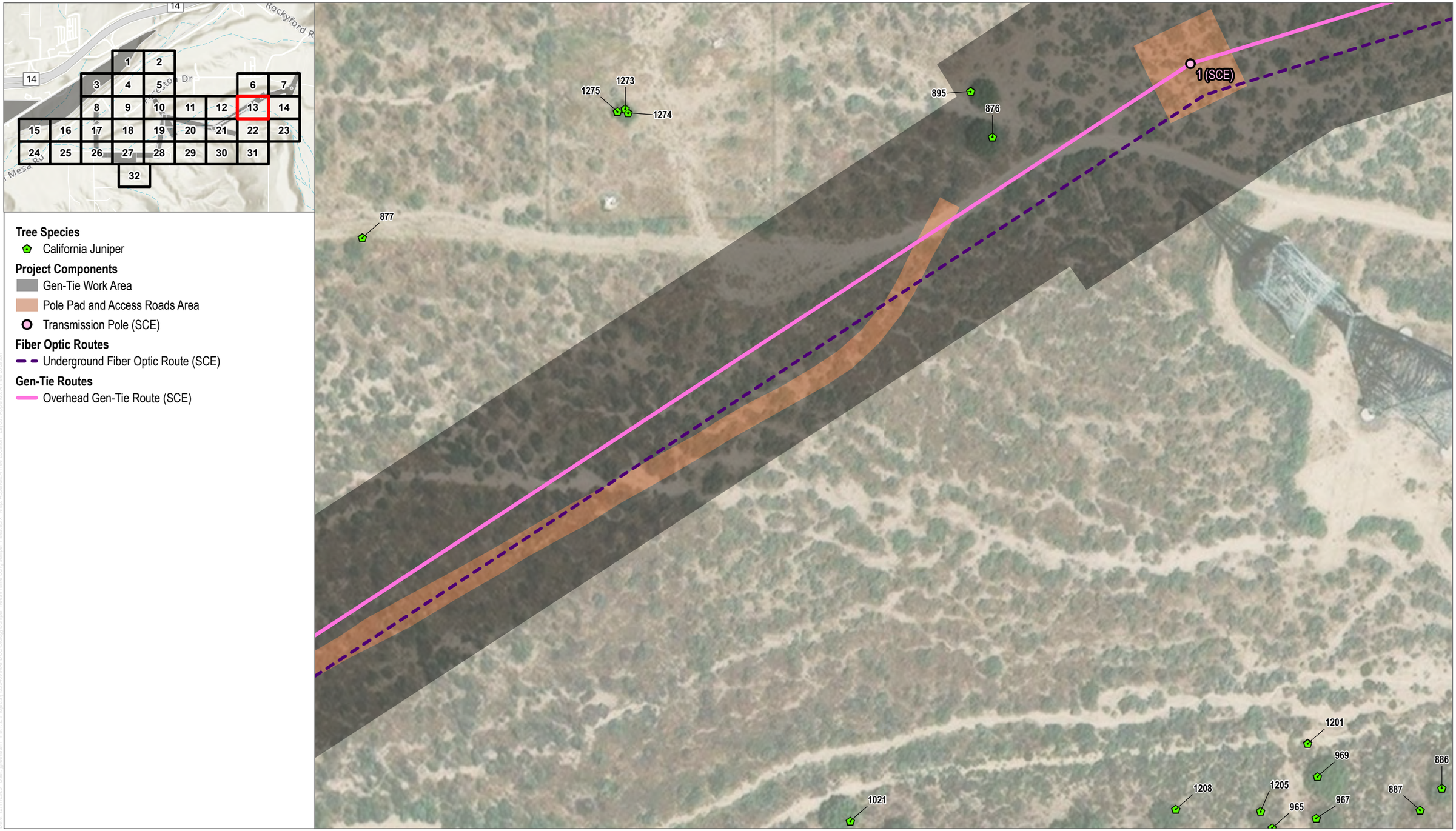
N

0 30 60 Feet

APPENDIX A12

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole (SCE)

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

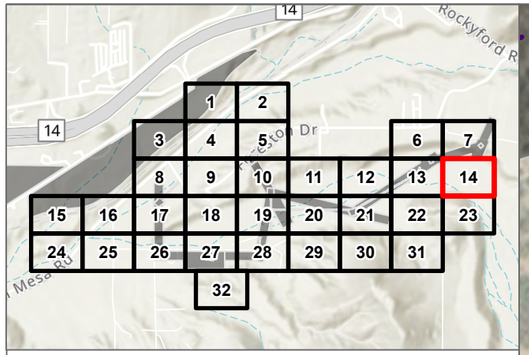
DUDEK

0 30 60 Feet

APPENDIX A13

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Gen-Tie Work Area

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)

1314
1313
1312
1311
1310
884
885
886
888

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

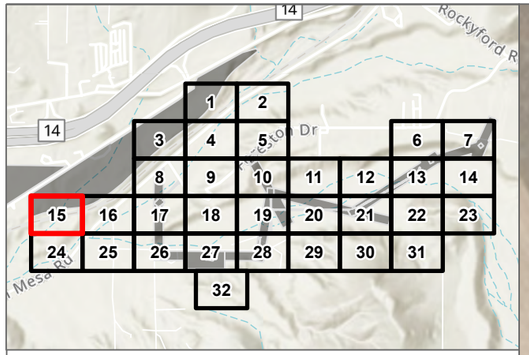
DUDEK

0 30 60 Feet

APPENDIX A14

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Proposed BESS Facility Site

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

0 30 60 Feet

APPENDIX A15

Tree Location

Prairie Song Reliability Project

Tree Species

- California Juniper

Project Components

- Proposed BESS Facility Site

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

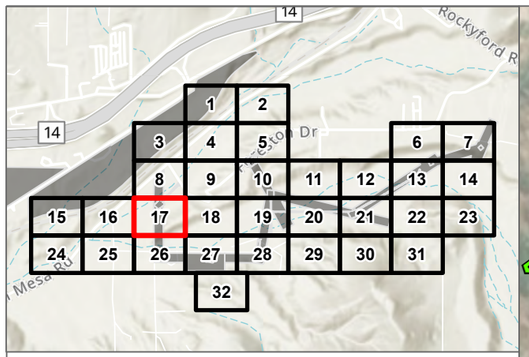
DUDEK

0 30 60 Feet

APPENDIX A16

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

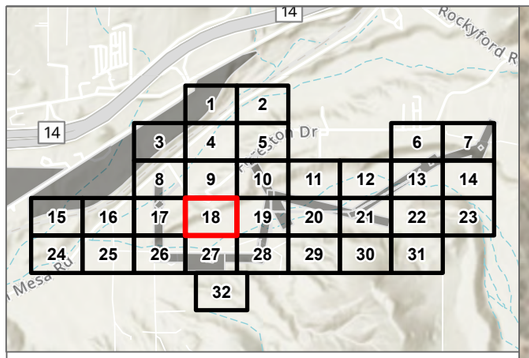
DUDEK

0 30 60 Feet

APPENDIX A17

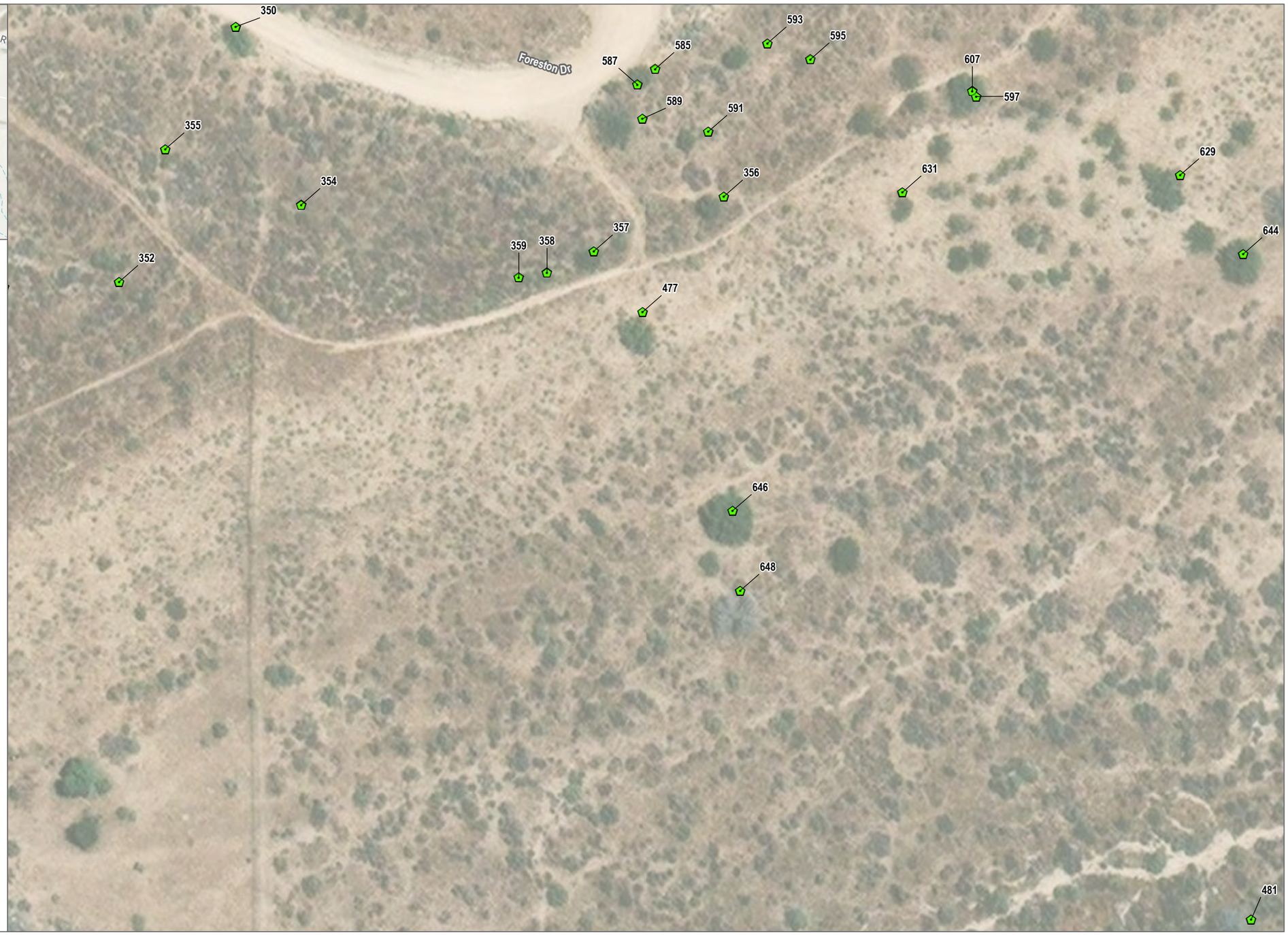
Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

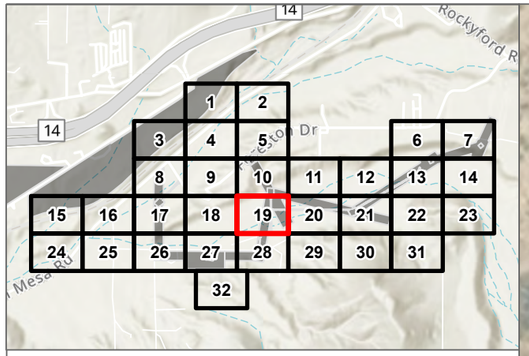
DUDEK

0 30 60 Feet

APPENDIX A18

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Routes

- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option

627
496
498
491
486
489
494
493
800
495
497
484
483

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

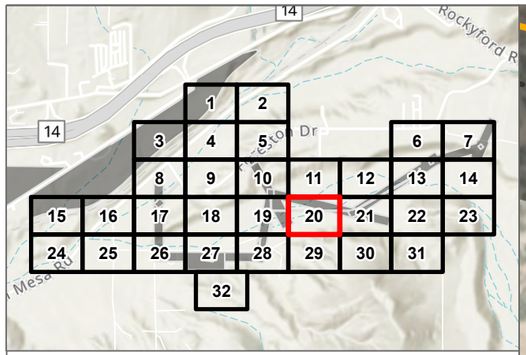
N

0 30 60 Feet

APPENDIX A19

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Routes

- Overhead Gen-Tie Route

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

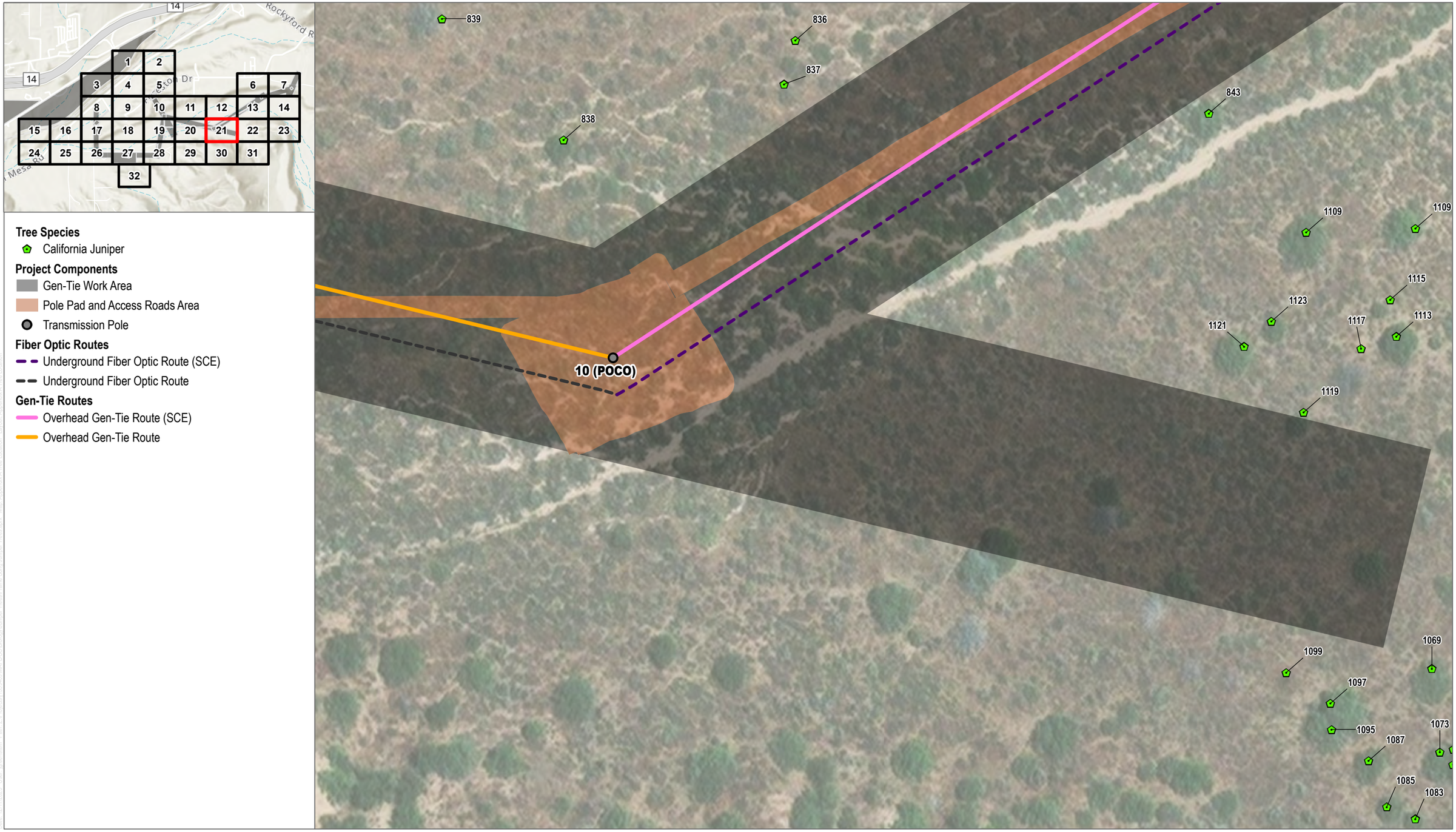
DUDEK

0 30 60 Feet

APPENDIX A20

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)
- Underground Fiber Optic Route

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

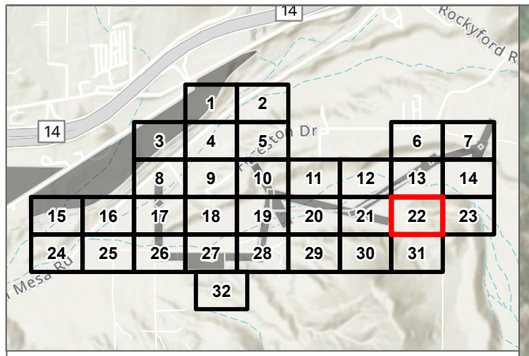
DUDEK

0 30 60 Feet

APPENDIX A21

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

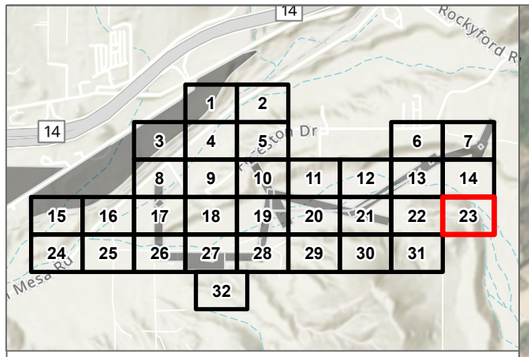
DUDEK

0 30 60 Feet

APPENDIX A22

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

0 30 60 Feet

APPENDIX A23

Tree Location

Prairie Song Reliability Project

Tree Species

- California Juniper

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

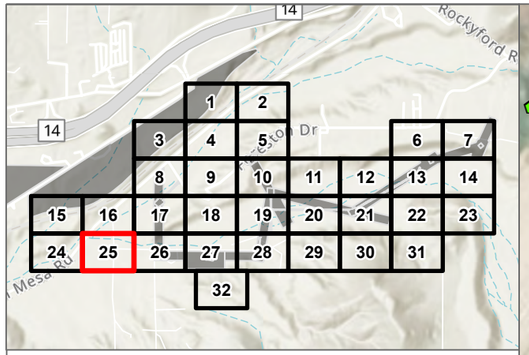
DUDEK

0 30 60 Feet

APPENDIX A24

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

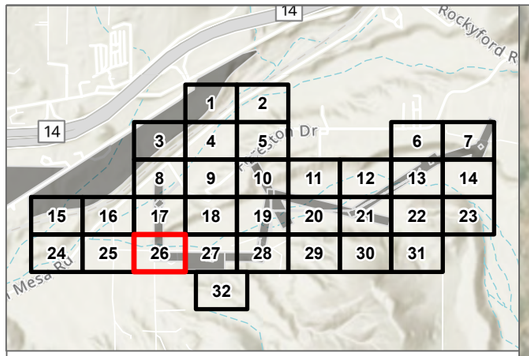
DUDEK

0 30 60 Feet

APPENDIX A25

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper
- California Sycamore
- Fremont Cottonwood
- Southern California Black Walnut
- Velvet Ash

Project Components

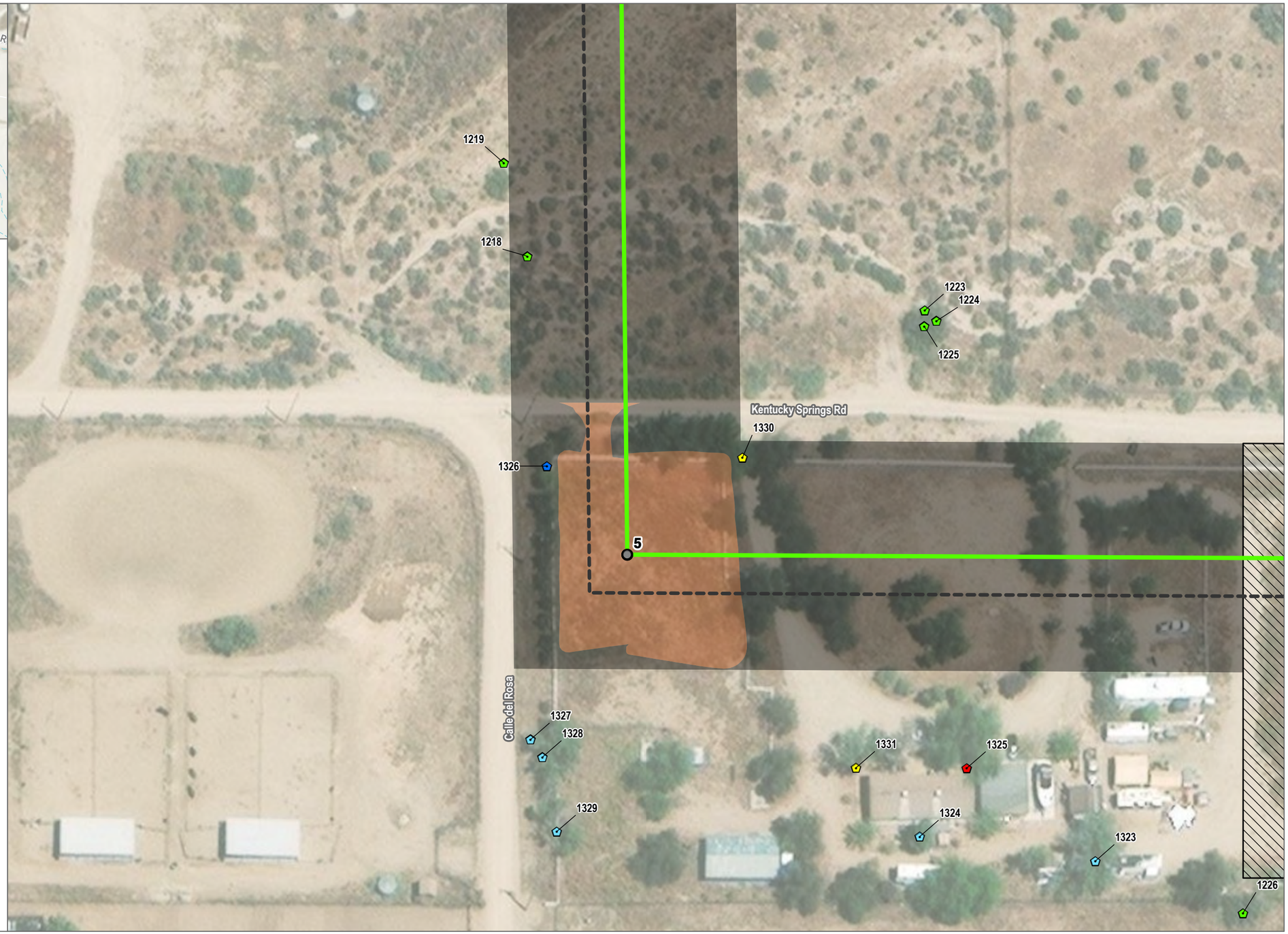
- Construction Laydown Area
- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

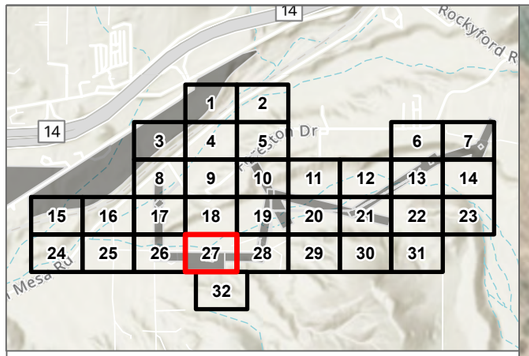
N

0 30 60 Feet

APPENDIX A26

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

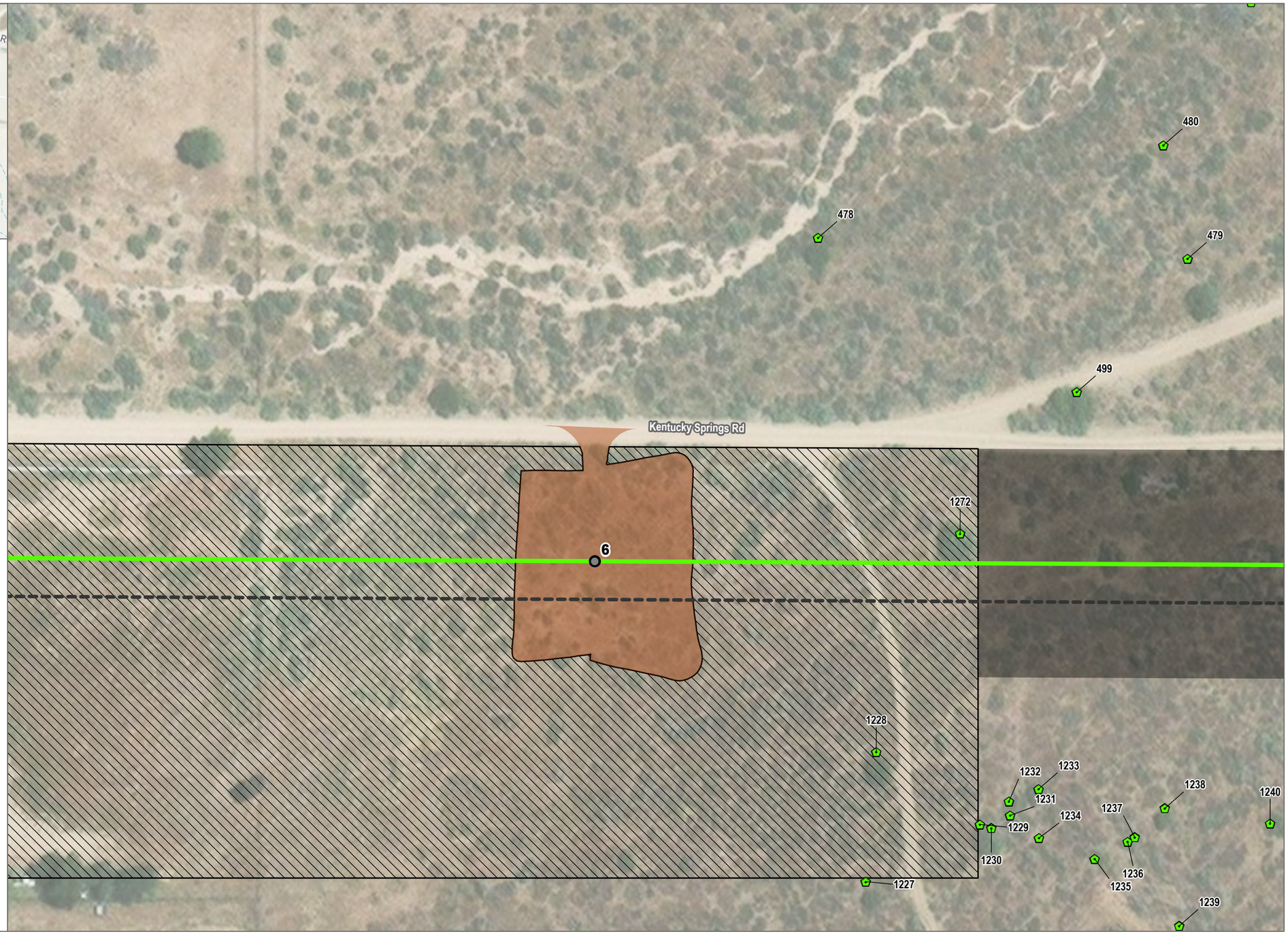
- Construction Laydown Area
- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

