



**U.S. Department of the Interior**  
**BUREAU OF LAND**  
**MANAGEMENT**

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**Morongo Canyon at Highway 62**  
**Multi-Tenant Wireless Broadband Communications Site**

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**Land Use Plan Amendment and Environmental Assessment**  
Volume I  
January 2026

Prepared by:  
U.S. Department of the Interior  
Bureau of Land Management  
Palm Springs Field Office

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2018

**United States Department of the Interior  
Bureau of Land Management**

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**Land Use Plan Amendment and Environmental Assessment  
DOI-BLM-CA-D060-2020-0005-EA**

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**Morongo Canyon at Highway 62  
Multi-Tenant Wireless Broadband Communications Site  
CACAI05877335  
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January 2026**

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## ACRONYMS AND ABBREVIATIONS

Acronym or Abbreviation	Full Phrase
ACEC	area of critical environmental concern
APE	area of potential effect
BLM	United States Department of the Interior, Bureau of Land Management
BMP	best management practice
Cal-IPC	California Invasive Plant Council
CDCA	California Desert Conservation Area
CDFW	California Department of Fish and Wildlife
CDP	Census Designated Place
CFR	Code of Federal Regulations
CMA	conservation and management action
CNDDDB	California Natural Diversity Database
dBA	A-weighted decibel
DRECP	Desert Renewable Energy Conservation Area Plan
EA	environmental assessment
EMF	electromagnetic field
ESA	Endangered Species Act
FCC	United States Federal Communications Commission
FEMA	Federal Emergency Management Agency
FirstNet	First Responder Network Authority
FLPMA	Federal Land Policy and Management Act of 1976, as amended
GIS	geographic information system
ICT	InterConnect Towers LLC
KOP	key observation point
$L_{eq}$	equivalent continuous noise level
LUPA	land use plan amendment
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NRCS	United States Department of Agriculture, Natural Resources Conservation Service
NRHP	National Register of Historic Places
OHV	off-highway vehicle
PFYC	potential fossil yield classification
Project	Morongo Canyon at Highway 62 Communication Site
ROW	right-of-way
SRMA	special recreation management area
U.S.	United States
USC	United States Code
USFWS	United States Department of the Interior, Fish and Wildlife Service
VRM	visual resource management
WEG	wind erodibility group

# Chapter I. Introduction

The United States (U.S.) Department of the Interior, Bureau of Land Management (BLM) has prepared this environmental assessment (EA) to describe the potential environmental effects of developing a communication site at Morongo Canyon<sup>1</sup> along California State Highway 62. The Proposed Action, as detailed in the InterConnect Towers LLC (ICT) right-of-way (ROW) application, includes the construction and operation of a multi-tenant wireless communication facility. In addition to the ROW application, the BLM is considering an associated land use plan amendment (LUPA) to accommodate the proposed use. Collectively, the communication site development, ROW authorization, and LUPA are referred to as the Project.

The communication facility would be located approximately 0.5 miles northwest of Highway 62 in unincorporated San Bernadino County, California, and include two potential locations:<sup>2</sup> Site 1, which is analyzed under Alternatives B and C, and Site 2, which is analyzed under Alternative D (**Figures I-1 and I-2 in Appendix A**). Each site would include a 196-foot-tall communication tower and may include up to two equipment buildings, backup generators and fuel tanks, a security fence, an access road with turnouts and a gate at the entrance off Canyon House Road, and up to five solar arrays within the communication site. Alternatively, a buried distribution line along the access road may supply the power. This EA analyzes the Proposed Action at Site 1, as outlined under Alternative B, as well as two variations: Alternative C, which reduces the footprint of the Proposed Action at Site 1, and Alternative D, which proposes development at Site 2 to reduce noise and visual impacts.

This EA has been prepared in accordance with the U.S. Department of the Interior's National Environmental Policy Act of 1969 (NEPA) implementing regulations at 43 Code of Federal Regulations (CFR) 46. These regulations require the preparation of an EA to determine whether a proposed action has the potential to cause significant environmental effects. The Proposed Action does not qualify for a categorical exclusion under the BLM's regulations.<sup>3</sup> Therefore, this EA has been prepared in accordance with the U.S. Department of the Interior's Handbook of NEPA Implementing Procedures (516 Departmental Manual 1), including Appendix 3, Implementation Guidance to Bureaus (U.S. Department of the Interior 2025), to analyze and document the environmental effects associated with the Proposed Action.

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<sup>1</sup> For consistency with source materials and stakeholder terminology, this report uses the terms "Morongo Canyon" and "Morongo Valley" as they are commonly applied. "Morongo Canyon" is an informal reference often used to describe the Highway 62 pass leading into Morongo Valley and does not represent an official geographic designation. "Morongo Valley" refers to the recognized community and surrounding area within San Bernardino County, California. All references should be interpreted in this context.

<sup>2</sup> Site 1 legal description: W1/2SW1/4NW1/4, E1/2NW1/4NW1/4SW1/4, NE1/4NW1/4SW1/4, and NE1/4SW1/4 of Section 32, Township 1 S, Range 4 East, San Bernardino Meridian

Site 2 legal description: NE1/4NW1/4SW1/4, and NE1/4SW1/4 of Section 32, Township 1 S, Range 4 East, San Bernardino Meridian

<sup>3</sup> A categorical exclusion is a class of actions that a federal agency has determined, after review, does not individually or cumulatively have a significant effect on the human environment. Therefore, these actions do not require an EA or an environmental impact statement (40 CFR 1508.4).

## I.1 BACKGROUND

On August 24, 2012, ICT submitted a ROW application to construct a communications facility. The BLM initiated the NEPA process on February 18, 2022, by commencing a 30-day scoping period. A public scoping meeting was held on March 17, 2022.

The Proposed Action involves constructing a communications facility on BLM-managed land and managing that facility in accordance with the site's approved communication site plan. Collocation and subleasing would be encouraged. Upgrades to the facility may be allowed upon review and approval by the BLM Authorized Officer.

Existing towers in the Project's vicinity, including communication sites in Yucca Valley and within San Bernardino County, provide little to no coverage along Highway 62 south of the Morongo Valley. The topographical constraints of the surrounding terrain cause coverage issues for much of the Morongo Valley, as discussed in **Chapter 2, Proposed Action and Alternatives**, and **Appendix B, Plan of Development**, which includes propagation studies. The Applicant, ICT LLC, intends to expand wireless service coverage and capacity, including internet, to improve connectivity and to support emergency response services near the Highway 62 and Morongo Basin area. The proposed facility would provide cellular service, including 4G and 5G<sup>4</sup> networks, broadband, and microwave frequency receivers and transmitters.

In developing the Proposed Action, multiple existing wireless facilities were evaluated and utilized, where appropriate. The Project sites are strategically placed and determined by engineered radio-frequency coverage assessments. BLM-managed lands are the only lands available to meet the radio frequency needs due to the topographical blockage of surrounding properties and wilderness areas, which eliminate all other site possibilities, as further discussed in **Chapter 2**.

The U.S. Federal Communications Commission (FCC), through the implementation of the 1999 Wireless Communications and Public Safety Act, mandated the improvement of public safety by facilitating the deployment of a nationwide seamless wireless communication infrastructure. The FCC requires wireless telephone service providers and carriers to provide 911 capabilities. With adequate wireless coverage, 911 provides an accurate global positioning system location for 911 calls from wireless phones. To work more quickly and effectively to better direct the first responders, it is important for the Public Safety Answering Points, facilities that receive and process 911 calls, to know the location of the wireless caller. The Public Safety Answering Points can only successfully distribute the global positioning system coordinates if the area needing assistance has adequate wireless coverage.

Multiple wireless service providers, including Verizon and AT&T, have approached ICT as a facilities provider to construct, operate, and maintain a wireless facility to densify capacity in the Morongo Valley and add cellular coverage to the unserved stretch of Highway 62 in Morongo Valley for emergency 911 purposes, as set forth by the FCC. The First Responder Network Authority (FirstNet) is the independent authority established by Congress to deliver a nationwide broadband network dedicated to public safety. Congress intended for FirstNet to be built and operated as a public-private partnership, combining private sector capabilities (including commercial best practices, infrastructure, and resources) with FirstNet's

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<sup>4</sup> 4G and 5G are mobile telecommunications standards that set frequency ranges, speed, latency, bandwidth, data handling, and other requirements for wireless communication networks.

public safety expertise. FirstNet would provide the nation's first-ever high-speed nationwide wireless broadband network dedicated to federal, state, and local first responders. The Proposed Action would allow FirstNet to strengthen public safety users' communications capabilities and enable FirstNet to respond more quickly and effectively to accidents, disasters, and emergencies.

## I.2 PURPOSE AND NEED FOR ACTION

The purpose of the action is to respond to ICT's ROW application to construct and manage a communications facility on BLM-managed land and, if necessary, amend the applicable land use plan—the 1980 California Desert Conservation Area (CDCA) Plan (BLM 1980), as amended by the Desert Renewable Energy Conservation Area Plan (DRECP; BLM 2016a)<sup>5</sup>—to modify the Project site's visual resource management (VRM) classification. The need for the action is established by the BLM's responsibility under the Federal Land Policy and Management Act of 1976, as amended (FLPMA), and associated BLM ROW regulations, to respond to a request for a ROW grant across BLM-managed land.

Specifically, the BLM's authority to authorize communication uses on BLM-managed land is detailed in Title 43 of the Code of Federal Regulations, at 2801–2808. Direction on and policy for communication use authorizations are contained in BLM Manual Section 2860. Policies associated with communication site management planning are contained in BLM Handbook 2801-I, Plan of Development, and various BLM federal regulations. The BLM notes that authority for the issuance of authorizations and licenses for the transmission and reception of electronic radiation for communication purposes is granted by Congress and administered by the FCC and/or the U.S. National Telecommunications and Information Administration, Interdepartment Radio Advisory Committee.

The action, if approved, would assist the BLM in addressing the management objectives of the following:

- Executive Order 13616 (Accelerating Broadband Infrastructure Deployment), issued on June 12, 2012, facilitates wired and wireless broadband infrastructure deployment on federally managed lands, buildings, and ROWs; federally assisted highways; and Tribal<sup>6</sup> and individual Indian trust lands, particularly in underserved communities.
- Public Law 112-96 (Middle Class Tax Relief and Job Creation Act of 2012), signed on February 22, 2012, created FirstNet. FirstNet is assigned the mission to build, operate, and maintain the first high-speed, nationwide wireless broadband network dedicated to public safety. FirstNet would provide a single interoperable platform for emergency and daily public safety communications.
- Executive Order 13821 (Streamlining and Expediting Requests to Locate Broadband Facilities in Rural America), issued on January 8, 2018, builds on Executive Order 13616 and emphasizes reliable services in rural areas, reporting requirements to the federal government, and streamlining the application process.
- Public Law 115-141 (Consolidated Appropriations Act of 2018), signed on March 23, 2018, included the Mobile Now Act (Division P, Title VI). The Mobile Now Act mandates acceleration

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<sup>5</sup> The DRECP LUPA (BLM 2016a) is available online at [https://eplanning.blm.gov/public\\_projects/lup/66459/133460/163124/DRECP\\_BLM\\_LUPA\\_ROD.pdf](https://eplanning.blm.gov/public_projects/lup/66459/133460/163124/DRECP_BLM_LUPA_ROD.pdf).

<sup>6</sup> In this document, "Tribes," "Tribal," "Tribally," and "Tribal Nation(s)" are capitalized when referring to Tribal Nations. This usage reflects respect for Tribal sovereignty and aligns with contemporary standards in federal communication, including BLM and Department of the Interior style guidance. Where source material uses lowercase, quotations have been respectfully adapted for consistency and clarity.

and deployment of wireless and broadband communications facilities on federal land in rural areas for public health and safety; mandates the government to grant or deny requests within 270 days of receiving duly filed, complete applications; and requires reporting of applications processed by federal agencies.

### **I.3 DECISION TO BE MADE**

The BLM will decide whether to approve, approve with modifications, or deny the ROW application as submitted by ICT. A ROW grant authorizes the construction, operation, maintenance, and termination of the proposed facility on BLM-managed land. The BLM may include any terms, conditions, and stipulations it determines to be in the public interest and may include modifying the proposed use or changing the route or location of the proposed facility (43 CFR 2805.10(b)(1)). The decision record associated with this EA would not constitute the final approval for the Proposed Action. It provides the BLM Authorized Officer with an analysis from which to base the final approval for the proposed ROW.

The BLM will also decide whether to concurrently amend the CDCA Plan (BLM 1980), as amended by the DRECP LUPA (BLM 2016a), to modify the Project site from VRM Class II to VRM Class III (Site 2) or from VRM Class II to VRM Class IV (Site 1). Therefore, if the BLM decides to grant the ROW, then the BLM will also approve a CDCA Plan amendment.

### **I.4 LAND USE PLAN CONFORMANCE**

The Project sites under the Proposed Action (Alternative B) and alternatives (Alternatives C and D) are within the decision area of the BLM's CDCA Plan (BLM 1980), as amended. Amendments to the 1980 CDCA Plan that provide BLM management direction within the Project sites include the DRECP LUPA (BLM 2016a) and the West Mojave Plan amendment (BLM 2006).<sup>7</sup>

The Proposed Action and alternatives would not conform to the VRM class established in the DRECP LUPA (BLM 2016a). Specifically, they would not conform to "LUPA-VRM-I: Manage Visual Resources in accordance with the VRM classes shown on Figure 9." Here, the DRECP LUPA establishes the Project sites as VRM Class II areas. The VRM class definition from the DRECP LUPA goals and objectives is as follows: "Class II: The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities and uses can be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture in the predominant natural features of the characteristic landscape."

In contrast, VRM Class III is defined as follows: "The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape can be moderate. Management activities and uses may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements of the predominant natural features of the landscape." While VRM Class IV is defined as follows: "The objective of this class is to provide for management activities which require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be

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<sup>7</sup> The Project would be within the West Mojave Plan amendment planning area; however, this plan amendment made travel management decisions. The proposed Project would not result in an amendment to these travel management decisions.

the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.”

The BLM has authority to amend land use plans in accordance with the FLPMA and its planning regulations. These amendments allow the BLM to respond to changing conditions, new information, and evolving resource management needs. **Chapter 2** outlines the specific amendments proposed as part of this project.

The Proposed Action and alternatives would conform to all other goals, objectives, and management direction set forth in the 1980 CDCA Plan, as amended.

#### **1.4.1 Planning Criteria**

The planning criteria guide the planning effort and lay the groundwork for the effects analysis by identifying the BLM’s decision space and detailing preliminary issues and their analytical frameworks. As described in 43 CFR 1610.4-2(b), “Planning criteria will generally be based upon applicable law, Director and State Director guidance, the results of public participation, and coordination with any cooperating agencies and other federal agencies, state and local governments, and federally recognized Indian Tribes.”

Preliminary planning criteria were identified through early review by the BLM interdisciplinary team. Planning criteria were provided in the notice of intent (see **Section 1.5**, Scoping and Issues) and were therefore available for public review during the scoping period.

The BLM identified the following planning criteria to guide and define the scope of the LUPA for this Project:

1. The LUPA will be completed in compliance with FLPMA, NEPA, and all other relevant federal laws, executive orders, and BLM policies.
2. The LUPA under consideration includes modifying from VRM Class II to VRM Class III (Site 2) or from VRM Class II to VRM Class IV (Site 1). In addition to the factors considered under a project-specific analysis, this EA provides additional analysis regarding the visual inventory and recreation setting to determine potential effects from the LUPA.
3. Except for the amended plan decisions mentioned under #2 above, existing valid plan decisions will remain unchanged, and any new plan decisions will not conflict with existing ones.
4. The LUPA will recognize valid existing rights.

#### **1.4.2 California Desert Conservation Area Plan, as Amended**

The CDCA Plan (BLM 1980) allows for establishment and operation of communication sites on all lands not designated as wilderness or recommended for wilderness designation. The DRECP LUPA (BLM 2016a) refined the areas available for utility and infrastructure development, such as communication facilities, through conservation and management actions (CMAs), which are required mitigation measures designed to avoid, minimize, or compensate for impacts on sensitive resources.<sup>8</sup> The DRECP LUPA identifies all areas of critical environmental concern (ACECs), national historic and scenic trail corridors, and California

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<sup>8</sup>The Proposed Action and alternatives address all applicable CMAs, which are documented in **Appendix D**, Applicant-Proposed Measures.

Desert Conservation Lands as ROW avoidance areas. However, neither Project site is within any of these designated areas.

The Project sites are within the Sand to Snow Special Recreation Management Area (SRMA). The overarching goals of this SRMA, as stated in the DRECP LUPA (BLM 2016a), are “to preserve the nationally significant biological, cultural, educational, geological, historic, scenic, wilderness, and recreational values at the convergence of the Mojave and Colorado Desert and the San Bernardino Mountains; and to secure the opportunity for present and future generations to experience and enjoy the magnificent vistas, wildlife, land forms, and natural and cultural resources.” Refer to **Chapter 3, Section 3.4**, Recreation, for more information about the SRMA.

## **I.5 SCOPING AND ISSUES**

The BLM’s scoping process helps determine relevant issues to be addressed, development of alternatives (if necessary), and the appropriate scope of environmental analysis in an EA. Scoping also ensures that the issues and alternatives are within the BLM’s decision scope.

### **I.5.1 Scoping Process**

The BLM conducted public scoping for the Proposed Action, as initiated by publication of the Notice of Intent to Amend the California Desert Conservation Area Plan for the Morongo Highway 62 Communication Site Project, San Bernardino County, California, in the *Federal Register* (87 *Federal Register* 9376). The 30-day public scoping period began on February 18, 2022, and ended on March 21, 2022. During the scoping period, the BLM sought the public’s participation regarding issues, planning criteria, concerns, alternatives, project design measures that should be considered in the analysis of the Proposed Action, and potential environmental effects. The BLM hosted one virtual public scoping meeting on March 17, 2022. Information on the Proposed Action and how to submit a comment was available on the BLM’s ePlanning website (<https://eplanning.blm.gov/eplanning-ui/project/1502263/510>).

### **I.5.2 Scoping Comments**

In total, the BLM received 180 comment letters, including one from a local government, eight from local organizations, and 171 from individuals. The BLM reviewed and categorized the comments and summarized the results in a scoping report (BLM 2022). The BLM used the issues raised in the scoping comments to help guide the development of this EA.

As detailed in the notice of intent regarding the LUPA, the BLM evaluated the identified issues and placed them into one of three categories:

- (a) Issues to be resolved in the LUPA
- (b) Issues to be resolved through policy or administrative action
- (c) Issues beyond the scope of the LUPA

Concerns raised during the scoping process focused on the Proposed Action's potential effects on environmental resources, such as visual resources, and other issue areas. The scoping report (BLM 2022) grouped comments according to five major themes:

- Environmental resource areas, including potential adverse effects on views, wildlife, noise, wildfire risk, recreation, erosion, socioeconomics, and land use
- Safety issues, including distracted driving; aircraft crashes with the tower; a tower falling over; health risks from electromagnetic fields (EMFs), radiation, and 5G; and emergency access or interference
- Concerns about the BLM's purpose and need for action or the BLM's process, including proposed changes to a VRM class and concerns about the need for the LUPA
- Requests for consideration of additional alternatives, including using call boxes, adding 5G transponders to existing utility poles, installing satellites on a shorter tower, and incorporating the current County efforts to renovate an existing television tower
- Other concerns, including decreased property values, effects on businesses and tourism, concerns about obsolete technology, and effects of climate change

**Chapter 3, Affected Environment and Environmental Consequences**, discusses the potentially affected resources.

Issues identified during scoping that were placed into category (a), issues to be resolved in the LUPA, or category (c), issues beyond the scope of the LUPA, include the following:

- Biological resources (c)
- Cultural resources (c)
- Paleontological resources (c)
- Soil resources (c)
- Recreation (c)
- Special area designations (c)
- Noise (c)
- Visual resources (a)

The BLM determined that concerns associated with visual resources are relevant to the purpose and need for action specific to a LUPA; therefore, this issue was identified as category (a). The other resource issues are outside the scope of the planning effort and associated potential effects; therefore, these issues were identified as category (c).

The BLM considered scoping comments while drafting the EA and included a discussion of additional alternatives that were considered but ultimately eliminated from detailed analysis, such as using call boxes, adding 5G transponders to existing utility poles, using a satellite on a shorter tower, and renovating an existing County tower (see **Chapter 2, Section 2.6, Alternatives Considered but Eliminated from Further Analysis**). The EA was also revised to expand the analysis of visual resource impacts, which included development and integration of two-dimensional visual simulations and application of various

color treatments for reducing visual impacts; this expanded visual impact analysis is provided in **Chapter 3, Section 3.7**, Visual Resources.

## **I.6 LAND USE PLANNING PROCESS**

Consistent with the BLM's resource management regulations at 43 CFR 1610, after reviewing and considering all scoping comments, the BLM prepared the Draft LUPA and EA for the Morongo Canyon at Highway 62 Multi-Tenant Wireless Broadband Communications Site, published in August 2024. The BLM initially conducted a 30-day public review period from August 16, 2024, to September 16, 2024. However, this period was extended to October 7, 2024. The BLM provided notice for the comment period through the BLM's ePlanning website (<https://eplanning.blm.gov/eplanning-ui/project/1502263/510>), a BLM national press release, a local news release, and postcards mailed to Morongo Valley residents. The BLM held an in-person public meeting with a virtual option on September 5, 2024, in Morongo Valley, California.