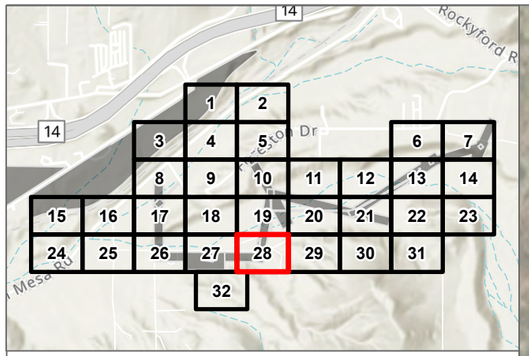
DUDEK

0 30 60 Feet

APPENDIX A27

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

Project Components

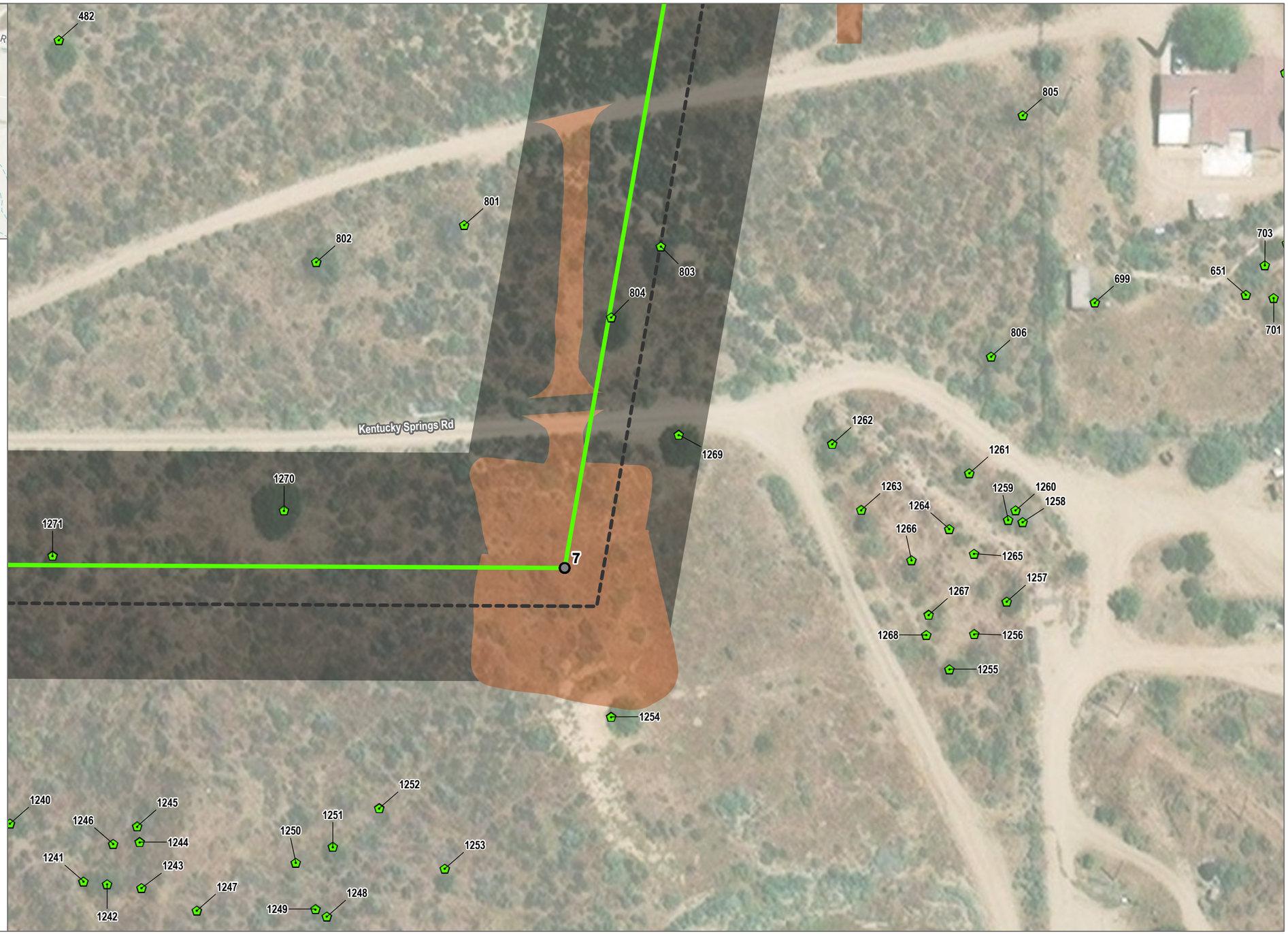
- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

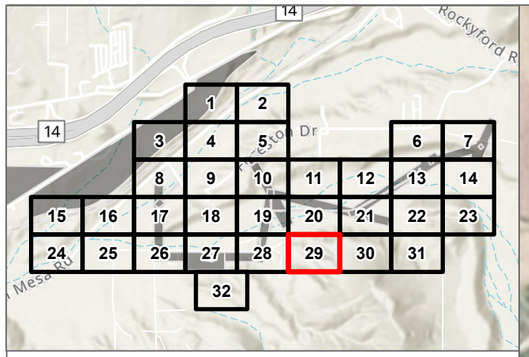
DUDEK

0 30 60 Feet

APPENDIX A28

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

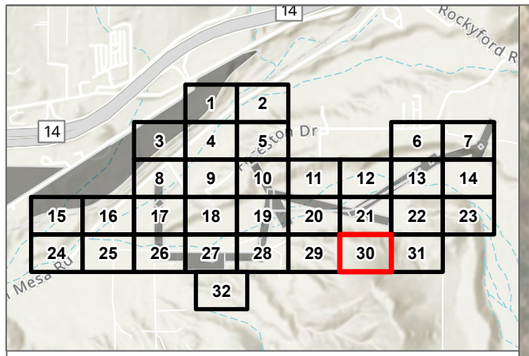
DUDEK

0 30 60 Feet

APPENDIX A29

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

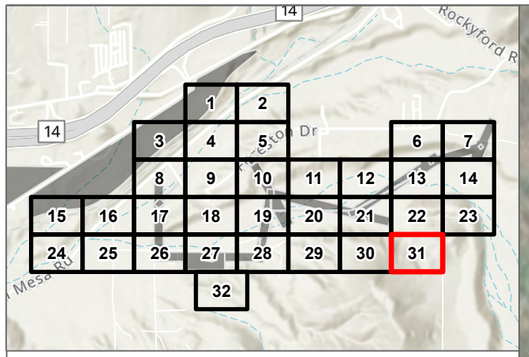
DUDEK

0 30 60 Feet

APPENDIX A30

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

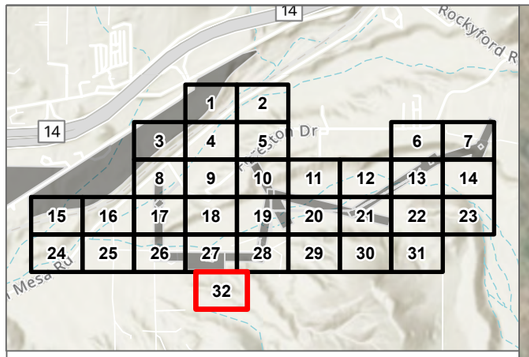
DUDEK

0 30 60 Feet

APPENDIX A31

Tree Location

Prairie Song Reliability Project



Tree Species

- California Juniper

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

N

0 30 60 Feet

APPENDIX A32

Tree Location

Prairie Song Reliability Project

Appendix B

SEA Protected Tree List

APPENDIX A: SEA PROTECTED TREE LIST

** indicates species is listed as a rare plant by California Native Plant Society*

ALTADENA FOOTHILLS & ARROYOS SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Abies concolor	white fir	5”	7”	30”	47”
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arbutus menziesii	Pacific madrone	6”	8”	36”	56”
Arctostaphylos glandulosa (all subspecies)	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus coulteri	Coulter pine	5”	7”	30”	47”
Pinus jeffreyi	Jeffrey pine	5”	7”	30”	47”
Pinus lambertiana	sugar pine	5”	7”	30”	47”
Pinus ponderosa	ponderosa pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus durata var. *gabrielensis**	San Gabriel Mtns. leather oak	3”	4”	18”	28”
*Quercus engelmannii**	Engelmann oak	3”	4”	18”	28”
Quercus wislizeni	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

ANTELOPE VALLEY SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Abies concolor	white fir	5”	7”	30”	47”
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Adenostoma sparsifolium	red shank	6”	8”	36”	56”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa (all subspecies)	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Cercocarpus ledifolius	curl leaf/desert mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Juniperus grandis	Sierra juniper	5”	7”	30”	47”
Juniperus osteosperma	Utah juniper	5”	7”	30”	47”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus coulteri	Coulter pine	5”	7”	30”	47”
Pinus flexilis	limber pine	5”	7”	30”	47”
Pinus jeffreyi	Jeffrey pine	5”	7”	30”	47”
Pinus lambertiana	sugar pine	5”	7”	30”	47”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Pinus monophylla	pinyon pine	5”	7”	30”	47”
Pinus ponderosa	ponderosa pine	5”	7”	30”	47”
Pinus sabiniana	foothill pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prosopis glandulosa	honey mesquite	6”	8”	36”	56”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus cornelius-mulleri	Muller’s oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus kelloggii	California black oak	6”	8”	36”	56”
Quercus palmeri	Palmer’s oak	6”	8”	36”	56”
Quercus wislizeni var. *frutescens*	interior live oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”
Yucca brevifolia	Joshua tree	All specimens	NA	20’ tall	NA

CRUZAN MESA VERNAL POOLS SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Arctostaphylos glandulosa (all subspecies)	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”

EAST SAN GABRIEL VALLEY SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Ceanothus crassifolius	hoaryleaf ceanothus	6”	8”	36”	56”
Ceanothus megacarpus	big-pod ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus durata var. *gabrielensis**	San Gabriel Mtns. leather oak	3”	4”	18”	28”
*Quercus engelmannii**	Engelmann oak	3”	4”	18”	28”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

HARBOR LAKE REGIONAL PARK SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

JOSHUA TREE WOODLANDS SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Aesculus californica	California buckeye	6”	8”	36”	56”
Cercocarpus ledifolius	curl-leaf mountain-mahogany	6”	8”	36”	56”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
*Hesperocyparis nevadensis**	Piute cypress	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Pinus sabiniana	foothill pine	5”	7”	30”	47”
Prosopis glandulosa	honey mesquite	6”	8”	36”	56”
Yucca brevifolia	Joshua tree	All specimens	NA	20’ tall	NA

PALOS VERDE PENINSULA AND COASTLINE SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Prunus ilicifolia ssp. *lyonii*	Catalina Island cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

PUENTE HILLS SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Ceanothus megacarpus	big-pod ceanothus	6”	8”	36”	56”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
*Quercus engelmannii**	Engelmann oak	3”	4”	18”	28”
Quercus lobata	Valley oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

Rio Hondo College and Wildlife Sanctuary SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”

San Andreas SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Abies concolor	white fir	5”	7”	30”	47”
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Cercocarpus ledifolius	curl leaf/desert mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
*Hesperocyparis nevadensis**	Piute cypress	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus coulteri	Coulter pine	5”	7”	30”	47”
Pinus jeffreyi	Jeffrey pine	5”	7”	30”	47”
Pinus lambertiana	sugar pine	5”	7”	30”	47”
Pinus monophylla	pinyon pine	5”	7”	30”	47”
Pinus ponderosa	ponderosa pine	5”	7”	30”	47”
Pinus sabiniana	foothill pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prosopis glandulosa	honey mesquite	6”	8”	36”	56”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”
Quercus garryana	Oregon oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus kelloggii	California black oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Umbellularia californica	California bay	6”	8”	36”	56”
Yucca brevifolia	Joshua tree	All specimens	NA	20’ tall	NA

SAN DIMAS CANYON & SAN ANTONIO WASH SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Abies concolor	white fir	5”	7”	30”	47”
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Adenostoma sparsifolium	red shank	6”	8”	36”	56”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Ceanothus megacarpus	big-pod ceanothus	6”	8”	36”	56”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Cercocarpus ledifolius	curl leaf/desert mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	Toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus grandis	Sierra juniper	5”	7”	30”	47”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus coulteri	Coulter pine	5”	7”	30”	47”
Pinus jeffreyi	Jeffrey pine	5”	7”	30”	47”
Pinus lambertiana	sugar pine	5”	7”	30”	47”
Pinus ponderosa	ponderosa pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”
Quercus durata var. *gabrielensis**	San Gabriel Mtns. leather oak	3”	4”	18”	28”
*Quercus engelmannii**	Engelmann oak	3”	4”	18”	28”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

SAN GABRIEL CANYON SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Abies concolor	white fir	5”	7”	30”	47”
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arbutus menziesii	Pacific madrone	6”	8”	36”	56”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Ceanothus megacarpus	big-pod ceanothus	6”	8”	36”	56”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus coulteri	Coulter pine	5”	7”	30”	47”
Pinus jeffreyi	Jeffrey pine	5”	7”	30”	47”
Pinus lambertiana	sugar pine	5”	7”	30”	47”
Pinus ponderosa	ponderosa pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”
Quercus durata var. *gabrielensis**	San Gabriel Mtns. leather oak	3”	4”	18”	28”
*Quercus engelmannii**	Engelmann oak	3”	4”	18”	28”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

SANTA CLARA RIVER SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Adenostoma sparsifolium	red shank	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Calocedrus decurrens	incense cedar	5”	7”	30”	47”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Malosma laurina	laurel sumac	6”	8”	36”	56”
Pinus monophylla	pinyon pine	5”	7”	30”	47”
Pinus sabiniana	foothill pine	5”	7”	30”	47”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus cornelius-mulleri	desert scrub oak, Muller oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”
Quercus garryana	Oregon oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus kelloggii	California black oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus palmeri	Palmer’s oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiandra	yellow willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

SANTA FELICIA SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Aesculus californica	California buckeye	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Cercocarpus ledifolius	curl leaf/desert mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Juniperus californica	Califonia juniper	All specimens	NA	35’ canopy spread	NA
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus cornelius-mulleri	desert scrub oak, Muller oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Quercus garryana	Oregon oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus kelloggii	California black oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus ×macdonaldii	MacDonald oak	6”	8”	36”	56”
Quercus palmeri	Palmer’s oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

SANTA SUSANA MOUNTAINS & SIMI HILLS SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Acer negundo	boxelder	6”	8”	36”	56”
Adenostoma sparsifolium	red shank	6”	8”	36”	56”
Alnus rhombifolia	white alder	3”	4”	18”	28”
Arctostaphylos glandulosa	Eastwood manzanita	6”	8”	36”	56”
Arctostaphylos glauca	big berry manzanita	6”	8”	36”	56”
Ceanothus megacarpus	bigpod ceanothus	6”	8”	36”	56”
Ceanothus spinosus	greenbark ceanothus	6”	8”	36”	56”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Fraxinus dipetala	California ash	3”	4”	18”	28”
Fraxinus velutina	velvet ash, Arizona ash	3”	4”	18”	28”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
*Juglans californica**	southern California black walnut	3”	4”	18”	28”
Malosma laurina	laurel sumac	6”	8”	36”	56”
Platanus racemosa	western sycamore	3”	4”	18”	28”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Populus trichocarpa	black cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Pseudotsuga macrocarpa	bigcone spruce	5”	7”	30”	47”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus berberidifolia	inland scrub oak	6”	8”	36”	56”
Quercus chrysolepis	canyon oak	6”	8”	36”	56”
Quercus douglasii	blue oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Quercus palmeri	Palmer’s oak	6”	8”	36”	56”
Quercus wislizeni var. *wislizeni*	interior live oak	6”	8”	36”	56”
Salix exigua	narrowleaf / sandbar willow	3”	4”	18”	28”
Salix gooddingii	Goodding's black willow	3”	4”	18”	28”
Salix laevigata	red willow	3”	4”	18”	28”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”
Umbellularia californica	California bay	6”	8”	36”	56”

VALLEY OAKS SAVANNAH SEA

Scientific Name	Common Name	Protected DBH	2-trunk Protected DBH	Heritage DBH	2-trunk Heritage DBH
Acer macrophyllum	bigleaf maple	3”	4”	18”	28”
Cercocarpus betuloides	mountain mahogany	6”	8”	36”	56”
Heteromeles arbutifolia	toyon	6”	8”	36”	56”
Populus fremontii	Fremont cottonwood	3”	4”	18”	28”
Prunus ilicifolia	holly leaf cherry	3”	4”	18”	28”
Quercus agrifolia	coast live oak	6”	8”	36”	56”
Quercus john-tuckeri	Tucker oak	6”	8”	36”	56”
Quercus lobata	Valley oak	6”	8”	36”	56”
Salix lasiolepis	arroyo willow	3”	4”	18”	28”
Sambucus nigra ssp. *caerulea*	blue elderberry	6”	8”	36”	56”

Appendix C
Tree Information Matrix

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

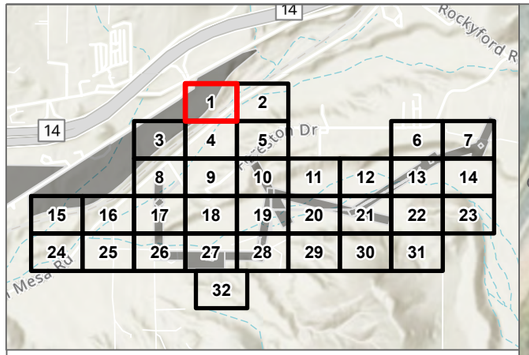
Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix C - Tree Information Matrix

| Tree No. | Common Name | Botanical Name | Stems | Individual Stem Diameters (in.) | | |

Appendix D
Tree Impacts



Tree Potential Impacts

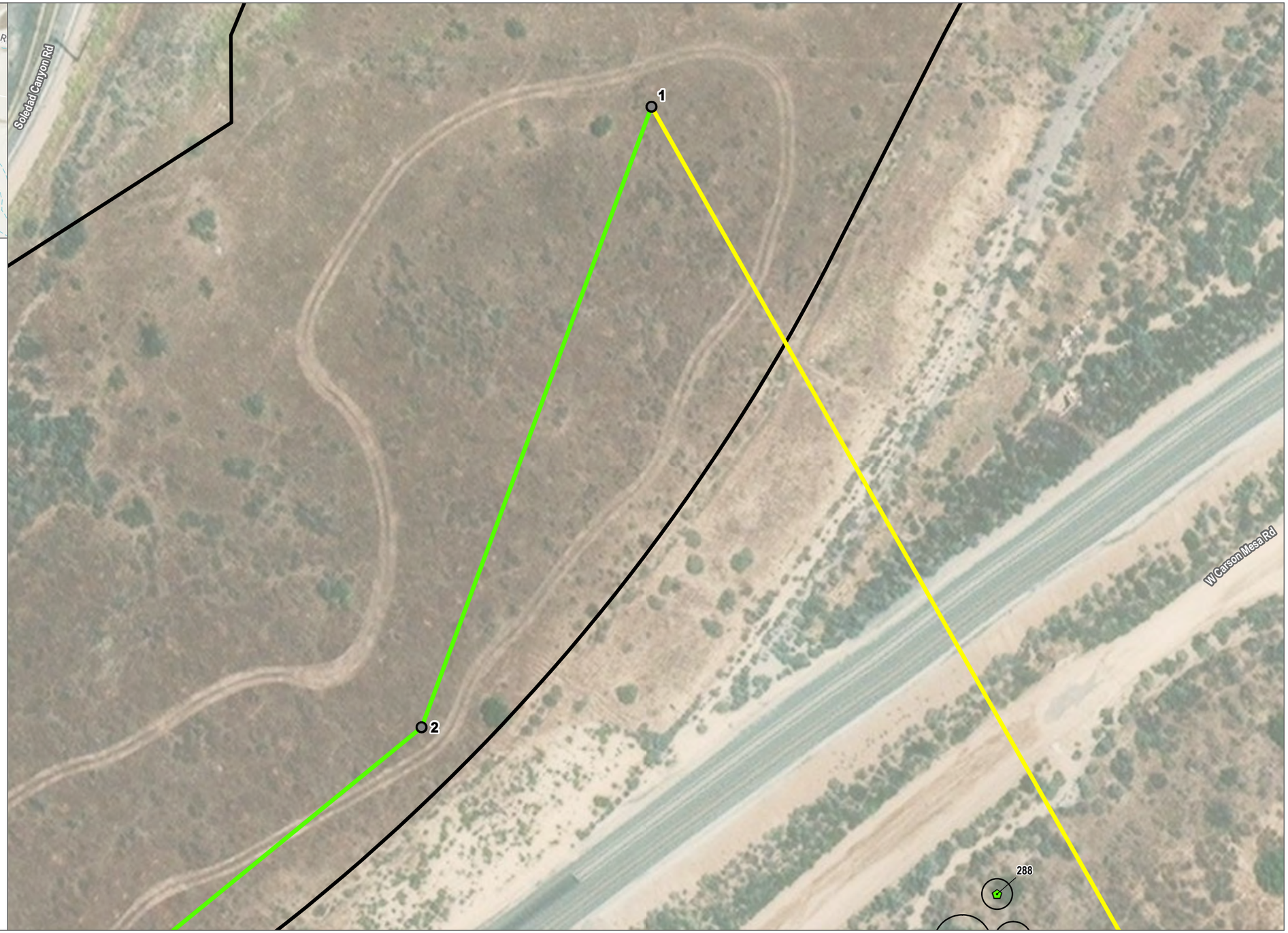
- No Impact
- Tree Protection Zone (TPZ)

Project Components

- Proposed BESS Facility Site
- Transmission Pole

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

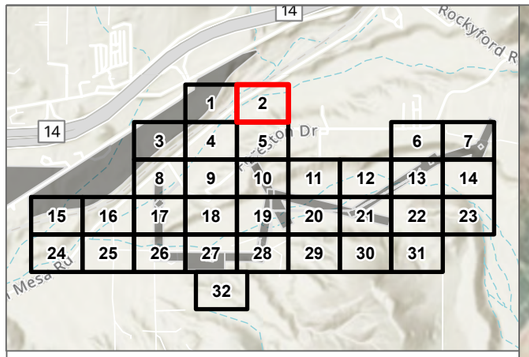
N

0 30 60 Feet

APPENDIX D1

Potential Tree Impacts

Prairie Song Reliability Project



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

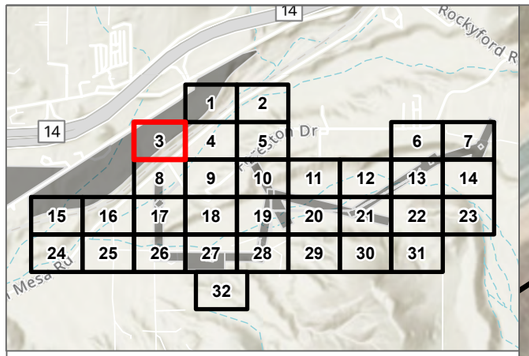
DUDEK

0 30 60 Feet

APPENDIX D2

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

Project Components

- Proposed BESS Facility Site
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

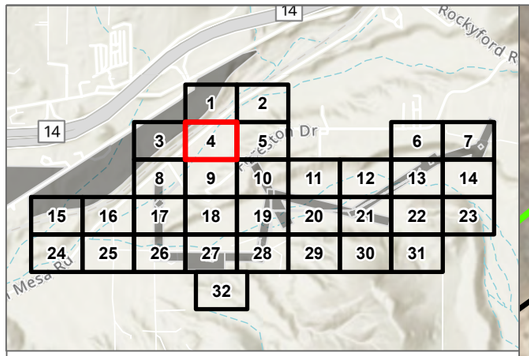
DUDEK

0 30 60 Feet

APPENDIX D3

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

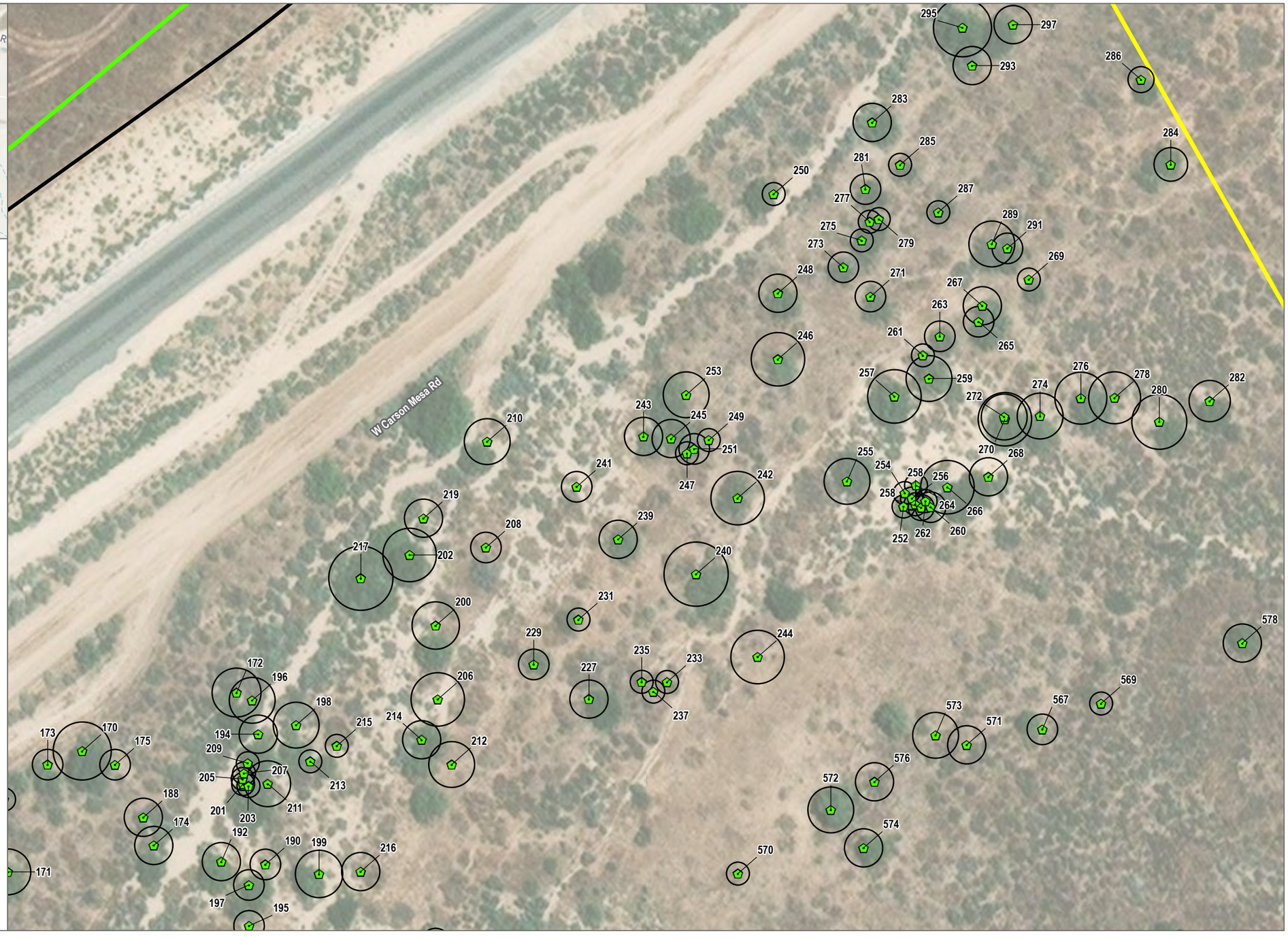
- No Impact
- Tree Protection Zone (TPZ)

Project Components

- Proposed BESS Facility Site

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

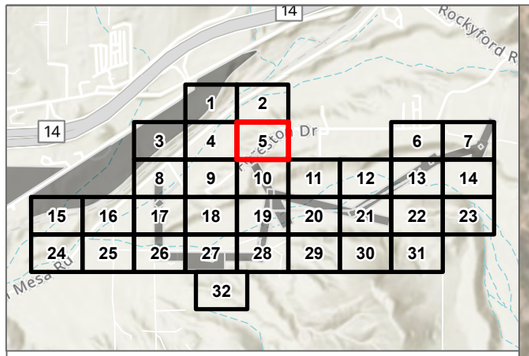
DUDEK

0 30 60 Feet

APPENDIX D4

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Encroachment
- Removal
- Tree Protection Zone (TPZ)

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Gen-Tie Route Options

- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

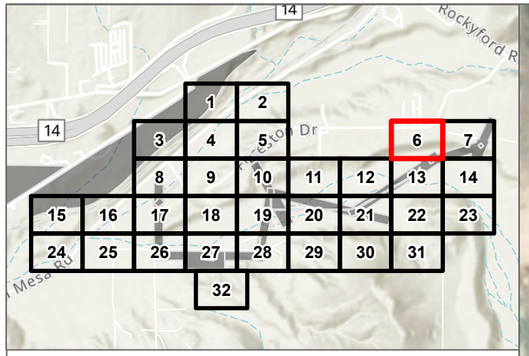
DUDEK

0 30 60 Feet

APPENDIX D5

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Removal
- Tree Protection Zone (TPZ)

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

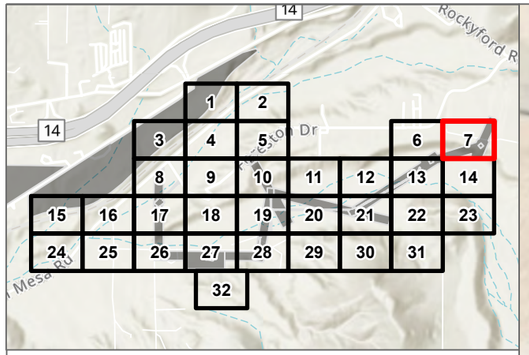
N

0 30 60 Feet

APPENDIX D6

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Encroachment
- Removal
- Tree Protection Zone (TPZ)

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole (SCE)

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

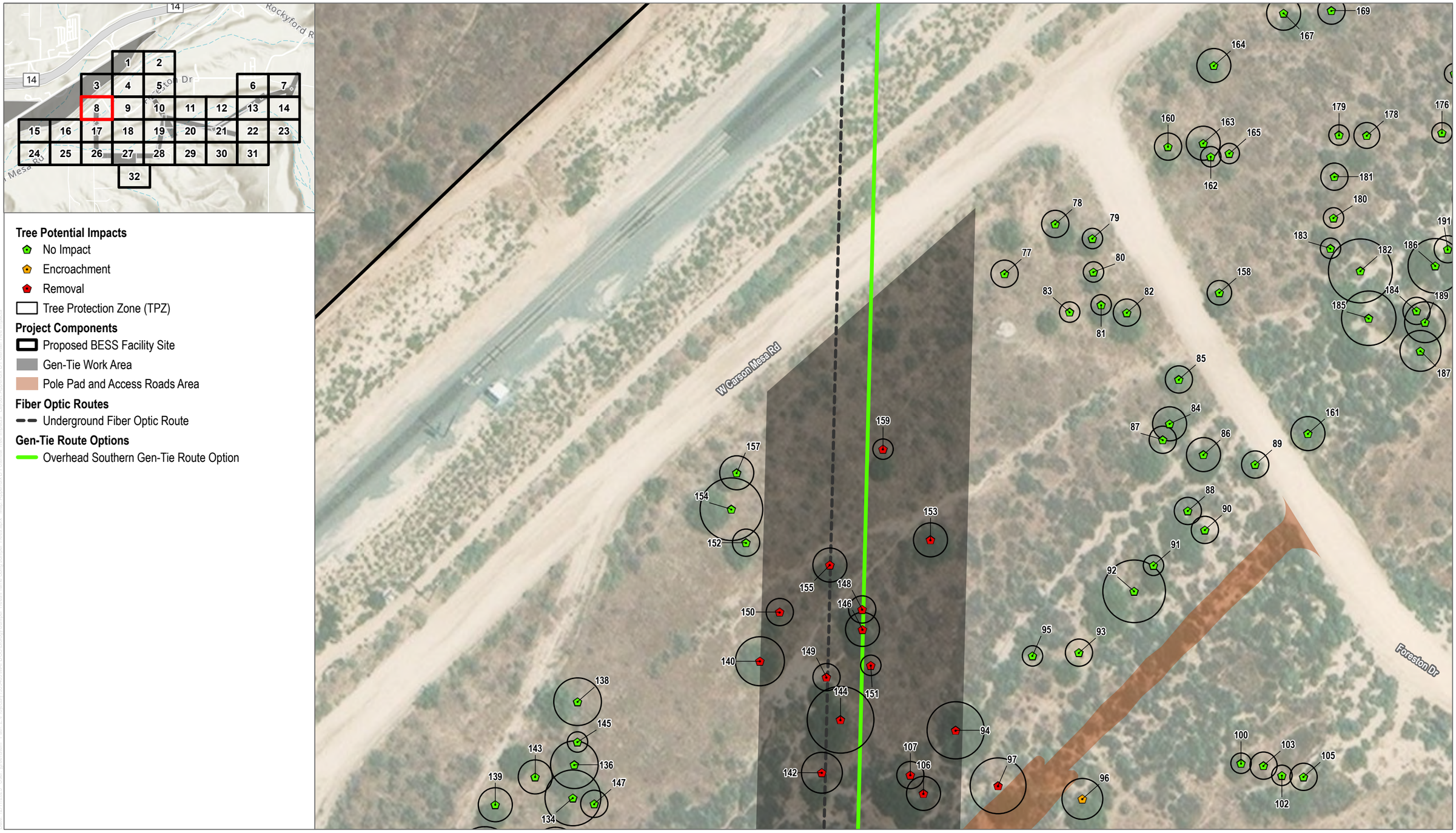
N

0 30 60 Feet

APPENDIX D7

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Encroachment
- Removal
- Tree Protection Zone (TPZ)

Project Components

- Proposed BESS Facility Site
- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

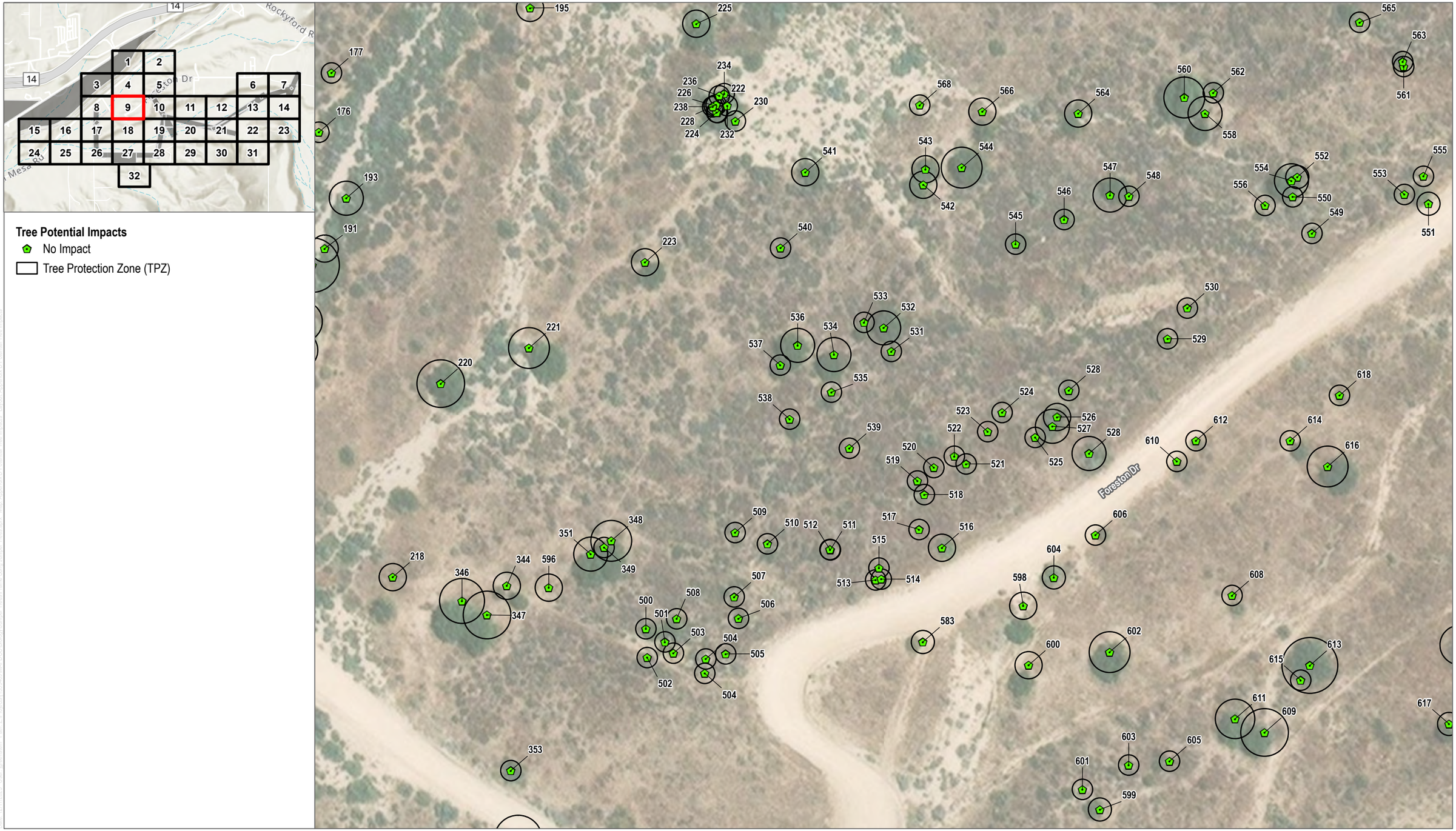
DUDEK

0 30 60 Feet

APPENDIX D8

Potential Tree Impacts

Prairie Song Reliability Project



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

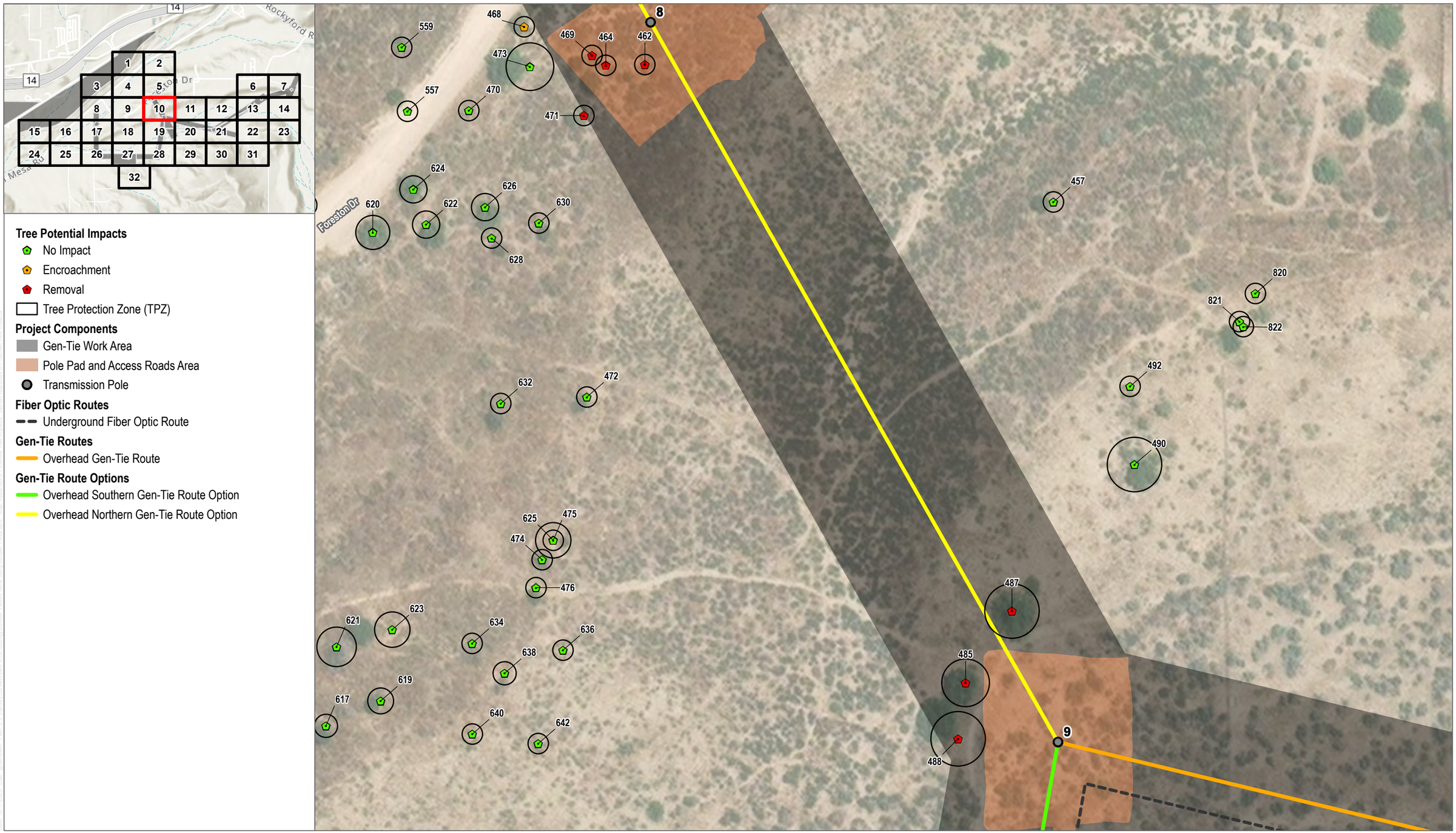
DUDEK

0 30 60 Feet

APPENDIX D9

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts
- No Impact
- Encroachment
- Removal
- Tree Protection Zone (TPZ)

Project Components
- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes
- Underground Fiber Optic Route

Gen-Tie Routes
- Overhead Gen-Tie Route

Gen-Tie Route Options
- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

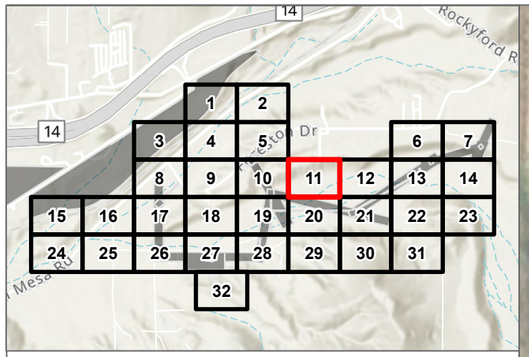
DUDEK

0 30 60 Feet

APPENDIX D10

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

Project Components

- Gen-Tie Work Area

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

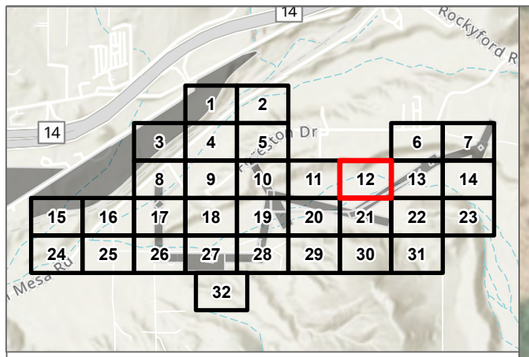
DUDEK

0 30 60 Feet

APPENDIX D11

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

Project Components

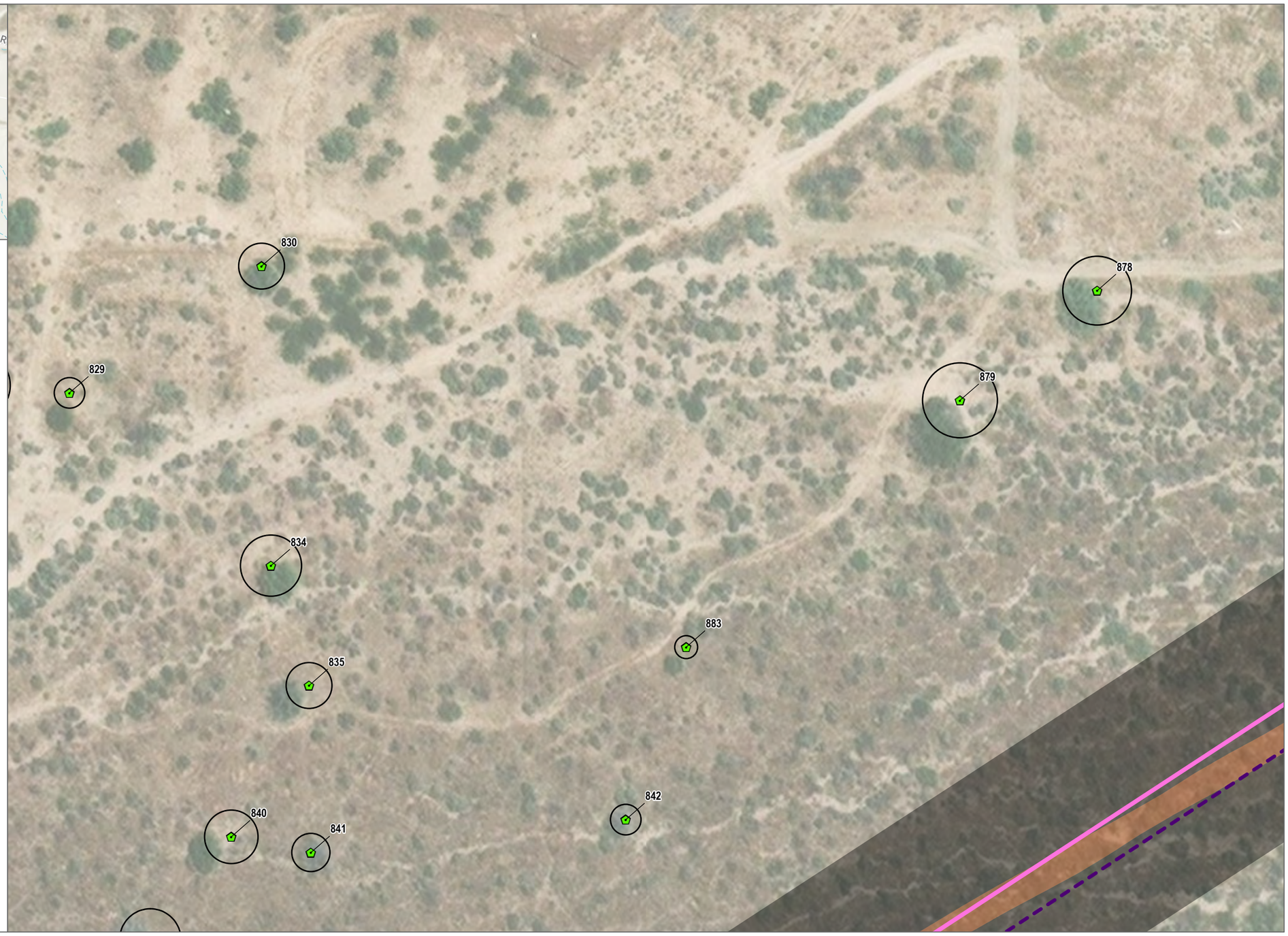
- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