A total of 211 submissions were received on the draft LUPA and EA. After analyzing the content of unique submissions, 1,042 individual substantive comments were identified, coded, and reviewed. Substantive comments raise, debate, or question a point of fact or policy; question the accuracy of information; or question the methodology or assumptions used in the analysis presented in the draft LUPA and EA. Comments that merely support or oppose a proposal or that merely agree or disagree with BLM policy are not considered substantive.

Public comments covered a wide range of issues including visual resources, biological resources, fire and fuels management, the project's purpose and need, and land use plan conformance. The BLM organized these comments into topic and resource categories. Each comment was reviewed and marked with an identifying code to group similar comments together. The BLM reviewed all substantive comments received to identify potential changes needed in the final LUPA and EA and prepared responses to those comments (**Appendix C**).

After reviewing and considering all substantive public comments on the draft LUPA and EA, the BLM prepared this proposed LUPA and EA, which are subject to a 30-day protest period and a 60-day governor's consistency review (concurrent with the protest period). After any protests are resolved and the governor's consistency review is complete, the BLM will issue a decision record, which may include an approved LUPA.

# Chapter 2. Proposed Action and Alternatives

**Chapter 2** describes the No Action Alternative (Alternative A), the Proposed Action (Alternative B,<sup>9</sup> Site 1), the reduced footprint alternative that removes the solar arrays (Alternative C, Site 1), the reduced visibility alternative that moves the site a short distance to make it less visible from much of the surrounding area (Alternative D, Site 2), and the alternatives that were considered but have been eliminated from detailed analysis. The alternatives and associated mitigation measures provide the basis for the analysis in this EA.

Acreages presented in this EA were calculated using geographic information system (GIS) data; the results may differ from other documents due to advancement of GIS technology, refinement in the precision of mapping various datasets over time, and changes in data and data availability. All alternatives (including Alternative A) were calculated using the most current resource and resource use data available. GIS data were likewise used to perform acreage calculations and to generate the figures in **Appendix A** and **Appendix B**, Plan of Development. Calculations depend on the quality and availability of data, and calculations in this EA are rounded to the nearest 0.10 acres or 0.10 miles. Given the scale of the analysis, the compatibility constraints between datasets, and the lack of data for some resources, all calculations are approximate and serve for comparison and analytic purposes only. Likewise, the figures in **Appendix A** and **Appendix B**, Plan of Development, are provided for illustrative purposes and subject to the limitations discussed above. The BLM may receive additional or updated data; therefore, acreages may be recalculated at the implementation stage.

## 2.1 PROJECT SITE CONSTRAINTS AND SITE SELECTION

The topography of the Morongo Valley and the Morongo Basin provides a unique set of constraints for siting a single-tower solution that would sufficiently provide coverage and be expandable to meet future public demands in the area. Highway 62 passes through the bottom of Morongo Canyon northerly for 3 miles and climbs from an elevation of 1,730 to 2,650 feet. The bottom of the canyon is bounded by topography between 300 and 600 feet above the canyon floor. As Highway 62 leaves Morongo Canyon, it travels east 8 miles and continues to climb from an elevation of 2,650 to 3,520 feet. This portion of Highway 62 travels through a narrow valley known as the Morongo Basin. The highway's 3-mile northerly segment and the 8-mile easterly segment create an L-shaped stretch of highway bounded on either side by mountains.

Based on the line-of-sight nature of wireless communication signals, the engineered location for the multi-tenant communication site to serve this portion of Highway 62 would be at the angle point of the "L" shape at an elevation covering both the downward and upward elevations. The location of the Proposed Action (Alternative B) has been engineered based on these topographical constraints. The signal engineering demonstrated in the signal propagation maps included with the plan of development show the afore-described topographical constraints of the surrounding terrain and the justification for the proposed geographical location and the Project's proposed tower height.

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<sup>9</sup> In the Draft LUPA and EA for the Morongo Canyon at Highway 62 Multi-Tenant Wireless Broadband Communications Site, published in August 2024, the Proposed Action was identified as Alternative A. Although the details of the Proposed Action did not change, its label was revised in this EA from Alternative A to Alternative B.

Further, the Applicant proposed the Project location based on its proximity to both electrical distribution service and existing fiber-optic infrastructure, which are available at Canyon House Road. Local fiber-optic infrastructure allows the communication facility to offload wireless data to land-based fiber-optic infrastructure and provide redundant support via microwave to the communication sites located east in Yucca Valley and south at the intersection of Highway 62 and Interstate 10.

## 2.2 ALTERNATIVE A – NO ACTION ALTERNATIVE

NEPA requires analysis of the No Action Alternative as a baseline against which the effects of the action alternatives can be evaluated and compared. Under the No Action Alternative, the BLM would not approve the Project or amend the area's VRM classification. The BLM would continue to manage the sites within the framework of a program of multiple use and sustained yield, and the maintenance of environmental quality (43 USC 1781(b)) in conformance with applicable statutes, regulations, policies, and land use plans.

## 2.3 ALTERNATIVE B – PROPOSED ACTION (SITE 1)

Alternative B involves issuing a lease for communication site use covering 3.24 acres of BLM-managed land for the construction, operation, and maintenance of a multi-tenant wireless communication facility and associated infrastructure (**Figure 2-1** in **Appendix A**). Alternative B (Site 1) includes the following components and affected acreage:

- Communication facility footprint: A 25,000-square-foot (0.57-acre) area designated for the multi-tenant wireless communication site facility.
- ROW: A new ROW measuring 50 feet wide and 2,240 feet long (2.67 acres), including a 24-foot-wide access road with 13 feet of cut and fill (including drainage) on either side and up to six turnouts spaced every 300 feet. The maximum slope of the roadway would comply with applicable BLM and San Bernardino County Fire Protection District Fire Code standards and would otherwise be dictated by the site conditions encountered during construction. This language has been added to the EA soil resources section for clarification.

The following table details the affected acreage for Alternative B. A full description of the Project's components is detailed in **Appendix B**, Plan of Development.

**Table 2-1. Acreage of Disturbance – Alternative B (Site 1)**

<b>Project Component</b>	<b>New Disturbance (Acres)</b>
Communication facility footprint	0.57
ROW	2.67
<b>Total lease area</b>	<b>3.24</b>

Source: BLM GIS 2025

The Applicant has proposed the following infrastructure to be installed within the 3.24-acre lease area at Site I, as outlined in the plan of development:

- One three-legged, 196-foot-tall, freestanding, self-supporting lattice communication tower on top of a 23-foot, triangular, steel-base structure and a 38- by 38-foot, 6-foot-deep concrete foundation.<sup>10</sup>
- One 20- by 40-foot (800 square feet) or two 20- by 20-foot equipment buildings to accommodate up to four carrier tenants.<sup>11</sup>
- Five solar arrays; two would be 30 by 80 feet, two would be 30 by 85 feet, and one would be 30 by 98 feet, for a total of 12,840 square feet.
- Three 25-kilowatt backup generators installed beneath the tower, each situated on a containment pad designed to capture all fluids in the event of a generator failure; each generator would be supported by a dedicated 1,000-gallon propane fuel tank.
- Motorola R56 Design Standard chain-link fencing (gray) or equivalent measuring 8 feet high, with three strands of barbed wire on the top, bringing the total height of the fencing to 9 feet. Agassiz's desert tortoise (desert tortoise; *Gopherus agassizii*) fencing consisting of galvanized hardware mesh of 1- by 2-inch dimensions would be attached to the lower 18 inches of the chain-link fencing and buried to a 12-inch depth or bent outward and secured to the ground.
- A new 24-foot-wide and 2,240-foot-long gravel access road. Steep terrain and road alignment challenges would be addressed by developing an engineered road design that complies with BLM and San Bernardino County Fire Protection District Fire Code standards.
- A 12-foot-wide entrance gate 10 feet from the entrance to the new access road off Canyon House Road.

### 2.3.1 Land Use Plan Amendment

Alternative B would amend, via a LUPA, the CDCA Plan (BLM 1980), as amended by the DRECP LUPA (BLM 2016a), to modify Site I (3.24 acres) from VRM Class II to VRM Class IV.

## 2.4 ALTERNATIVE C – REDUCED FOOTPRINT (SITE I)

Alternative C would be in the same location as Alternative B and would result in a total disturbance of 2.97 acres of BLM-managed land for the construction, operation, and maintenance of a multi-tenant wireless communication facility and associated infrastructure (**Figure 2-2** in **Appendix A**). The reduced footprint compared with Alternative B is due to two fewer solar arrays under Alternative C.

Alternative C would require a 10-foot utility easement within and adjacent to the proposed access road for trenching of a buried power distribution line and fiber-optic line from the existing facilities at Canyon

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<sup>10</sup> The 38- by 38-foot, 6-foot-deep concrete foundation would be excavated, reinforced with deep rebar cages and casings, poured with concrete, cured for approximately 1 week, and then backfilled and compacted. Excess soil would be used to level the compound.

<sup>11</sup> A carrier tenant, such as AT&T, refers to a telecommunications company that leases space, typically on rooftops, towers, or other elevated structures, to install and operate wireless infrastructure like antennae, microwave dishes, and related infrastructure to support wireless communication services.

House Road to the communication site. All other elements of Alternative C would be the same as those described under Alternative B. Alternative C includes the following components and affected acreage:

- Communication facility footprint: A 10,000-square-foot (0.34-acre) area designated for the multi-tenant wireless communication site facility.
- ROW: A new ROW measuring 50 feet wide and 2,240 feet long (2.63 acres), including a 24-foot-wide access road with 13 feet of cut and fill (including drainage) on either side and up to six turnouts spaced every 300 feet (same as Alternative B). Utility infrastructure, including electric power lines and fiber-optic lines, would be buried within or immediately adjacent to the access road within the ROW.

The following table details the affected acreage for Alternative C. A full description of the Project’s components is detailed in **Appendix B**, Plan of Development.

**Table 2-2. Acreage of Disturbance – Alternative C (Site I)**

Project Component	New Disturbance (Acres)
Communication facility footprint	0.34
ROW	2.63
<b>Total lease area</b>	<b>2.97</b>

Source: BLM GIS 2025

The Applicant has proposed the following infrastructure to be installed within the 2.97-acre lease area at Site I, as outlined in the plan of development:

- One three-legged, 196-foot-tall, freestanding, self-supporting lattice communication tower on top of a 23-foot, triangular, steel-base structure and a 38- by 38-foot, 6-foot-deep concrete foundation (same as Alternative B).
- One 20- by 40-foot (800 square feet) or two 20- by 20-foot equipment buildings to accommodate up to four carrier tenants (same as Alternative B).
- Three solar arrays; two would be 30 by 80 feet, and one would be 30 by 95 feet, for a total of 8,040 square feet.
- Three 25-kilowatt backup generators installed beneath the tower, each situated on a containment pad designed to capture all fluids in the event of a generator failure; each generator would be supported by a dedicated 1,000-gallon propane fuel tank (same as Alternative B).
- Motorola R56 Design Standard chain-link fencing (gray) or equivalent measuring 8 feet high, with three strands of barbed wire on the top, bringing the total height of the fencing to 9 feet. Desert tortoise fencing consisting of galvanized hardware mesh of 1- by 2-inch dimensions would be attached to the lower 18 inches of the chain-link fencing and buried to a 12-inch depth or bent outward and secured to the ground (same as Alternative B).
- A new 24-foot-wide and 2,240-foot-long gravel access road (same as Alternative B).
- A 12-foot-wide entrance gate 10 feet from the entrance to the new access road off Canyon House Road (same as Alternative B).

### 2.4.1 Land Use Plan Amendment

Similar to Alternative B, Alternative C would also amend, via a LUPA, the 1980 CDCA Plan, as amended by the DRECP LUPA (BLM 2016a), to modify the reduced Site 1 footprint (2.97 acres) from VRM Class II to VRM Class IV.

### 2.5 ALTERNATIVE D – REDUCED VIEW (SITE 2)

In response to public concerns about visual and noise impacts on nearby residences, an additional site location (Site 2) was added for consideration. Under Alternative D, the multi-tenant wireless communication facility would be relocated approximately 800 feet southeast of the originally proposed Site 1. This shift would lower the site's elevation by 30 feet and increase its distance from the nearest sensitive receptor by over 120 feet. The new location would more effectively screen the facility from view by most homeowners in the nearby neighborhood. This alternative would involve issuing a lease for communication site use covering 1.20 acres of BLM-managed land for the construction, operation, and maintenance of the facility and associated infrastructure (**Figure 2-3 in Appendix A**).

Alternative D would require a 10-foot utility easement within and adjacent to the proposed access road for trenching of a buried power distribution line and fiber-optic line from the existing facilities at Canyon House Road to the communication site. Alternative D (Site 2) includes the following components and affected acreage:

- Communication facility footprint: An 8,000-square-foot (0.18-acre) area designated for the multi-tenant wireless communication site facility.
- ROW: A new ROW measuring 50 feet wide and 790 feet long (1.02 acres), including a 20-foot-wide access road with up to 30 feet of cut and fill, including drainage, on either side (but primarily on the south side); the corridor would also include up to one turnout. Utility infrastructure, including electric power lines, fiber-optic lines, and a transformer, would be buried within or immediately adjacent to the access road within the ROW.

The following table details the affected acreage for Alternative D. A full description of the Project's components is detailed in **Appendix B**, Plan of Development.

**Table 2-3. Acreage of Disturbance – Alternative D (Site 2)**

Project Component	New Disturbance (Acres)
Communication facility footprint	0.18
ROW	1.02
<b>Total lease site</b>	<b>1.20</b>

Source: BLM GIS 2025

The Applicant has proposed the following infrastructure to be installed within the 1.20-acre lease area at Site 2, as outlined in the plan of development:

- One three-legged, 196-foot-tall, freestanding, self-supporting lattice communication tower on top of a 23-foot, triangular, steel-base structure and a 38- by 38-foot, 6-foot-deep concrete foundation (same as Alternative B).

- Two 20- by 40-foot (800 square feet each) equipment buildings to accommodate up to five carrier tenants.
- Four 25-kilowatt backup generators installed beneath the tower, each situated on a containment pad designed to capture all fluids in the event of a generator failure; each generator would be supported by a dedicated 1,000-gallon propane fuel tank.
- Motorola R56 Design Standard chain-link fencing (gray) or equivalent measuring 8 feet high, with three strands of barbed wire on the top, bringing the total height of the fencing to 9 feet. Desert tortoise fencing consisting of galvanized hardware mesh of 1- by 2-inch dimensions would be attached to the lower 18 inches of the chain-link fencing and buried to a 12-inch depth or bent outward and secured to the ground (same as Alternative B).
- A new 20-foot-wide and 790-foot-long gravel access road. Steep terrain and road alignment challenges would be addressed by developing an engineered road design that complies with BLM and San Bernardino County Fire Protection District Fire Code standards.
- A 12-foot-wide entrance gate 10 feet from the entrance to the new access road off Canyon House Road (same as Alternative B).

### 2.5.1 Land Use Plan Amendment

Similar to Alternatives B and C, Alternative D would also amend, via a LUPA, the 1980 CDCA Plan, as amended by the DRECP LUPA (BLM 2016a), to modify Site 2 (1.20 acres) from VRM Class II to VRM Class III.

## 2.6 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER ANALYSIS

### 2.6.1 Alternative Locations on BLM-Managed Lands

Other potential communication sites on BLM-managed lands were evaluated as alternative locations to meet the purpose and need for action and to avoid a LUPA amendment to change the Project site's VRM classification (from VRM Class II to either VRM Class III [Site 2] or VRM Class IV [Site 1]). However, all alternative locations on BLM-managed lands were dismissed based on the insufficient level of signal coverage required to service the Highway 62 area. Technical and topographical requirements to site the communication tower antenna at a high elevation for optimization restricted the fulfillment of the Project's objectives to ensure enhanced telecommunication coverage.

Other BLM-managed lands were assessed but ultimately eliminated from further consideration due to the following site constraints:

- Most BLM-managed lands to the southeast, on both the east and west sides of Highway 62, were recently designated as the Sand to Snow National Monument, which allows only pedestrian traffic (**Figure I-1 in Appendix A**).
- Higher-terrain lands to the west and northwest are designated as the San Gorgonio Wilderness; communication sites are prohibited in wilderness.
- Residential zoning lands, located on lower-elevation terrain, would not provide the line of site needed for wireless broadband to reach residents and travelers into and out of Morongo Valley.

Sites 1 and 2 are the only locations capable of providing coverage to both the Highway 62 mountain pass area and to nearby homes, parks, and businesses. Construction of additional towers within the dropped-signal areas would not be feasible because these areas are within the Sand to Snow National Monument.

Alternative locations were not carried forward for analysis because they would not meet the action's purpose and need by failing to provide cellular coverage to the area of need; these alternative locations are discussed further in **Appendix B**, Plan of Development.

### **2.6.2 Reduced-Height Communication Tower**

A shorter communications tower option was evaluated to analyze whether the visual impacts of the 196-foot tower could be reduced. Signal propagation analyses were completed for two shorter tower scenarios: a 75-foot tower and a 145-foot tower. In both scenarios, signals would be dropped, and calls would be interrupted several times in the 2.5-mile drive along Highway 62 (see Figures 6 and Figure 7 of the propagation study in Appendix C of **Appendix B**, Plan of Development). The propagation study showed that the users of this segment of Highway 62 (the California Department of Transportation's 2020 traffic volume data indicate 24,000 annual average daily traffic volume) would continue to experience dropped calls and a lack of signal along multiple segments of Highway 62 if a tower less than 196 feet tall were approved (California Department of Transportation 2019).

A reduced-height communication tower was not carried forward for analysis because it would be ineffective and would not meet the purpose and need for action by failing to provide emergency communications along Highway 62.

### **2.6.3 4G or 5G Transponders on Existing Towers**

The placement of small 4G or 5G transponders on existing wooden power poles along Highway 62 was evaluated in response to scoping comments. The wood power poles along Highway 62 in the Morongo Canyon are within the California Department of Transportation's ROW in the Sand to Snow National Monument; the ROW and power poles are not on BLM-managed land. The placement of transponders on existing wooden power poles was not carried forward for analysis because it would not meet the purpose and need for action due to the power poles not being on BLM-managed land.

### **2.6.4 Use of the Existing County Service Area 70 Television Tower**

The use of the existing County Service Area 70 television tower to locate cellular service facilities was considered. A propagation study (included in **Appendix B**, Plan of Development) was conducted for this existing County-owned tower, which is in the northeast area of the Morongo Valley. Study results indicate that although use of this tower would provide broadband service to the Morongo Basin, it may not provide coverage of the Highway 62 corridor from Morongo Canyon toward Palm Springs (**Appendix B**, Plan of Development). Thus, the emergency response services to motorists on Highway 62 may not be improved. Additionally, this tower is not on BLM-managed land; therefore, it would be out of the BLM's jurisdiction. Therefore, the existing County Service Area 70 television tower alternative was not carried forward for analysis because it would be ineffective and would not meet the purpose and need for action by failing to provide emergency communications along Highway 62.

### **2.6.5 Call Boxes**

Call boxes are managed by state and county transportation agencies in coordination with California Highway Patrol. The installation of call boxes along the 3-mile segment of Highway 62 that has limited to no cell service or wireless broadband was considered. However, this option was not carried forward for analysis because there are no pullover areas along either side of Highway 62 to allow vehicles to safely exit traffic, making it infeasible for emergency services to be called for immediate assistance. As a result,

this alternative was not carried forward for analysis because it would not meet the purpose of or need for action.

### **2.6.6 Satellite Technology**

Using satellite technology along the 3-mile segment of Highway 62 that has limited to no cell service or wireless broadband was considered. While satellite-based internet services, such as Starlink, represent significant advancements in broadband delivery, they have several key limitations. Satellite systems do not provide the low-latency, high-reliability, uninterrupted service required for critical communications infrastructure, particularly in remote or mountainous areas where line-of-sight obstructions and weather conditions can degrade performance. Additionally, satellite services do not support the full range of public safety, emergency response, and localized communication needs that terrestrial towers are designed to accommodate. Given these constraints, satellite technology was not carried forward for analysis because it does not meet the purpose and need for action by failing to provide robust, consistent, and scalable communication infrastructure.

# Chapter 3. Affected Environment and Environmental Consequences

This chapter presents the following relevant resource considerations of the existing environment that are analyzed in this EA: biological resources (including special status species, migratory birds, and invasive species), cultural resources, soils, recreation, special area designations, noise, visual resources, and socioeconomics. The environmental effects of constructing, operating, and maintaining the proposed communication facility and associated infrastructure are analyzed in the sections below. Applicant-proposed measures and CMAs are included in the analysis of all action alternatives as methods to minimize or mitigate adverse effects. These measures are discussed further in **Appendix D**.

The following resources are not analyzed in detail because they are not expected to be affected by the proposed Project: ACECs, air quality and greenhouse gases, fire, paleontological resources, and public health and safety.