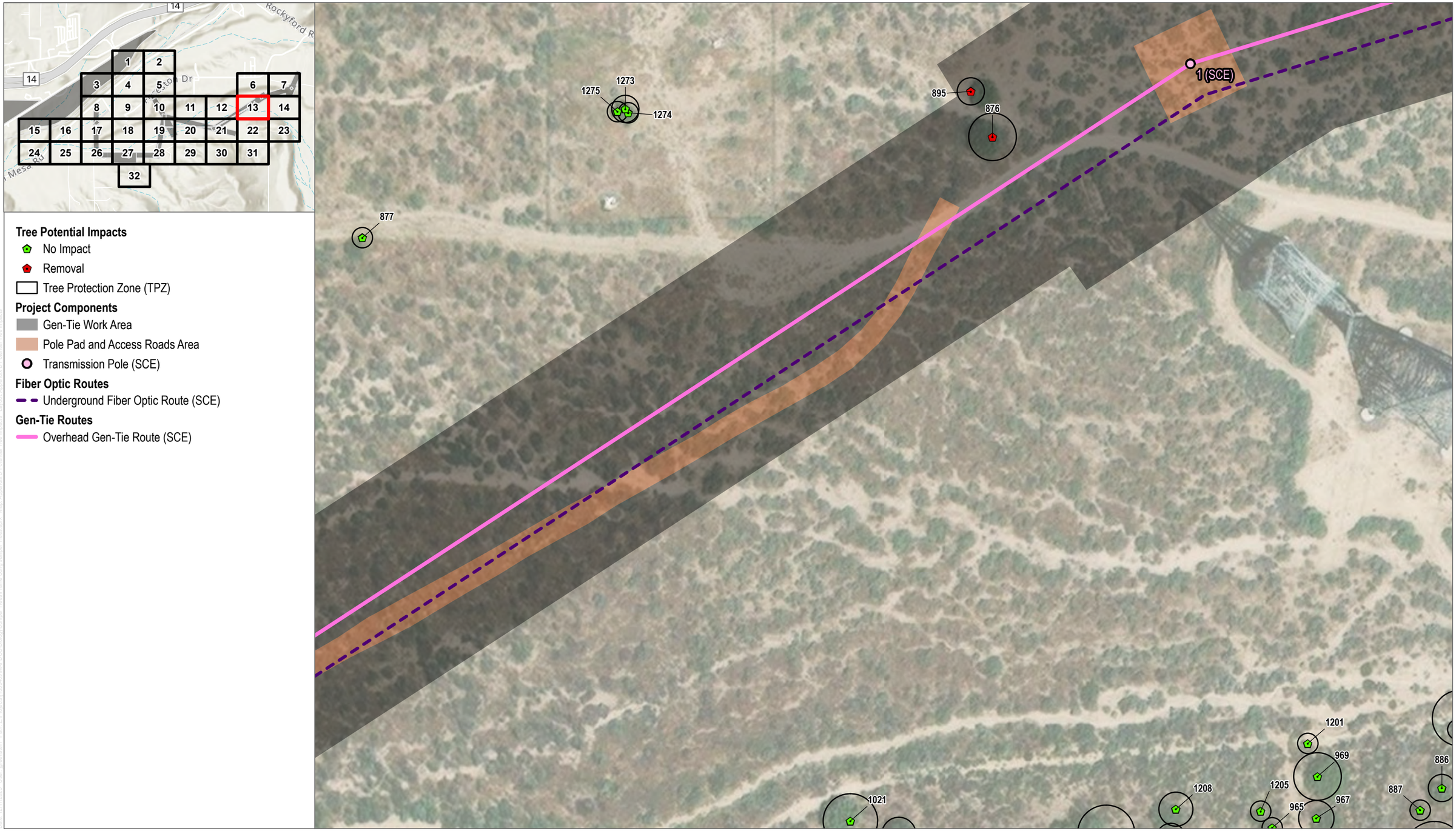
DUDEK

0 30 60 Feet

APPENDIX D12

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Removal
- Tree Protection Zone (TPZ)

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole (SCE)

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

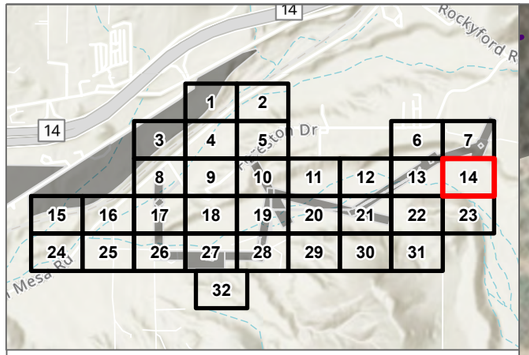
DUDEK

0 30 60 Feet

APPENDIX D13

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

Project Components

- Gen-Tie Work Area

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

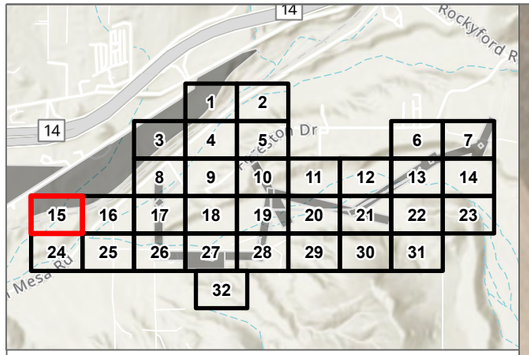
DUDEK

0 30 60 Feet

APPENDIX D14

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

Project Components

- Proposed BESS Facility Site

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

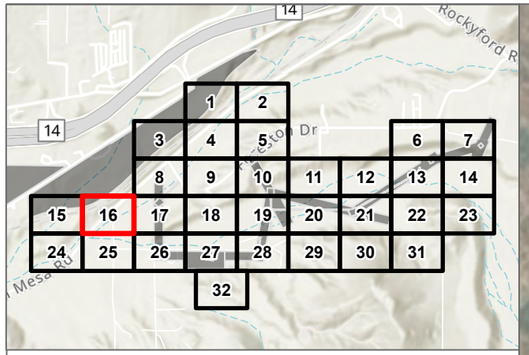
DUDEK

0 30 60 Feet

APPENDIX D15

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

Project Components

- Proposed BESS Facility Site

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

0 30 60 Feet

APPENDIX D16

Potential Tree Impacts

Prairie Song Reliability Project

Tree Potential Impacts

- No Impact
- Removal
- Tree Protection Zone (TPZ)

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

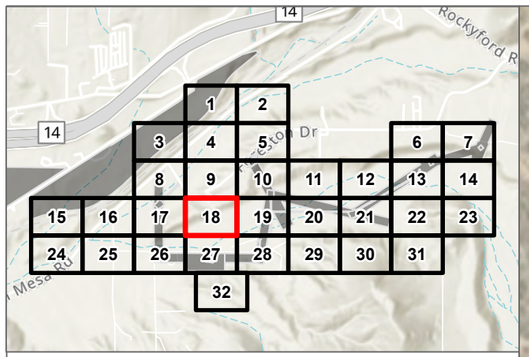
DUDEK

0 30 60 Feet

APPENDIX D17

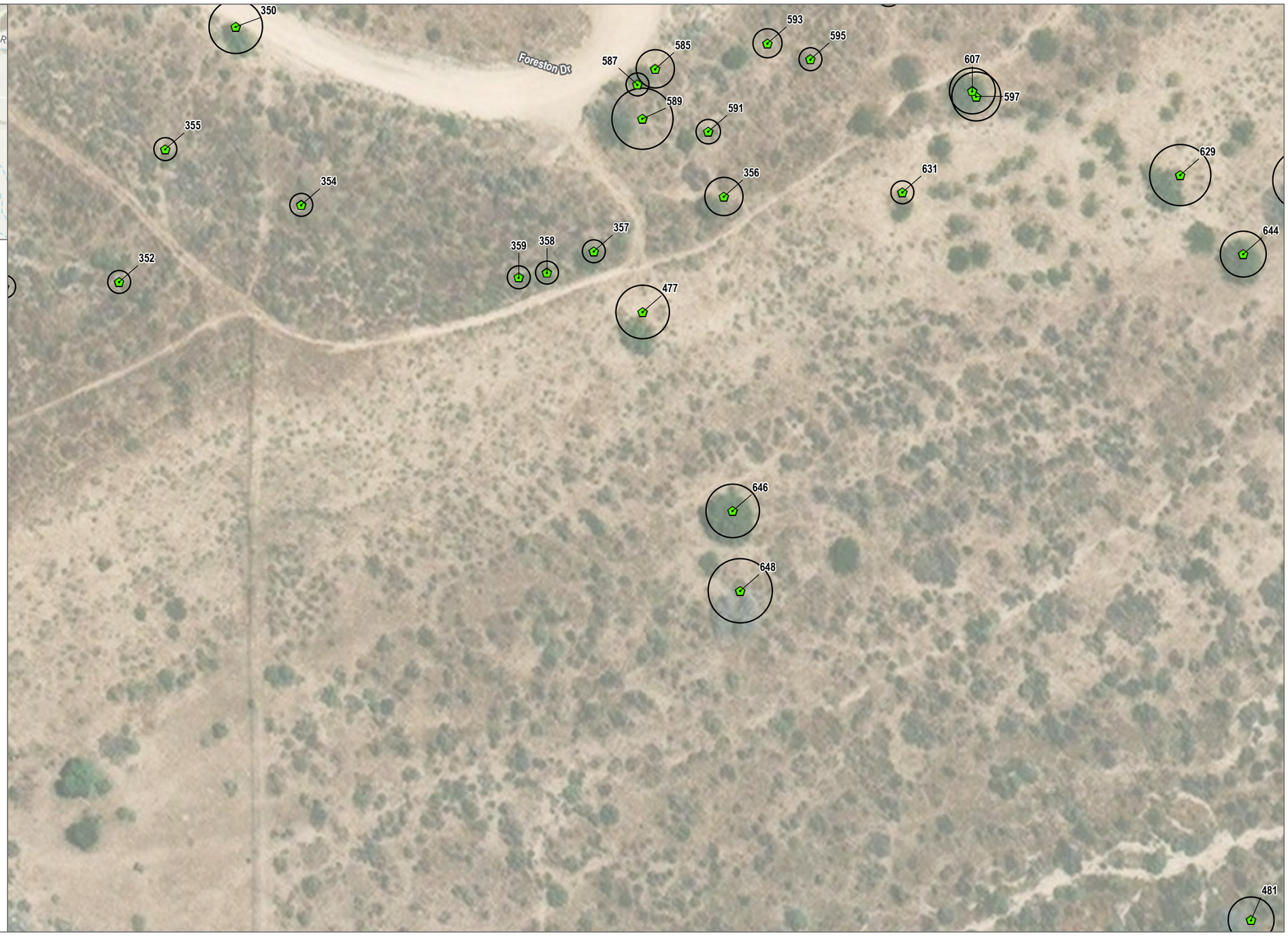
Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

0 30 60 Feet

APPENDIX D18

Potential Tree Impacts

Prairie Song Reliability Project

Tree Potential Impacts

- No Impact
- Encroachment
- Removal
- Tree Protection Zone (TPZ)

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Routes

- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

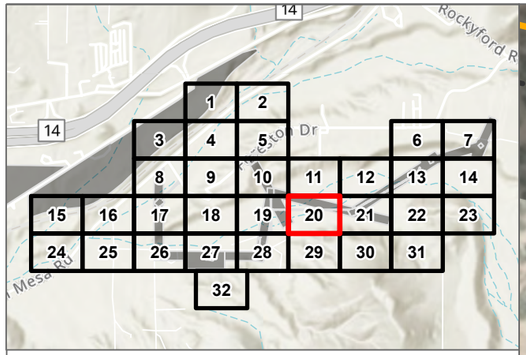
N

0 30 60 Feet

APPENDIX D19

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Removal
- Tree Protection Zone (TPZ)

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Routes

- Overhead Gen-Tie Route

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

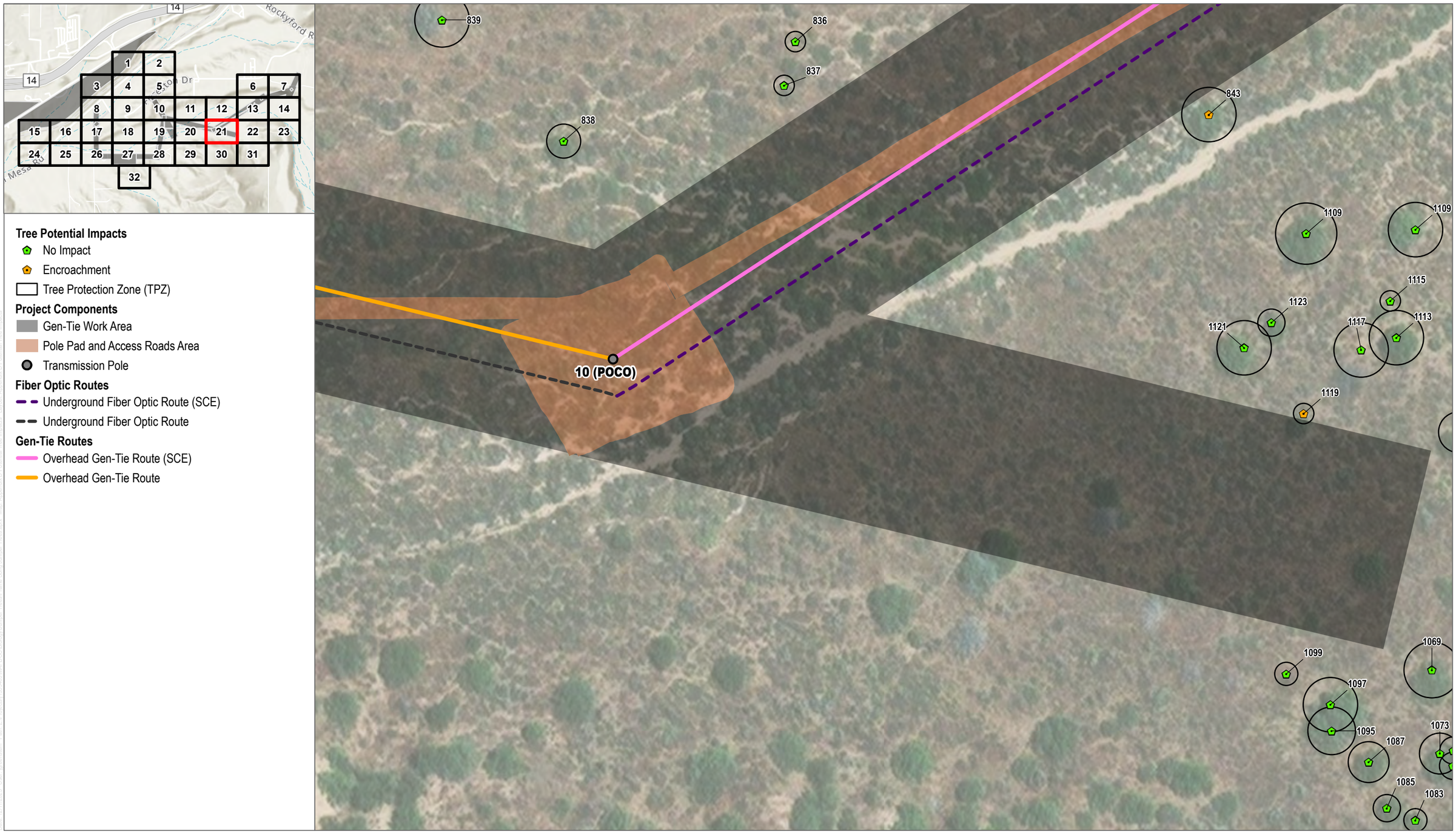
DUDEK

0 30 60 Feet

APPENDIX D20

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts
- No Impact
- Encroachment
- Tree Protection Zone (TPZ)

Project Components
- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes
- Underground Fiber Optic Route (SCE)
- Underground Fiber Optic Route

Gen-Tie Routes
- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

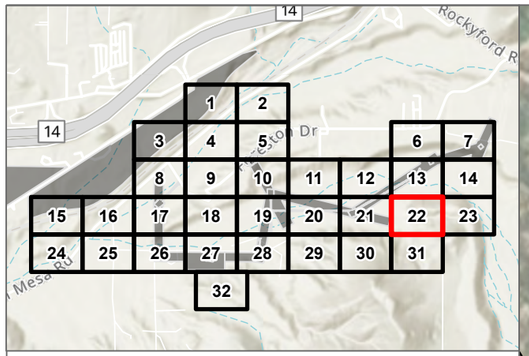
DUDEK

0 30 60 Feet

APPENDIX D21

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

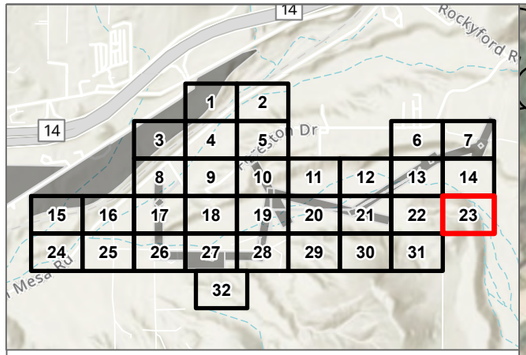
DUDEK

0 30 60 Feet

APPENDIX D22

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

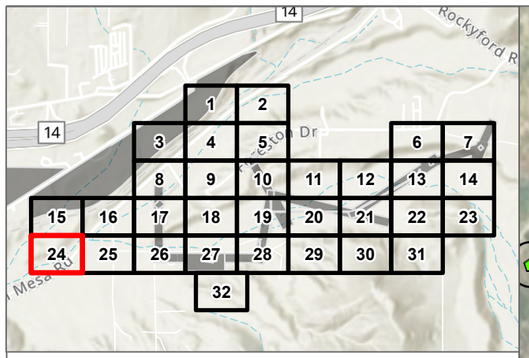
N

0 30 60 Feet

APPENDIX D23

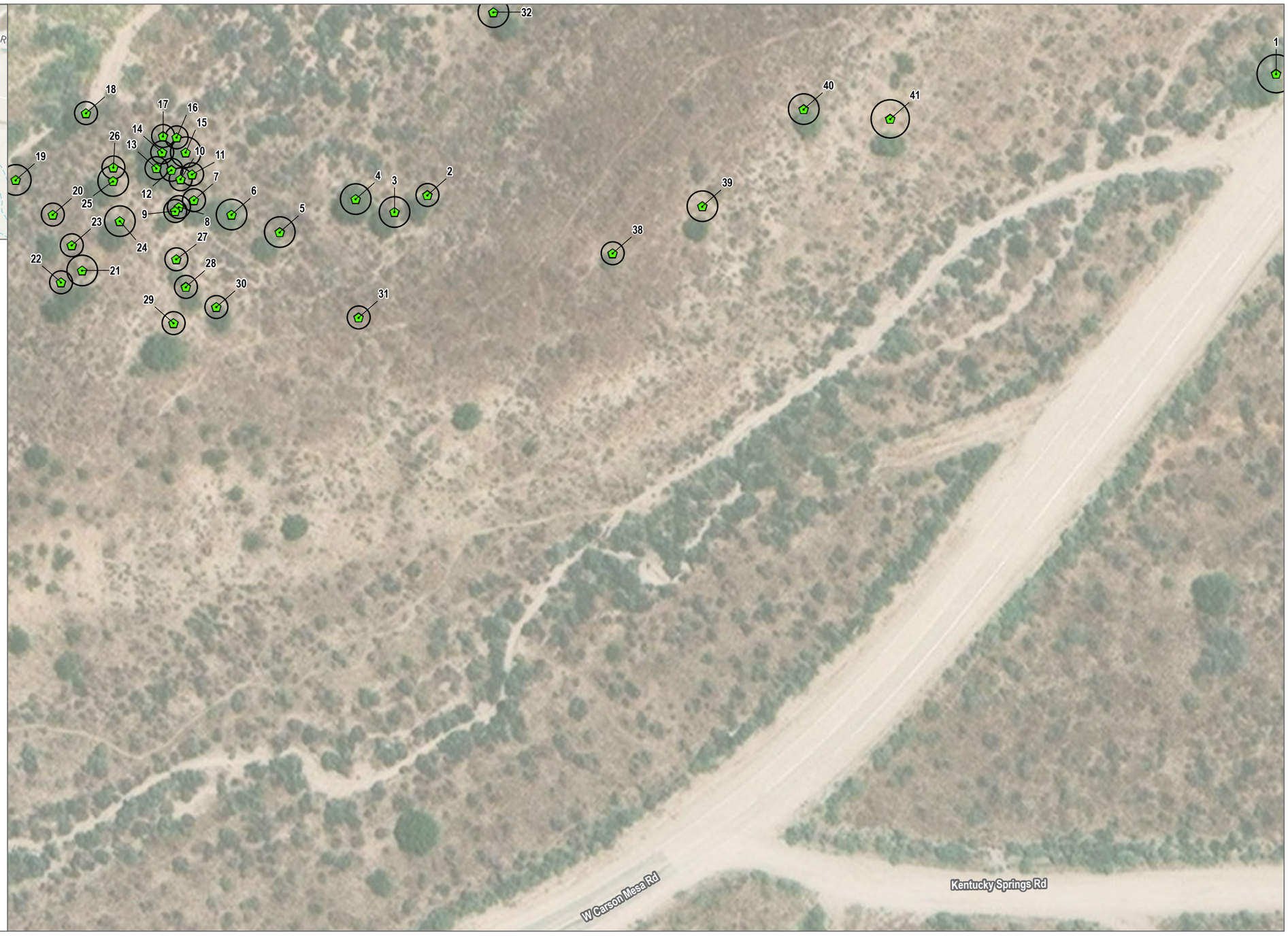
Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

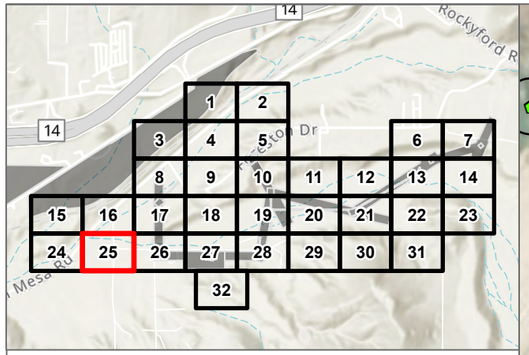
DUDEK

0 30 60 Feet

APPENDIX D24

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

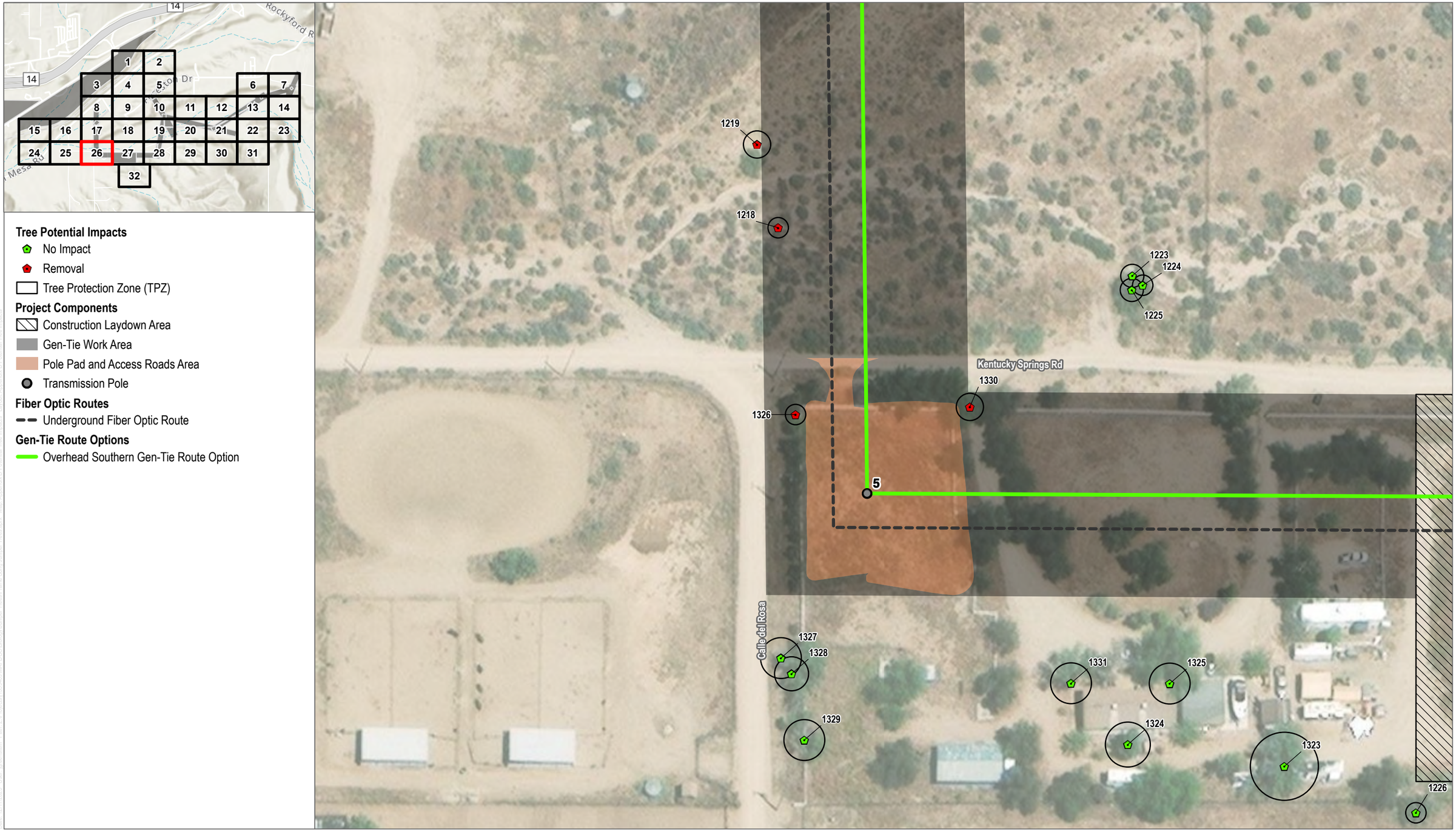
DUDEK

0 30 60 Feet

APPENDIX D25

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Removal
- Tree Protection Zone (TPZ)

Project Components

- Construction Laydown Area
- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

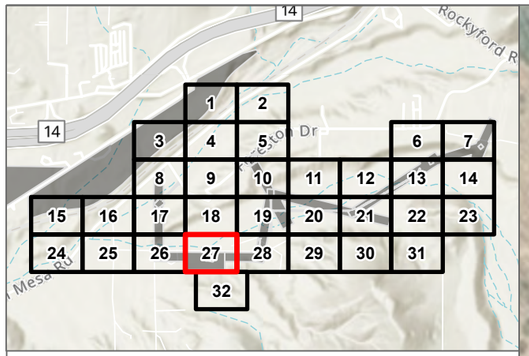
N

0 30 60 Feet

APPENDIX D26

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Encroachment
- Removal
- Tree Protection Zone (TPZ)