**Table 3-1. Resources Considered but not Carried Forward for Further Analysis**

<b>Resource</b>	<b>Rationale for Not Further Discussing in Detail in the EA</b>
ACEC	Relevance values for the Big Morongo Canyon ACEC are biological and cultural resources. The proposed Project would be 0.3 miles from the ACEC and would not affect the relevance and importance criteria within the ACEC. However, birds that use the ACEC may be found on lands outside the ACEC. Potential impacts on birds, including those that might use the Big Morongo Canyon ACEC, are described in <b>Section 3.1</b> , Biological Resources.
Air Quality and Greenhouse Gases	The proposed Project would generate minimal emissions during short-term construction and occasional maintenance. Additionally, Applicant-proposed measures would minimize the potential for fugitive dust (see <b>Appendix D</b> ). Due to the limited scope and duration of these activities, no measurable impacts on air quality and greenhouse gases are expected.
Environmental Justice	Executive Order 14154, Unleashing American Energy (January 20, 2025), and a Presidential memorandum, Ending Illegal Discrimination and Restoring Merit-Based Opportunity (January 21, 2025), require the U.S. Department of the Interior to strictly adhere to NEPA (42 USC 4321 et seq.). Further, such order and memorandum repeal Executive Orders 12898 (February 11, 1994) and 14096 (April 21, 2023). Because Executive Orders 12898 and 14096 have been repealed, complying with such orders is a legal impossibility. The BLM verifies that it has complied with the requirements of NEPA, including the U.S. Department of the Interior’s regulations and procedures implementing NEPA at 43 CFR 46 and 516 of the Departmental Manual, consistent with the President’s January 2025 order and memorandum.
Wildfire	The BLM has prepared a Fire Management and Prevention Plan to reduce wildfire risk and coordinate response efforts with the appropriate agencies (see <b>Appendix D</b> [to <b>Appendix B</b> , Plan of Development], Description of Proposed Components for Alternative D). The Applicant would adhere to the wildfire mitigation plan. Because the plan would be followed and the proposed Project presents a low risk of wildfire, wildfire was not analyzed in detail in the EA.

Resource	Rationale for Not Further Discussing in Detail in the EA
Paleontological Resources	According to geological mapping of the San Gorgonio Mountains and Morongo Valley (Dibblee and Minch 2008), the surficial geology immediately within and around Project Sites 1 and 2 includes Precambrian-aged gneiss, while the proposed access road would also cross exposures of Cretaceous-aged quartz monzonite overlain with Holocene-aged alluvial material. Per the BLM’s potential fossil yield classification (PFYC) system, igneous and metamorphic geological units (quartz monzonite and gneiss, respectively) are not likely to contain recognizable paleontological resources and are assigned to PFYC Class 1 (very low). Alluvial units younger than 10,000 years before present (that is, Holocene-aged alluvial material) are not likely to contain paleontological resources due to their young age and are assigned to PFYC Class 2 (low). Given these classifications and the nature of the proposed Project, no impacts on paleontological resources are anticipated.
Public Health and Safety	The proposed Project involves a communication facility with no hazardous materials, emissions, or activities that would pose a risk to public health or safety. Due to the Project’s limited scope and nature, no impacts are anticipated.
Sand to Snow National Monument	Sites 1 and 2 are 0.5 miles from the Sand to Snow National Monument. The objects and values identified in the monument’s proclamation ( <a href="https://obamawhitehouse.archives.gov/the-press-office/2016/02/12/presidential-proclamation-establishment-sand-snow-national-monument">https://obamawhitehouse.archives.gov/the-press-office/2016/02/12/presidential-proclamation-establishment-sand-snow-national-monument</a> ) were reviewed in relation to the proposed Project. Due to the Project’s nature and distance from the monument, no impacts on monument objects or values are anticipated.

The BLM has the responsibility to manage lands in a manner that protects the quality of scenic values. Part of this involves using the contrast rating system (BLM Manual 8431, Visual Resource Contrast Rating) to determine whether a proposed project meets VRM class objectives (BLM 1986a). **Section 3.7**, Visual Resources, includes additional analysis regarding a LUPA to address conformance with VRM class objectives through the plan-level decision-making process. All other resources described are consistent with the existing land use plan and are outside the scope of this Project-specific LUPA.

### 3.1 BIOLOGICAL RESOURCES

#### 3.1.1 Affected Environment

The area surrounding the Project has been surveyed for biological resources, beginning with the first survey conducted in 2016. Four individual surveys were completed to assess habitat for sensitive species and to evaluate the potential for each species analyzed to occur. Desert tortoise and sensitive plant surveys, conducted in accordance with U.S. Fish and Wildlife Service (USFWS), BLM, and California Native Plant Society survey standards, were completed in 2016, 2021, 2023, and 2025. In 2016, surveys involved 10-meter transects across the entirety of the Alternatives B and C footprints (Site 1) and included a 0.25-mile buffer (referred to as the “pre-2025 study area”), covering approximately 160 acres.

Additional wildlife and rare plant surveys were completed during the nesting and flowering season in 2021, using an intuitive survey method with a coarser scale, with transects spaced 20 to 50 meters (65 to 164 feet) apart within the pre-2025 study area. In October 2023, a focused desert tortoise survey was conducted within the pre-2025 study area using 10-meter-spaced transects. An intuitive survey of the same area was also completed at that time.

In May 2025, a final round of biological surveys was conducted to update desert tortoise and rare plant data; complete additional surveys, including nectar plant and bat acoustic surveys; and expand the survey area to include Alternative D’s footprint (Site 2). The 2025 biological surveys involved 10-meter transects

across the entirety of the Sites 1 and 2 footprints and included a 150-meter buffer (referred to as the “2025 study area,” covering approximately 70 acres).<sup>12</sup>

Together, the pre-2025 and 2025 study areas make up the “biological study area” used to assess potential biological impacts in this NEPA analysis. **Table 3-2**, below, details these surveys. Additional details, including survey methods, can be found in **Appendix E**, Biological Evaluation Report (refer to **Figure 2-1** in **Appendix E** for a visual representation of the biological study area).

**Table 3-2. Biological Surveys**

Year	Survey	Acres Surveyed	Timing	Notes
2016	Plants and wildlife: 10-meter transects	Approximately 160 (pre-2025 study area)	Daytime	Initial surveys
2021	Plants and wildlife: intuitive surveys	Approximately 160 (pre-2025 study area)	Daytime	Conducted during the bird nesting season and flowering season
2023	Wildlife (focused on desert tortoise): 10-meter transects	Approximately 160 (pre-2025 study area)	Daytime	Focused on desert tortoise to meet USFWS survey protocols
2025	Plants and wildlife: 10-meter transects	Approximately 70 (2025 study area)	Daytime for all plants and wildlife and nighttime for bat acoustic detection	Added Site 2 and refined the survey area; included bat acoustic surveys and nectar plant surveys

Source: Ironwood Consulting 2025a, 2025b

The biological study area’s topography is slightly convex with hills and slopes ranging between 15 and 30 percent at an average elevation of 2,858 feet above mean sea level. Mojave yucca scrub dominates the sparsely vegetated study area located within the BLM’s DRECP LUPA planning area. The DRECP LUPA was developed as a collaborative planning effort by the BLM, California Energy Commission, USFWS, and California Department of Fish and Wildlife (CDFW). The DRECP LUPA seeks to facilitate renewable energy development in appropriate places in the desert and outlines CMAs that apply broadly to projects within its planning area.

The biological study area is in an ecological transitional zone between chaparral and desert; therefore, it does not conform well to any specific vegetation alliances. The area is broadly mapped as desert scrub. Vegetation communities within the area can be seen on **Figure 3-3** of the attached **Appendix E**, Biological Evaluation Report.

The biological study area shows evidence of anthropogenic<sup>13</sup> disturbance, including off-road vehicle tracks, mountain biking tracks, and trash (Ironwood Consulting 2025). Residential developments are north and east of Sites 1 and 2, open land is to the west, and four residential homes and open desert are to the south. Dry Morongo Creek is approximately 0.25 miles south of the biological study area. No additional aquatic resources that would potentially be jurisdictional under Section 1600 of the Fish and Game Code were identified within the biological study area.

<sup>12</sup> These approximately 70 acres surveyed in 2025 represent a refinement of the pre-2025 study area; they, therefore, overlap about 160 acres that were previously surveyed.

<sup>13</sup> Of, relating to, or resulting from the influence of human beings on nature

During the biological surveys, a number of common plant and wildlife species were observed. Common plant species included cheesebush (*Ambrosia salsola*), sweetbush (*Bebbia juncea*), desert almond (*Prunus fasciculata*), California desert buckwheat (*Eriogonum fasciculatum* var. *polifolium*), Mojave yucca (*Yucca schidigera*), desert scrub oak (*Quercus cornelius-mulleri*), and sugar bush (*Rhus ovata*). Common wildlife species included Anna’s hummingbird (*Calypte anna*), Costa’s hummingbird (*Calypte costae*), cactus wren (*Campylorhynchus brunneicapillus*), California scrub-jay (*Aphelocoma californica*), roadrunner (*Geococcyx californianus*), California towhee (*Melospiza crissalis*), California myotis (*Myotis californicus*), red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), common poorwill (*Phalaenoptilus nuttallii*), American kestrel (*Falco sparverius*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), western side-blotched lizard (*Uta stansburiana*), whiptail lizard (*Aspidoscelis tigris*), California ground squirrel (*Otospermophilus beecheyi*), black-tailed jackrabbit (*Lepus californicus*), and coyote (*Canis latrans*).

A full list of plant and wildlife species observed during the biological surveys can be found in **Appendix E**, Biological Evaluation Report. A number of special status plant and wildlife species also were identified as potentially occurring within the biological study area. These are summarized below.

### **Special Status Plant Species**

Based on the literature review and habitat assessments completed during the surveys, there are 16 special status plants with moderate or high potential to occur in the area. Two plant species listed under the federal Endangered Species Act (ESA)—triple-ribbed milkvetch (*Astragalus tricarinatus*) and Parish’s fleabane (*Erigeron parishii*)—have high and moderate potential to occur, respectively. Four species—triple-ribbed milkvetch, Latimer’s woodland-gilia (*Saltugilia latimeri*), Joshua tree poppy (*Eschscholzia androuxii*), and Little San Bernardino Mountains linanthus (*Linanthus maculatus* subsp. *maculatus*)—have known occurrences near the Project location and have a high potential to occur based on the review of suitable habitat. Slender bedstraw (*Galium angustifolium* subsp. *gracillimum*) also has a high potential to occur, based on a review of the area.

No special status plant species were detected during the biological surveys prior to 2025. However, in May 2025, a gilia species that is thought to be Latimer’s woodland-gilia was identified, as was a Joshua tree poppy. For specific information on these plant species, refer to **Appendix E**, Biological Evaluation Report.

Vegetation cover throughout the area was sparse in 2016, with the least coverage in higher elevations. The area burned in the Sawtooth fire complex of 2006, as evidenced by remnants of fire scars on yucca trunks and large shrubs. However, the results of the 2025 biological surveys showed that vegetation in the biological study area has been rebounding. Though there was still evidence of the 2006 fire, the overall plant cover and biological diversity within the vegetation community have been improving (**Appendix E**).

### **Special Status Wildlife Species**

The biological study area has moderate or high potential for 30 special status wildlife species, including 1 reptile, 9 mammals, 18 bird species, and 2 invertebrates (**Table 3-3**). One federally ESA-listed species, desert tortoise, has a moderate potential to occur, based on a review of occurrence records, habitat quality, and habitat modeling. However, no desert tortoise signs or presence were observed during the 2016, 2021, or 2023 wildlife surveys. During the 2025 surveys, a desert tortoise carcass was located within the biological study area, though no other sign or presence of desert tortoise was observed.

The area provides a matrix habitat (suitable habitat surrounded by patches of unsuitable habitat) for desert bighorn sheep, marginal habitat for desert kit fox and American badger, and foraging habitat for mountain lion. Nesting habitat is present for burrowing owl, Costa’s hummingbird, and black-tailed gnatcatcher. Costa’s hummingbirds were observed during the 2016, 2021, 2023, and 2025 surveys. A black-tailed gnatcatcher was observed during the 2025 surveys. The area provides foraging but not nesting or roosting habitat to many other special status bird and bat species analyzed in the biological report.

**Table 3-3** lists all special status species with at least a moderate probability of occurrence in the area. For a more detailed discussion of the special status species with the potential to occur within Sites 1 and 2, see **Section 4.0** of **Appendix E**, Biological Evaluation Report.

**Table 3-3. Special Status Species with the Potential to Occur in the Area**

Species	California <sup>1</sup>	Federal <sup>1</sup>	Other <sup>1</sup>	Potential for Occurrence	Habitat and Occurrences
<b>Plants</b>					
Parish’s onion <i>Allium parishii</i>	4.3	—	—	Moderate	Potential habitat exists. Its habitat is Joshua tree woodland, Mojave Desert scrub, and pinyon and juniper woodland; it prefers rocky habitat.
San Bernardino milkvetch <i>Astragalus bernardinus</i>	1B.2	—	—	Moderate	Possible habitat exists; however, this species was not detected in previous surveys. Its habitat is Joshua tree woodland and pinyon and juniper woodland; it is often granitic or carbonate.
Providence Mountains milkvetch <i>Astragalus nutans</i>	4.3	—	—	Moderate	Potential habitat exists. This species’ habitat is Joshua tree woodland, Mojave Desert scrub, pinyon and juniper woodland, and Sonoran Desert scrub that is sandy or gravelly.
Triple-ribbed milkvetch <i>Astragalus tricarinatus</i>	1B.2	FE	—	High	Potential habitat is present. There are several nearby occurrences (California Natural Diversity Database [CNDDDB] notes occurrences within 3 kilometers [1.86 miles] of the area), but the species was not observed in 2016 or 2021. Its habitat is Joshua tree woodland and Sonoran Desert scrub that is sandy or gravelly.

Species	California <sup>1</sup>	Federal <sup>1</sup>	Other <sup>1</sup>	Potential for Occurrence	Habitat and Occurrences
White pygmy poppy <i>Canbya candida</i>	4.2	—	—	Moderate	Possible habitat exists; it requires very careful survey effort. Its habitat is Joshua tree woodland, Mojave Desert scrub, and pinyon and juniper woodland that is gravelly, sandy, and granitic.
White bracted spineflower <i>Chorizanthe xanti</i> var. <i>leucotheca</i>	1B.2	—	—	Moderate	There are nearby occurrences and possible habitat, but the species was not detected in the 2016 or 2021 surveys. Its habitat is coastal scrub (alluvial fans), Mojave Desert scrub, and pinyon and juniper woodland that is sandy or gravelly.
Parish's fleabane <i>Erigeron parishii</i>	1B.1	FT	BLM-S	Moderate	The nearest occurrence is approximately 15.5 miles from the Project sites in Joshua Tree National Park. There is a possible lack of preferred carbonate substrate in Mojave Desert scrub and pinyon and juniper woodland; habitat is usually carbonate and sometimes granitic.
Joshua tree poppy <i>Eschscholzia androuxii</i>	4.3	—	—	High	There are nearby occurrences and potential habitat. This species requires careful identification to distinguish it from similar species. Its habitat is Joshua tree woodland; Mojave Desert scrub; and desert washes, flats, and slopes that are sandy, gravelly, and/or rocky. This species was observed during the 2025 surveys.
Slender bedstraw <i>Galium angustifolium</i> subsp. <i>gracillimum</i>	4.2	—	—	High	<i>Galium angustifolium</i> was found in the 2021 survey, but it was not identified to a subspecies. It was most likely the subspecies <i>gracillimum</i> . This species' habitat is Joshua tree woodland and Sonoran Desert scrub in granitic, rocky soils.

Species	California <sup>1</sup>	Federal <sup>1</sup>	Other <sup>1</sup>	Potential for Occurrence	Habitat and Occurrences
Little San Bernardino Mountains linanthus <i>Linanthus maculatus</i> subsp. <i>maculatus</i>	1B.2	—	—	High	There are nearby occurrences and potential habitat. This species requires very careful surveying. Its habitat is desert dunes, Joshua tree woodland, Mojave Desert scrub, and Sonoran Desert scrub that has sandy soils.
Spiny-haired blazing star <i>Mentzelia tricuspis</i>	2B.1	—	—	Moderate	This species requires flowers for identification. Its habitat is Mojave Desert scrub with sandy, gravelly slopes and washes.
Robison's monardella <i>Monardella robisonii</i>	1B.3	—	BLM-S	Moderate	There are nearby occurrences and potential habitat. Its habitat is pinyon and juniper woodland.
Crowned muilla <i>Muilla coronata</i>	4.2	—	—	Moderate	Possible habitat exists. Its habitat is chenopod scrub, Joshua tree woodland, Mojave Desert scrub, and pinyon and juniper woodland.
Desert beardtongue <i>Penstemon pseudospectabilis</i> subsp. <i>pseudospectabilis</i>	2B.2	—	—	Moderate	Possible habitat exists, but the species was not detected in previous surveys. Its habitat is Mojave Desert scrub and Sonoran Desert scrub; there are often sandy washes that are sometimes rocky.
Latimer's woodland-gilia <i>Saltugilia latimeri</i>	1B.2	—	—	High	A gilia observation was made in the 2025 survey and thought to likely be this species. There are nearby documented occurrences. Potential habitat exists. Its habitat is chaparral, Mojave Desert scrub, and pinyon and juniper woodland that is rocky or sandy, often granitic; sometimes there are washes.
Desert spikemoss <i>Selaginella eremophila</i>	2B.2	—	—	Moderate	Possible habitat exists, but this species was not detected in previous surveys. Its habitat is chaparral and Sonoran Desert scrub (gravelly or rocky).
Lemmon's syntrichopappus <i>Syntrichopappus lemmonii</i>	4.3	—	—	Moderate	Possible habitat exists. Its habitat is chaparral, Joshua tree woodland, and pinyon and juniper woodland that is sandy and gravelly.

Species	California <sup>1</sup>	Federal <sup>1</sup>	Other <sup>1</sup>	Potential for Occurrence	Habitat and Occurrences
<b>Wildlife</b>					
Agassiz's desert tortoise <i>Gopherus agassizii</i>	ST	FT	—	Low to moderate	Marginal habitat is present in the biological study area. CNDDDB notes occurrences within 7.5 kilometers (5 miles) of the biological study area. No burrows, sign, or presence were observed in 2016, 2021, or 2023. However, in 2025, a carcass was observed at the northwestern portion of the 2025 study area.
Desert bighorn sheep <i>Ovis canadensis nelsoni</i>	CFP	—	BLM-S	Low to moderate	Suitable foraging and migratory habitat are present throughout the biological study area. No sign or presence was observed in 2016, 2021, 2023, or 2025.
Mountain lion <i>Puma concolor</i>	CFP	—	—	Low to moderate	Suitable habitat is present. No sign or presence was observed in 2016, 2021, 2023, or 2025.
American badger <i>Taxidea taxus</i>	SSC	—	—	Low to moderate	CNDDDB notes occurrences within 7 kilometers (4 miles) of the biological study area. Marginal habitat is present. No sign or presence was observed in 2016, 2021, 2023, or 2025.
Desert kit fox <i>Vulpes macrotis arsipus</i>	CPF	—	—	Low to moderate	Marginal habitat is present. No sign or presence was observed in 2016, 2021, 2023, or 2025.
Pallid bat <i>Antrozous pallidus</i>	SSC	—	BLM-S	High	The Project would be within the pallid bat's range. The nearest CNDDDB record (from 2006) is approximately 2 kilometers (1.25 miles) to the northeast. The species was documented within the 2025 study area during the bat acoustic surveys.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	SSC	—	BLM-S	High	The Project would be within the Townsend's big-eared bat's range. The nearest CNDDDB record (from 1989) is approximately 8 kilometers (5 miles) to the west. It was documented within the 2025 study area during the bat acoustic surveys.

Species	California <sup>1</sup>	Federal <sup>1</sup>	Other <sup>1</sup>	Potential for Occurrence	Habitat and Occurrences
Western yellow bat <i>Lasiurus xanthinus</i>	SSC	—	—	High	The Project would be within the western yellow bat's range. The nearest CNDDDB record (from 2004) is approximately 17 kilometers (10.5 miles) to the east. The species was documented within the 2025 study area during the bat acoustic surveys.
Western small-footed bat <i>Myotis ciliolabrum</i>	—	—	BLM-S	High	The Project would be within the small-footed myotis's range. The species was documented within the 2025 study area during the bat acoustic surveys.
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	SSC	—	—	High	The closest range is approximately 1 kilometer (0.6 miles) south. The nearest CNDDDB record (from 2007) is approximately 23 kilometers (14 miles) to the south. The species was documented within the 2025 study area during the bat acoustic surveys.
Cooper's hawk <i>Accipiter cooperii</i>	WL	—	—	Nesting: Low Foraging: High	No sign or presence was observed in 2016, 2021, or 2023. In 2025, a Cooper's hawk was observed during the spring survey effort.
Sharp-shinned hawk <i>Accipiter striatus</i>	WL	—	—	Nesting: Low Foraging: High	No sign or presence was observed in 2016, 2021, or 2023. In 2025, a sharp-shinned hawk was observed during the spring surveys.
Golden eagle <i>Aquila chrysaetos</i>	CFP, WL	—	BLM-S, BGEPA	Nesting and Wintering: None Foraging: High	No sign or presence was observed in 2016, 2021, 2023, or 2025.
Long-eared owl <i>Asio otus</i>	SSC	—	BCC	Nesting: Low Migration: Moderate	No sign or presence was observed in 2016, 2021, 2023, or 2025.
Western burrowing owl <i>Athene cunicularia hypugaea</i>	SSC	—	BCC, BLM-S	Nesting: Low Foraging: High	No sign or presence was observed in 2016, 2021, 2023, or 2025.
Costa's hummingbird <i>Calypte costae</i>	—	—	BCC	Nesting and Wintering: High	The species was observed in 2016, 2021, and 2025.

Species	California <sup>1</sup>	Federal <sup>1</sup>	Other <sup>1</sup>	Potential for Occurrence	Habitat and Occurrences
Vaux's swift <i>Chaetura vauxi</i>	SSC	—	—	Nesting: Low Foraging: High	No sign or presence was observed in 2016, 2021, or 2023. In 2025, a Vaux's swift was observed during survey efforts.
Northern harrier <i>Circus cyaneus</i>	SSC	—	—	Nesting: Low Foraging: High	No sign or presence was observed in 2016, 2021, 2023, or 2025.
California horned lark <i>Eremophila alpestris actia</i>	WL	—	—	Nesting: Low Foraging: High	No sign or presence was observed in 2016, 2021, 2023, or 2025.
American peregrine falcon <i>Falco peregrinus anatum</i>	CFP	—	BCC	Nesting: Low Foraging: Moderate	No sign or presence was observed in 2016, 2021, 2023, or 2025.
Prairie falcon <i>Falco mexicanus</i>	WL	—	BCC	Nesting: Low Foraging: High	No sign or presence was observed in 2016, 2021, or 2023. In 2025, a prairie falcon was observed during survey efforts.
Loggerhead shrike <i>Lanius ludovicianus</i>	SSC	—	BCC	Nesting: Low Foraging: High	No sign or presence was observed in 2016, 2021, 2023, or 2025.
Brown-crested flycatcher <i>Myiarchus tyrannulus</i>	WL	—	—	Nesting: Low Migration: Moderate	No sign of presence was observed in 2016, 2021, 2023, or 2025.
Summer tanager <i>Piranga rubra</i>	SSC	—	—	Nesting: Low Migration: Moderate	No sign or presence was observed in 2016, 2021, 2023, or 2025.
Black-tailed gnatcatcher <i>Poliophtila melanura</i>	WL	—	—	Nesting: Low Foraging: High	No sign or presence was observed in 2016, 2021, or 2023. In 2025, this species was observed in the 2025 study area during the survey effort.
Vermilion flycatcher <i>Pyrocephalus rubinus</i>	SSC	—	—	Nesting: Low Migration: Moderate	No sign or presence was observed in 2016, 2021, 2023, or 2025.
Yellow warbler <i>Setophaga petechia</i>	SSC	—	—	Nesting: Low Migration: Moderate	No sign or presence was observed in 2016, 2021, 2023, or 2025.
Le Conte's thrasher <i>Toxostoma lecontei</i>	SSC	—	BCC	Nesting: Low Foraging: Moderate	No sign or presence was observed in 2016, 2021, 2023, or 2025.

Species	California <sup>1</sup>	Federal <sup>1</sup>	Other <sup>1</sup>	Potential for Occurrence	Habitat and Occurrences
Crotch's bumble bee <i>Bombus crotchii</i>	SSC	—	—	Moderate to high	No individuals were observed in 2016, 2021, 2023, or 2025. However, nectar plant species were documented in the 2025 study area.
Monarch butterfly <i>Danaus Plexippus</i> <i>Plexippus</i> pop. 1	—	FCT	—	California overwintering population: Low Migration: Moderate	No individuals were observed in 2016, 2021, 2023, or 2025; also, no overwintering habitat or milkweed species are present. However, nectar plant species were documented in the 2025 study area.

Source: Ironwood Consulting 2025a

<sup>1</sup> Wildlife and Plant Status

Federal FE = Federally listed endangered: species in danger of extinction throughout a significant portion of its range  
 FT = Federally listed threatened: species likely to become endangered within the foreseeable future FCT = Proposed for federal listing as a threatened species  
 BCC = USFWS birds of conservation concern  
 BGEPA = Bald and Golden Eagle Protection Act  
 California SSC = California species of special concern  
 CFP = California fully protected  
 ST = State listed as threatened  
 WL = State watch list  
 CPF = California protected furbearing mammal  
 BLM BLM-S = BLM sensitive species

Plants: List 1B = Rare, threatened or endangered in California and elsewhere; List 2B = Rare, threatened or endangered in California but more common elsewhere; List 4 = Limited distribution (watch list); .1 = Seriously endangered; .2 = Fairly endangered; .3 = Not very endangered

*Mojave (Agassiz's) Desert Tortoise (Gopherus agassizii)*

Ironwood Consulting (2025a) completed four focused surveys for desert tortoise in 2016, 2021, 2023, and 2025 within the biological study area. The desert tortoise surveys were performed to current USFWS protocols, as outlined in Preparing for Any Action that May Occur within the Range of the Mojave Desert Tortoise (*Gopherus agassizii*) (USFWS 2018). Surveys were conducted with pedestrian 10-meter (30-foot) belt transects. Habitat assessments for other special status plant and wildlife species were completed concurrently.

No desert tortoise sign or presence was observed during the 2016, 2021, or 2023 surveys. No burrow, scat, or carcasses were observed. During the 2025 survey effort (on May 2), a juvenile desert tortoise carcass was encountered in the 2025 study area (see **Figure 4-4** in the attached **Appendix E**, Biological Evaluation Report). The carcass had an estimated midline carapace length of 110 millimeters and was given a classification of 4 (USFWS 2024), which can be interpreted as follows: approximately 4 years old with the shell bone falling apart with growth rings on scutes peeling. No other sign of desert tortoise was observed within the biological study area.

Based on the habitat assessment performed for the biological study area, a review of the CNDDDB (CDFW 2025a), known populations, and professional observations of the study area, there is a low to moderate likelihood that desert tortoises are present within the biological study area. It is known that they have a documented presence in proximity to the biological study area with CNDDDB occurrences located approximately 5 miles east of the biological study area within the Little San Bernardino Mountains (CDFW

2025a). Though there is a low likelihood for desert tortoises to be present within Sites 1 and 2, to avoid a potential take and all potential adverse effects, biological monitoring during construction of the communication tower is proposed.

#### *Western Burrowing Owl (Athene cunicularia)*

The western burrowing owl was petitioned for listing under the California Endangered Species Act (Fish and Game Code Section 2070). The petition was accepted on October 15, 2024, and defined the species as a “candidate species” under Fish and Game Code Section 2068. As a candidate for listing, the western burrowing owl is temporarily afforded the same protections as State-listed endangered or threatened species.

Western burrowing owls inhabit arid lands throughout much of the western U.S. and southern interior of western Canada. Suitable habitat for this species includes open habitat with available burrowing opportunities, including agricultural fields (active and fallow), creosote scrub, desert saltbush, ephemeral washes, and ruderal areas. They nest and roost in abandoned burrows created by other wildlife.

Burrowing owl habitat and presence were assessed during the surveys. No individuals were observed, and the likelihood of their presence in the biological study area is moderate due to a lack of burrows, human disturbance, and a general poor quality of habitat.

#### *Invertebrates*

The monarch butterfly (*Danaus Plexippus*) is a proposed threatened species under the federal ESA. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Overwintering aggregations have also been observed in Saline Valley and Rancho Mirage, California, and in Parker, Arizona (Western Association of Fish and Wildlife Agencies 2019). Overwintering roosts are typically in wind-protected tree groves, such as eucalyptus, Monterey pine, and cypress, with nectar and water sources nearby. Monarch butterfly larvae forage on milkweed (*Asclepias* sp.) and use them as larval hosts (Kral-O’Brien et al. 2020).

There are no large trees in the biological study area that can protect the species from wind or provide dappled sunlight; therefore, overwintering roosting habitat is not thought to be present. However, the biological study area may contain migration and breeding habitat suitable for monarch butterflies. Monarch butterflies and caterpillars have been documented a little over a mile away from Sites 1 and 2 at Big Morongo Canyon Preserve (iNaturalist 2025); however, monarch butterfly individuals or milkweed were not observed within the biological study during the 2016, 2021, 2023, or 2025 surveys, which included focused milkweed and forage species plant surveys. Based on these findings, there is a low to moderate potential for this species to occur within Sites 1 and 2.

Crotch’s bumble bee (*Bombus crotchii*) is a CDFW species of special concern and a candidate endangered species under the California Endangered Species Act. These bees inhabit grasslands and shrublands throughout southwestern California. They are generalist foragers and have been associated with plants in the Fabaceae, Apocynaceae, Lamiaceae, Hydrophyllaceae, Asclepiadoideae, and Asteraceae families (Thorp et al. 1983). They have also been observed using *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* plants for food (Williams et al. 2014). CNDDDB notes occurrences within proximity of the biological study area; however, no individual bumble bees were observed in 2016, 2021, 2023, or 2025. The 2025 surveys included surveys for the associated forage species (as listed above), and several of the forage

species were located within the biological study area. Based on these findings, there is a moderate to high potential for this species to occur within Sites 1 and 2.

#### Birds

During the biological surveys conducted within the biological study area, the following special status species were observed: Costa's hummingbird (*Calypte costae*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), Vaux's swift (*Chaetura vauxi*), prairie falcon (*Falco mexicanus*), and black-tailed gnatcatcher (*Poliophtila melanura*). In addition to these special species, a number of other birds were identified within the biological study area, as listed in **Appendix E**, Biological Evaluation Report, that may use the biological study area for nesting, foraging, and migration.

With a few exceptions, all bird species observed within the biological study area are protected under the Migratory Bird Treaty Act of 1918. No avian nests were identified in the biological study area during the biological surveys. However, based on a habitat assessment and a desktop review of documented bird occurrences, there are a number of ground-nesting birds that may use this area during the breeding season. **Appendix E**, Biological Evaluation Report, includes detailed discussions on bird species' potential for occurrence and use of the biological study area.

#### Bats

No active bat roosts, live bats, or indications of their presence were documented in the biological study areas prior to 2025. Only marginal roosting habitat for bat species is present in the biological study area; however, bats forage within the biological study area. Habitat features most associated with roosting habitat for bats, such as rock ledges, cliffs, large trees, mine shafts, and other manufactured structures, do not occur within the biological study area. Since bat foraging habitat is known to be present, during the May 2025 survey effort, bat acoustic detectors were deployed in the biological study area. **Table 3-4** lists the bats detected during this effort.

**Table 3-4. Bat Species Detected During the 2025 Bat Acoustic Surveys**

Common Name	Scientific Name	Status <sup>1</sup>
Pallid bat	<i>Antrozous pallidus</i>	BLM-S, SSC
Big brown bat	<i>Eptesicus fuscus</i>	—
California myotis	<i>Myotis californicus</i>	—
Western small-footed bat	<i>Myotis ciliolabrum</i>	BLM-S
Cave myotis	<i>Myotis velifer</i>	BLM-S, SSC
Long-legged myotis	<i>Myotis volans</i>	—
Canyon bat	<i>Parastrellus hesperus</i>	—
Mexican free-tailed bat	<i>Tadarida brasiliensis</i>	—
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	BLM-S, SSC
Western yellow bat	<i>Lasiurus xanthinus</i>	SSC
Pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	SSC

Source: Ironwood Consulting 2025b

<sup>1</sup>Status

SSC = California species of special concern

BLM-S = BLM sensitive species

**Appendix E**, Biological Evaluation Report, includes additional details on the special status bat species listed in the table.

### *Mammals (Excluding Bats)*

The DRECP LUPA indicates that the biological study area contains suitable intermountain habitat for desert bighorn sheep; however, based on a desktop analysis and biological surveys, it has been determined that the biological study area contains marginal habitat for this species. This species occupies a large home range similar to that of the Peninsular desert bighorn sheep (approximately 20 to 25 square kilometers [8 to 10 square miles]; CDFW 2025c). Occupation of habitat depends on the juxtaposition of resources, including water, forage, and escape terrain. Desert bighorn sheep would likely not use the biological study area as a corridor due to the lack of water availability and the topography in the immediate vicinity.

Mountain lion presence or signs were not observed during any of the surveys; however, foraging habitat is present for this species throughout the biological study area, and denning habitat is present to the north in the rocky foothills of the Cottonwood Mountains. Mountain lions have been observed in habitats with similar characteristics as the biological study area in the Colorado Desert (CDFW 2023). Based on the biological surveys, the potential for mountain lions to forage within the biological study area is high, but the potential for them to den is low.

The DRECP LUPA indicates that the biological study area is suitable or marginal matrix habitat for badgers and is on the periphery of mapped species distribution. American badger sign was not detected during site visits, and the potential for the species to occur in the biological study area is moderate.

The DRECP LUPA indicates that the biological study area is suitable or marginal matrix habitat for desert kit fox and on the periphery of mapped species distribution. No desert kit fox signs were observed during the biological surveys. However, suitable habitat for desert kit fox is present throughout the biological study area; therefore, the potential for it to occur in the biological study area is moderate.

### ***Invasive and Noxious Weeds***

Noxious and invasive weeds are plants included on the weed lists of the California Department of Food and Agriculture (CDFA) or the California Invasive Plant Council (Cal-IPC), or those weeds of special concern identified by the BLM. They are of concern in wildlands because of their potential to degrade habitat and disrupt an area's ecological functions (CDFA 2021, Cal-IPC 2025). Cal-IPC rating definitions are as follows:

- *Limited*—These species are invasive, but their ecological impacts are minor on a statewide level, or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.
- *Moderate* – These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.
- *High*—These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

CDFA Ratings are listed under Title 3, CCR Section 4500, and defined as follows:

- A – A pest of known economic or environmental detriment and is either not known to be established in California or it is present in a limited distribution that allows for the possibility of eradication or successful containment.
- B – A pest of known economic or environmental detriment and, if present in California, it is of limited distribution.
- C – A pest of known economic or environmental detriment and, if present in California, it is usually widespread.
- D – An organism known to be of little or no economic or environmental detriment, to have an extremely low likelihood of weediness, or is known to be a parasite or predator.
- Q – An organism or disorder suspected to be of economic or environmental detriment, but whose status is uncertain because of incomplete identification or inadequate information.

Nonnative plant species, along with their Cal-IPC and CDFA ratings, recorded as part of the Project's biological surveys are as follows: Sahara mustard (*Brassica tournefortii*, Cal-IPC rating of high, CDFA Rating C), hedgemustard (*Sisymbrium* sp., Cal-IPC rating of limited, no CDFA rating), Russian thistle (*Salsola tragus*, Cal-IPC rating of limited, CDFA rating C, listed on the CCR 4500 Noxious Weed List), red-stemmed filaree (*Erodium cicutarium*, Cal-IPC rating of limited), compact brome (*Bromus madritensis*, Cal-IPC rating of high), and Mediterranean grass (*Schismus barbatus*, Cal-IPC rating of limited). Red-stemmed filaree is widespread throughout the biological study area, while the other observed species were present as individuals or sparse populations.

### **3.1.2 Environmental Consequences**

For the purpose of analyzing project-related effects on biological resources, direct impacts are typically construction related and occur during implementation of a project. Any alteration, disturbance, or destruction of biological resources that would occur as a result of construction would be considered a direct impact. Examples of direct impacts include removal of native habitat, airborne noise effects, and injury, death, or harassment of listed or special status species. Indirect impacts on biological resources are long-term effects that occur as a result of a project. Examples of indirect impacts may include wildlife habitat fragmentation, long-term road effects, and the introduction or spread of invasive plants.

#### **Alternative A**

Under Alternative A, the proposed Project would not be developed. The area would continue to provide habitat for the plant and animal species discussed without impacts associated with the construction and operation of the communication tower. The area would continue to be affected by changes to surrounding land use, such as recreational use and residential development. These land uses would continue to spread invasive plants, have noise effects on wildlife species, and ultimately influence the habitat suitability of the area for wildlife species.

#### **Impacts Common to All Action Alternatives**

Since each action alternative proposes similar activities with slight differences in location and proposed project components, general impacts on plants and wildlife that apply to all action alternatives are summarized below; this summary is followed by a summary of each action alternative that describes any differences in designs and impacts applicable to biological resources.

#### *Vegetation Effects*

Potential direct and indirect impacts on plant species may occur as a result of construction-related activities and potential maintenance activities. Direct impacts may include destruction of individual plants and soil disturbance associated with clearing and grubbing activities and weed management activities, including manual removal of weeds. Runoff, sedimentation, and erosion can also impact plant populations by damaging individuals or by degrading habitat conditions on- and off-site during construction activities. Construction-generated fugitive dust can impact plants by reducing the rates of metabolic processes such as photosynthesis and respiration.

Indirect impacts would include the spread of noxious and invasive weed species in the area as a result of ground-disturbing and ongoing anthropogenic activities. **Appendix D** contains standard CMAs to prevent the spread and introduction of additional noxious and invasive weed species.

If feasible during site preparation, mowing and drive-and-crush site preparation methods would be employed to improve the recovery time of habitat, compared with conventional grading. This would help to minimize impacts on plants in these areas, allow the seed bank to persist, and allow individual plants to regenerate following construction and during the operation and maintenance period.

During the biological surveys, signs of off-highway vehicle (OHV) and mountain bike use were noted in the biological study area; however, it should be noted that there are no designated OHV routes in this area. Motorized use on transportation linear features would continue to have impacts on vegetation through soil compaction, vegetation degradation and fragmentation, and invasive and noxious weed introduction. OHV use of transportation linear features has the highest potential to impact vegetation resources. OHV use primarily affects vegetation through soil compaction, soil disturbance and erosion, the breaking or crushing of the aboveground portions of plants, fugitive dust, and the introduction of invasive and noxious plants, which can change the species composition along areas with high OHV use (Ouren et al. 2007). Additionally, OHV use is likely to occur not only on transportation linear features but areas adjacent to those features, increasing the area and severity of impacts on vegetation.

Under all action alternatives, the Applicant proposes to install a gate on the gravel access road at Canyon House Road to restrict access to the communication facility. Installing the gate would result in the removal of a small area of vegetation in the immediate construction zone. Due to ongoing operational use and repeated disturbance around the gate, this vegetation is unlikely to fully recover and would be considered permanently impacted.

#### *Wildlife Effects*

Direct impacts on wildlife could include mortality, injury, or displacement of individuals; physical disturbance to wildlife movement and habitat connectivity during construction; and other disturbances as a result of human presence, including noise, dust, and light effects. Wildlife could be crushed by equipment or struck by construction vehicles on the access road, which would result in injury or mortality. For burrowing species, potential direct impacts during construction could include mechanical crushing of individuals.

Construction materials, such as open pipes or tubing (for example, torque tubes and fence posts), can be used for shelter by terrestrial species, causing them to become trapped inside. Removal or damage of nests during construction would result in direct impact on migratory species protected under the

Migratory Bird Treaty Act of 1918. Increased human activity and consequent trash generation during construction could increase the number of ravens at the site, which would increase the threat that ravens pose to any desert tortoises that could be in the area.

In the long term, effects on desert tortoise (if present) could occur from raven predation because the tower structure would provide perches for ravens. Ravens are a major threat to desert tortoise populations due to ravens preying on young tortoises. Increases in raven numbers in desert tortoise habitat have significant detrimental impacts on resident desert tortoise populations.

Noise related to construction activities or long-term operation of the site could affect wildlife in adjacent habitats by disrupting foraging, breeding, sheltering, and other activities. It also could cause animals to avoid otherwise suitable habitat surrounding the site. Development of the proposed access road and communication site would require construction equipment to operate approximately 0.15 miles from the nearest residence and 0.5 miles from the San Gorgonio Wilderness. These areas are considered sensitive receptors. Noise levels associated with the three loudest pieces of construction equipment operating simultaneously would result in an equivalent continuous noise level ( $L_{eq}$ ) of 83 A-weighted decibels (dBA) at 50 feet.

Once developed, operational noise associated with the communications site would come from operations and maintenance activities. Operations and maintenance visits would consist of six to 10 trucks accessing the site monthly via the access road and would result in a noise level of 51 dBA at 50 feet (Wood Environment and Infrastructure 2021a). Each action alternative would have 25-kilowatt backup generators that would include mufflers to reduce noise effects (details are included below for each action alternative). Noise levels associated with long-term operation of the cellular site would be short in duration and be within the range of or below existing background noise levels at sensitive receptors. Only minor behavioral disruptions to wildlife would be anticipated (see **Section 3.6**, Noise).

In terms of indirect effects on wildlife, land use conversion would remove native habitat and could displace and exclude special status wildlife from portions of their territories. The removal of native habitat would also decrease foraging habitat available for wildlife species that use the biological study area to forage.

In the long term, communication towers are known to pose a collision hazard to birds and bats in flight, which is related to tower height, design (for example, guy wires), lighting, and siting relative to migratory bird and bat concentration areas. Additionally, during long migrations, adult birds may experience a loss of fat reserves due to the energy expenditure of circling towers, leading to reduced survival (Norris and Taylor 2006; Gehring and Walter 2012). Also, electromagnetic and radio waves are known to decrease invertebrate pollinator and bird activity near cellular towers (Molina-Montenegro et al. 2023; Levitt et al. 2022; Vanbergen et al. 2019).

The design of the cellular tower would incorporate recommendations and guidance provided by the USFWS to avoid or minimize direct (collision) and indirect (lighting) impacts on migratory birds, bats, and other wildlife (USFWS 2021). Additionally, ongoing analysis of operations' impacts on invertebrate pollinators should be conducted. These measures are provided in **Appendix D**, Applicant-Proposed Measures. With the implementation of conservation measures during the siting, design, construction, and long-term operation and maintenance of the tower, impacts on these species would be minimized to the extent possible.

### **Alternative B**

Under Alternative B, the construction of the communication facility and new access road would result in approximately 3.24 acres of permanent ground disturbance. All effects on plants and wildlife described above would apply to the implementation of Alternative B. Under Alternative B, the implementation of the Applicant-proposed measures described in **Appendix D** would reduce these impacts on biological resources. The primary difference between Alternative B and the other action alternatives is that Alternative B includes the installation of five photovoltaic solar arrays. These arrays would require three 25-kilowatt backup generators, which could run frequently and produce a noise level of 72 dBA at a distance of 21 feet while operating (Ascot 2016; Wood Environment and Infrastructure 2021b).