Project Components

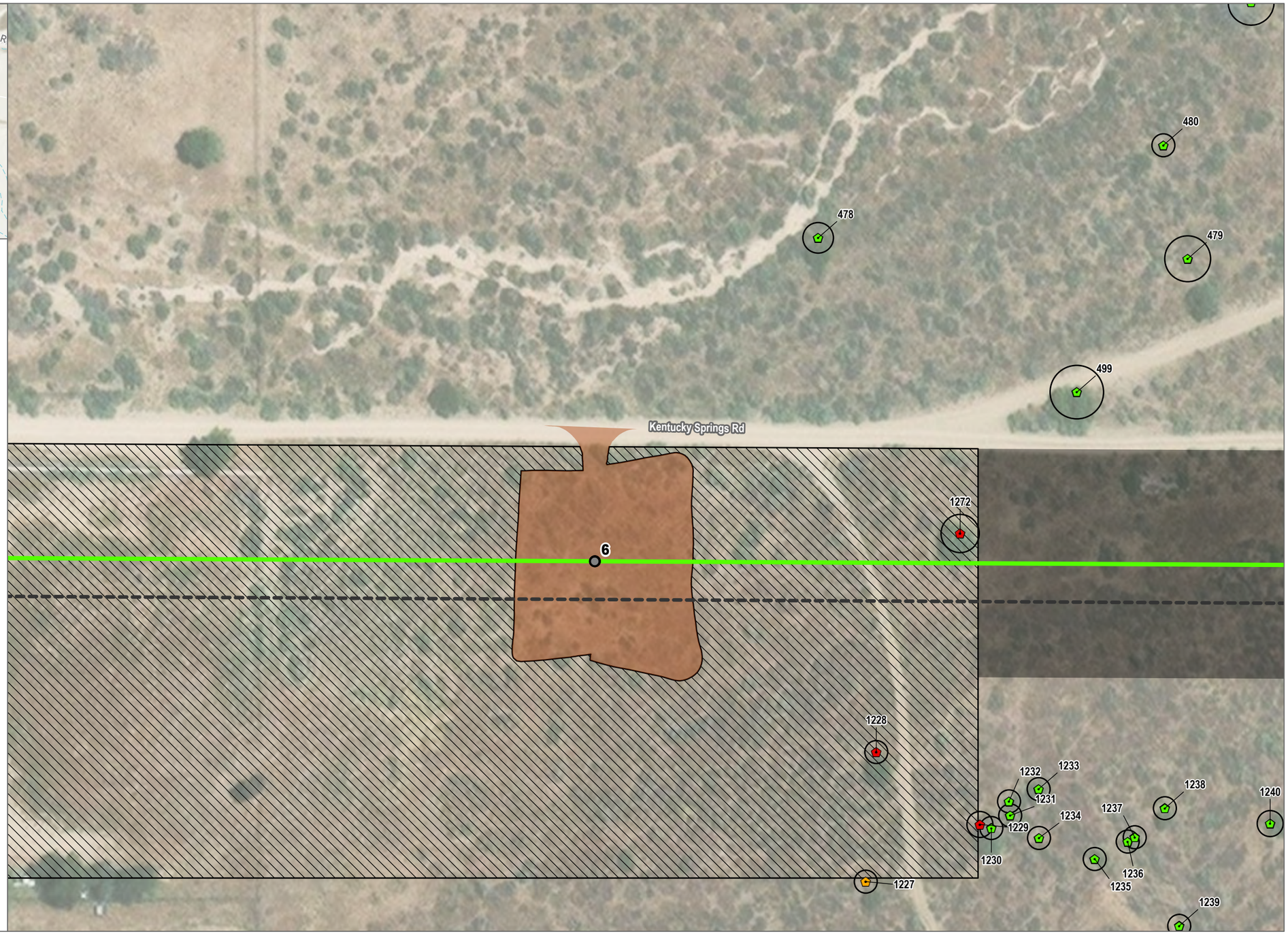
- Construction Laydown Area
- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option



SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

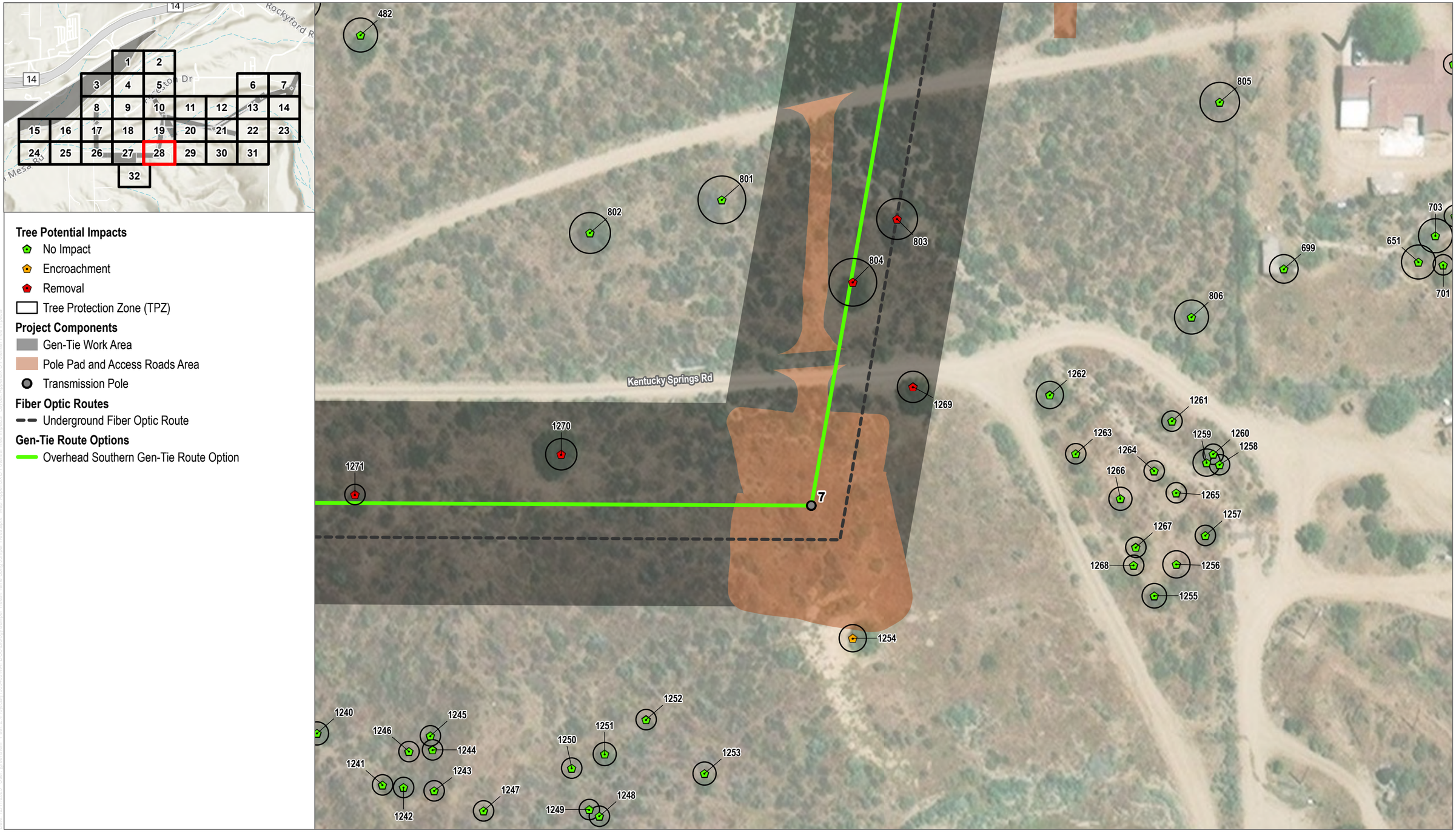
N

0 30 60 Feet

APPENDIX D27

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Encroachment
- Removal
- Tree Protection Zone (TPZ)

Project Components

- Gen-Tie Work Area
- Pole Pad and Access Roads Area
- Transmission Pole

Fiber Optic Routes

- Underground Fiber Optic Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

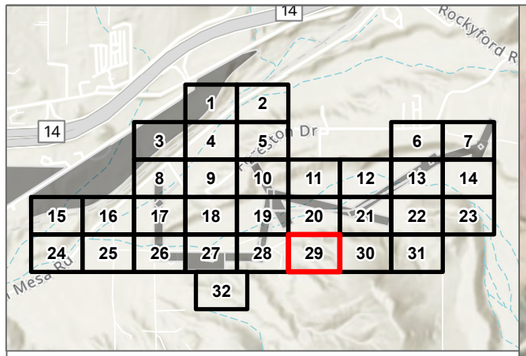
DUDEK

0 30 60 Feet

APPENDIX D28

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

0 30 60 Feet

APPENDIX D29

Potential Tree Impacts

Prairie Song Reliability Project

Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

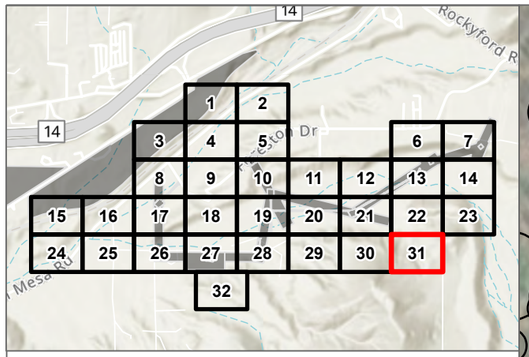
DUDEK

0 30 60 Feet

APPENDIX D30

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

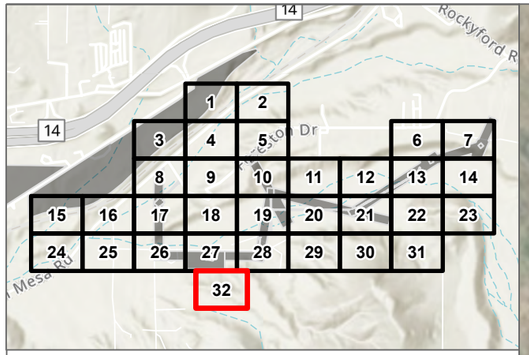
DUDEK

0 30 60 Feet

APPENDIX D31

Potential Tree Impacts

Prairie Song Reliability Project



Tree Potential Impacts

- No Impact
- Tree Protection Zone (TPZ)

SOURCE: Maxar 2024; Open Street Map 2024; Sargent & Lundy 2024

DUDEK

N

0 30 60 Feet

APPENDIX D32

Potential Tree Impacts

Prairie Song Reliability Project

Appendix E
Tree Protection Measures

Tree Protection Measures

The following tree protection measures are provided as general guidelines for tree protection from construction impacts. The measures presented should be monitored by arborists and enforced by contractors and developers for maximum benefit to the trees.

Tree Protection Measures Prior to Construction

Prior to any construction activity (drainage, demolition, material removal or delivery), Protected Trees with canopies located within 100 feet of any active construction activity in the Santa Clara River SEA shall be protected by fencing and signage. All contractors shall be made aware of the tree protection measures. A project arborist shall be assigned to monitor tree health and construction activity near retained trees on site. The project arborist shall be an International Society of Arboriculture (ISA) Certified Arborist.

Fencing. High-visibility orange construction fencing, not less than 4 feet in height and equipped with tree protection signage, shall be installed around all trees (or tree groups) with canopies that fall within 100 feet of active construction activity in the Santa Clara River SEA. The fencing shall be placed at the boundary of the Tree Protection Zone (TPZ), defined as a minimum distance of fifteen (15') feet from the trunk of the tree or five (5') feet outside the drip line of the tree, whichever distance is greater. For any trees that would be encroached upon by construction activities, fencing shall be placed as far away from trunk of the tree as possible while still allowing the required construction activities to proceed. This fencing will delineate the tree protection zone and prevent unwanted activity in and around the trees in order to reduce soil compaction in the root zones of the trees and other damage from heavy equipment.

Fencing shall be secured to 6-foot heavy-gauge t-bar line posts, supported by an appropriate grade level concrete base and spaced no more than eight feet apart. Fencing material shall be fastened to each post using minimum 14-gauge wire at the top, middle, and bottom. Tree protection signs should be attached to every fourth post. The contractor shall maintain the fence to keep it upright, taut, and aligned at all times during construction activities in the area of the protected trees. Fencing shall be removed only after all construction activities are complete.

Pre-Construction Meeting. A pre-construction meeting shall be held between all contractors and the arborist. The arborist will instruct the contractors on tree protection practices and answer any questions. All equipment operators and spotters, assistants, or those directing operators from the ground, shall provide written acknowledgement of their receiving tree protection training. This training shall include information on the location and marking of protected trees, the necessity of preventing damage, and the discussion of work practices that will accomplish such.

Protection and Maintenance During Construction

Once construction activities have begun, the following measures shall be adhered to:

Avoidance: Signs, ropes, cables, or any other items shall not be attached to any tree.

Equipment Operation and Storage. Operating heavy machinery around the root zones of trees will increase soil compaction, which decreases soil aeration and subsequently reduces water penetration in the soil. All heavy equipment and vehicles shall stay out of the fenced tree protection zone, unless where specifically approved in writing by the project arborist.

Storage and Disposal. Do not store or discard any supply or material, including paint, lumber, concrete overflow, etc. within the fenced tree protection zone. Remove all foreign debris within the fenced tree protection zone; it is important to leave the duff, mulch, chips, and leaves around the retained trees for water retention and nutrient supply. Avoid draining or leakage of equipment fluids near retained trees. Fluids such as: gasoline, diesel, oils, hydraulics, brake and transmission fluids, paint, paint thinners, and glycol (anti-freeze) should be disposed of properly. Equipment should be parked at least 50 feet from the protected zone to avoid the possibility of leaking equipment fluids into the soil. The effect of toxic equipment fluids on the retained trees could result in tree decline and/or mortality.

Moving Construction Materials. Care will be taken when moving equipment or supplies near the trees, especially overhead. Avoid damaging the tree(s) when transporting or moving construction materials and working around retained trees (even outside of the fenced tree protection zone). Above ground tree parts that could be damaged (e.g., low limbs, trunks) should be flagged with red ribbon. If contact with the tree crown is unavoidable, prune the conflicting branch(es) using ISA or ANSI A300 standards.

Grade Changes. Grade changes, including adding fill, are not permitted within the tree protection zone, without special written authorization and under supervision by a Certified Arborist. Lowering the grade within this area will necessitate cutting main support and feeder roots, jeopardizing the health and structural integrity of the tree(s). Adding soil, even temporarily, on top of the existing grade will compact the soil further, and decrease both water and air availability to the trees' roots.

Trenching and Root Pruning. To minimize damage to the root systems of all trees not being removed, all trenching activities must be conducted with extreme care. Whenever possible, all services and utilities shall be routed around the fenced tree protection zone.

If excavation within the fenced tree protection zone is unavoidable, then every effort shall be made to tunnel under or through the tree's root system with a minimal amount of root pruning, rather than trench across the tree's roots. Tree roots primarily grow horizontally, forming a structural base similar to the stem of a wineglass. A Certified Arborist should oversee all root pruning activities to ensure cuts are clean and precise, minimizing tearing, fracturing, or other trauma to the root system.

Heavy equipment such as backhoes, dozers, or graders can cause severe root damage and should not be used within root protection zones. Soil removal in trench locations should be performed using hand tools in conjunction with root pruning or Air-Spade equipment. Trenches should be no deeper than necessary, and alternative methods to trenching should be considered whenever feasible.

If trenching within the fenced tree protection zone is unavoidable:

- All trenches must be hand-dug.
- No roots larger than two (2) inches in diameter may be cut unless no other alternative exists.
- Smaller roots must be saw-cut flush with the trench wall, mechanical trenchers or backhoes are prohibited.
- If trenching results in the separation of 25% or more of the root protection zone, the trench alignment must be modified, either relocated or installed using boring techniques.

Irrigation. Trees that have been substantially root pruned (25% or more of their root zone) will require irrigation for the first twelve months. The first irrigation should be within 48 hours of root pruning. They should be deep watered every two to four weeks during the summer and once a month during the winter (adjust accordingly with rainfall). One irrigation cycle should thoroughly soak the root zones of the trees to a depth of 3 feet. The soil should dry out between watering; avoid keeping a consistently wet soil. Designate one person to be responsible for irrigating (deep watering) the trees. Check soil moisture with a soil probe before irrigating. Irrigation is best accomplished by installing a temporary above ground micro-spray system that will distribute water slowly (to avoid runoff) and evenly throughout the fenced tree protection zone ***but never soaking the area located within 6- feet of the tree trunk***.

Pruning.

Pruning of the preserved trees is generally not permitted during construction activities, except in specific cases where pruning is necessary to:

- Provide clearance for roadway and transportation requirements when no alternative routes are feasible,
- Address visual obstructions that impact safety or visibility, or
- Facilitate removal of a failed stem.

These exceptions are intended to minimize conflict between tree canopy and construction operations while maintaining safety. No other pruning should be conducted until all construction is completed.

When pruning is deemed necessary, it must be:

- Pre-approved in writing by the project arborist or supervising authority,
- Conducted by an ISA Certified Arborist,
- Performed under the direct supervision of a Certified Arborist, and
- Executed in accordance with current ISA pruning standards, ensuring cuts are made properly to preserve tree structure, health, and aesthetics.

Pruning should be limited to the minimum necessary to achieve an objective as defined by the project arborist. The tree's canopy is a vital component of its health and longevity. Protecting it from avoidable damage is a key priority throughout the construction process, and all pruning activities must be carefully planned and executed to support the tree's long-term viability.

Washing. Periodic washing of the foliage of preserved trees located within 100 feet of construction activity in the Santa Clara River SEA is recommended during construction, no more than once every two weeks. Washing should include the upper and lower leaf surfaces and the tree bark. Washing will help control dirt/dust buildup that can lead to mite and insect infestations.

Inspection. An ISA Certified Arborist shall inspect the trees on at least a monthly basis for the duration of construction activity in an area 100 feet surrounding active construction. A summary report documenting observations and management recommendations shall be submitted to the owner following each inspection. Photographs of representative trees are to be included in each report.

Maintenance After Construction

Once construction is complete the tree protection fencing may be removed and the following measures performed to sustain and enhance the vigor of the preserved trees.

Pruning. Regular pruning of the preserved trees is not required. An ISA Certified Arborist, under the supervision of a Certified Arborist, should only prune the tree to maintain clearance and remove broken, dead, or diseased branches. No more than 15% of the canopy should be removed at one time. All pruning should conform to ISA standards.

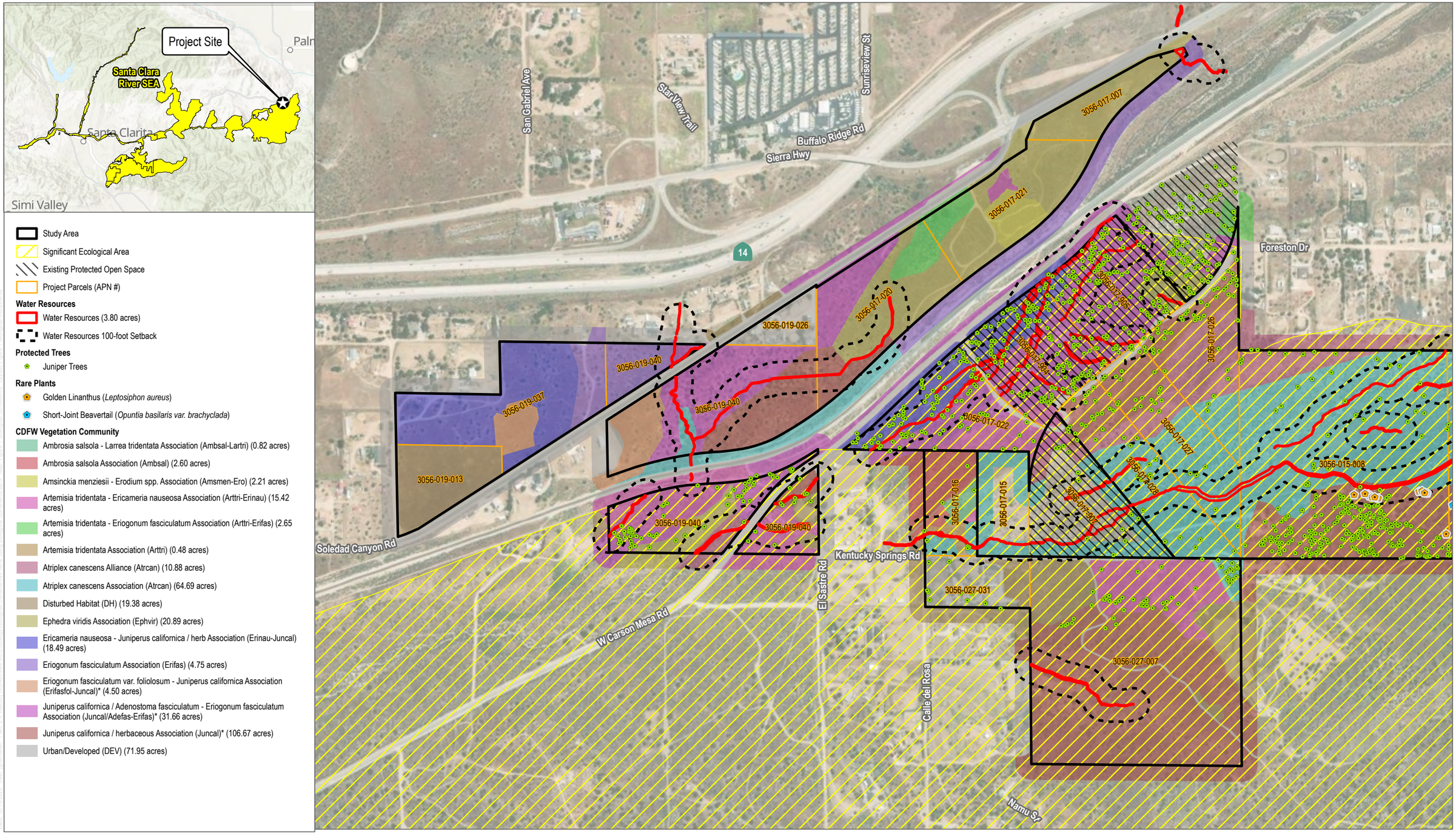
Watering. Retained trees on site shall be watered as they were prior to the commencement of construction activity. Supplemental irrigation may be necessary for twelve months following substantial root pruning.

Watering Adjacent Plant Material. All plants near the trees shall be compatible with water requirements of said trees. Watering regime included in the site's landscape plan shall be developed with consideration for the water needs of retained trees.

Spraying. If the trees are maintained in a healthy state, regular spraying for insect or disease control should not be necessary. If a problem does develop, an ISA Certified Arborist should be consulted; the trees may require application of insecticides to prevent the intrusion of bark-boring beetles and other invading pests. All chemical spraying should be performed by a licensed applicator under the direction of a licensed pest control advisor.

Inspection. All trees within 100 feet of construction activity in the Santa Clara River SEA shall be monitored by an ISA Certified Arborist for the first two years after construction completion. An annual monitoring report shall be submitted to the California Energy Commission (CEC). Each report shall summarize the inspection efforts, document observations and management actions taken, include photographs of each tree, and compare postconstruction tree conditions with the original, pre-construction baseline condition. If any retained trees die within this inspection period, they shall be replaced at a ratio approved by the CEC.

Appendix B
Biological Constraints Map



Study Area
Significant Ecological Area
Existing Protected Open Space
Project Parcels (APN #)

Water Resources
- Water Resources (3.80 acres)
- Water Resources 100-foot Setback

Protected Trees
- Juniper Trees

Rare Plants
- Golden Linanthus (*Leptosiphon aureus*)
- Short-Joint Beavertail (*Opuntia basilaris var. brachyclada*)

CDFW Vegetation Community
- Ambrosia salsola - Larrea tridentata Association (Ambsal-Lartri) (0.82 acres)
- Ambrosia salsola Association (Ambsal) (2.60 acres)
- Amsinckia menziesii - Erodium spp. Association (Amsmen-Ero) (2.21 acres)
- Artemisia tridentata - Ericameria nauseosa Association (Arttri-Erinau) (15.42 acres)
- Artemisia tridentata - Eriogonum fasciculatum Association (Arttri-Erifas) (2.65 acres)
- Artemisia tridentata Association (Arttri) (0.48 acres)
- Atriplex canescens Alliance (Atrcan) (10.88 acres)
- Atriplex canescens Association (Atrcan) (64.69 acres)
- Disturbed Habitat (DH) (19.38 acres)
- Ephedra viridis Association (Ephvir) (20.89 acres)
- Ericameria nauseosa - Juniperus californica / herb Association (Erinau-Juncal) (18.49 acres)
- Eriogonum fasciculatum Association (Erifas) (4.75 acres)
- Eriogonum fasciculatum var. foliolosum - Juniperus californica Association (Erifasfol-Juncal)* (4.50 acres)
- Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum Association (Juncal/Adefas-Erifas)* (31.66 acres)
- Juniperus californica / herbaceous Association (Juncal)* (106.67 acres)
- Urban/Developed (DEV) (71.95 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

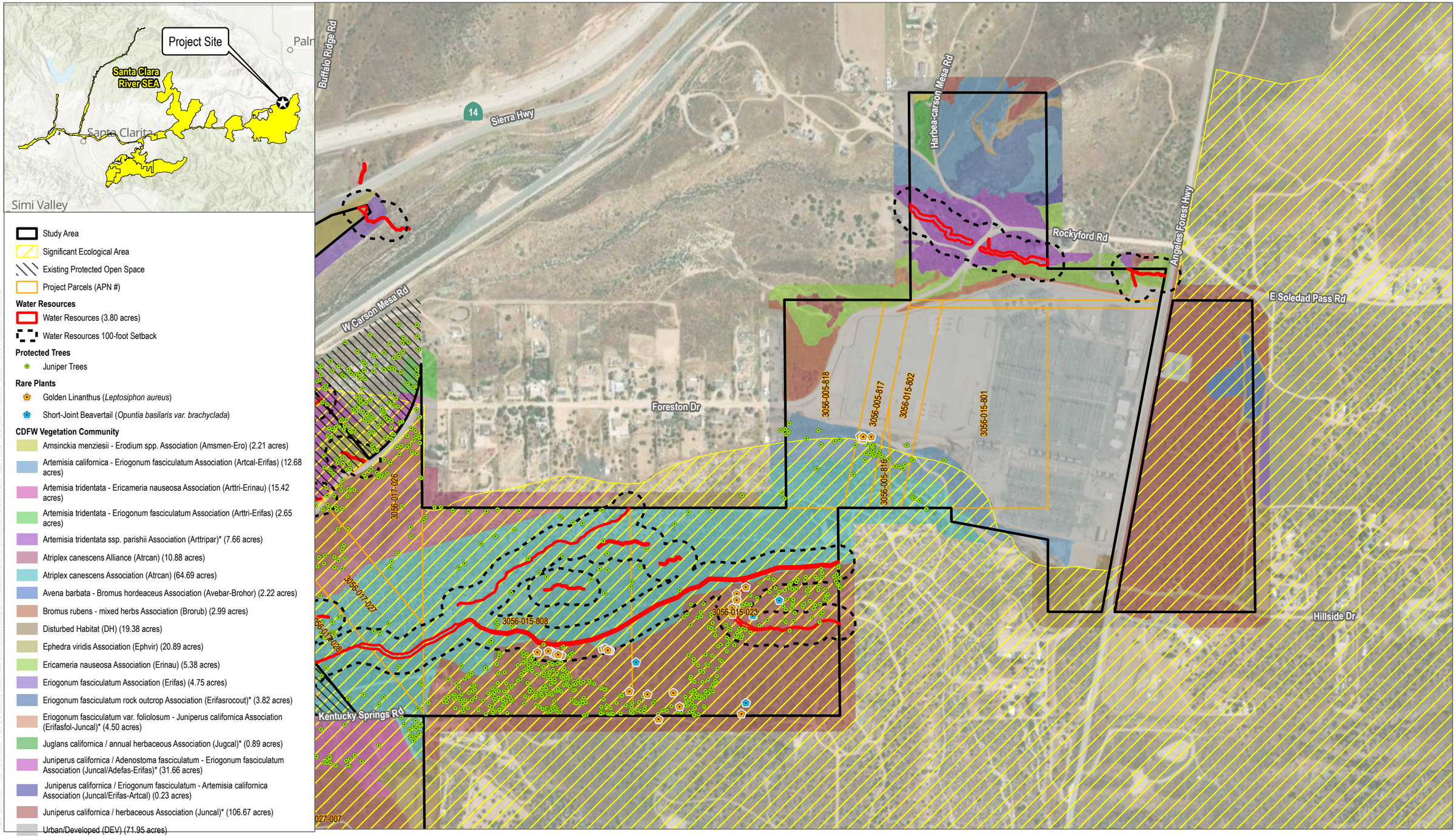
N

0 300 600 Feet

FIGURE 1A

Biological Constraints

Prairie Song Reliability Project



- Study Area
- Significant Ecological Area
- Existing Protected Open Space
- Project Parcels (APN #)

Water Resources

- Water Resources (3.80 acres)
- Water Resources 100-foot Setback

Protected Trees

- Juniper Trees

Rare Plants

- Golden Linanthus (*Leptosiphon aureus*)
- Short-Joint Beavertail (*Opuntia basilaris var. brachyclada*)

CDFW Vegetation Community

- Amsinckia menziesii - Erodium spp. Association (Amsmen-Ero) (2.21 acres)
- Artemisia californica - Eriogonum fasciculatum Association (Artcal-Erifas) (12.68 acres)
- Artemisia tridentata - Ericameria nauseosa Association (Arttri-Erinau) (15.42 acres)
- Artemisia tridentata - Eriogonum fasciculatum Association (Arttri-Erifas) (2.65 acres)
- Artemisia tridentata ssp. parishii Association (Arttripar)* (7.66 acres)
- Atriplex canescens Alliance (Atrcan) (10.88 acres)
- Atriplex canescens Association (Atrcan) (64.69 acres)
- Avena barbata - Bromus hordeaceus Association (Avebar-Brohor) (2.22 acres)
- Bromus rubens - mixed herbs Association (Brorub) (2.99 acres)
- Disturbed Habitat (DH) (19.38 acres)
- Ephedra viridis Association (Ephvir) (20.89 acres)
- Ericameria nauseosa Association (Erinau) (5.38 acres)
- Eriogonum fasciculatum Association (Erifas) (4.75 acres)
- Eriogonum fasciculatum rock outcrop Association (Erifasrocout)* (3.82 acres)
- Eriogonum fasciculatum var. foliolosum - Juniperus californica Association (Erifasfol-Juncal)* (4.50 acres)
- Juglans californica / annual herbaceous Association (Jugcal)* (0.89 acres)
- Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum Association (Juncal/Adefas-Erifas)* (31.66 acres)
- Juniperus californica / Eriogonum fasciculatum - Artemisia californica Association (Juncal/Erifas-Artcal) (0.23 acres)
- Juniperus californica / herbaceous Association (Juncal)* (106.67 acres)
- Urban/Developed (DEV) (71.95 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

0 300 600 Feet

FIGURE 1B

Biological Constraints

Prairie Song Reliability Project

Appendix C

Potential to Occur Tables and Compendia

Potential to Occur Tables

Endangered, rare, or threatened plant species as defined in Section 15380(b) of the California Environmental Quality Act Guidelines (CEQA) (14 CCR 15000 et seq.) are referred to as "special-status plant species" and, as used in this document, include (1) plant species listed, proposed for listing, or candidates for listing as endangered or threatened recognized in the context of the California Endangered Species Act (CESA) and the federal Endangered Species Act[1] (FESA); and/or (2) plant species with a California Rare Plant Rank as designated by the California Native Plant Society[2].

Endangered, rare, or threatened wildlife species as defined in Section 15380(b) of the CEQA Guidelines (14 CCR Section 15380(b)), are referred to as "special-status wildlife species" and, as used in this document, include (1) wildlife species listed, proposed for listing, or candidates for listing as endangered or threatened recognized in the context of CESA and FESA[3]; (2) California Species of Special Concern as designated by the California Department of Fish and Wildlife[4]; and (3) mammals and birds that are fully protected species as described in the California Fish and Game Code, Sections 4700 and 3511[5].

The potential for special-status plant species to occur within the Study Area was assessed based on known geographic and elevation ranges as well as habitat and soil conditions that are known to support species occurring in the region. Potential for special-status wildlife species to occur within the Study Area was assessed based on known geographic ranges, the presence/absence of suitable habitat, and other natural history elements that might predict their occurrence. After completion of the reconnaissance surveys, the potential for special-status plant and wildlife species to occur on or near the Project site was summarized according to the following categories. 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:

- Known to occur: the species has been documented on the property by a reliable source.
- High potential to occur: the species has not been documented on the property but is known to recently occur in the vicinity and suitable habitat is present.
- Moderate potential to occur: the species has not been documented on the property or in the vicinity, but the site is within the known range of the species and suitable habitat for the species is present.
- Low potential to occur: the species has not been documented in the vicinity or on the property, but the site is within the known range of the species; however, suitable habitat for the species on site is of low quality.
    - A low potential to occur is also given to species that have suitable habitat present and the site is within the geographic and elevation range of the species, but the species was not observed during surveys that were conducted during the species' blooming period.
- Not expected to occur: the property is outside the known geographic or elevational range of the species and/or the site does not support suitable habitat for the species.

[1] CDFW. 2025. State and Federally Listed Endangered, Threatened, and Rare Plants of California. Accessed April 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline.
[2] CNPS. 2025. Inventory of Rare and Endangered Plants (online edition, v8-03). Accessed April 2025. www.rareplants.cnps.org.
[3] CDFW. 2025. State and Federally Listed Endangered and Threatened Animals of California. Accessed April 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline.
[4] CDFW. 2025. Species of Special Concern. Accessed April 2025. https://www.wildlife.ca.gov/Conservation/SSC.
[5] CDFW. 2025h. Fully Protected Animals. Accessed April 2025. https://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html.

INTENTIONALLY LEFT BLANK

Special-Status Plants

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Acanthoscyphus parishii var. *abramsii*	Abrams' oxytheca	None/None/1B.2	Chaparral/annual herb/June–Aug/ 3,750–6,745	Not expected to occur. The Study Area is outside this species current range.
Androsace elongata ssp. *acuta*	California androsace	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland/annual herb/ Mar–June/490–4,280	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Anomobryum julaceum	slender silver moss	None/None/4.2	Broadleafed upland forest, Lower montane coniferous forest, North Coast coniferous forest; Roadsides (usually)/moss/N.A./330–3,280	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Aphyllon validum ssp. *validum*	Rock Creek broomrape	None/None/1B.2	Chaparral, Pinyon and juniper woodland; Granitic/perennial herb (parasitic)/May–Sep/3,380–6,560	Not expected to occur. Suitable micro-habitat (granitic) for the species is not present in the Study Area.
Arctostaphylos glandulosa ssp. *gabrielensis*	San Gabriel manzanita	None/None/1B.2	Chaparral/perennial evergreen shrub/ Mar/1,950–4,920	Not expected to occur. This conspicuous species was not observed in the Study Area.
Arctostaphylos parryana ssp. *tumescens*	interior manzanita	None/None/4.3	Chaparral (montane), Cismontane woodland/perennial evergreen shrub/ Feb–Apr/6,890–7,580	Not expected to occur. This conspicuous species was not observed in the Study Area.
Asplenium vespertinum	western spleenwort	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub; Rocky/perennial rhizomatous herb/Feb–June/ 590–3,280	Low potential to occur. Suitable habitat for the species is present in the Study Area, but records for the species are from the southern and eastern San Gabriel Mountains.
Astragalus hornii var. *hornii*	Horn's milk-vetch	None/None/1B.1	Meadows and seeps, Playas; Alkaline, Lake Margins/annual herb/May–Oct/ 195–2,785	Not expected to occur. Suitable habitat for the species is not present in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Berberis nevinii	Nevin's barberry	FE/SE/1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub; Gravelly (sometimes), Sandy (sometimes)/ perennial evergreen shrub/ (Feb)Mar–June/230–2,705	Not expected to occur. This conspicuous species was not observed in the Study Area.
Calochortus clavatus var. *clavatus*	club-haired mariposa lily	None/None/4.3	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland; Clay, Rocky, Serpentine (usually)/perennial bulbiferous herb/(Mar)May–June/100–4,265	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Calochortus clavatus var. *gracilis*	slender mariposa-lily	None/None/1B.2	Chaparral, Coastal scrub, Valley and foothill grassland/perennial bulbiferous herb/Mar–June (Nov)/1,045–3,280	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Calochortus palmeri var. *palmeri*	Palmer's mariposa-lily	None/None/1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps; Mesic/ perennial bulbiferous herb/Apr–July/ 2,325–7,840	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Calochortus plummerae	Plummer's mariposa-lily	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; Granitic, Rocky/perennial bulbiferous herb/May–July/330–5,580	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Calochortus striatus	alkali mariposa-lily	None/None/1B.2	Chaparral, Chenopod scrub, Meadows and seeps, Mojavean desert scrub; Alkaline, Mesic/perennial bulbiferous herb/Apr–June/230–5,230	Not expected to occur. Suitable habitat for the species is not present in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Calystegia peirsonii	Peirson's morning-glory	None/None/4.2	Chaparral, Chenopod scrub, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland/perennial rhizomatous herb/Apr–June/ 100–4,920	Low potential to occur. The species was initially assessed as having high potential due to the presence of suitable in the Study Area and recent local records (Calflora 2025); however, the species was not observed during focused rare plant surveys.
Canbya candida	white pygmy-poppy	None/None/4.2	Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland; Granitic, Gravelly, Sandy/ annual herb/Mar–June/1,970–4,790	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Castilleja gleasoni	Mt. Gleason paintbrush	None/SR/1B.2	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland; Granitic/perennial herb (hemiparasitic)/ May–June (Sep)/3,805–7,115	Not expected to occur. Suitable habitat for the species is present in the Study Area but the Study Area is outside the range of the species.
Castilleja plagiotoma	Mojave paintbrush	None/None/4.3	Great Basin scrub (alluvial), Joshua tree "woodland", Lower montane coniferous forest, Pinyon and juniper woodland/ perennial herb (hemiparasitic)/ Apr–June/985–8,205	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Centromadia parryi ssp. *australis*	southern tarplant	None/None/1B.1	Marshes and swamps, Valley and foothill grassland, Vernal pools/annual herb/May–Nov/0–1,570	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	None/SE/1B.1	Coastal scrub, Valley and foothill grassland/annual herb/Apr–July/ 490–4,000	Not expected to occur. Marginal habitat is present in the Study Area; however, no recent records along the SR-14.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Chorizanthe spinosa	Mojave spineflower	None/None/4.2	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, Playas; Alkaline (sometimes)/annual herb/Mar–July/20–4,265	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Claytonia peirsonii ssp. *peirsonii*	Peirson's spring beauty	None/None/1B.2	Subalpine coniferous forest, Upper montane coniferous forest; Granitic, Metamorphic, Scree, Talus/perennial herb/(Mar) May–June/4,955–9,005	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Clinopodium mimuloides	monkey-flower savory	None/None/4.2	Chaparral, North Coast coniferous forest; Mesic, Streambanks/perennial herb/June–Oct/1,000–5,905	Not expected to occur. Suitable micro-habitats (mesic and streambanks) for the species are not present in the Study Area.
Diplacus johnstonii	Johnston's monkeyflower	None/None/4.3	Lower montane coniferous forest (disturbed areas, gravelly, roadsides, rocky, scree)/annual herb/May–Aug/ 3,200–9,580	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Dodecahema leptoceras	slender-horned spineflower	FE/SE/1B.1	Chaparral, Cismontane woodland, Coastal scrub; Flood deposited terraces and washes/annual herb/Apr–June/ 655–2,490	Not expected to occur. Suitable micro-habitats (Flood deposited terraces and washes) for the species are not present in the Study Area.
Erigeron breweri var. *jacinteus*	San Jacinto Mountains daisy	None/None/4.3	Subalpine coniferous forest, Upper montane coniferous forest; Rocky/ perennial rhizomatous herb/June–Sep/ 8,860–9,515	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Eriogonum umbellatum var. *minus*	alpine sulfur-flowered buckwheat	None/None/4.3	Subalpine coniferous forest, Upper montane coniferous forest; Gravelly/ perennial herb/June–Sep/ 5,905–10,065	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Erythranthe diffusa	Palomar monkeyflower	None/None/4.3	Chaparral, Lower montane coniferous forest; Gravelly (sometimes), Sandy (sometimes)/annual herb/Apr–June/ 4,005–6,005	Not expected to occur. The Study Area is below the elevation range of the species.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Frasera neglecta	pine green-gentian	None/None/4.3	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest/perennial herb/May–July/4,595–8,205	Not expected to occur. The Study Area is below the elevation range of the species.
Galium angustifolium ssp. *gabrielense*	San Antonio Canyon bedstraw	None/None/4.3	Chaparral, Lower montane coniferous forest; Granitic, Rocky (sometimes), Sandy (sometimes)/perennial herb/ Apr–Aug/3,935–8,695	Not expected to occur. The Study Area is below the elevation range of the species.
Galium angustifolium ssp. *gracillimum*	slender bedstraw	None/None/4.2	Joshua tree "woodland", Sonoran desert scrub; Granitic, Rocky/perennial herb/ Apr–June (July)/425–5,085	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Galium jepsonii	Jepson's bedstraw	None/None/4.3	Lower montane coniferous forest, Upper montane coniferous forest; Granitic, Gravelly (sometimes), Rocky (sometimes)/perennial rhizomatous herb/July–Aug/5,055–8,205	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Galium johnstonii	Johnston's bedstraw	None/None/4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Riparian woodland/perennial herb/ June–July/4,005–7,545	Not expected to occur. The Study Area is below the elevation range of the species.
Goodmania luteola	golden goodmania	None/None/4.2	Meadows and seeps, Mojavean desert scrub, Playas, Valley and foothill grassland; Alkaline (sometimes), Clay (sometimes)/annual herb/Apr–Aug/ 65–7,220	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Heuchera abramsii	Abrams' alumroot	None/None/4.3	Upper montane coniferous forest (rocky)/perennial rhizomatous herb/ July–Aug/9,185–11,485	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Heuchera caespitosa	urn-flowered alumroot	None/None/4.3	Cismontane woodland, Lower montane coniferous forest, Riparian forest (montane), Upper montane coniferous forest; Rocky/perennial rhizomatous herb/May–Aug/3,790–8,695	Not expected to occur. Suitable habitat for the species is not present in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Horkelia cuneata var. *puberula*	mesa horkelia	None/None/1B.1	Chaparral (maritime), Cismontane woodland, Coastal scrub; Gravelly (sometimes), Sandy (sometimes)/ perennial herb/Feb–July (Sep)/ 230–2,660	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Hulsea vestita ssp. *gabrielensis*	San Gabriel Mountains sunflower	None/None/4.3	Lower montane coniferous forest, Upper montane coniferous forest; Rocky/perennial herb/May–July/ 4,920–8,205	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Hulsea vestita ssp. *parryi*	Parry's sunflower	None/None/4.3	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest; Carbonate (sometimes), Granitic (sometimes), Openings, Rocky/perennial herb/ Apr–Aug/4,495–9,500	Not expected to occur. The Study Area is below the elevation range of the species.
Imperata brevifolia	California satintail	None/None/2B.1	Chaparral, Coastal scrub, Meadows and seeps, Mojavean desert scrub, Riparian scrub; Mesic/perennial rhizomatous herb/Sep–May/0–3,985	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Juglans californica	Southern California black walnut	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland/ perennial deciduous tree/Mar–Aug/ 165–2,955	Not expected to occur. This conspicuous species was not observed in the Study Area.
Juncus duranii	Duran's rush	None/None/4.3	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest; Mesic/perennial rhizomatous herb/July–Aug/ 5,800–9,200	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Lepechinia fragrans	fragrant pitcher sage	None/None/4.2	Chaparral/perennial shrub/Mar–Oct/ 65–4,300	Not expected to occur. This conspicuous species was not observed in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None/4.3	Chaparral, Coastal scrub/annual herb/ Jan–July/5–2,905	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Leptosiphon aureus	Golden linanthus	None/None/4.2	Chaparral, Cismontane woodland, Valley and foothill grassland/annual herb/Apr—May/5-2,300	Present. Numerous observations of the species were mapped within the gen-tie portion of the Study Area
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland; Openings/perennial bulbiferous herb/ Mar–July (Aug)/100–5,905	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Lilium parryi	lemon lily	None/None/1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest; Mesic/perennial bulbiferous herb/ July–Aug/4,000–9,005	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Linanthus concinnus	San Gabriel linanthus	None/None/1B.2	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest; Openings, Rocky/annual herb/ Apr–July/4,985–9,185	Not expected to occur. The Study Area is below the elevation range of the species.
Loeflingia squarrosa var. *artemisiarum*	sagebrush loeflingia	None/None/2B.2	Desert dunes, Great Basin scrub, Sonoran desert scrub; Sandy/annual herb/Apr–May/2,295–5,295	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Lupinus albifrons var. *johnstonii*	interior bush lupine	None/None/4.3	Chaparral, Lower montane coniferous forest; Decomposed granitic/perennial shrub/May–July/4,920–8,205	Not expected to occur. The Study Area is below the elevation range of the species.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Lupinus elatus	silky lupine	None/None/4.3	Lower montane coniferous forest, Upper montane coniferous forest/ perennial herb/June–Aug/ 4,920–9,845	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Lupinus peirsonii	Peirson's lupine	None/None/1B.3	Joshua tree "woodland", Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest; Gravelly, Rocky/ perennial herb/Apr–June/3,280–8,205	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Lycium torreyi	Torrey's box-thorn	None/None/4.2	Mojavean desert scrub, Sonoran desert scrub; Rocky, Sandy, Streambanks, Washes/perennial shrub/(Jan–Feb)Mar–June (Sep–Nov)/-165–4,005	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Malacothamnus davidsonii	Davidson's bush-mallow	None/None/1B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland/ perennial deciduous shrub/June–Jan/ 605–3,740	Not expected to occur. This conspicuous species was not observed in the Study Area.
Monardella australis ssp. *gabrielensis*	San Gabriel Mountains monardella	None/None/1B.2	Broadleafed upland forest, Chaparral, Lower montane coniferous forest; Granitic, Openings/shrub/July–Sep/ 5,245–7,215	Not expected to occur. The Study Area is below the elevation range of the species.
Monardella australis ssp. *gabrielensis*	San Gabriel Mountains monardella	None/None/1B.2	Broadleafed upland forest, Chaparral (montane), Lower montane coniferous forest; Granitic, Openings/shrub/July–Sep/5,250–7,220	Not expected to occur. The Study Area is below the elevation range of the species.
Monardella exilis	Mojave monardella	None/None/4.2	Chenopod scrub, Desert dunes, Great Basin scrub, Joshua tree "woodland", Lower montane coniferous forest, Mojavean desert scrub, Pinyon and juniper woodland; Sandy/annual herb/ Apr–Sep/1,970–6,725	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Monardella viridis	green monardella	None/None/4.3	Broadleafed upland forest, Chaparral, Cismontane woodland/perennial rhizomatous herb/June–Sep/ 330–3,315	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Mucronea californica	California spineflower	None/None/4.2	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; Sandy/annual herb/Mar–July (Aug)/0–4,595	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Muhlenbergia californica	California muhly	None/None/4.3	Chaparral, Coastal scrub, Lower montane coniferous forest, Meadows and seeps; Mesic, Seeps, Streambanks/perennial rhizomatous herb/June–Sep/330–6,560	Not expected to occur. Suitable micro-habitats (mesic, seeps, and streambanks) for the species are not present in the Study Area.
Muilla coronata	crowned muilla	None/None/4.2	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland/perennial bulbiferous herb/Mar–Apr (May)/ 2,200–6,430	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Navarretia fossalis	spreading navarretia	FT/None/1B.1	Chenopod scrub, Marshes and swamps (shallow freshwater), Playas, Vernal pools/annual herb/Apr–June/ 100–2,150	Not expected to occur. Suitable habitat for the species is not present in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Nemacladus secundiflorus var. *robbinsii*	Robbins' nemacladus	None/None/1B.2	Chaparral, Valley and foothill grassland; Openings/annual herb/Apr–June/ 1,150–5,580	Low potential to occur. The species was initially assessed as having high potential due to the presence of suitable in the Study Area and recent local records (Calflora 2025); however, the species was not observed during focused rare plant surveys.
Opuntia basilaris var. *brachyclada*	short-joint beavertail	None/None/1B.2	Chaparral, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland/perennial stem/ Apr–June (Aug)/1,390–5,905	Present. Four individuals were identified in the gen-tie portion of the Study Area during the 2023 focused rare plant surveys.
Orcuttia californica	California Orcutt grass	FE/SE/1B.1	Vernal pools/annual herb/Apr–Aug/ 50–2,165	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Oreonana vestita	woolly mountain-parsley	None/None/1B.3	Lower montane coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest; Gravelly (sometimes), Talus (sometimes)/ perennial herb/Mar–Sep/ 5,300–11,485	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Packera ionophylla	Tehachapi ragwort	None/None/4.3	Lower montane coniferous forest, Upper montane coniferous forest; Granitic, Rocky/perennial herb/ June–July/4,920–8,860	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Perideridia pringlei	adobe yampah	None/None/4.3	Chaparral, Cismontane woodland, Coastal scrub, Pinyon and juniper woodland; Clay (often), Serpentine/ perennial herb/Apr–June (July)/ 985–5,905	Not expected to occur. Suitable micro-habitats (clay and serpentine soils) for the species are not present in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Phacelia mohavensis	Mojave phacelia	None/None/4.3	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Pinyon and juniper woodland; Gravelly (sometimes), Sandy (sometimes)/ annual herb/Apr–Aug/4,595–8,205	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Pseudognaphalium leucocephalum	white rabbit-tobacco	None/None/2B.2	Chaparral, cismontane woodland, Coastal scrub, Riparian woodland; gravelly benches, dry stream bottoms, Sandy/perennial herb/ (July) Aug–Nov (Dec)/0–6,885	Low potential to occur. The species was initially assessed as having moderate potential due to the presence of suitable in the Study Area; however, the species was not observed during focused rare plant surveys.
Quercus durata var. *gabrielensis*	San Gabriel oak	None/None/4.2	Chaparral, Cismontane woodland/ perennial evergreen shrub/Apr–May/ 1,475–3,280	Not expected to occur. This conspicuous species was not observed in the Study Area.
Quercus engelmannii	Engelmann oak	None/None/4.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/ Mar–June/165–4,265	Not expected to occur. This conspicuous species was not observed in the Study Area.
Selaginella asprella	bluish spike-moss	None/None/4.3	Cismontane woodland, Lower montane coniferous forest, Pinyon and juniper woodland, Subalpine coniferous forest, Upper montane coniferous forest; Granitic, Rocky/perennial rhizomatous herb/July/5,250–8,860	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Senecio astephanus	San Gabriel ragwort	None/None/4.3	Chaparral, Coastal scrub; Rocky, Slopes/perennial herb/May–July/ 1,310–4,920	Not expected to occur. The Study Area is outside the range of the species.
Sidotheca caryophylloides	chickweed oxytheca	None/None/4.3	Lower montane coniferous forest (sandy)/annual herb/July–Sep (Oct)/3,655–8,530	Not expected to occur. Suitable habitat for the species is not present in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Stylocline masonii	Mason's neststraw	None/None/1B.1	Chenopod scrub, Pinyon and juniper woodland; Sandy/annual herb/ Mar–May/330–3,935	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Symphyotrichum greatae	Greata's aster	None/None/1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Riparian woodland; Mesic/perennial rhizomatous herb/ June–Oct/985–6,590	Not expected to occur. Suitable micro-habitat (mesic conditions) for the species is not present in the Study Area.
Syntrichopappus lemmonii	Lemmon's syntrichopappus	None/None/4.3	Chaparral, Joshua tree "woodland", Pinyon and juniper woodland; Gravelly (sometimes), Sandy (sometimes)/ annual herb/Apr–May (June)/ 1,640–6,005	Low potential to occur. The species was initially assessed as having high potential due to the presence of suitable in the Study Area and recent local records (Calflora 2025); however, the species was not observed during focused rare plant surveys.
Thysanocarpus rigidus	rigid fringepod	None/None/1B.2	Pinyon and juniper woodland; Dry, Rocky, Slopes/annual herb/Feb–May/ 1,965–7,215	Not expected to occur. Herbarium records for the species are only from San Diego and Riverside counties.
Yucca brevifolia	western Joshua tree	None/SC/CBR	Great Basin grassland, Great Basin scrub, Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland, Sonoran desert scrub, Valley and foothill grassland/perennial leaf succulent/Apr–May/1,310–6,560	Not expected to occur. This conspicuous species was not observed in the Study Area.