Solar arrays have been thought to affect bird species because of the so-called lake effect. This is the hypothesis that bird species might interpret solar facilities as water, as proposed by Kagan et al. (2014), Walston et al. (2015), Huso et al. (2016), and Conkling et al. (2023). The lake effect hypothesis emphasizes concerns related to injuries and deaths of birds because water-dependent birds may not be able to take off after landing, as they are adapted to take off from water and not dry land, and/or because they may suffer injuries from the collision with solar arrays (Manville 2016). However, unpublished data collected at existing solar facilities nearby are inconclusive and do not support or refute the lake effect hypothesis. Further studies are needed to explore the lake effect hypothesis in terms of the causal mechanisms and how birds perceive solar energy facilities.

The five solar arrays proposed as part of Alternative B would total a relatively small area of approximately 0.30 acres. Therefore, only minor effects would be anticipated. In addition, there is an area of riparian woodland and freshwater marsh habitat along perennial streams within the Big Morongo Canyon Important Bird Area, which is recognized by both the Audubon Society and the DRECP LUPA (BLM 2016a, Appendix D). This area is a little over 1 mile east of Canyon House Road and would likely be more attractive to migrating birds (refer to **Figure 4-5** in **Appendix E**, Biological Evaluation Report).

### **Alternative C**

Under Alternative C, the construction of the communication facility and new access road would result in approximately 2.97 acres of permanent ground disturbance, with three solar arrays proposed with up to three 25-kilowatt generators providing backup power to the solar arrays (similar to Alternative B). All effects described above in “Vegetation Effects” and “Wildlife Effects” would apply to Alternative C. The only effect specific to Alternative C would entail the electrical utility trench within the utility easement potentially becoming a trap for wildlife during construction. As under Alternative B, under Alternative C the implementation of the Applicant-proposed measures described in **Appendix D** would reduce impacts on biological resources.

### **Alternative D**

Alternative D’s site would be closer to Highway 62 with an access road and utility easement, and it would use the same turnoff location from Canyon House Road as Alternatives B and C. However, the access road would be shorter than that for Alternatives B and C; therefore, under Alternative D, the construction of the communication facility and new access road would result in approximately 1.20 acres of permanent ground disturbance. Since Alternative D would forgo solar power generation, up to four backup generators would be used in the case of a power outage or during routine maintenance. While in use, these generators would generate a noise level of 72 dBA at a distance of 21 feet while operating (Ascot 2016; Wood Environment and Infrastructure 2021b); this noise level would decrease with distance. All

effects on plants and wildlife described above would apply to the implementation of Alternative D. Similar to Alternative C, Alternative D would entail the construction of an electrical utility trench within the utility easement; this trench potentially would become a trap for wildlife during construction.

### ***Applicant-Proposed Measures***

To avoid and minimize effects on plants and wildlife, for all action alternatives, the Applicant would implement best management practices (BMPs) and the CMAs developed from the DRECP LUPA (BLM 2016a). The CMAs from the DRECP LUPA are detailed in **Appendix E**, Biological Evaluation Report, which includes a summary specifying the applicability and what measures the Applicant would take during implementation. The CMAs are also listed in **Appendix D**, Applicant-Proposed Measures.

The CMAs require preconstruction surveys and establishment of protective buffers for special status plant species, invasive and noxious weed management, desert tortoise avoidance and protection measures, predator and raven management measures, avoidance of vegetation removal during the peak breeding bird season or preconstruction nest clearance surveys and establishment of protective buffers for active bird nests, use of daily BLM-approved biological monitors to oversee construction activities, and development of a bird and bat conservation strategy plan. Implementation of these BMPs and CMAs would minimize adverse effects on biological resources.

Guidance from the USFWS regarding communication tower site BMPs for construction, siting, and design (USFWS 2021) would be incorporated into all phases of the Project, where applicable, to reduce the risk of bird mortality within the Project's footprint. The majority of these measures, such as limiting the height below 199 feet above ground level, exclusion of tower lighting, construction of a freestanding tower to avoid the use of guy wires, and construction outside the bird nesting season, are included as part of the proposed Project design. These measures are included in **Appendix D**, Applicant-Proposed Measures.

The full list and descriptions of measures to protect biological resources are included in **Appendix E**, Biological Evaluation Report, which includes a bird and bat conservation strategy.

### ***Reasonably Foreseeable Future Actions***

Under the No Action Alternative (Alternative A), the proposed Project would not be developed. Therefore, it would not contribute to impacts when considered with reasonably foreseeable future actions (RFFAs).

Impacts associated with RFFAs on biological resources are those that the Project would contribute to if any of the action alternatives are undertaken. Effects on wildlife connectivity and the effects of EMFs were identified as being of particular concern; these are discussed below.

#### *Wildlife Connectivity*

Multiple terrestrial connectivity models have been developed to demonstrate the essential corridors and habitat linkages required by terrestrial species to ensure genetic flow and connectivity, which are vital for species survival. Some of these habitat models include the South Coast Missing Linkages Wildlife Corridors (DRECP LUPA; BLM 2016a); Terrestrial Corridors – Areas of Conservation Emphasis, developed by the CDFW; Mountain Lion – Species Range; Desert Bighorn Sheep – Intermountain and Unfiltered Core Habitat; and many other datasets available on Databasin (Conservation Biology Institute 2025).

The South Coast Missing Linkages Wildlife Corridors modeling displays priority linkage areas in the South Coast Ecoregion to address fragmentation for threatened and endangered plant and animal species. The biological study area overlaps this model in San Bernardino County; however, the BLM-managed land that includes the biological study area was not included in the model for unknown reasons. However, it can be assumed that the Project's footprint would overlap with this linkage area if BLM-managed land had been included (South Coast Wildlands 2008).

The Terrestrial Corridors Areas of Conservation Emphasis model has a portion of the biological study area as falling within Rank 4 – Conservation Planning Linkages; this means this area represents the best connections between core natural areas to maintain habitat connectivity. However, the biological study area is not Rank 5 – Irreplaceable and Essential Corridors (CDFW 2025d). The Project's footprint also would fall within the California Wildlife Habitat Relationships range for the mountain lion and the desert bighorn sheep within the DRECP LUPA (BLM 2016a) planning area.

Therefore, the biological study area is modeled as a terrestrial wildlife corridor. However, the disturbance of a maximum of 3.24 acres of land in an area already impacted by the development of residences and businesses, as well as other anthropogenic influences (for example, recreational use), is unlikely to measurably reduce connectivity for terrestrial wildlife at a regional level. The action alternatives would not create an impermeable barrier for wildlife that may use or move through the area. Fauna such as mountain lions use large home ranges (300 to 500 square miles) and could easily maneuver around any of the action alternatives' footprints (CDFW 2025b). Similarly, desert bighorn sheep have large home ranges (8 to 10 square miles) and would easily maneuver around the action alternatives' footprints to access mountain ranges.

These species could be affected during Project construction and could avoid the area temporarily; however, they would likely not be measurably affected in the long-term operation of the communication tower and associated infrastructure.

#### *Electromagnetic Fields*

Levitt et al. (2022) suggest that the rising levels of anthropogenic non-ionizing EMFs may be damaging to all fauna and flora taxa at both an ecosystem and biospheric level. Currently, no radio frequency (the frequency of EMFs) radiation emission guidelines take nonhuman species into consideration, and it is commonly misconceived that existing exposure standards for humans are sufficient to cover nonhuman species. Due to their unique physiology, nonhuman species experience extreme sensitivity and vulnerability to both natural and anthropogenic EMFs.

Many nonhuman species “depend upon and constantly use the Earth's static geomagnetic fields for seasonal migration/orientation, nest/den building, mating, reproduction, offspring care, food finding, territorial defense, simple daily/seasonal circadian rhythms and even longevity and survivorship” (Levitt et al. 2022). For example, a 2014 study found monarch butterflies' migration in the fall from Canada to Mexico for overwintering is guided by a magnetic compass found in their head and thorax areas (Guerra et al. 2014). This suggests that EMFs can disrupt the directional sense of insects such as the monarch butterfly. Insects are expected to be affected the most and are more vulnerable to the increase in high frequencies used by 5G infrastructure due to their small size and the pressure of multiple threats, such as the use of pesticides and the destruction, degradation, or fragmentation of natural habitat (Thill et al. 2023).

Much is still unknown about these effects; long-term, chronic EMFs exposure guidelines for wildlife do not exist. Therefore, it is impossible to quantify what regional effect the addition of one communication tower would have on plant and wildlife species in the Project's vicinity.

## **3.2 CULTURAL RESOURCES**

### **3.2.1 Affected Environment**

The term "cultural resource" is defined in BLM Manual 8100 as a location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence (BLM 2004). "Cultural resources" is an inclusive term that has been adopted and widely used to refer to the diverse human record found in objects and places created and/or used by people. These may comprise archaeological, historic, or architectural districts, sites, structures, objects, or places such as trails and landscapes. Cultural resources include historic properties, as defined under the National Historic Preservation Act of 1966 (NHPA). Historic properties include historic sites, precontact sites, archaeological districts, historic structures, and traditional cultural places that are listed on or eligible for nomination to the National Register of Historic Places (NRHP). Historic properties are protected resources under the Archaeological Resources Protection Act (16 USC 470aa). Section 106 of the NHPA requires all federal agencies to consider the potential effects of their actions on historic properties (36 CFR 800).

The Project sites lie within the Serrano Tribe's ethnographic territory; however, due to the proximity of the Coachella Valley, the Project sites may have also been used by the Cahuilla Tribe, who were known to occupy the valley. A Class III cultural resource investigation was conducted in 2016, with an additional survey effort in 2025, to identify historic properties within the area of potential effect (APE) that could be impacted by the proposed alternatives (see the discussion below). An APE is defined as the geographic area within which a project has the potential to directly or indirectly cause alterations in the character or use of historic properties (36 CFR 800.16(d)), if any such properties exist. In defining an APE, both direct and indirect impacts anticipated by a proposed project are considered, including physical, visual, atmospheric, and audible elements. The APE for cultural resources encompasses the entirety of both Project sites (Site 1 and 2; Applied EarthWorks 2016, 2025).

As part of the Class III cultural resource investigation, a cultural resource literature and records search of the California Historical Resources Information System was completed at the South-Central Coastal Information Center, which is housed at California State University, Fullerton, and at the Eastern Information Center, which is housed at the University of California, Riverside, on June 15 and 17, 2016, respectively. The objective of the records search was to determine the likelihood of cultural resource sites existing within the APE and whether any precontact or historic-period cultural resources were previously recorded within the APE and within a 1-mile buffer surrounding it.

As a result, four cultural resources were documented within a 1-mile radius of the Project's APE. These resources consist of three historic-period road segments and a historic-period can scatter (Applied EarthWorks 2016). This literature search was reviewed as part of the 2025 survey effort, and no additional sites were identified within 1 mile of the APE. There are no previously documented cultural resources within the boundaries of the Project's APE. While there is no evidence of precontact or historic use within the Project sites themselves, historic maps suggest that the surrounding parcels have gradually transitioned into residential development since the early 1900s.

A pedestrian Class III cultural resource survey of Site 1 (Alternatives B and C) was completed on July 7, 2016. It covered Sites 1 and 2, including the proposed access road (Applied EarthWorks 2016). A pedestrian Class III cultural resource survey of Site 2 (Alternative D) and the access road was completed on March 18, 2025. On April 23, 2025, an additional survey was completed for portions of Site 1 (specifically for Alternative C; Applied EarthWorks 2025). During the field surveys, no historic-age built-environment features or archaeological sites of precontact or historic association were encountered within or immediately surrounding the Project's boundaries.

Public comments received on the draft EA (**Appendix C**) indicated that two previously undocumented cultural resources exist either within the APE or within 1 mile of the APE. Commenters indicated the Morongo Inn property (Fuchser 2005) and a possible rock feature are less than 1 mile from the APE. The Morongo Inn is approximately 1 mile from both Project sites (Sites 1 and 2) and outside the APE; however, the inn has not been formally documented. The location of the possible rock feature is known, but there has been no determination that the feature is a cultural site; therefore, it has not been documented as such. Tribal consultation undertaken throughout the project did not result in any additional information on the significance of the rock feature or potential impacts as a result of the project.

### **3.2.2 Environmental Consequences**

#### ***Alternative A***

Under Alternative A, the proposed Project would not be developed. As there were no cultural resources identified within the project area, there would be no potential impacts on those resources from general public use. There would be no impact on historic buildings within the vicinity of Sites 1 or 2.

#### ***Alternative B***

Potential impacts from the types of activities proposed under Alternative B include direct physical effects on cultural resources on or below the ground surface, including modifying spatial relationships of artifacts and destroying features and stratified deposits. The information loss may be relevant to the site function, dates of occupation, subsistence, and past environments; all these are important to understanding past cultures. Potential impacts also include visual and auditory effects, such as the temporary or permanent introduction of visual elements that are out of character with a property or that alter its setting. No historic properties were identified within the APE; therefore, these impacts are not anticipated to occur under Alternative B.

Inadvertent discovery during construction due to earthmoving and excavation activities at the 3.24-acre Alternative B Project site could occur. Without mitigation, this could constitute an adverse impact under the NHPA. A BLM-approved cultural monitoring and discovery plan would be created to address the actions taken in the event of an inadvertent discovery.

Under Alternative B, five solar arrays would be constructed, which would introduce visual elements that could be out of character with a property or alter its setting. However, there are no documented historic properties that would likely be impacted by changes in the visual setting. Visual simulations from key observation point (KOP) 1, near the Morongo Inn, indicate that the communication site itself would not be visible from this area; however, the cell tower would be partially visible.

Under Alternative B, Applicant-proposed measures related to construction monitoring and consideration of Tribal consultation outcomes would function to avoid or mitigate potential effects on cultural resources from the Project's activities.

Based on the results and recommendations provided in the Class III inventory reports, the Project would have no effect on cultural resources that are considered historic properties under Section 106 of the NHPA. Therefore, no direct or indirect effects are anticipated to result from the Project.

#### **Alternative C**

Potential impacts from the activities proposed under Alternative C would be similar to those under Alternative B. While Alternative C activities would largely take place at locations similar to those under Alternative B, activities would occur within a smaller project footprint (2.97 acres). This would reduce the potential for inadvertent discoveries under Alternative C compared with under Alternative B. However, under Alternative C, utility trenching along the proposed access road could also result in increased probability of discovering previously unknown cultural resources, compared with Alternative B.

Under Alternative C, three solar arrays would be constructed, which would introduce visual elements that could be out of character with a property or alter its setting. This is two fewer solar arrays compared with the five solar arrays planned under Alternative B. However, there are no documented historic properties that would be impacted by the introduction of these elements. Visual simulations from KOP I, near the Morongo Inn, indicate that the communication site itself would not be visible from this area; however, the cell tower would be partially visible.

As described under Alternative B, Applicant-proposed measures related to construction monitoring and consideration of Tribal consultation outcomes would reduce potential impacts on cultural resources.

As under Alternative B, based on the results and recommendations provided in the Class III inventory reports, Alternative C would have no effect on historic properties.

#### **Alternative D**

As under Alternatives B and C, potential impacts from the activities proposed under Alternative D include introducing physical effects and introducing visual or auditory elements out of character with a historic setting (as described in Alternatives B and C). However, Alternative D would have the smallest project footprint (1.20 acres) among all the action alternatives; therefore, of the action alternatives, Alternative D would result in the least potential for inadvertent discoveries.

Alternative D would not include any solar arrays, which would reduce the introduction of visual elements that might be out of character with a property or alter its setting, compared with Alternatives B and C. The visual resources analysis in this EA indicates that differences between Alternatives B and D would minimize impacts on scenic quality for very close views of the Alternative D Project site; however, they would not be enough to change the degree of contrast ratings for any KOPs that Alternatives B and D have in common. Additional KOPs documented specifically for Alternative D have contrast ratings similar to those under Alternative B (**Section 3.7**, Visual Resources). Views from KOP I, near the Morongo Inn, would include a portion of the cell tower; however, vegetation would partially mask the cell tower.

Under Alternative D, Applicant-proposed measures related to construction monitoring and consideration of Tribal consultation outcomes would be the same as those proposed for Alternatives B and C and would reduce potential impacts on cultural resources.

As under Alternative B, based on the results and recommendations provided in the Class III inventory reports, Alternative D would have no effect on cultural resources that are considered historic properties under Section 106 of the NHPA.

#### ***Applicant-Proposed Measures***

If cultural resources are encountered during construction activities, all Project work must stop, and the BLM's Authorized Officer would be contacted immediately, which would minimize potential impacts from an inadvertent discovery. If human remains are encountered during construction, BLM policy CA IB-2016-012 provides procedures and requirements for discovery of human remains on BLM-managed lands in California; these include compliance with federal and state laws (the Archaeological Resources Protection Act [16 USC 470 and 43 CFR 7], Native American Graves Protection and Repatriation Act [25 USC 3001 and 43 CFR 10], as well as California Health and Safety Code 7050.5). A BLM-approved monitoring and discovery plan would be created prior to construction to outline the procedures required for the possibility of identifying cultural materials or human remains (36 CFR 800.13, Post-review discoveries).

Any BLM staff or manager who knows that human remains have been discovered on BLM-managed lands would provide notification of the discovery to their field manager and the state and field office archaeologist as soon as possible. BLM policy requires no further work would continue at the location of the find until the county coroner has made all the necessary findings as to the origin and distribution of such remains, pursuant to BLM policy (BLM 2016b).

Additionally, to protect cultural materials, **Appendix D** contains the following CMA that would contribute to avoiding adverse effects on historic properties: "Coordinate with visual resources staff to ensure VRM Classes consider cultural resources and Tribal consultation to include landmarks of cultural significance to Native Americans (TCPs [traditional cultural places], trails, etc.)."

#### ***Reasonably Foreseeable Future Actions***

Under Alternative A, the proposed Project would not be developed. Therefore, it would not contribute to impacts on cultural resources when considered with other RFFAs.

Three pending ROWs are within 1 mile of the proposed Project sites. One ROW is for a communication site, and two ROWs are for telephone, telegraph, and fiber optic. The ROWs would involve infrastructure that is similar to this proposed Project and have the potential for similar impacts on cultural resources. Because no adverse effects on historic properties are anticipated, there would be no contribution to impacts when the Proposed Action is considered with other RFFAs. Under Alternatives B, C, and D, the Applicant-proposed measure in **Appendix D** related to coordination between the visual and cultural resources programs and consideration of Tribal consultation outcomes would assist in avoiding adverse effects on historic properties, particularly any cultural resources outside the APE that are not currently documented.

### 3.3 SOIL RESOURCES

#### 3.3.1 Affected Environment

Soils are formed from the interactions between parent materials, climate, organisms, and topography over time. The physical, chemical, and biological properties of soils differ with changes in soil characteristics (such as texture, structure, and porosity). These properties alter the ecosystem services, including storing and cycling nutrients, purifying the air and water, storing and regulating water flow, and providing support for plants and human structures. These properties contribute to the soil quality, which is the capacity of a specific soil to function physically, chemically, and biologically within managed or natural ecosystem boundaries (Weil and Brady 2019).

The Project sites are on an alluvial fan within the Mojave Desert ecoregion. Soil texture on the Project sites ranges from cobbly, fine sandy loam on Sites 1 and 2 and the western half of the access road, transitioning to sandy loam in the remaining eastern portion of the access road (**Appendix E**, Biological Evaluation Report). Soil texture was evaluated during fieldwork related to the biological evaluation report, though no field investigations were made to classify the soil map units as a part of this planning process.

U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) data indicate the soils are derived from granite parent material and are generally well drained, with alkaline conditions on a small portion of the easternmost access road. The soils in this area do not support wetlands and are not considered prime farmland (NRCS 2021).

The portion of San Bernardino County surrounding the Project sites lacks complete NRCS data. However, the Riverside County, Coachella Valley area does have available soil mapping, which extends within 2,000 to 3,000 feet of the Project sites to the south, depending on the alternative. Soil units can be highly variable (even within a small area), and the general characteristics given for these units, such as slope, may not exactly match current conditions at the Project sites. It is likely the NRCS mapping captures similar soil units to those found in Sites 1 and 2 and the access roads.

Two soil units mapped in the Coachella Valley soil survey area have the most potential to occur at the Project sites. Only one of these mapped units is a named soil unit, Cajon loamy sand (abbreviated as CaD in the soil survey). The other map unit consists of generalized rock outcrops (**Table 3-5**). CaD soils are generally found on alluvial fans in this part of California and are derived from alluvial sediments (NRCS 2021).

**Table 3-5. Mapped Soil Units near the Project Sites**

Soil Unit	Neighboring Occurrence Area	Wind Erosion Susceptibility (WEG)*	Water Erosion Susceptibility (K Factor)
CaD 5%–15% slopes	Soil-covered slopes	2	0.24
Rock outcrop	Exposed rock outcrops	n/a	n/a

Source: NRCS 2021

\*WEG = wind erodibility group

WEGs are groupings of soils with similar properties affecting their resistance to soil blowing. WEGs are rated from 1 to 8. Soils in WEG 2 are considered highly susceptible to wind erosion because of their fine, sandy texture and dryness (NRCS 2024). The CaD map unit exhibits high wind erosion susceptibility with

a WEG of 2. While rock outcrops are also subject to wind erosion, they are not categorized for wind or water erosion susceptibility.