Status Legend
Federal
FE: Federally listed as endangered
FT: Federally listed as threatened
State
SC: State candidate for listing
SE: State listed as endangered
SR: State designated as rare
CRPR: California Rare Plant Rank
1B: Plants rare, threatened, or endangered in California and elsewhere

2B: Plants rare, threatened, or endangered in California but more common elsewhere
4: Plants of limited distribution
CBR: Considered by Rejected for a CRPR
Threat Rank

- 0.1 – Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- 0.2 – Moderately threatened in California (20% - 80% of occurrences threatened/moderate degree and immediacy of threat)
- 0.3 – Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat)

Plant References

Calflora. 2025. The CalFlora Database: Information on California plants for education, research, and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. Berkeley, California. Accessed February 2025. https://www.calflora.org/.

CDFW (California Department of Fish and Wildlife). 2025. *RareFind,* Version 5.2.14. California Natural Diversity Database (CNDDB). Accessed February 2025. https://map.dfg.ca.gov/rarefind/view/RareFind.aspx.

CNPS (California Native Plant Society). 2025. *Inventory of Rare and Endangered Plants.* Online Ed. Version 8-03 0.45. Sacramento, California: CNPS. Accessed February 2025. http://www.rareplants.cnps.org/advanced.html.

Consortium of California Herbaria (CCH). 2025. CCH1: Featuring California vascular plant data from the Consortium of California Herbaria and other sources. Regents of the University of California. Accessed February 2025. https://ucjeps.berkeley.edu/consortium/.

Jepson Flora Project. 2025. Jepson eFlora. Berkeley, California: University of California. Accessed February 2025. http://ucjeps.berkeley.edu/eflora/.

USFWS. 2025. IPaC: Information for Planning and Consultation. Powered by ECOS – the Environmental Conservation Online System. Accessed February 2025. https://ecos.fws.gov/ipac/.

Special-Status Wildlife

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Invertebrates				
Bombus crotchii	Crotch's bumble bee	None/CSL	Open grassland and scrub communities supporting suitable floral resources	Moderate potential to occur. The species may nest and forage in the Study Area; however, 2024 focused surveys for the species conducted in the Study Area were negative for the species.
Branchinecta lynchi	vernal pool fairy shrimp	FT/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	FC/None	Wind-protected tree groves with nectar sources and nearby water sources	Not expected to occur (overwintering). Suitable habitat for the species is not present in the Study Area; however, the species may be transient through the area during migration.
Euphydryas editha quino	quino checkerspot butterfly	FE/None	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include Plantago erecta, Antirrhinum coulterianum, and Plantago patagonica (Silverado Occurrence Complex)	Not expected to occur. The Study Area is outside the current range of the species.
Glyptostoma gabrielense	San Gabriel chestnut	None/None	Native to a narrow strip of the front range of the San Gabriel Mountains about 15 miles (24 km) long near Pasadena, California, where it inhabits riparian canyons and other areas with sufficient seasonal moisture	Not expected to occur. The Study Area is outside the current range of the species.

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Helminthoglypta fontiphila	Soledad shoulderband	None/None	known only from Little Rock Creek Canyon on the north flank of the San Gabriel Mountains and from the Santa Clara River in Soledad Canyon	Not expected to occur. The Study Area is outside the current range of the species.
Helminthoglypta traskii pacoimensis	Pacoima shoulderband	None/None	Known only from Pacoima Canyon on the west slope of the San Gabriel Mountains	Not expected to occur. The Study Area is outside the current range of the species.
Streptocephalus woottoni	Riverside fairy shrimp	FE/None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Fish				
Catostomus santaanae	Santa Ana sucker	FT/None	Small, shallow, cool, clear streams less than 7 meters (23 feet) in width and a few centimeters to more than a meter (1.5 inches to more than 3 feet) in depth; substrates are generally coarse gravel, rubble, and boulder	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	FE/FP, SE	Slow-moving and backwater areas	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Gila orcuttii	arroyo chub	None/SSC	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Rhinichthys gabrielino	Santa Ana speckled dace	None/SSC	Headwaters of the Santa Ana and San Gabriel Rivers; may be extirpated from the Los Angeles River system	Not expected to occur. Suitable habitat for the species is not present in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Amphibians				
Anaxyrus californicus	arroyo toad	FE/SSC	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Rana boylii pop. 6	foothill yellow-legged frog - south coast DPS	FE/SE	Rocky streams and rivers with open banks in forest, chaparral, and woodland	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Rana draytonii	California red-legged frog	FT/SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Rana muscosa	mountain yellow-legged frog	FE/SE	Lakes, ponds, meadow streams, isolated pools, and open riverbanks; rocky canyons in narrow canyons and in chaparral	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Taricha torosa (Monterey Co. south only)	California newt	None/SSC	Wet forests, oak forests, chaparral, and rolling grassland	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Reptiles				
Actinemys pallida	southwestern pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. Suitable habitat for the species is not present in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Anniella pulchra/ Anniella stebbinsi/ Anniella spp.	northern California legless lizard/ southern California legless lizard/ California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Moderate potential to occur. Suitable habitat is present throughout the Study Area and there are recent records in the region; however, moist sandy or loose, loamy soils are limited in the Study Area to beneath the larger California junipers due to the expected higher moisture content of the soil.
Arizona elegans occidentalis	California glossy snake	None/SSC	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils	Low potential to occur. Suitable habitat is present throughout the Study Area.
Aspidoscelis tigris stejnegeri	Coastal whiptail	None/SSC	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas	Low potential to occur. Suitable habitat is present throughout the Study Area; however, the Study Area is in the northern limits of the species.
Diadophis punctatus modestus	San Bernardino ring-necked snake	None/None	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Gopherus agassizii	Mojave desert tortoise	FT/ST	Arid and semi-arid habitats in Mojave and Sonoran Deserts, including sandy or gravelly locations along riverbanks, washes, sandy dunes, canyon bottoms, desert oases, rocky hillsides, creosote flats, and hillsides	Not expected to occur. Suitable habitat for the species is not present in the Study Area, which is also outside the range of the species.
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Moderate potential to occur. Suitable habitat is present throughout the Study Area and there are recent nearby records.
Thamnophis hammondii	two-striped gartersnake	None/SSC	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur. Suitable habitat for the species is not present in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Not expected to occur (nesting). Suitable habitat for the species is not present in the Study Area.
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Moderate potential to occur. Suitable habitat is present throughout the Study Area.
Aquila chrysaetos (nesting and wintering)	golden eagle	None/FP, WL	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	Not expected to nest in the Study Area. Low potential for wintering and as a transient during foraging and migration. There is a 1965 record for nesting by the species to the south of the Study Area in Aliso Canyon.
Artemisiospiza belli belli	Bell's sage sparrow	None/WL	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Moderate potential to occur. Suitable habitat is present throughout the Study Area.
Athene cunicularia (burrow sites and some wintering sites)	burrowing owl	BCC/CSL	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Not expected to occur in the Study Area. The Study Area is outside of the predicted habitat for the species (CDFW 2024b) and no diagnostic sign of the species was observed during the many surveys of the Study Area

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Buteo regalis (wintering)	ferruginous hawk	None/WL	Winters and forages in open, dry country, grasslands, open fields, agriculture	Low potential to occur. Marginal wintering habitat is present in the Study Area but local wintering records of the species are from the Antelope Valley, north of the Study Area.
Buteo swainsoni (nesting)	Swainson's hawk	BCC/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to occur for nesting in the Study Area but may occur as a transient during migration.
Charadrius (*Anarhynchus*) *montanus* (wintering)	mountain plover	BCC/SSC	Winters in shortgrass prairies, plowed fields, open sagebrush, and sandy deserts	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Falco mexicanus (nesting)	prairie falcon	None/WL	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Geococcyx californianus	greater roadrunner	None/None	Include areas dominated by creosote, mesquite, chaparral, and tamarisk, as well as grasslands, riparian woodlands and canyons; nest sites are 3 to 10 feet or more off the ground, on a horizontal branch or in the crotch of a sturdy bush, cactus, or small tree	Occurs. The species was observed in the Study Area during the surveys and nesting habitat is found in the California juniper woodland. The species is included in this table since it is considered a Los Angeles County sensitive bird species (Los Angeles Audubon 2009).

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Gymnogyps californianus	California condor	FE/FP, SE	Nests in rock formations, deep caves, and occasionally in cavities in giant sequoia trees *(Sequoiadendron giganteus*); forages in relatively open habitats where large animal carcasses can be detected	Not expected to occur for nesting. Suitable nesting habitat for the species is not present in the Study Area. The species could be a transient in the area for foraging.
Icterus parisorum	Scott's oriole (breeding)	None/None	Breeding in Los Angeles County is concentrated in a few tracts of extensive Joshua tree woodland in the eastern Antelope Valley and patches of pinyon-juniper woodland on the north flank of the San Gabriel Mountains	Low potential to occur. While the Study Area does have juniper woodland, breeding records of the species in the region are from the desert slope of the San Gabriel Mountains (eBird 2025). The species is included in this table since it is considered a Los Angeles County sensitive bird species (Los Angeles Audubon 2009).
Lanius ludovicianus (nesting)	loggerhead shrike	BCC/SSC	Nests and forages in open habitats with scattered shrubs, trees, or other perches	Present. An individual was observed in 2023, suitable habitat for the species is present in the Study Area, and there are recent local records.
Polioptila californica californica	coastal California gnatcatcher	FT/SSC	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Pooecetes gramineus	vesper sparrow	None/None	Breeds in the northern United States and Canada and in the West in mountain meadows, grassy mesas, and sagebrush steppe up to 9,800 feet; winters in open grasslands and sparse shrublands in the valley and desert regions of Los Angeles County.	Low potential to occur. The species could occur during the winter season but it is not expected to nest. The species is included in this table since it is considered a Los Angeles County sensitive bird species (Los Angeles Audubon 2009).

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Setophaga petechia (nesting)	yellow warbler	BCC/SSC	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Sturnella neglecta	western meadowlark	None/None	Commonly be found in agricultural land and other open habitats in the Antelope Valley	Low potential to occur. The Study Area lacks breeding habitat for the species but it could forage on site. The species is included in this table since it is considered a Los Angeles County sensitive bird species (Los Angeles Audubon 2009).
Toxostoma lecontei	LeConte's thrasher	BCC/SSC	Nests and forages in desert wash, desert scrub, alkali desert scrub, desert succulent, and Joshua tree habitats; nests in spiny shrubs or cactus	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Mammals				
Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Low potential to occur for roosting and may forage over the Study Area. Suitable roosting habitat (trees) for the species is present in the Study Area.
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	None/None	Desert wash, desert scrub, desert succulent scrub, and pinyon–juniper woodland	Not expected to occur. In Los Angeles County, records of the species are from the eastern desert foothills of the San Gabriel Mountains.

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Not expected to occur for roosting but may forage over the Study Area. Suitable roosting habitat for the species is not present in the Study Area.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/None	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Low potential to occur. Suitable habitat is present throughout the Study Area; however, the Study Area is in the northern limits of the species.
Ovis canadensis nelsoni	Nelson's bighorn sheep	None/FP	Steep slopes and cliffs, rough and rocky topography, sparse vegetation; also canyons, washes, and alluvial fans	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Myotis thysanodes	fringed myotis	None/None	Drier woodlands (oak, pinyon–juniper, and ponderosa pine), desert scrub, mesic coniferous forest, grassland, and sage–grass steppe; sea level to 9,350 ft; roosts in buildings, mines, rocks, cliff faces, bridges, and large, decadent trees and snags	Not expected to occur for roosting but may forage over the Study Area. Suitable roosting habitat for the species is not present in the Study Area.
Myotis volans	long-legged myotis	None/None	Primarily coniferous forests, but also seasonally in riparian and desert habitats; roosts in crevices in cliffs, caves, mines, buildings, exfoliating tree bark, and snags	Not expected to occur for roosting but may forage over the Study Area. Suitable roosting habitat for the species is not present in the Study Area.
Myotis yumanensis	Yuma myotis	None/None	Riparian, arid scrublands and deserts, and forests associated with water (streams, rivers, tinajas); roosts in bridges, buildings, cliff crevices, caves, mines, and trees	Not expected to occur for roosting but may forage over the Study Area. Suitable roosting habitat for the species is not present in the Study Area.
Neotamias speciosus speciosus	lodgepole chipmunk	None/None	Lodgepole pine forests	Not expected to occur. Suitable habitat for the species is not present in the Study Area.

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Onychomys torridus ramona	southern grasshopper mouse	None/SSC	Grassland and sparse coastal scrub	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Ovis canadensis nelsoni	Nelson's bighorn sheep	None/FP	Steep slopes and cliffs, rough and rocky topography, sparse vegetation; also canyons, washes, and alluvial fans	Not expected to occur. Suitable habitat for the species is not present in the Study Area.
Perognathus inornatus	San Joaquin pocket mouse	None/None	Open grassland and scrub areas on fine-textured soils	Not expected to occur. In Los Angeles County, records of the species are from the foothills of the Liebre Mountains.
Puma concolor (Southern California/Central Coast Evolutionarily Significant Unit)	mountain lion	None/CSL	Require large areas of relatively undisturbed habitats with adequate connectivity; these often consist of pine forests, riparian and oak woodlands, streams, chaparral, and grasslands, though they are also known to occur in desert habitats	High potential to occur. The Study Area is part of large areas of relatively undisturbed habitats with adequate connectivity so it is expected that the species could use the Study Area as part of a home range. State Route 14 may reduce connectivity between the San Gabriel and Sierra Pelona mountains but not prohibit it. The species is not expected to have natal dens in the Study Area since females typically avoid establishing a den near human activity (Center for Biological Diversity and the Mountain Lion Foundation 2019)
Taxidea taxus	American badger	None/SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils; needs sufficient food, friable soils and open, uncultivated ground; preys on burrowing rodents and digs burrows	Low potential to occur. Suitable habitat is present in the Study Area but no individuals were observed and no diagnostic sign (i.e., burrows or digs with the species' conspicuous claw marks) were observed during the extensive surveys. There is one record within 20 miles of the Study Area from 1930 at Lake Los Angeles (CDFW 2025). There is one 2021 iNaturalist record approximately 8.6 miles to the west near Agua Dulce (iNaturalist 2025).

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur
Xerospermophilus mohavensis	Mohave ground squirrel	None/ST	Desert scrub habitats including those dominated by creosote bush and burrobush, desert sink scrub, and desert saltbush scrub	Not expected to occur. Suitable habitat for the species is not present in the Study Area and it is outside the range of the species.

Status Legend
Federal
BCC: Bird of Conservation Concern (U.S. Fish and Wildlife Service)
FC: Candidate for federal listing as threatened or endangered
FE: Federally listed as endangered
FT: Federally listed as threatened
State
FP: California Fully Protected Species
SE: State listed as endangered
SSC: California Species of Special Concern
ST: State listed as threatened
CSL: Candidate for State Listing
WL: CDFW Watch List Species

Wildlife References

Allen, L.W., K.L. Garrett, and M.C. Wimer. 2016. *Los Angeles County Breeding Bird Atlas*. Los Angeles, Calif.: Los Angeles Audubon Society.

Blood, B. 2024. Guide to the Terrestrial Mammals of Southern California and Eastern and Southern Sierra Nevada. California. Outskirts Press.

CDFW (California Department of Fish and Wildlife). 2025a. *RareFind*, Version 5.2.14. California Natural Diversity Database (CNDDB). Accessed May 2025. https://map.dfg.ca.gov/rarefind/view/RareFind.aspx.

CDFW. 2025b. CWHR Life History Accounts and Range Maps – Website. Updated versions of species information in Zeiner et al. 1988–1990. CDFW, CWHR Program. Accessed May 2025. https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range.

Center for Biological Diversity and the Mountain Lion Foundation. 2019. A Petition to List the Southern California/Central Coast Evolutionarily Significant Unit (ESU) of Mountain Lions as Threatened under the California Endangered Species Act (CESA). Accessed May 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=171208&inline.

Cornell Lab. 2025. Greater roadrunner life history. All About Birds. Accessed September 2025. https://www.allaboutbirds.org/guide/Greater_Roadrunner/lifehistory#habitat.

eBird. 2025. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Accessed May 2025. http://www.ebird.org.

Hansen, R. and Shedd, J. 2025. California Amphibians and Reptiles. New Jersey. Princeton University Press. January 2025.

iNaturalist. 2025. iNaturalist, an online community database. Accessed May 2025. https://www.inaturalist.org/.

Los Angeles Audubon. 2009. Los Angeles County's Sensitive Bird Species. Western Tanager, vol. 75, no. 3, January/February 2009. Accessed September 2025. https://planning.lacounty.gov/wp-content/uploads/2022/11/LA-Countys-Sensitive-Bird-Species.pdf.

Magney, D. 2009. Los Angeles County Wildlife - Terrestrial Gastropods (Snails and Slugs). Accessed May 2025. https://magney.org/photofiles/Snails-LosAngelesCounty.htm.

Miner, K.L., and D.C. Stokes. 2005. "Bats in the South Coast Ecoregion: Status, Conservation Issues, and Research Needs." USDA Forest Service Gen. Tech. Rep. PSW-GTR-195:211-277.

Mock, P. 2004. California Gnatcatcher (*Polioptila californica*). In The Coastal Scrub and Chaparral Bird Conservation Plan: a strategy for protecting and managing coastal scrub and chaparral habitats and associated birds in California. California Partners in Flight. Accessed May 2025. http://www.prbo.org/calpif/htmldocs/scrub.html.

Nafis, G. 2025. *California Herps - A Guide to the Amphibians and Reptiles of California*. Accessed May 2025. http://www.californiaherps.com/.

PISCES. 2014. PISCES Range Data. California Fish Data and Management Software. Center for Watershed Sciences. University of California, Davis. Accessed May 2025. https://pisces.ucdavis.edu/fish.

USFWS. 2019. Recovery Plan for Quino checkerspot butterfly (*Euphydryas editha quino*) Draft Amendment 1. Original Approved August 11, 2003. Original prepared by Alison Williams-Anderson for U.S. Fish and Wildlife Service, Region 8. Carlsbad, California. March 2019. Accessed May 2025. https://ecos.fws.gov/docs/recovery_plan/Draft%20RP%20Amendment%20for%20QCB_1.pdf.

The Xerces Society. 2018. *A Petition to the State of California Fish and Game Commission to List the Crotch bumble bee (Bombus crotchii), Franklin's bumble bee (Bombus franklini), Suckley cuckoo bumble bee (Bombus suckleyi), and western bumble bee (Bombus occidentalis occidentalis) as Endangered under the California Endangered Species Act*. Submitted by The Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety. October 2019. Accessed May 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=161902&inline.

WBWG (Western Bat Working Group). 2017. "Western Bat Species." Western Bat Working Group Website. Accessed May 2025. https:// http://wbwg.org/western-bat-species/.

Plant and Wildlife Compendia

The following compendia documents the plant and wildlife species that were observed during the surveys for the Project.

Plants

Gymnosperms and Gnetophytes

CUPRESSACEAE—CYPRESS FAMILY
Juniperus californica—California juniper

EPHEDRACEAE—EPHEDRA FAMILY
Ephedra californica—California joint fir
Ephedra viridis—Mormon tea

Eudicots

ADOXACEAE—MUSKROOT FAMILY
Sambucus nigra ssp. *caerulea*—blue elderberry

APIACEAE—CARROT FAMILY
Lomatium mohavense—Mojave desertparsley

ASTERACEAE—SUNFLOWER FAMILY
Ambrosia acanthicarpa—flatspine bur ragweed
Ambrosia salsola var. *salsola*—burrobrush
Artemisia ludoviciana—white sagebrush
Artemisia tridentata ssp. *parishii*—big sagebrush
Artemisia tridentata ssp. *tridentata*—basin big sagebrush
Artemisia tridentata—big sagebrush
Chaenactis artemisiifolia—white pincushion
Chaenactis fremontii—pincushion flower
Chaenactis glabriuscula—yellow pincushion
Corethrogyne filaginifolia—sand-aster
Encelia actoni—Acton's brittle brush
Encelia farinosa—brittle bush
Encelia frutescens—button brittlebush
Ericameria brachylepis—chaparral goldenbush
Ericameria linearifolia—narrowleaf goldenbush
Ericameria nauseosa var. *hololeuca*—rubber rabbitbrush
Ericameria pinifolia—pinebush

Eriophyllum confertiflorum var. *confertiflorum*—golden-yarrow
Eriophyllum pringlei—Pringle's woolly sunflower
Gutierrezia californica—California match weed
Lasthenia glaberrima—smooth goldfields
Lasthenia gracilis—needle goldfields
Layia glandulosa—whitedaisy tidytips
Layia platyglossa—coastal tidytips
Malacothrix glabrata—smooth desertdandelion
Matricaria discoidea—disc mayweed
Senecio flaccidus—threadleaf ragwort
Stephanomeria pauciflora—brownplume wirelettuce
Tetradymia stenolepis—Mojave cottonthorn
Uropappus lindleyi—Lindley's silverpuffs

BORAGINACEAE—BORAGE FAMILY

Amsinckia douglasiana—Douglas' fiddleneck
Amsinckia menziesii—Menzies' fiddleneck
Cryptantha angustifolia—Panamint cryptantha
Cryptantha intermedia—Clearwater cryptantha
Harpagonella palmeri—Palmer's grapplinghook
Nemophila menziesii—baby blue eyes
Phacelia crenulata var. *ambigua*—purplestem phacelia
Phacelia distans—distant phacelia
Phacelia fremontii—Fremont's phacelia
Phacelia tanacetifolia—lacy phacelia
Pholistoma membranaceum—white fiestaflower

BRASSICACEAE—MUSTARD FAMILY

* *Hirschfeldia incana*—shortpod mustard
* *Sisymbrium altissimum*—tall tumblemustard

CACTACEAE—CACTUS FAMILY

Cylindropuntia echinocarpa—Wiggins' cholla
Opuntia basilaris var. *basilaris*—beavertail pricklypear
Opuntia basilaris var. *brachyclada*—short-joint beavertail
Opuntia littoralis—coast prickly pear

CHENOPODIACEAE—GOOSEFOOT FAMILY

Atriplex argentea—silverscale saltbush
Atriplex canescens—fourwing saltbush
Chenopodium californicum—California goosefoot
Grayia spinosa—spiny hop sage