One expression of a soil's susceptibility to water erosion is referred to as the "K factor," which is part of a larger equation used to estimate local loss of soil due to water erosion. K factor is expressed as a value ranging from 0.02 (least susceptible) to 0.69 (most susceptible) where the higher the K factor, the more susceptible the soil is to sheet and rill erosion by water (NRCS 2024). Of the map units likely to occur on the Project sites, only CaD has been assigned a K factor, and its assigned value of 0.24 is moderate (NRCS 2021).

A hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The soils in the United States are placed into four groups—A, B, C, and D—and three dual classes: A/D, B/D, and C/D (NRCS 2024). CaD has been assigned to hydrologic soil group A, with a high infiltration rate and relatively low runoff potential. Changes in soil properties caused by ground-disturbing activities or changes in erosion could cause the hydrologic soil group to change.

There is potential for the presence of sensitive soil types within the Project sites, including desert pavement and biological soil crusts. Desert pavement is developed through the accumulation of windblown dust on a gravel surface (Dickerson 2012), while biological soil crusts are an association between soil particles and various microscopic forms of life within the uppermost millimeters of soil (Rosentreter et al. 2007). Desert pavement and biological soil crusts have not been inventoried in the planning area, but they have the potential to occur.

### **3.3.2 Environmental Consequences**

#### **Alternative A**

Under Alternative A, the proposed Project would not be developed. As a result, there would be no ground-disturbing activities at either Project site. Existing soil conditions would remain unchanged.

#### **Alternative B**

Under Alternative B, development within the 3.24-acre Project site (Site 1), including associated access road construction, would involve ground-disturbing activities. These activities would impact surface soils through grading and leveling of the site, as well as through the cutting of an access road. Alternative B would address steep terrain and road alignment challenges by developing an engineered road design that complies with BLM and San Bernardino County Fire Protection District Fire Code standards.

Potential effects on soil resources would include disturbance; compaction, which would result in decreased water infiltration; and increased potential for erosion. However, implementation of the Applicant-proposed measures described in **Appendix D**, such as erosion- and sediment-control BMPs, would reduce these impacts.

#### **Alternative C**

Under Alternative C, impacts on soil resources are anticipated to be nearly identical to those under Alternative B except that development under Alternative C would result in 0.27 fewer potential acres of ground disturbance and direct impact on soils, in comparison with Alternative B; this is due to a 2.97-acre Project site.

As under Alternative B, under Alternative C the implementation of the Applicant-proposed measures described in **Appendix D** would reduce impacts on soils.

#### **Alternative D**

Development under Alternative D would occur at a different location than under Alternatives B and C, though Project activities and the potential impacts on soils are anticipated to be similar in nature to those under Alternatives B and C. However, Alternative D would contain Project development within a 1.20-acre Project site (Site 2); this site would be 2.04 acres smaller than it would be under Alternative B and 1.77 acres smaller than under Alternative C. The shorter access road and potential for a smaller disturbance footprint under Alternative D suggest that fewer soil resources would be affected overall, compared with Alternatives B and C.

As under Alternatives B and C, the implementation of Applicant-proposed measures under Alternative D would reduce impacts on soils from Project activities.

#### **Applicant-Proposed Measures**

Effects on soil resources would be limited through the implementation of the BMPs, such as development of a stormwater pollution prevention plan, which are detailed in **Appendix D**, Applicant-Proposed Measures. The measures listed in **Appendix D** also include relevant CMAs from the DRECP LUPA (BLM 2016a) that are designed to protect water quality by limiting soil erosion. Implementation of these BMPs would reduce construction-caused<sup>14</sup> effects on soils by reducing the transport of soil material off-site via water or wind.

#### **Reasonably Foreseeable Future Actions**

Under the No Action Alternative (Alternative A), the proposed Project would not be developed. Therefore, it would not contribute to impacts on soil resources when considered with other RFFAs.

Impacts on soil resources may result from the incremental effects of the proposed Project when considered alongside RFFAs. There are three pending ROWs located within a 1-mile radius of the proposed Project sites. One ROW is for a communication site, and two ROWs are for telephone, telegraph, and fiber optic. These actions, along with other proposed utility corridors, telecommunications infrastructure, or surface-disturbing activities such as road grading and maintenance within the broader Morongo Valley area, contribute to the broader impacts on soil resources.

The potential disturbance footprint of the Project alternatives ranges from 1.20 to 3.24 acres, and all ground-disturbing activities would be confined to previously undeveloped and sparsely vegetated areas with no unique soil types or sensitive landforms present. Additionally, the Applicant-proposed measures (**Appendix D**) would minimize erosion, compaction, and sediment loss during and after construction.

Given the limited extent of soil disturbance and the application of erosion-control BMPs, no Alternatives B, C, or D would not contribute to significant impacts on soil resources when considered with other RFFAs.

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<sup>14</sup> The term “construction-caused” refers to effects occurring during the construction phase, such as grading and excavation. The BMPs outlined in **Appendix D** would minimize soil disturbance and runoff during this phase.

### 3.4 RECREATION

#### 3.4.1 Affected Environment

Site 1 and Site 2 are within the Sand to Snow SRMA (**Figure 3-1** in **Appendix A**). An SRMA is a designation on BLM-managed lands that is recognized and managed for its recreational opportunities, unique value, and importance. SRMAs are areas where outdoor recreation is emphasized as a land use priority, with management focused on providing quality recreational opportunities. Each SRMA is identified through land use planning to guide recreation-related funding and personnel, and is managed to support a specific set of recreational activities, experiences, opportunities, and benefits. Both land use plan decisions and subsequent implementation actions for recreation in each SRMA are geared to a strategically identified primary market as destination, community, or undeveloped areas (BLM 2016a).

The objective of the Sand to Snow SRMA is to preserve the nationally significant biological, cultural, educational, geological, historic, scenic, wilderness, and recreational values at the convergence of the Mojave and Colorado Desert and the San Bernardino Mountains, and to secure the opportunity for present and future generations to experience and enjoy the magnificent vistas, wildlife, landforms, and natural and cultural resources. The primary activities in the Sand to Snow SRMA are hiking and wildlife (particularly birds) viewing. The SRMA provides other primary activities, such as primitive camping, equestrian use, wildlife and wildflower viewing, sightseeing, hunting, photography, picnicking, and stargazing. During the biological surveys, signs of OHV and mountain bike use were noted in the biological study area; however, it should be noted that there are no designated OHV routes in this area.

The BLM manages recreation in an outcome-focused manner that seeks to assess the outcomes from individuals engaging in recreational experiences within a management unit. To assess these outcomes, the BLM considers the physical, social, and operational components of these management areas to understand the recreational setting characteristics. Appendix C of the DRECP LUPA (BLM 2016a) did not describe the recreational setting characteristics of the Sand to Snow SRMA for lands managed outside the SRMA's two recreation management zones, the Big Morongo Canyon ACEC Recreation Management Zone and the San Gorgonio Wilderness Recreation Management Zone. Referring to Appendix 3 of BLM Handbook 8320-1, Planning for Recreation and Visitor Services (BLM 2014, p. A3-1), Project Site 1 and Site 2 would mostly be categorized with a rural classification due to the presence of Highway 62, associated businesses, and a residential development on private lands within the SRMA administrative boundary.

#### 3.4.2 Environmental Consequences

##### **Alternative A**

Under Alternative A, the proposed Project would not be developed. Both Project sites (Site 1 and Site 2) could still be used for dispersed and undeveloped recreation, and there would be no sights and sounds associated with development that could affect nearby visitors.

##### **Alternative B**

Alternative B would not block or hinder access to recreation in either of the two recreation management zones where all developed or designated hiking, wildlife viewing, and any other primary activities are provided within the Sand to Snow SRMA. No developed or designated recreation exists within or next to Site 1.

Under Alternative B, the Proposed Action would disturb 3.24 acres in an area used for dispersed recreation. Limited dispersed recreation, such as dispersed OHV use, mountain biking, and motorized dirt biking, has been documented through scoping comments. The Proposed Action would not prevent access for these recreational activities, except around active construction sites and in the 0.57-acre fenced project footprint.

During construction and operation, equipment and generators would create noise that could diminish enjoyment of recreation. However, impacts would be short term (during the 90 days of construction) and intermittent. Also, those participating in motorized recreational activities, which generate their own noise, and mechanized recreational activities are not anticipated to remain stationary or in the Project's vicinity; therefore, these recreationists would not experience noise created during construction and operation. To be affected by the Project's noise, motorized and mechanized recreation would have to occur simultaneously with construction or generator use. Consequently, impacts on recreational access and enjoyment would be short term and localized.

Further, Alternative B would be consistent with the physical components typified by the rural classification, and many of the activities and experiences for which the SRMA was established would be preserved.

#### **Alternative C**

It is inferred that because Alternative C contains similar Project components as Alternative B, except for the reduced size of the fenced project footprint (0.34 acres) due to fewer solar arrays under Alternative C, the effects on recreation under Alternative C would be similar to those described under Alternative B.

#### **Alternative D**

Alternatives B and D have similar Project components, except for the reduced size of the fenced project footprint (0.18 acres) due to no solar arrays under Alternative D. Additionally, Alternative D would be at a different site (Site 2) and would rely on generators only during power outages at the site. Therefore, the effects on recreation under Alternative D would be less than those under Alternative B.

#### **Applicant-Proposed Measures**

The Project would be managed in accordance with CMAs from the DRECP LUPA (BLM 2016a) that broadly apply to the Project and that would reduce impacts on SRMAs. These measures are listed in **Appendix D**, Applicant-Proposed Measures. Implementation of these measures would ensure no adverse effect on the SRMA.

#### **Reasonably Foreseeable Future Actions**

Under Alternative A, the proposed Project would not be developed. Therefore, it would not contribute to impacts on recreation when considered with other RFFAs.

Three pending ROWs are within 1 mile of the proposed Project sites. One ROW is for a communication site, and two ROWs are for telephone, telegraph, and fiber optic. Construction of ROWs would involve using equipment similar to that used during construction of the proposed Project, and the resulting noise is expected to be comparable. When combined with noise impacts from the ROW projects' construction, noise from the proposed Project would contribute to impacts on recreation during construction. In addition, when combined with these other ROW projects, the proposed Project would contribute to

impacts on recreation by limiting access for dispersed recreation around construction sites (during construction) and within the fenced project footprints in the long term. The intensity, magnitude, and duration of these impacts would depend on factors such as whether construction activities for the proposed Project and other ROWs occur simultaneously or sequentially, and whether they are concentrated in the same area or spread out across the landscape. For example, overlapping construction periods in proximity could result in long-term access restrictions and noise disturbances, whereas staggered timing or dispersed locations could reduce the degree and duration of impact on recreational users.

### **3.5 SPECIAL AREA DESIGNATIONS**

#### **3.5.1 Affected Environment**

Wilderness areas are the most protected lands in America and are to remain largely free of the evidence of humans or their work. These areas are devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use, and each agency administering them is charged with preserving their wilderness character. The BLM is required to preserve wilderness character as defined in the Wilderness Act (Public Law 88-577); wilderness character includes being untrammled, being natural, being undeveloped, offering outstanding opportunities for solitude or primitive and unconfined recreation, and potentially possessing supplemental values.

Site 1 and Site 2 are 0.50 miles and 0.48 miles, respectively, southeast of the San Gorgonio Wilderness, which lies within the Sand to Snow National Monument and was designated by Congress in 1964 under the Wilderness Act. Congress has expanded the San Gorgonio Wilderness multiple times through the California Wilderness Act of 1984, the California Desert Protection Act of 1994, and, most recently, the John D. Dingell Jr., Conservation, Management, and Recreation Act of 2019. The San Gorgonio Wilderness is managed by both the U.S. Department of Agriculture, Forest Service and the BLM, and it provides excellent opportunities for exploration, solitude, and traditional skill development in Southern California. The BLM-managed portions of the wilderness transition from desert floor into mountain habitats, eventually connecting with forested areas in San Bernardino National Forest.

The San Gorgonio Wilderness: Wilderness Character Baseline Assessment Report establishes the baseline character for both the BLM-managed and National Forest System portions of the wilderness (BLM and U.S. Department of Agriculture, Forest Service 2020). In addition to the four core qualities of wilderness character—being untrammled, being natural, being undeveloped, and offering outstanding opportunities for solitude or primitive and unconfined recreation—the baseline report identifies cultural features as a supplemental value to be managed. The baseline report establishes values to monitor over time, helping determine whether the BLM is effectively managing for wilderness character or whether management actions are needed. To better describe the character of the San Gorgonio Wilderness, the 2019 Wilderness Character Baseline and 5-Year Data Report, which is Appendix A of the 2020 baseline report (BLM and U.S. Department of Agriculture, Forest Service 2020), has been incorporated into this EA as **Appendix H**.

#### **3.5.2 Environmental Consequences**

Natural soundscapes and the absence of noise are crucial components of the wilderness quality of outstanding opportunities for solitude or primitive and unconfined recreation, particularly the solitude aspect (remoteness from sights and sounds of human activity). Noise can alter perceptions of crowding, thereby diminishing the feeling of being alone or remote, which is crucial to the experience of solitude.

### **Alternative A**

Under Alternative A, the proposed Project would not be developed. There would be no sights and sounds associated with development that could affect nearby visitors, such as those in the San Gorgonio Wilderness.

### **Alternative B**

The proposed Project would not be in the San Gorgonio Wilderness; therefore, it would not affect the following qualities of wilderness character: untrammeled, natural and undeveloped, and supplemental values associated with cultural features. The proximity of this wilderness to a large metropolitan area means evidence of developments and installations outside the wilderness are visible from many vantage points in this wilderness.

Construction noise levels associated with Alternative B would exceed the existing noise level range by at least 8 dBA at the San Gorgonio Wilderness boundary, and would be within the existing noise level range within the San Gorgonio Wilderness (because ambient noise levels are expected to be 26 to 40 dBA). The noise impacts at the San Gorgonio Wilderness boundary could result in annoyance and be considered adverse if anyone desiring solitude is at the boundary during construction. However, the impacts would be short term (during the 90 days of construction) and intermittent.

Routine operations, including generator use and maintenance, would be within the existing noise level range at the San Gorgonio Wilderness boundary and within the San Gorgonio Wilderness. However, in rare instances, all three<sup>15</sup> generators would be required to operate during nighttime hours. This would exceed the existing noise level range by at least 1 dBA at the San Gorgonio Wilderness boundary; it would be within the existing noise level range within the San Gorgonio Wilderness. These impacts from nighttime operational noise could result in annoyance and be considered adverse if anyone desiring solitude is at the wilderness boundary during the night.

### **Alternative C**

It is inferred that because Alternative C contains similar Project components as Alternative B, except for the reduced size of the Project's footprint due to fewer solar arrays under Alternative C, the effects on wilderness under Alternative C would be similar to those described under Alternative B.

### **Alternative D**

Alternatives B and D have similar Project components, except for the reduced size of the Project's footprint due to no solar arrays under Alternative D. Additionally, Alternative D would be located at a different site (Site 2) and would rely on generators only during a power outage at the site. Therefore, effects on wilderness under Alternative D would be less than those under Alternative B.

### **Applicant-Proposed Measures**

No CMAs from the DRECP LUPA (BLM 2016a) apply to wilderness.

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<sup>15</sup> The modeling in **Appendix F2** assumes the use of four generators; however, only three generators with the same specifications as those modeled would actually be used. Therefore, the actual generator noise levels would be less than the modeled generator noise levels in **Appendix F2**.

### **Reasonably Foreseeable Future Actions**

Under the No Action Alternative (Alternative A), the proposed Project would not be developed. Therefore, it would not contribute to impacts on wilderness when considered with other RFFAs.

Three pending ROWs are within 1 mile of the proposed Project sites. One ROW is for a communication site, and two ROWs are for telephone, telegraph, and fiber optic. Construction of ROWs would involve using equipment that is similar to the equipment that would be used during the construction of this proposed Project. The equipment for the ROWs is expected to generate noise that is similar to the noise for this proposed Project. When combined with noise impacts from ROW construction, noise from this proposed Project would contribute to impacts on anyone at the San Gorgonio Wilderness boundary desiring solitude. The intensity, magnitude, and duration of the impacts would depend on factors such as the timing and location of the ROW construction of the proposed Project and other RFFAs.

## **3.6 NOISE**

### **3.6.1 Affected Environment**

Noise is typically defined as unwanted sound that interferes with normal activities or otherwise diminishes the quality of the human or natural environment. Sound is technically described in terms of the loudness (that is, amplitude) and frequency (that is, pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel. A description of how sound frequency is measured, associated units, and noise rating scales can be found in **Appendix FI**, Noise Analysis. Unless otherwise noted, all decibel measurements presented in the following noise analysis use the dBA. A-weighting is an adjustment applied to sound measurement to reflect how a noise is perceived by the human ear. The  $L_{eq}$  is the average acoustic energy of noise for a given period.

In terms of human response to noise, a 3 dBA increase is barely perceptible to most people, a 5 dBA increase is readily noticeable, and a 10 dBA increase is perceived as a doubling of loudness (100 percent increase; Federal Interagency Committee on Urban Noise 1980; U.S. Department of Transportation, Federal Transit Administration 2018).

San Bernardino County established noise standards in the County's County Development Code (described further in **Appendix FI**, Noise Analysis). Noise limits for residential land use are as follows: 55 dBA from 7:00 a.m. to 10:00 p.m.  $L_{eq}$  and 45 dBA from 10:00 p.m. to 7:00 a.m.  $L_{eq}$ . Construction activities, however, are exempt from the standard from 7:00 a.m. to 7:00 p.m., except on Sundays and federal holidays.

The residence closest to Site 1 is 0.15 miles away.<sup>16</sup> The residence closest to Site 2 is also 0.15 miles away. Both Project sites and nearby residences are within a rural high desert community where typical ambient noise levels are expected to be approximately 45 dBA during the day and 34 dBA at night (U.S. Environmental Protection Agency 1971).

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<sup>16</sup> Updated measurements since the noise modeling (**Appendix F2**) was conducted indicate a distance of 0.13 miles (702 feet). This difference in distance would have a negligible change in the noise modeling results.

The dominant noise source for this area is motor vehicle traffic along Highway 62, which is 0.50 miles from Site 1 and 0.12 miles from Site 2. Peak-hour noise levels are 47 dBA at the residence closest to Site 1 and 44 dBA at Site 1 (Wood Environment and Infrastructure 2021a). Peak-hour noise levels would be slightly elevated at Site 2 because it is closer to Highway 62.

Ambient noise levels at the San Gorgonio Wilderness boundary and within the San Gorgonio Wilderness, which are 0.5 miles and 1.5 miles, respectively, from Site 1, are expected to be within the range of 26 to 40 dBA (U.S. Environmental Protection Agency 1978; Morton 2008; BLM 2010a). The San Gorgonio Wilderness boundary is 0.48 miles from Site 2.

### 3.6.2 Environmental Consequences

#### **Alternative A**

Under Alternative A, the proposed Project would not be developed. There would be no construction, operations, or maintenance that would introduce noise to the surrounding environment. Additional development on nearby lands and changes to the road system could increase ambient noise levels over time.

#### **Alternative B**

A noise analysis was conducted to evaluate the potential noise effects from construction, operation, and maintenance under Alternative B. This analysis is in **Appendix F1**, Noise Analysis. Summary results of the analysis are provided here.

Noise levels associated with the three loudest pieces of construction equipment operating simultaneously would result in an  $L_{eq}$  of 83 dBA at 50 feet from the noise source. **Table 3-6** presents the noise levels at sensitive receptors that would result from construction equipment operation.

**Table 3-6. Alternative B's Construction Noise Levels at Sensitive Receptors**

Sensitive Receptor	Distance from Construction to Sensitive Receptor	$L_{eq}$ dBA
Residence to the east	0.15 miles (792 feet) <sup>1</sup>	59
San Gorgonio Wilderness boundary	0.50 miles (2,640 feet)	48
San Gorgonio Wilderness	1.50 miles (7,920 feet)	39

Sources: Wood Environment and Infrastructure 2021b, 2021c

<sup>1</sup> Updated measurements since the noise modeling (**Appendix F2**) was conducted indicate a distance of 0.13 miles (702 feet). This difference in distance would have a negligible change in the noise modeling results.

A single generator produces an average noise level of 66 dBA at 21 feet from the noise source. **Table 3-7** presents the noise levels at sensitive receptors that would result from operational activities. Generator noise levels are depicted in **Figure 3-2** in **Appendix A**.

During construction, noise levels at residences would exceed San Bernardino Development Code Noise Standards for Stationary Noise Sources by 4 dBA during the day; however, the Development Code exempts construction activities from the noise standards from 7:00 a.m. to 7:00 p.m., except on Sundays and federal holidays. The noise impacts on residences could result in annoyance and be considered adverse, but they would be short term (during the 90 days of construction) and intermittent.

**Table 3-7. Alternative B's Operational Noise Levels at Sensitive Receptors**

Sensitive Receptor	Distance from Operation to Sensitive Receptor	L <sub>eq</sub> dBA	
		Maintenance	Generators <sup>1</sup>
Residence to the east	0.15 miles (792 feet) <sup>2</sup>	27	41
San Gorgonio Wilderness boundary	0.50 miles (2,640 feet)	16	31
San Gorgonio Wilderness	1.50 miles (7,920 feet)	7	21

Sources: Ascot 2016; Wood Environment and Infrastructure 2021b, 2021c

<sup>1</sup> This is for four generators operating simultaneously. The modeling in **Appendix F2** assumes the use of four generators; however, only three generators with the same specifications as those modeled would be used. Therefore, the actual generator noise levels would be less than the modeled generator noise levels in **Appendix F2**.

<sup>2</sup> Updated measurements since the noise modeling (**Appendix F2**) was conducted indicate a distance of 0.13 miles (702 feet). This difference in distance would have a negligible change in the noise modeling results.

Construction noise levels at the San Gorgonio Wilderness boundary would exceed the existing noise level range by at least 8 dBA. Within the San Gorgonio Wilderness, construction noise levels would be within the existing noise level range. This is because ambient noise levels are expected to be within the range of 26 to 40 dBA. The noise impacts at the San Gorgonio Wilderness boundary could result in annoyance and be considered adverse if anyone is at the boundary during construction. However, the impacts would be short term (during the 90 days of construction) and intermittent.

Typical operation, including generator use, and maintenance noise would be occasional and would not exceed San Bernardino Development Code Noise Standards for Stationary Noise Sources. Also, it would be within the existing noise level range for the San Gorgonio Wilderness boundary and San Gorgonio Wilderness. However, in rare instances, all three<sup>17</sup> generators would be required to operate during nighttime hours. Although this operation would still meet San Bernardino Development Code Noise Standards for Stationary Noise Sources, it would exceed existing ambient noise levels by 7 dBA; this is because a rural high desert community typically experiences ambient noise levels of 34 dBA at night. The impacts of nighttime operation noise on residences could result in annoyance and be considered adverse. The intensity of the impact would depend on a variety of factors, including the time of night that the noise occurred, the duration of generator use, and the activity of residents at that time.

### **Alternative C**

It is inferred that because Alternative C contains similar Project components as Alternative B, except for the reduced size of the Project's footprint due to fewer solar arrays under Alternative C, the effects of noise generated under Alternative C would be similar to those described under Alternative B.

### **Alternative D**

Alternatives B and D have similar distances from their respective sites to sensitive receptors and similar Project components, except for the reduced size of the Project's footprint due to no solar arrays under Alternative D. In addition, Alternative D would only use generators for a power outage at the site.

<sup>17</sup> The modeling in **Appendix F2** assumes the use of four generators; however, only three generators with the same specifications as those modeled would be used. Therefore, the actual generator noise levels would be less than the modeled generator noise levels in **Appendix F2**.

Therefore, the effects of noise generated from operations and maintenance under Alternative D would be less than those under Alternative B.

### ***Applicant-Proposed Measures***

As depicted in **Appendix D**, Applicant-Proposed Measures, the Applicant would be required to implement the DRECP LUPA (BLM 2016a) CMAs where noise may impact wildlife. These CMAs include the use of noise controls on standard construction equipment, such as mufflers, to reduce noise and the use of engineering controls on stationary equipment, buildings, and work areas, including sound insulation and noise enclosures, to reduce the average noise level if the activity would contribute to noise levels above existing ambient levels. Additionally, no construction or maintenance activities would take place during nighttime hours. Use of these controls would further reduce potential impacts from construction, operations, and maintenance noise on the sensitive receptors described above.

### ***Reasonably Foreseeable Future Actions***

Under the No Action Alternative (Alternative A), the proposed Project would not be developed. Therefore, it would not contribute to impacts from noise when considered with other RFFAs.

Three pending ROWs are within 1 mile of the proposed Project sites. One ROW is for a communication site, and two ROWs are for telephone, telegraph, and fiber optic. Construction of ROWs would involve using equipment that is similar to the equipment that would be used during the construction of this proposed Project. The equipment for the ROWs is expected to generate noise that is similar to the noise for this proposed Project. When combined with impacts from noise from ROW construction, this proposed Project would contribute to impacts from noise during construction. The intensity, magnitude, and duration of the impacts would depend on factors such as the timing and location of the ROW construction of the proposed Project and other RFFAs.

## **3.7 VISUAL RESOURCES**

### **3.7.1 Affected Environment**

The FLPMA identifies that BLM-managed public lands are to be managed in a manner that will protect the quality of the scenic resources. The BLM's VRM program establishes a methodology to inventory and manage scenic values on BLM-managed lands. The primary elements of the BLM's VRM program are (1) inventorying scenic values, (2) establishing management objectives, and (3) evaluating the conformance of proposed actions with management objectives. The following discussion summarizes scenic values based on the BLM Palm Springs–South Coast Field Office's Visual Resource Inventory (BLM 2010b), the DRECP LUPA (BLM 2016a), and the related DRECP LUPA final environmental impact statement (BLM 2015).

The area of the proposed Project and surrounding lands is noted for its adjacent scenery and variety of landforms as key factors contributing to the area's scenic quality; noted cultural modifications within the unit do not add or detract from visual harmony. The area consists of three distinct parts that include lands north and west of Highway 62 in San Bernardino County and lands west of Highway 62 in Riverside County. Much of the surrounding land is undeveloped, except for Highway 62 to the east and the community of Morongo Valley to the northeast. The scenery displays subtle color contrasts of tans and browns that do not significantly contribute to scenic quality. The visual landscape of the affected area consists of a mid-elevation convex site with a backdrop of a rolling hill ridge and rock outcrops, with light brown and tan color tones.

The visual setting also includes disturbances to the native plant community associated with unauthorized off-road vehicle use and vehicle parking and staging on-site. Residential and commercial development, including utility infrastructure and a network of public roads, is to the northeast of the proposed Project sites, extending into the greater community of Morongo. Overall, the area has landscape features that are common to the region.

The BLM rates the area of the proposed Project and surrounding lands as having high visual sensitivity. This is because of the area's proximity to sensitive user areas, such as the San Gorgonio Wilderness and the Pacific Crest Trail.

Through the DRECP LUPA (BLM 2016a) process, the BLM assigned VRM classes to all BLM-managed lands. Each VRM class allows for landscape changes from management activities and use authorizations that contrast at different levels with the existing characteristic landscapes. In all situations, including VRM class-conforming proposals, BLM policy requires the minimization of visual contrasts through the implementation of BMPs that cover all phases from planning to decommissioning (BLM 1986a).

The BLM rates the area of the proposed Project and surrounding lands as generally consisting of foreground views as viewed from the Highway 62 corridor and from points of lower elevation in Morongo Canyon. Along the Highway 62 corridor and from Morongo Canyon, foreground and middle-ground views consist of rolling, sandy hills and expansive plains with tan, brown, and olive tones representative of the area's desert habitat. Foreground views also consist of residential and commercial infrastructure, characterized by clusters of lower, single-story buildings; established roads; sparse vegetation; utility poles; and power lines visible from developed areas.

Within middle-range and background landscapes, the mountain ranges provide horizontal alignments with fairly uniform topographical inclines. Mountain ranges in the background landscapes (which are wilderness areas) additionally provide slightly contrasting color to the foreground landscape, consisting of darker stone colors and white snow on mountaintops visible in the distance.

The DRECP LUPA (BLM 2016a) assigned the area of the proposed Project and surrounding lands as VRM Class II in order to have the area conform to the management objectives of the Sand to Snow SRMA, which the Project sites are within (**Figure 3-1** in **Appendix A**). The VRM Class II's objective is to retain the landscape's existing character, and the level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes should repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

### **3.7.2 Environmental Consequences**

The BLM's VRM program includes a standardized process outlined in BLM Manual 843 I, Visual Resource Contrast Rating (BLM 1986a), for evaluating conformance of proposed actions with management objectives. In short, visual contrast rating worksheets are completed to determine whether a project conforms with VRM class objectives.

The visual contrast rating is done from the most critical viewpoints, which are called KOPs. These viewpoints are usually along commonly traveled routes or at other likely observation points. Viewshed analyses were prepared to show the areas within 3 miles of the sites from which some portion of the tower could be visible, which aids in selecting KOPs. In ArcGIS Pro, the proposed coordinates of the

towers for Site 1 and Site 2 were used to place a marker at the same height as the tower above the existing elevation. To determine the visibility of a single tower at the determined height, ArcGIS Pro's Geodesic Viewshed tool, which takes into account the topography of the surrounding area, was used. The elevation data were determined by using the U.S. Geological Survey's digital elevation models' data. The Geodesic Viewshed tool was then able to determine the direct line of sight or visibility of a tower based on its height. **Figures 3-3** and **3-4** in **Appendix A** show the areas (in green) from which some portion of the tower could be visible. Site 1 and Site 2 have different viewsheds because they are in different locations and at different elevations.

Factors that were considered in selecting KOPs within the viewshed are angle of observation, number of viewers, length of time the project is in view, relative project size, season of use, and light conditions. The identification of KOPs forms the basis for determining impacts on views, as well as the assessment of compliance with VRM classes. The KOPs were selected in consideration of views experienced by residents, recreationists, and casual travelers and represent views from travel corridors, the community, residences, various distances, and Big Morongo Trail. Also, the KOPs were selected because they are accessible by the public. Additionally, they were selected based on public scoping comments. Refer to **Appendix G** for the KOP locations and directions of view.

There is one KOP within the Sand to Snow National Monument; it is the only developed recreational site within the monument or the San Gorgonio Wilderness in Morongo Valley. The surrounding peaks in Morongo Valley are within the San Gorgonio Wilderness and are steep and hard to access, with minimal recreational use and no developed trails or recreational sites. The intent of KOPs is not to capture every possible viewpoint but to capture key and common views, such as travel corridors, the local community, residences, and developed recreational sites.

Visual simulations were prepared to aid in determining the contrast created by the proposed Project. To place the tower and approximate the height in the simulations, the altitude tab for a placemark was used in Google Earth. This allowed for the placement of the marker at a set distance above the terrain at a specific location. That mark was then extended to the ground with a line. In Adobe Photoshop, the topographical features of the terrain view were aligned with the KOP photograph that was taken. The image of a similar tower (in height and type) was then scaled to fit that overall marker height. All KOP photographs and photo simulations of the proposed Project are in **Appendix G**, Visual Contrast Rating Worksheets and Visual Simulations.

Visual contrast rating worksheets were completed for all KOPs based on the KOP photographs and photo simulations using guidance set forth in BLM Manual 8431, Visual Resource Contrast Rating (BLM 1986a). The worksheets analyze the forms, lines, colors, and textures (called "elements") in the land and water, vegetation, and structures (called "features"). The analysis compared the existing views with anticipated views created by the proposed Project. A degree of contrast was assigned to each element and feature (refer to the contrast rating worksheets in **Appendix G**, Visual Contrast Rating Worksheets and Visual Simulations). **Table 3-8** through **Table 3-10** summarize the results of the analyses.

Conformance with VRM class objectives is described below for each alternative. Regarding Site 1 for Alternatives B and C, the tower would not be seen from KOPs 11, 12, 13, and 14. Regarding Site 2 for Alternative D, the tower would not be seen from KOPs 2 and 9. Therefore, contrast rating forms were not completed for the KOPs where the proposed Project would not be visible. Similarly, contrast rating forms were not completed for Alternative A because there would be no development at either site.

**Table 3-8. Project Visibility – Alternatives Comparison**

KOP	Tower Visible (Yes/No)			Solar Array Visible (Yes/No)		
	Alternative B	Alternative C	Alternative D	Alternative B	Alternative C	Alternative D
KOP 1	Y	Y	Y	N	N	n/a
KOP 2	Y	Y	N	Y	N	n/a
KOP 3	Y	Y	Y	N	N	n/a
KOP 4	Y	Y	Y	N	N	n/a
KOP 5	Y	Y	Y	N	N	n/a
KOP 6	Y	Y	Y	N	N	n/a
KOP 7	Y	Y	Y	N	N	n/a
KOP 8	Y	Y	Y	N	N	n/a
KOP 9	Y	Y	N	N	N	n/a
KOP 10	Y	Y	Y	Y	N	n/a
KOP 11	N	N	Y	N	N	n/a
KOP 12	N	N	Y	N	N	n/a
KOP 13	N	N	Y	N	N	n/a
KOP 14	N	N	Y	N	N	n/a

Note: “n/a” indicates solar arrays are not applicable to Alternative D.

**Table 3-9. Visual Contrast – Alternatives B and C**

KOP	Degree of Contrast											
	Land or Waterbody				Vegetation				Structures			
	Form	Line	Color	Texture	Form	Line	Color	Texture	Form	Line	Color	Texture
KOP 1	W	W	N	N	N	N	N	N	W	W	N	N
KOP 2	W	W	N	N	N	N	N	N	S	S	N	N
KOP 3	N	N	N	N	N	N	N	N	W	W	N	N
KOP 4	N	W	N	N	N	N	N	N	M	M	N	W
KOP 5	N	N	N	N	N	N	N	N	N	W	W	W
KOP 6	N	N	N	N	N	N	N	N	N	W	W	W
KOP 7	N	N	N	N	N	N	N	N	M	W	W	W
KOP 8	N	N	N	N	N	N	N	N	W	W	W	W
KOP 9	N	N	N	N	N	N	N	N	S	S	W	W
KOP 10	N	N	N	N	N	N	N	N	M	W	W	N

Note: The degrees of contrast are taken from the visual contrast rating worksheets in **Appendix G**, Visual Contrast Rating Worksheets and Visual Simulations. At each KOP, the proposed Project was analyzed for its degree of anticipated contrast in the form, line, color, and texture of each feature (land or waterbodies, vegetation, and structures). The degree of contrast is rated on a scale using the following terms: strong (S) degree of contrast, moderate (M) degree of contrast, weak (W) degree of contrast, or no (N) degree of contrast. Additional explanation is available in **Appendix G**.

**Table 3-10. Visual Contrast – Alternative D**

KOP	Degree of Contrast											
	Land or Waterbody				Vegetation				Structures			
	Form	Line	Color	Texture	Form	Line	Color	Texture	Form	Line	Color	Texture
KOP 1	W	W	N	N	N	N	N	N	W	W	N	N
KOP 3	N	N	N	N	N	N	N	N	W	W	N	N
KOP 4	N	W	N	N	N	N	N	N	M	M	N	W
KOP 5	N	N	N	N	N	N	N	N	N	W	W	W
KOP 6	N	N	N	N	N	N	N	N	N	W	W	W
KOP 7	N	N	N	N	N	N	N	N	M	W	W	W
KOP 8	N	N	N	N	N	N	N	N	W	W	W	W
KOP 10	N	N	N	N	N	N	N	N	M	W	W	N
KOP 11	N	N	N	N	N	N	N	N	W	M	W	W
KOP 12	N	W	N	N	N	N	N	N	M	M	N	W
KOP 13	W	W	N	N	N	N	N	N	M	M	N	N
KOP 14	N	W	N	N	N	N	N	N	M	M	N	W

Note: The degrees of contrast are taken from the visual contrast rating worksheets in **Appendix G**, Visual Contrast Rating Worksheets and Visual Simulations. At each KOP, the proposed Project was analyzed for its degree of anticipated contrast in the form, line, color, and texture of each feature (land or waterbodies, vegetation, and structures). The degree of contrast is rated on a scale using the following terms: strong (S) degree of contrast, moderate (M) degree of contrast, weak (W) degree of contrast, or no (N) degree of contrast. Additional explanation is available in **Appendix G**.

### **Alternative A**

Under Alternative A, the proposed Project would not be developed. There would be no construction, operations, or maintenance that would affect the visual quality of the landscape. Other development on nearby lands and changes to the road system could affect visual quality over time.

### **Alternative B**

The proposed access road would be visible from the connection point at Canyon House Road and would briefly be seen by motorists traveling this road. The proposed access road could also be visible from two private parcels that are 0.2 miles south of the proposed access road alignment. However, because the proposed access road would be cut into the side of the ridgeline, views from the private parcels downgradient would be minimal (no more than 400 feet total) due to topographical constraints in the land area between the features; this would not constitute a moderate change from existing conditions and would not change the overall form or line of the land. The remainder of the proposed access road's alignment would not contain nearby residences or uses; therefore, no additional impacts would occur. Additionally, due to line-of-sight distance and topographical constraints, the proposed access road would not be visible from any KOPs.

Alternative B would introduce a tall, linear structure into the viewshed that would be visible within Morongo Valley and adjacent slopes. As shown in the visual simulations (**Appendix G**), the tower component would be visible but would not attract attention when viewed from KOPs 1, 3, 5, and 6 due to existing development. The solar arrays would be minimally visible from KOPs 2 and 10, and would not be visible from KOPs 1, 3, 4, 5, 6, 7, 8, and 9.

The Project's tower component would be visible and would begin to dominate characteristic views from KOPs 2, 4, 7, 9, and 10 due to topographical conditions. At KOPs 2 and 9, the tower would have strong

contrast with the surrounding landscape and would garner attention from passersby and permanent residents. It would be distinctly visible on the ridgeline over the valley. The same is true from KOPs 4 and 10, where the tower would also be visible on the ridgeline, albeit from a farther distance than from KOPs 2 and 9; therefore, the tower would not be as distinctly visible from KOPs 4 and 10 as from KOPs 2 and 9. Although KOP 7 is at a greater viewing distance, due to the tower's position above the ridgeline at the confluence of the valley, viewers' eyes would be drawn to the Project's proposed tower component.

The use of standard environmental colors (such as shadow gray) would partially soften the tower's appearance. It is expected that future tenant equipment (as depicted in the simulations) would be the same color as the tower. Where the tower would be visible on the ridgeline, a surface treatment could be applied to the tower to reduce glare (USFWS 2021).

At KOPs 1, 3, 5, and 6, the tower's semitransparent design would allow the tower to blend with the mountains behind it and/or mirror the vertical telephone pole structures in the foreground, thereby having no nonconforming effect on the form, line, color, or texture of the surrounding landscape. The VRM Class II conforming views would still be mitigated through the application of surface treatment BMPs to reduce glare and the use of standard environmental colors (such as shadow gray) consistent with BLM policy. For example, at KOP 8, a darker color treatment would help reduce the contrast between the tower and mountains in the background of KOP 8, where the tower would become indistinguishable from the surrounding landscape, bringing the view into VRM Class II conformance. See **Appendix G** for the full visual contrast rating worksheets that were used to evaluate the views from each KOP.

Due to the proposed position of the tower on the skyline, implementation of BMPs would not be able to effectively reduce the contrast of Alternative B into VRM Class II conformance. Because the tower would create a moderate contrast in the form and line of the landscape and would attract attention from a casual observer, KOPs 4, 7, and 10 would not meet the VRM Class II's objectives after application of BMPs. More notably, KOPs 2 and 9 would create a strong contrast. Therefore, Alternative B also includes a LUPA to change Site 1 (3.24 acres) from VRM Class II to VRM Class IV. Relevant VRM class objectives are defined in BLM Manual 8431, Visual Resource Contrast Rating, as follows:

- **VRM Class II Objective:** To retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
- **VRM Class IV Objective:** To provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repetition of the basic elements.

The objective for VRM Class IV areas states that the activity "may dominate the view and be the major focus of viewer attention" and that "the level of change to the characteristic landscape can be high" (BLM 1986b). For KOPs 2 and 9, the contrast to the elements of form and line would attract attention and dominate the view of the casual observer due to the tower's proximity, the lack of screening, and the lack of similar features. The bold, vertical line and height of the tower into the sky would create a strong

contrast due to the short forms and horizontal lines found in the characteristic landscape. This contrast is consistent with the VRM Class IV objective (BLM 1984).

A LUPA would allow for the development of the Proposed Action on undeveloped BLM-managed land. The surrounding BLM-managed land is also undeveloped. This Proposed Action would be the first development on the undeveloped lands. As such, the potential exists that the Proposed Action would serve as a precedent that could minimize barriers to future development or encourage consolidation of future development in the area because the area would no longer be characterized as undeveloped. Additional future development would affect scenic quality and be subject to VRM Class II objectives and could require another LUPA.

Because the BLM is considering the Proposed Action in part due to the safety needs of the community and travelers within the Highway 62 corridor, it is anticipated that the community's wireless broadband service needs would be met, and future communication towers in the vicinity would not be necessary. Therefore, while other providers may collocate equipment on the communication tower, no additional towers are currently anticipated.

#### **Alternative C**

Impacts on visual resources under Alternative C would be similar to those described under Alternative B, except Alternative C would have a smaller footprint (2.97 acres compared with 3.24 acres under Alternative B). Alternative C would also include fewer solar arrays (three instead of five). Although these differences would minimize impacts on scenic quality for very close views of Site 1, they would not be enough to change the degree of contrast ratings for any KOPs.

#### **Alternative D**

Impacts on visual resources under Alternative D would be similar to those described under Alternative B, except Alternative D would have a smaller footprint (1.20 acres compared with 3.24 acres under Alternative B). Based on the viewshed analysis, the land surrounding Site 2 blocks a little more of the tower's visibility from the surrounding areas, when compared with the Site 1 location. In addition, Alternative D would not include solar arrays. Although these differences would minimize impacts on scenic quality for very close views of Site 2, they would not be enough to change the degree of contrast ratings for any KOPs that Alternatives B and D have in common. Further, Alternative D would include the additional KOPs 11, 12, 13, and 14. These KOPs would have contrast ratings similar to those under Alternative B that do not meet VRM Class II objectives. KOPs 2 and 9, where a strong contrast is visible under Alternatives B and C, do not have views of Site 2.