CUCURBITACEAE—GOURD FAMILY

Marah macrocarpa—Cucamonga manroot

EUPHORBIACEAE—SPURGE FAMILY

Euphorbia albomarginata—whitemargin sandmat

FABACEAE—LEGUME FAMILY

Acmispon glaber—deer weed

Acmispon maritimus var. *maritimus*—coastal bird's-foot trefoil

Acmispon parviflorus—desert deervetch

Lupinus bicolor—miniature lupine

GERANIACEAE—GERANIUM FAMILY

* *Erodium cicutarium*—redstem stork's bill

LAMIACEAE—MINT FAMILY

Salvia apiana—white sage

Salvia carduacea—thistle sage

Salvia *columbariae*—chia

Salvia dorrii var. *pilosa*—purple sage

Scutellaria mexicana—Mexican bladdersage

LOASACEAE—LOASA FAMILY

Mentzelia ravenii—no common name

MONTIACEAE—MONTIA FAMILY

Calyptridium monandrum—common pussypaws

NYCTAGINACEAE—FOUR O'CLOCK FAMILY

Mirabilis laevis var. *crassifolia*—California four o'clock

ONAGRACEAE—EVENING PRIMROSE FAMILY

Camissonia contorta—plains evening primrose

Eulobus californicus—California suncup

* *Oenothera biennis*—common evening primrose

OROBANCHACEAE—BROOM-RAPE FAMILY

Castilleja exserta ssp. *exserta*—exserted Indian paintbrush

PAPAVERACEAE—POPPY FAMILY

Eschscholzia californica—California poppy

Eschscholzia minutiflora—pygmy poppy

Platystemon californicus—creamcups

PLANTAGINACEAE—PLANTAIN FAMILY

Penstemon spectabilis—showy penstemon

POLEMONIACEAE—PHLOX FAMILY

Eriastrum densifolium—giant woollystar

POLYGONACEAE—BUCKWHEAT FAMILY

Eriogonum fasciculatum—California buckwheat

Rumex hymenosepalus—canaigre dock

RANUNCULACEAE—BUTTERCUP FAMILY

Delphinium parishii—desert larkspur

SOLANACEAE—NIGHTSHADE FAMILY

Lycium cooperi—peach thorn

Monocots

AGAVACEAE—AGAVE FAMILY

* *Agave americana*—American century plant

Hesperoyucca whipplei—chaparral yucca

POACEAE—GRASS FAMILY

* *Avena fatua*—wild oat

Bromus carinatus—California brome

* *Bromus diandrus*—ripgut brome
* *Bromus hordeaceus*—soft brome
* *Bromus madritensis* ssp. *rubens*—red brome
* *Bromus tectorum*—cheatgrass

Elymus elymoides—squirreltail

Festuca microstachys—small fescue

Hordeum jubatum—foxtail barley

* *Hordeum murinum*—mouse barley

Melica imperfecta—smallflower melicgrass

Poa secunda—onesided bluegrass

* *Schismus arabicus*—Arabian schismus

Stipa speciosa—desert needlegrass

THEMIDACEAE—BRODIAEA FAMILY

Dichelostemma capitatum ssp. *capitatum*—bluedicks

Wildlife

Invertebrate

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Junonia coenia—common buckeye

PIERIDAE—WHITES AND SULFURS BUTTERFLIES

Pieris rapae—cabbage white

Reptile

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis longipes—western fence lizard

Uta stansburiana elegans—western side-blotched lizard

TEIIDAE—WHIPTAIL LIZARDS

Aspidoscelis tigris tigris—Great Basin whiptail

Bird

ICTERIDAE—BLACKBIRDS

Icterus bullockii—Bullock's oriole

Icterus cucullatus—hooded oriole

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch

Spinus lawrencei—Lawrence's goldfinch

Spinus psaltria—lesser goldfinch

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis saya—Say's phoebe

Tyrannus verticalis—western kingbird

Tyrannus vociferans—Cassin's kingbird

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Buteo jamaicensis—red-tailed hawk

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

Calypte costae—Costa's hummingbird

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—California scrub-jay

Corvus corax—common raven

ALAUDIDAE—LARKS

Eremophila alpestris—horned lark

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

Toxostoma redivivum—California thrasher

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail

PASSERIDAE—OLD WORLD SPARROWS

* *Passer domesticus*—house sparrow

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

* *Streptopelia decaocto*—Eurasian collared-dove

CUCULIDAE—CUCKOOS, ROADRUNNERS, AND ANIS

Geococcyx californianus—greater roadrunner

LANIIDAE—SHRIKES

Lanius ludovicianus—loggerhead shrike

HIRUNDINIDAE—SWALLOWS

Stelgidopteryx serripennis—northern rough-winged swallow

TURDIDAE—THRUSHES

Sialia currucoides—mountain bluebird

Sialia mexicana—western bluebird

REMIZIDAE—PENDULINE TITS AND VERDINS

Auriparus flaviceps—verdin

PARULIDAE—WOOD-WARBLERS

Setophaga coronata—yellow-rumped warbler

TROGLODYTIDAE—WRENS

Campylorhynchus brunneicapillus—cactus wren
Salpinctes obsoletus—rock wren
Thryomanes bewickii—Bewick's wren

PASSERELLIDAE—NEW WORLD SPARROWS

Artemisiospiza belli—Bell's sparrow
Chondestes grammacus—lark sparrow
Melozone crissalis—California towhee
Passerculus sandwichensis—savannah sparrow
Zonotrichia leucophrys—white-crowned sparrow

Mammal

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

LEPORIDAE—HARES AND RABBITS

Lepus californicus—black-tailed jackrabbit
Sylvilagus bachmani—brush rabbit

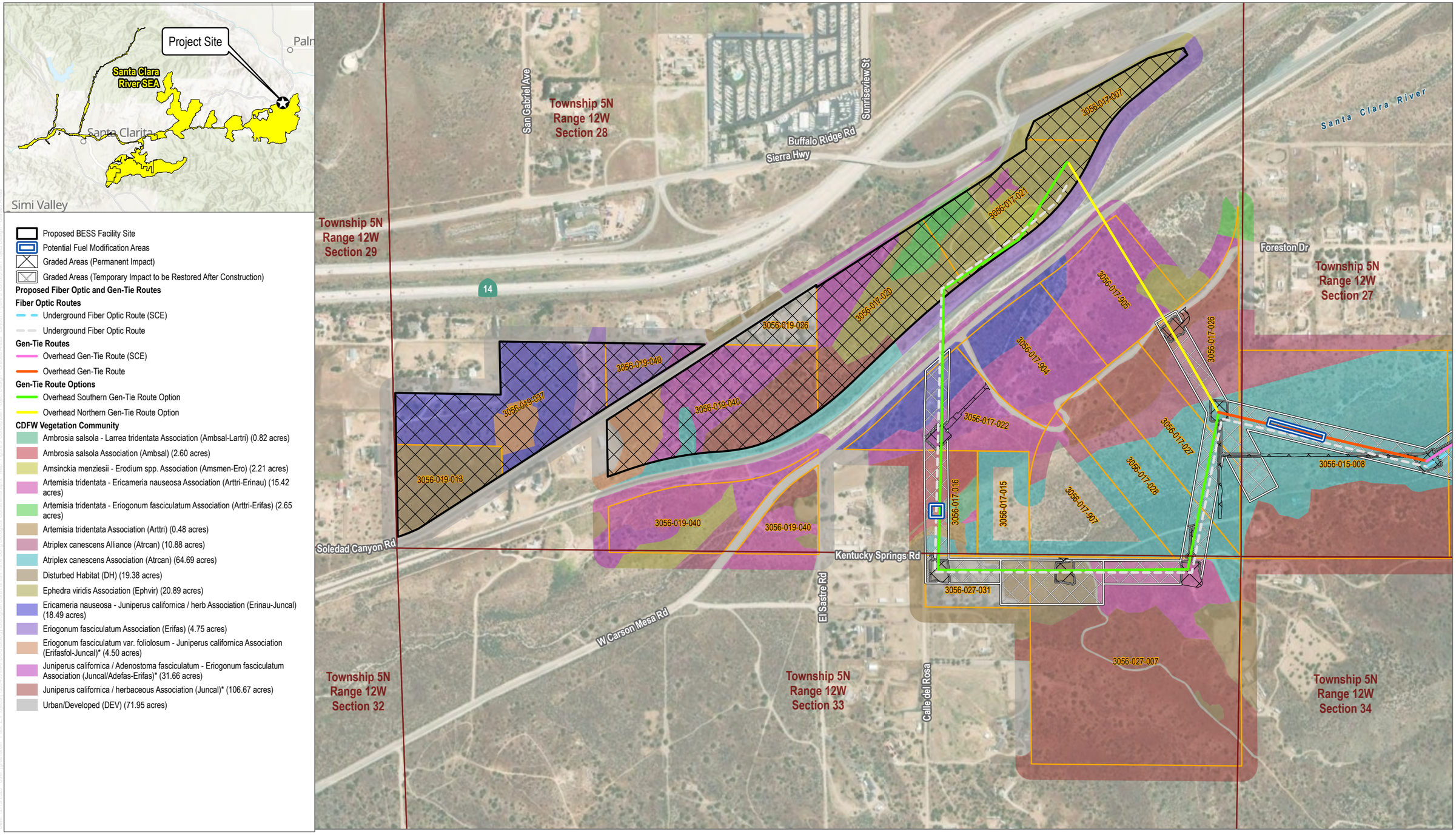
SCIURIDAE—SQUIRRELS

Ammospermophilus leucurus—white-tailed antelope squirrel
Spermophilus (*Otospermophilus*) *beecheyi*—California ground squirrel

* signifies introduced (non-native) species

INTENTIONALLY LEFT BLANK

Appendix D
Conceptual Project Design



- Proposed BESS Facility Site
- Potential Fuel Modification Areas
- Graded Areas (Permanent Impact)
- Graded Areas (Temporary Impact to be Restored After Construction)

Proposed Fiber Optic and Gen-Tie Routes

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)
- Underground Fiber Optic Route

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

CDFW Vegetation Community

- Ambrosia salsola - Larrea tridentata Association (Ambsal-Lartri) (0.82 acres)
- Ambrosia salsola Association (Ambsal) (2.60 acres)
- Amsinckia menziesii - Erodium spp. Association (Amsmen-Ero) (2.21 acres)
- Artemisia tridentata - Ericameria nauseosa Association (Arttri-Erinau) (15.42 acres)
- Artemisia tridentata - Eriogonum fasciculatum Association (Arttri-Erifas) (2.65 acres)
- Artemisia tridentata Association (Arttri) (0.48 acres)
- Atriplex canescens Alliance (Atrcan) (10.88 acres)
- Atriplex canescens Association (Atrcan) (64.69 acres)
- Disturbed Habitat (DH) (19.38 acres)
- Ephedra viridis Association (Ephvir) (20.89 acres)
- Ericameria nauseosa - Juniperus californica / herb Association (Erinau-Juncal) (18.49 acres)
- Eriogonum fasciculatum Association (Erifas) (4.75 acres)
- Eriogonum fasciculatum var. foliolosum - Juniperus californica Association (Erifasfol-Juncal)* (4.50 acres)
- Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum Association (Juncal/Adefas-Erifas)* (31.66 acres)
- Juniperus californica / herbaceous Association (Juncal)* (106.67 acres)
- Urban/Developed (DEV) (71.95 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

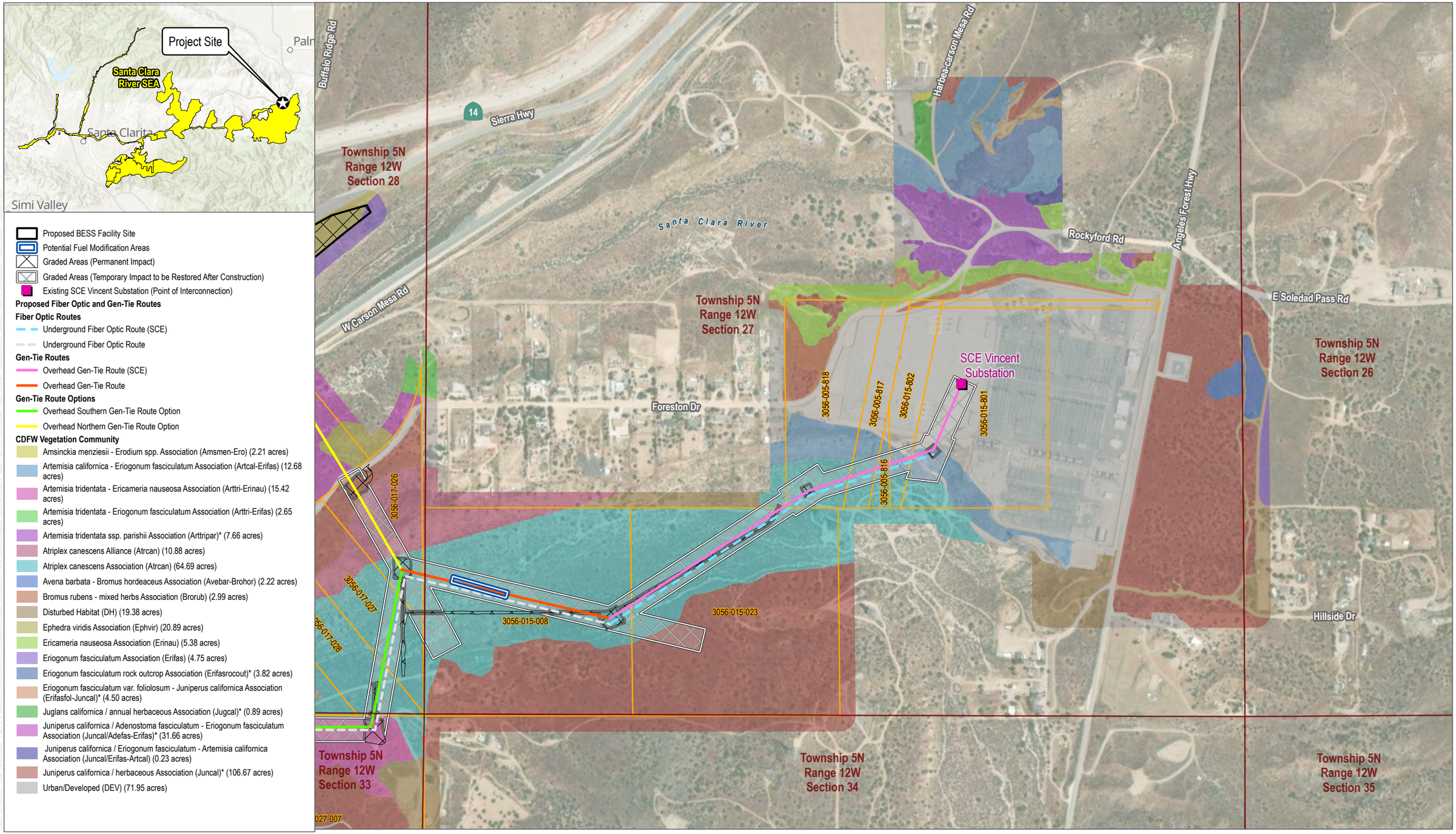
DUDEK

0 300 600 Feet

FIGURE 3A

Conceptual Project Design - Graded Areas

Prairie Song Reliability Project



- Proposed BESS Facility Site
- Potential Fuel Modification Areas
- Graded Areas (Permanent Impact)
- Graded Areas (Temporary Impact to be Restored After Construction)
- Existing SCE Vincent Substation (Point of Interconnection)

Proposed Fiber Optic and Gen-Tie Routes

Fiber Optic Routes

- Underground Fiber Optic Route (SCE)
- Underground Fiber Optic Route

Gen-Tie Routes

- Overhead Gen-Tie Route (SCE)
- Overhead Gen-Tie Route

Gen-Tie Route Options

- Overhead Southern Gen-Tie Route Option
- Overhead Northern Gen-Tie Route Option

CDFW Vegetation Community

- Amsinckia menziesii - Erodium spp. Association (Amsmen-Ero) (2.21 acres)
- Artemisia californica - Eriogonum fasciculatum Association (Artcal-Erifas) (12.68 acres)
- Artemisia tridentata - Ericameria nauseosa Association (Arttri-Erinau) (15.42 acres)
- Artemisia tridentata - Eriogonum fasciculatum Association (Arttri-Erifas) (2.65 acres)
- Artemisia tridentata ssp. parishii Association (Arttripar)* (7.66 acres)
- Atriplex canescens Alliance (Atrcan) (10.88 acres)
- Atriplex canescens Association (Atrcan) (64.69 acres)
- Avena barbata - Bromus hordeaceus Association (Avebar-Brohor) (2.22 acres)
- Bromus rubens - mixed herbs Association (Brorub) (2.99 acres)
- Disturbed Habitat (DH) (19.38 acres)
- Ephedra viridis Association (Ephvir) (20.89 acres)
- Ericameria nauseosa Association (Erinau) (5.38 acres)
- Eriogonum fasciculatum Association (Erifas) (4.75 acres)
- Eriogonum fasciculatum rock outcrop Association (Erifasrocout)* (3.82 acres)
- Eriogonum fasciculatum var. foliolosum - Juniperus californica Association (Erifasfol-Juncal)* (4.50 acres)
- Juglans californica / annual herbaceous Association (Jugcal)* (0.89 acres)
- Juniperus californica / Adenostoma fasciculatum - Eriogonum fasciculatum Association (Juncal/Adefas-Erifas)* (31.66 acres)
- Juniperus californica / Eriogonum fasciculatum - Artemisia californica Association (Juncal/Erifas-Artcal) (0.23 acres)
- Juniperus californica / herbaceous Association (Juncal)* (106.67 acres)
- Urban/Developed (DEV) (71.95 acres)

SOURCE: Maxar 2024; Los Angeles County 2025

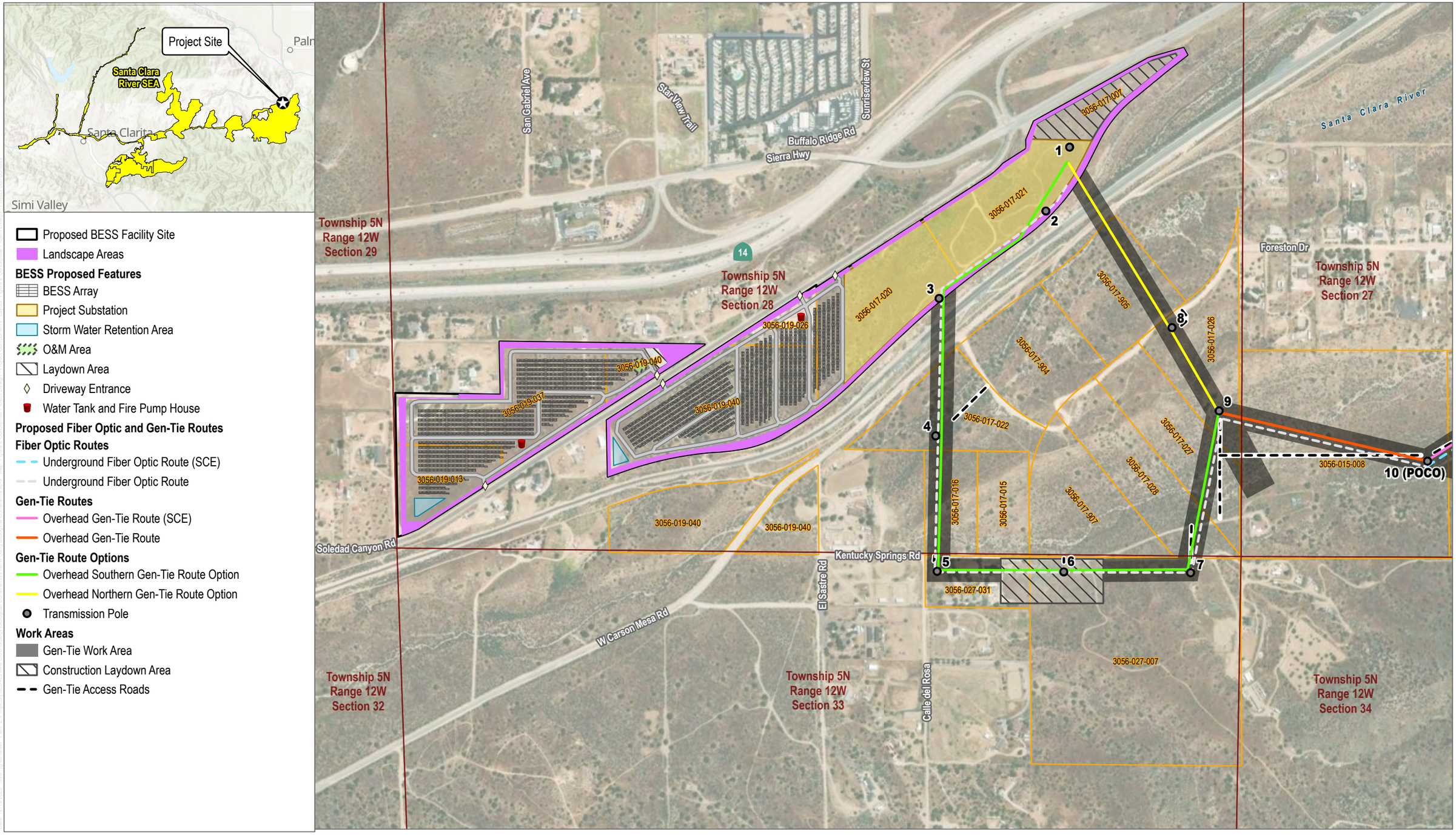
DUDEK

0 300 600 Feet

FIGURE 3B

Conceptual Project Design - Graded Areas

Prairie Song Reliability Project



SOURCE: Maxar 2024; Los Angeles County 2025

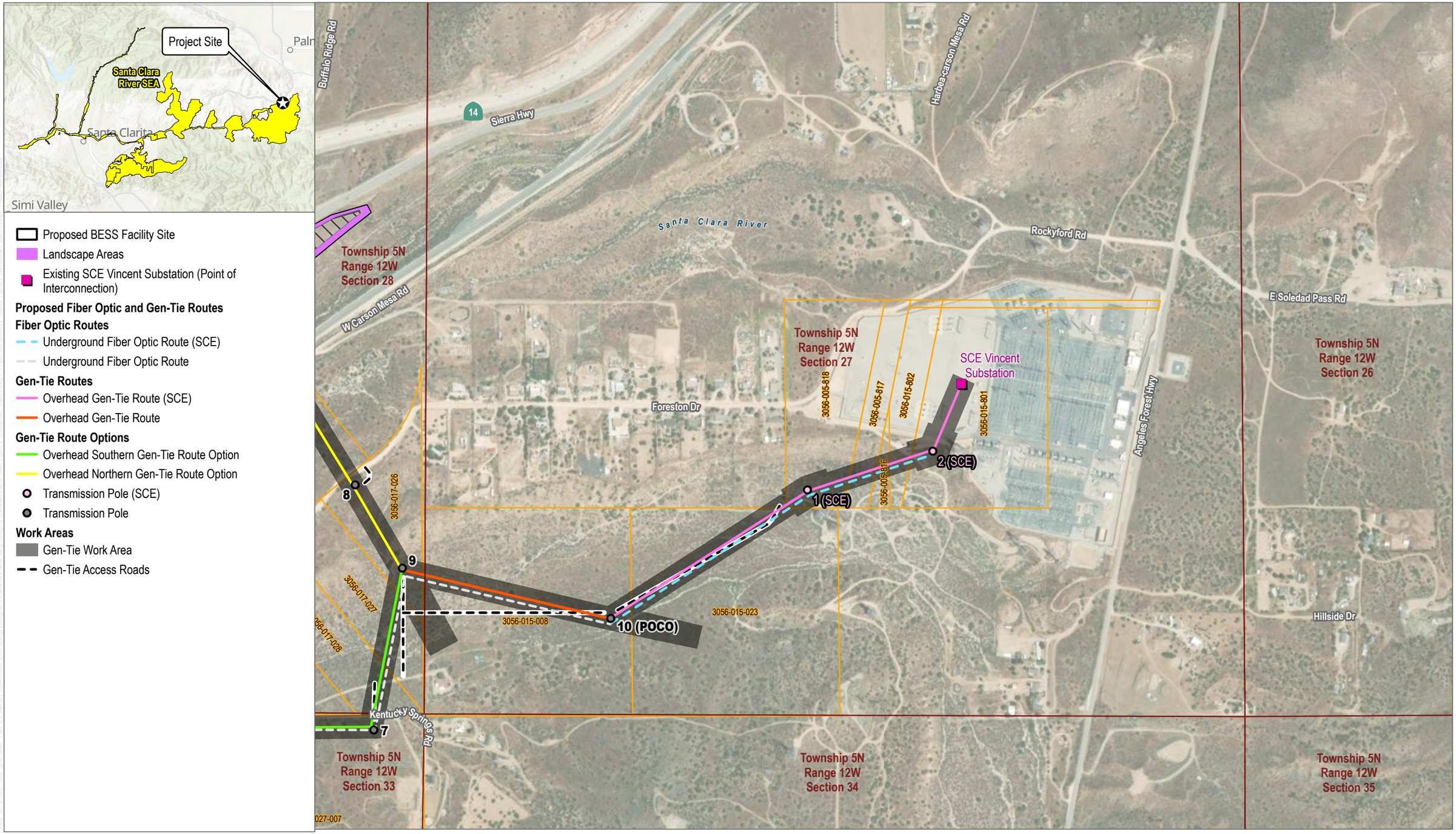
DUDEK

0 300 600 Feet

FIGURE 2A

Conceptual Project Design - Project Components

Prairie Song Reliability Project



SOURCE: Maxar 2024; Los Angeles County 2025

DUDEK

0 300 600 Feet

FIGURE 2B

Conceptual Project Design - Project Components

Prairie Song Reliability Project