Because the tower would create a moderate contrast in the form and line of the landscape and would attract attention from a casual observer, KOPs 4, 7, 10, 11, 12, 13, and 14 would not meet the VRM Class II's objectives after application of BMPs. Therefore, Alternative D also includes a LUPA to change Site 1 (1.20 acres) from VRM Class II to VRM Class III. BLM Manual 8431, Visual Resource Contrast Rating, states the following for VRM Class III:

- **VRM Class III Objective:** To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

The objective for VRM Class III areas states that the activity “may attract attention but should not dominate the view of the casual observer” and that “changes [introduced by the activity] should repeat the basic elements found in the predominant natural features of the characteristic landscape” (BLM 1986b). Adopting a total area analysis approach, such as considering the rural classification setting of Site 2 and the existing structures, roads, and developments within the viewshed, the proposed communication site would not be expected to “dominate the characteristic landscape.” Taken in totality, the tower’s vertical line could attract attention but would not dominate either the middle ground or the background of the KOPs. It would create moderate contrast due to the horizontal line and form exhibited by the surrounding landscape. This contrast is consistent with the VRM Class III objective (that is, the activity “may attract attention but should not dominate the view of the casual viewer”). BMPs, such as color and surface treatment, would ensure the alternative would “repeat the basic elements found in the predominant natural features of the characteristic landscape” and “minimize damage to scenic and esthetic values” (BLM 1984).

#### ***Applicant-Proposed Measures***

Given the potential adverse effects on scenic quality, sensitive viewers, and nonconforming views, BMPs from the “Common Elements” section of the Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands (BLM 2013) would apply. These BMPs would minimize the contrast created by Alternatives B, C, or D. They could minimize contrast under Alternative D more than under Alternatives B or C because Alternative D has more opportunities for creating higher degrees of contrast.

#### ***Reasonably Foreseeable Future Actions***

Under the No Action Alternative (Alternative A), the proposed Project would not be developed. Therefore, it would not contribute to impacts on visual resources when considered with other RFFAs.

Three pending ROWs are within 1 mile of the proposed Project sites. One ROW is for a communication site, and two ROWs are for telephone, telegraph, and fiber optic. The ROWs would involve infrastructure that is similar to that for this proposed Project. The infrastructure is expected to create contrast that is similar to or greater than the contrast from this proposed Project. When combined with the contrast from the ROWs, this proposed Project would contribute to impacts on visual resources. The intensity and magnitude of the impacts would depend on factors such as the extent and location of the ROW infrastructure. Regardless, impacts of the proposed Project combined with those of other RFFAs would involve some loss of the undeveloped nature of the area.

### **3.8 SOCIOECONOMICS**

#### **3.8.1 Affected Environment**

The socioeconomic analysis follows the BLM’s Desk Guide: Socioeconomic Aspects of Planning and NEPA (BLM 2024). Based on internal and external scoping, the socioeconomic analysis focuses on economic vitality and public services as socioeconomic values that may be impacted by the BLM’s actions. The socioeconomic analysis area is the Morongo Valley Census Designated Place (CDP) (**Figure 3-5**).

#### ***Economic Vitality***

The proposed cell tower would be constructed on BLM-managed land approximately west of an existing rural neighborhood development of Morongo Valley (**Figure 1-1**). Several studies have examined the

effects on residential property values from the construction of cell towers (McDonough 2003; Bond and Beamish 2005; Bond and Wang 2005; Bond 2007; Afusso et al. 2018). Although the results vary in their magnitude, nearly all studies show a negative impact on residential property values from the construction of cell towers. The research by Afusso et al. (2018) represents a recent USA-based study that builds on previous work. In this research, for residential properties within 0.72 kilometers (0.45 miles) of cell towers, cell towers had a negative influence that ranged from a 2.46 percent decrease on average for all residential properties to a 9.78 percent decrease on average for residential properties with a visible cell tower, holding all else constant. Cell towers farther than 0.72 kilometers (0.45 miles) from a property showed no impact on residential property values.

The Federal Emergency Management Agency (FEMA) provides geospatial location data for residential buildings (FEMA 2022). FEMA data show 2,083 residential structures within the Morongo Valley CDP. For the purposes of this analysis, the BLM assumes each residential structure is a housing unit and thus uses the terms “housing unit” and “residential structure” interchangeably.

The median value of owner-occupied housing units in the Morongo Valley CDP is \$265,100 (U.S. Census Bureau 2025). Assuming renter-occupied housing units approximate the same value, the total residential property value for the Morongo Valley CDP is approximately \$522,203,300 (Table 3-11).

**Table 3-11. Total Residential Property Values in the Morongo Valley CDP**

<b>Area of Analysis<sup>1</sup></b>	<b>Housing Units<sup>2</sup></b>	<b>Average Value<sup>1*</sup></b>	<b>Total Value</b>
Morongo Valley CDP	2,083	\$265,100	\$522,203,300

<sup>1</sup>Source: U.S. Census Bureau 2025

<sup>2</sup>Source: Federal Emergency Management Agency 2022

\*Assessed as the median value of all owner-occupied housing units in the Morongo Valley CDP

Economic vitality is also associated with bridging wireless broadband services to rural communities. Impacts of bridging wireless broadband services to rural communities include economic growth in rural areas, higher levels of income, and lower unemployment (Whitacre et al. 2014). Higher broadband speeds also have a positive effect on residential properties in rural areas (Deller et al. 2019; Knutson 2015).

**Public Services**

Cellular coverage provides a public service to the broader population in the Morongo Valley CDP. Populations in the Morongo Valley CDP generally have adequate cell coverage, but the topography and current infrastructure create a lack of cell coverage in some areas (see **Appendix C** [to **Appendix B**, Plan of Development], Propagation Study). These include some areas around Highway 62 and the Morongo Basin. This lack of coverage may be particularly challenging for emergency services and associated responses.

**3.8.2 Environmental Consequences**

**Economic Vitality**

*Alternative A*

Under the No Action Alternative, conditions would resemble the conditions described in the Affected Environment section.

*Alternatives B, C, and D*

Under all action alternatives (Alternatives B, C, and D), decreases in residential property values may occur for housing units within 0.75 kilometers (0.45 miles) of the cell tower. The cell tower would not impact residential property values for any properties beyond this distance from the cell tower. Using estimates from Afusso et al. (2018), the decrease in property values would be from 2.46 percent on average (for all housing units) to 9.78 percent on average (for housing units with a view of the cell tower). The impact on residential properties within 0.75 kilometers (0.45 miles) would range from \$6,521 per housing unit (assuming -2.46 percent on average) to \$25,927 per housing unit (assuming -9.78 percent on average and every housing unit could view the cell tower). Additionally, there is no evidence that the color of the cell tower would impact the property value.

To assess changes in property values under Alternatives B, C, and D, housing units within 0.75 kilometers (0.45 miles) of the proposed cell tower locations were identified using the FEMA (2022) data. The viewshed analysis was then overlaid to identify housing units within 0.75 kilometers (0.45 miles) that could view the cell tower as well as housing units within 0.75 kilometers (0.45 miles) that could not view the cell tower. The analysis showed that any housing unit within 0.75 kilometers (0.45 miles) would be able to view the cell tower; therefore, no further efforts were made to differentiate between housing units within 0.75 kilometers (0.45 miles) that could or could not view the cell tower. The number of housing units was then multiplied by the median owner-occupied housing unit value from the U.S. Census Bureau (2025) to derive total residential property values. **Table 3-12** provides a high-level summary of these impacts.

**Table 3-12. Comparison of Impacts on Residential Property Values Across Alternatives**

Metric	Alternative A	Alternatives B and C	Alternative D
Housing units impacted <sup>1</sup>	0	116	72
Reduction per housing unit within 0.75 kilometers (0.45 miles) <sup>1,2</sup>	0	\$25,927 (-9.78 percent)	\$25,927 (-9.78 percent)
Total residential property value within the Morongo Valley CDP <sup>1</sup>	\$552,203,300	\$549,195,768 (-0.54 percent compared with Alternative A)	\$550,336,556 (-0.34 percent compared with Alternative A)

Source: <sup>1</sup>U.S. Census Bureau 2025; <sup>2</sup>Affuso et al 2018

When compared with Alternative A (No Action Alternative), the Morongo Valley CDP may experience increased economic growth, lower levels of unemployment, higher levels of income, and increased property values from the improved wireless broadband services (Deller et al. 2019; Knutson 2015; Whitacre et al. 2014). Further, despite lower property values for the housing units within 0.75 kilometers (0.45 miles) of the cell tower, the Morongo Valley CDP may experience increased property values from the improved wireless broadband services (Deller et al. 2019; Whitacre et al. 2014). Although estimates are not possible, it is likely these impacts would be minor due to emerging technologies that provide alternative routes for high-speed internet access in remote areas (that is, Starlink, etc.).

*Alternatives B and C*

The impacts of Alternatives B and C on economic vitality are expected to be similar, as the differences in development footprint would not be visible from nearby housing units (**Figure 1-2**).

Under Alternatives B and C, decreases in residential property values may occur for housing units within 0.75 kilometers of the cell tower. Considering that all housing units within 0.75 kilometers (0.45 miles) of the cell tower would be within the viewshed of the cell tower, the decrease in residential property values is estimated to be 9.78 percent on average for all housing units within 0.75 kilometers (0.45 miles) of the cell tower (Affuso et al. 2018).

Under Alternatives B and C, there would be 116 housing units within 0.75 kilometers (0.45 miles) of the proposed cell tower; these units would represent an estimated total residential property value of \$27,744,068. For the larger residential property market in the Morongo Valley CDP, the total estimated residential property value under Alternatives B and C would be \$549,195,768. This is a 0.54 percent decrease in total residential property values in the Morongo Valley CDP compared with current conditions.

**Table 3-13. Impact on the Total Property Value Under Alternatives B and C**

Area of Analysis	Housing Units <sup>1</sup>	Average Value <sup>1,2</sup>	Total Value
Within 0.75 kilometers (0.45 miles) of the cell tower and within the viewshed of the cell tower	116	\$239,173*	\$27,744,068
Outside 0.75 kilometers (0.45 miles) of the cell tower	1,967	\$265,100	\$521,451,700
Morongo Valley CDP	2,083	—	\$549,195,768

Source: <sup>1</sup>U.S. Census Bureau 2025; <sup>2</sup>Affuso et al., 2018

\*Estimated as the median owner-occupied housing unit in the Morongo Valley CDP minus 9.78 percent

#### Alternative D

Under Alternative D, decreases in residential property values may occur for housing units within 0.75 kilometers (0.45 miles) of the cell tower. Considering that all housing units within 0.75 kilometers (0.45 miles) of the cell tower would be within the viewshed of the cell tower, the decrease in the residential property value is estimated to be 9.78 percent on average of all housing units within 0.75 kilometers (0.45 miles) of the cell tower (Affuso et al. 2018).

Under Alternative D, there would be 72 housing units within 0.75 kilometers (0.45 miles) of the proposed cell tower; these units would represent an estimated total residential property value of \$17,220,456. For the larger residential property market in the Morongo Valley CDP, the total estimated property value under Alternative D would be \$550,336,556. This is a 0.34 percent decrease in total residential property values in the Morongo Valley CDP compared with current conditions.

**Table 3-14. Impact on the Total Residential Property Value Under Alternative D**

Area of Analysis	Housing Units <sup>1</sup>	Average Value <sup>1,2</sup>	Total Value
Within 0.75 kilometers (0.45 miles) of the cell tower and within the viewshed of the cell tower	72	\$239,173*	\$17,220,456
Outside 0.75 kilometers (0.45 miles) of the cell tower	2,011	\$265,100	\$533,116,100
Morongo Valley CDP	2,083	—	\$550,336,556

Source: <sup>1</sup>U.S. Census Bureau 2025; <sup>2</sup>Affuso et al., 2018

\*Estimated as the median owner-occupied housing unit in the Morongo Valley CDP minus 9.78 percent

**Public Services**

*Alternative A*

Under the No Action Alternative, the conditions would resemble the conditions described in the Affected Environment section.

*Alternatives B, C, and D*

All action alternatives would impact public services to the broader population in the Morongo Valley CDP by increasing cell service and coverage in the area. **Appendix C** (to **Appendix B**, Plan of Development), Propagation Study, shows that Alternative D would provide more cell service and coverage when compared with Alternatives B and C. Emergency services, including response times, may be improved as a result of the expanded cell service and coverage.

# Chapter 4. Tribes and Agencies Consulted

This chapter describes the consultation, coordination, and public participation activities that have occurred or are ongoing. A number of consultations have been undertaken to provide guidance on the relationship between the BLM as the lead agency for the EA and other agencies. These are summarized here.

## 4.1 TRIBAL CONSULTATION

The BLM affirms its trust responsibilities to Tribal Nations as sovereign governments. The BLM values robust Tribal consultation to identify sacred sites, places of traditional religious and cultural importance, and other resources of potential concern to Tribes. Tribal input informs appropriate avoidance and minimization measures, including whether such sites or resources are identified during construction. Tribal consultation will continue throughout the NEPA and Section 106 compliance processes. The results of the Section 106 consultation are discussed in **Section 4.3**.

In addition to the BLM's commitment, numerous laws, regulations, and executive orders define the BLM's responsibility to engage in meaningful government-to-government consultation with Tribal Nations. These include the NHPA (54 USC 300101), FLPMA (43 USC 1701), American Indian Religious Freedom Act (42 USC 1996), Archaeological Resources Protection Act (16 USC 470aa), Native American Graves Protection and Repatriation Act (25 USC 3001), Executive Orders 13007 and 13175, and BLM Manual 1780, Tribal Relations.

The BLM has consulted and continues to consult with Tribal Nations about this Project. The BLM has identified the following nine Tribes and invited them to consult on this Project: the Agua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Indians, Cabazon Band of Cahuilla Indians, Cahuilla Band of Indians, Morongo Band of Mission Indians, Soboba Band of Luiseño Indians, Torres Martinez Desert Cahuilla Indians, Twenty-Nine Palms Band of Mission Indians, and Yuhaaviatam of San Manuel Nation.

The purpose of consulting is to obtain substantive Tribal input and involvement during the decision-making process and to invite Tribes to identify sacred sites and other places of traditional religious and cultural importance. The BLM notified nine Tribes of the Project and of the intent to prepare this EA. In response to a request for government-to-government consultation, a meeting was held on August 14, 2019.

Multiple Tribes requested a visit to the Project site, and the BLM invited all nine previously notified Tribes to a site visit on January 30, 2025. Representatives from the Agua Caliente Band of Cahuilla Indians, Cahuilla Band of Indians, Morongo Band of Mission Indians, and Soboba Band of Luiseño Indians attended the January 30 site visit. Representatives of the Yuhaaviatam of San Manuel Nation did not attend, but they did inform the BLM of their desire to give comment.

Given the identification and analysis of a new alternative in the Final EA, the BLM sent letters to Tribes on September 25, 2025. No additional responses to the request for information or consultation were received from the Tribes. To date, no areas of cultural or religious significance have been identified by Tribal Nations.

The Class III cultural resource inventories completed for the Project (Applied EarthWorks 2016, 2025) identified no cultural resources in the APE, and the BLM determined that post-review and Native

American Graves Protection and Repatriation Act discovery procedures will be put in place along with a request of a copy of the final archaeological report. Additionally, any ground-disturbing activities, including archaeological testing and surveys, and procedures will include the presence of a BLM-approved cultural resources monitor(s). Should buried cultural deposits be encountered, the monitor may request that destructive construction halt, and the monitor will notify a qualified archaeologist (per the Secretary of the Interior's Standards and Guidelines) to investigate. A cultural resource monitoring and inadvertent discovery plan will be implemented for handling potential cultural resources encountered during construction.

## **4.2 USFWS CONSULTATION**

The Biological Opinion for Activities in the California Desert Conservation Area (FWS-KRN/SBD/INY/LA/IMP/RIV-17B0532-17F1029; USFWS 2017) pertains to the construction, operation, maintenance, and decommissioning of activities, including communication sites, under the direction of the CDCA Plan, as amended, including the CMAs for the DRECP LUPA (BLM 2016a).

The BLM has determined that the Proposed Action may affect, but is not likely to adversely affect, the desert tortoise (Mojave population distinct population segment). Accordingly, informal consultation with the USFWS was appropriate and conducted using the Activity Form for Biological Opinion 17B0532-17F1029 to address the potential effects on the desert tortoise. The BLM first initiated informal consultation with the USFWS on July 10, 2019, which fulfilled the requirements of Section 7 of the ESA. At that time, the USFWS concurred that the Project was appropriate for review under the activity form associated with the biological opinion. However, subsequent changes to the Project's design necessitated reinitiation of consultation. The BLM submitted a revised activity form to the USFWS on August 26, 2024, and received USFWS concurrence with the BLM's updated determination on September 4, 2024. The addition of Alternative D and associated updates to the plan of development required submission of a revised activity form to the USFWS. The BLM submitted the revised activity form on September 24, 2025 and received a response confirming acceptance of the revision on November 20, 2025.

## **4.3 NHPA SECTION 106 CONSULTATION**

The Project encompasses federally administered lands, which requires compliance with Section 106 of the NHPA, as amended (54 USC 306108), and its implementing regulations (36 CFR 800).

The NHPA established the NRHP and the President's Advisory Council on Historic Preservation. The NHPA also provided that states may establish State Historic Preservation Offices to consult with federal agencies on projects that may affect historic properties. Most significantly for federal agencies responsible for managing cultural resources, Section 106 of the NHPA directs that "[t]he head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, shall take into account the effect of the undertaking on any historic property." Section 106 also affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking (54 USC 306108).

Section 106 of the NHPA is implemented by 36 CFR 800 (Advisory Council on Historic Preservation 2004). Section 106 defines the steps necessary to identify historic properties (those cultural resources listed on or eligible for listing on the NRHP), including Tribal consultation to identify resources of concern;

to determine whether the properties may be adversely affected by a proposed undertaking; and the process for avoiding, minimizing, or mitigating adverse effects. The content of 36 CFR 60.4 also defines criteria for determining eligibility for listing on the NRHP (U.S. Department of the Interior, National Park Service 1990).

The BLM evaluates the significance of cultural resources identified during inventory phases to determine whether the resources are eligible for inclusion on the NRHP. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, and association. A resource may be considered historically significant and eligible for NRHP listing if it is found to meet one of the following criteria:

- A. It is associated with events that have made a significant contribution to the broad patterns of local or regional history; or
- B. It is associated with the lives of persons significant in our past; or
- C. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. It has yielded, or may be likely to yield, information important in prehistory or history.

BLM standards for identifying and evaluating resources are provided in the guidance from BLM Manual 8110, Identifying and Evaluating Cultural Resources (BLM 2004).

The BLM has conducted its review to comply with Section 106 of the NHPA following the provisions of the State Protocol Agreement.<sup>18</sup> The BLM has made a reasonable effort to identify historic properties and to assess the effects of this undertaking on historic properties that may be discovered during project implementation, and fulfilled its agreement under the State Protocol Agreement. As part of this effort, a Class III cultural resources inventory and report were prepared, which included field survey and archival research, including a Sacred Lands File search from the Native American Heritage Commission. Since the Project includes a LUPA, the BLM contacted the SHPO to determine if they wanted to be consulted in lieu of using the State Protocol Agreement.

The SHPO requested that the BLM follow the consultation process outlined in 36 CFR 800 in lieu of the protocol and requested additional information on the definition of the APE and identification of resources. The BLM submitted a letter detailing the APE, rationale for the APE, summary of consultation efforts to date, and results of the identification efforts on December 19, 2025. The Class III cultural resource survey was provided to the SHPO with the letter and a request to review and provide comment on the APE and findings. The SHPO responded on January 16, 2026 and found that the APE and the BLM's identification efforts were reasonable pursuant to 36 CFR 800.4(b). The SHPO requested that any future communications from the Tribes or others regarding historic properties in the APE be conveyed to them for consideration, as necessary.

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<sup>18</sup> State Protocol Agreement among the California State Director of the BLM and the California State Historic Preservation Office and the Nevada State Historic Preservation Officer regarding the way the BLM will meet its responsibilities under the NHPA and the National Programmatic Agreement among the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (February 2019).

Based on the results of the Class III cultural resources inventory, the recommendations of the cultural resources consultant, BLM staff review, and pursuant to the State Protocol Agreement, the BLM has made the following determination regarding NRHP eligibility and findings of effect for historic properties:

- The BLM determines there are no cultural resources within the Project APE.
- The BLM finds there would be no historic properties affected by the Project.

# Chapter 5. List of Preparers

## 5.1 BLM

Name	Title	Role
Tamara (Tammy) Faust	Project Manager	Project lead
Jay Rokos	Planning and Environmental Coordinator	NEPA compliance
Dan Kasang	Deputy Field Manager, Palm Springs	Authorized Officer
Brandon Anderson	Acting District Manager	Authorized Officer/reviewer/ NEPA compliance
Carlos Blandon	Realty Specialist	Lands and realty
Garth Crow	Fire Operations Technician	Wildfire Mitigation Plan
Bryce Danner	Archaeologist	Cultural resources
Cathy Diaz	Natural Resource Specialist	Weeds and Invasive Species
Caroline Gish	Outdoor Recreation Planner	Special designations/visual and recreation resources
Jeffrey Johnston	Geologist	Geology/soils/paleontology
Zachary Miller	Social Scientist	Socioeconomics
LaReina Van Sant	Wildlife Biologist	Wildlife and botany
Michael Vermeys	Assistant Field Manager	Weeds
Regan Watt	Project Manager	NEPA compliance

## 5.2 ENVIRONMENTAL CONSULTANTS

Name	Title	Role
Erin Hudson	Consultant	Project management and EA review
Jennifer Whitaker	Consultant	Project management and prepared the EA
Angie Adams	Consultant	Quality control
Chris Blandford	Biologist	Conducted biological study and prepared report and the EA
Elisabeth Bowers	Biologist	Conducted biological study and prepared report
Joan George	Archaeologist	Conducted cultural study and prepared report and the EA
Perry Lown	Consultant	Prepared the EA
Clayton McGee	Consultant	Prepared the EA and comment analysis
Dan Moore	Consultant	Prepared the EA and decision file

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