DRAFT INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

Phase II Desert View Conservation Area Recreational Trails Project

Prepared By:

San Bernardino County
Department of Public Works – Special Districts
222 West Hospitality Lane, 2nd Floor
San Bernardino, CA 92415

With assistance from:

Aspen Environmental Group
5020 Chesebro Road, Suite 200
Agoura Hills, CA 91301

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Phase II Desert View Conservation Area Recreational Trails Project

Initial Study/Mitigated Negative Declaration

1.0 INTRODUCTION

1.1 PURPOSE OF INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

San Bernardino County Department of Public Works, Special Districts (Special Districts), acting as Lead Agency pursuant to the California Environmental Quality Act (CEQA), has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) for the Phase II Desert View Conservation Area Recreational Trails Project (proposed Project or Project). As Lead Agency under CEQA, the County would be responsible for adopting the MND and approving the proposed Project.

This document complies with CEQA (Public Resources Code Sections 21000 et seq.) and State CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000 et seq.). Specifically, this document meets the requirements of State CEQA Guidelines Section 15000 and Section 15071, and the environmental checklist (Chapter 3) meets the requirements of State CEQA Guidelines Section 15063. An IS is prepared by a lead agency to determine if a project may have significant effects on the environment (State CEQA Guidelines Section 15063[a]), and to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, "A public agency shall prepare…a proposed negative declaration or mitigated negative declaration…when:

> *(a) The initial study shows that there is no substantial evidence…that the project may have a significant effect on the environment, or*
>
> *(b) The initial study identifies potentially significant effects, but*
>
> > *(1) Revisions in the project plans or proposal made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and*
> >
> > *(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.*

Based on the analysis in this IS, Special Districts determined that all Project-related environmental impacts would be less than significant with mitigation, less than significant, or no impact would occur. Therefore, approval of an MND will satisfy the requirements of CEQA. The mitigation measures included in this MND are designed to reduce or eliminate the potentially significant environmental impacts described in the IS. Mitigation measures are structured in accordance with the criteria in CEQA Guidelines Section 15370.

1.2 ANTICIPATED PERMITS AND COORDINATION

The anticipated permits and coordination with regulatory agencies for the proposed Project include:

Table 1. Anticipated Permits and Coordination Required for the Proposed Project

Agency	Permits/Approvals
Local/Regional Agencies	
Mojave Desert Air Quality Management District	Notice to Construct
State Agencies	
California Department of Fish and Wildlife	California Endangered Species Act Incidental Take Permit

1.3 PUBLIC REVIEW

In accordance with State CEQA Guidelines Section 15073, when a proposed IS/MND is submitted to the State Clearinghouse (SCH) for state agency review, the public review period shall not be less than 30 days, unless otherwise approved by the SCH. Pursuant to Section 15072, the lead agency shall notify in writing any public agency that provides comments on the proposed IS/MND of public hearings for the Project.

1.4 DOCUMENT ORGANIZATION

This IS/MND is organized as follows.

Section 1. Introduction. This section introduces the document and discusses public agencies, approvals, permits involved with the Project.

Section 2. Project Description. This section describes the purpose and need for the proposed Project, identifies Project objectives, and provides a detailed description of the Project.

Section 3. Environmental Checklist. This section provides an analysis of environmental impacts that would potentially occur as a result of the proposed Project. The list of mitigation measures is provided in this section.

Section 4. List of Preparers. This section identifies the report preparers.

Section 5. List of Acronyms and Abbreviations. This section lists common acronyms and abbreviations used throughout the document.

Section 6. References. This section lists the references used in preparation of this IS/MND.

2.0 PROJECT DESCRIPTION

2.1 OVERVIEW

The San Bernardino County Department of Public Works, Special Districts (Special Districts) proposes to construct improvements that include trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, discovery interpretive panels, and picnic tables, throughout the Desert View Conservation Area (DVCA). The proposed Project components would improve the DVCA as a conservation and regional recreational area.

2.2 PROJECT BACKGROUND

As discussed in Section 1, *Introduction*, a previous environmental document (*Initial Study and Mitigated Negative Declaration for the Desert View Conservation Area Trails Project*), was adopted by the San Bernardino County Board of Supervisors on June 2, 2015 which analyzed the potential environmental effects of proposed Project (BOS, 2015). Specifically, the 2015 IS/MND analyzed construction of an educational trail for pedestrian and equestrian use, the Joshua Tree Woodland Discovery Shelter, Creosote Habitat Discovery Shelter, Native American Discovery Shelter, a viewing platform, restroom facilities, shade structures, informational kiosks, and parking areas. Following publication of the 2015 IS/MND, a portion of the components has been constructed, including the trail, kiosk, Joshua Tree Woodland Discovery Shelter, restrooms, and parking areas. Since then, changes to the Project have occurred, including but not limited to additional proposed components, requiring further CEQA review pursuant to CEQA Guidelines Section 15162. There would be seven (7) additional recreational features after the completion of the Project.

2.3 PROJECT LOCATION AND SETTING

The proposed Project is located at the DVCA in Joshua Tree, CA 92252, San Bernardino County. The DVCA is comprised of 605 acres of mostly undisturbed high desert habitat and recreational trails. The Project site is approximately 1.5 miles south of the town of Joshua Tree, 2 miles north of Joshua Tree National Park, and approximately 1.4 miles south of State Route 62 (Figure 1). The primary access road to the site, Quail Springs Road, is located approximately 0.5 miles east of the Project site. It connects to Onaga Trail, an unpaved road that runs east-west and provides direct access to the entrance of the Project site. The DVCA is located in Section Six of Township 1 south, Range 7 east of the Joshua Tree South Quadrangle, San Bernardino Base and Meridian.

2.3.1 Land Use and Zoning

The proposed Project is within an area covered by the Joshua Tree Community Action Guide and includes both Assessor's Parcel Numbers (APNs) 0589-311-25 and 0589-321-73 (San Bernardino County, 2020). The DVCA is designated as Open Space and zoned as Joshua Tree/Open Space in the San Bernardino County Countywide Plan (San Bernardino County, 2020).

2.3.2 Existing Conditions

The approximately 605-acre DVCA is an existing recreational area managed by Special Districts. As a key conservation and regional recreational area, the DVCA is open to the public for day use for various recreational activities along the trails, including mountain biking, hiking, horseback riding, picnicking, and other relatively low impact activities. The Project site is largely undeveloped, containing a desert ecosystem characterized by native vegetation such as Joshua trees, creosote brush, cacti, and wildlife, including desert tortoise, coyote, and various bird species. The area experiences arid climate conditions

with limited annual rainfall. The Project surroundings consist primarily of open space, with sparse residential and commercial development to the south and west.

Figure 1. Regional Location



2.4 PROPOSED PROJECT ELEMENTS

2.4.1 Project Details

The proposed Project includes the construction of recreational facilities, including trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, interpretive panels, and picnic tables. Each of the components is discussed further below and shown in Figure 2. No new trails would be established as part of the proposed Project; however, portions of existing trails that have eroded or become overgrown would be regraded and cleared of vegetation during Project construction activities to re-establish trail sections (Figure 2). Drainage beds within the Project site would be avoided; no construction work would occur within these areas, and no construction equipment would be placed or travel across these drainages. Trail markers would be placed before and after each drainage bed to guide hikers across, as no developed trail would be apparent.

Project components include directional signage for the Big Horn Sheep Trail, the Creosote Habitat Discovery Shelter, the Native American Discovery Shelter, kiosks, and the rock outcrop viewing platforms as well as mileage posts throughout the trails within the DVCA. Minor grading would be required prior to create level surfaces for the installation of these structures.

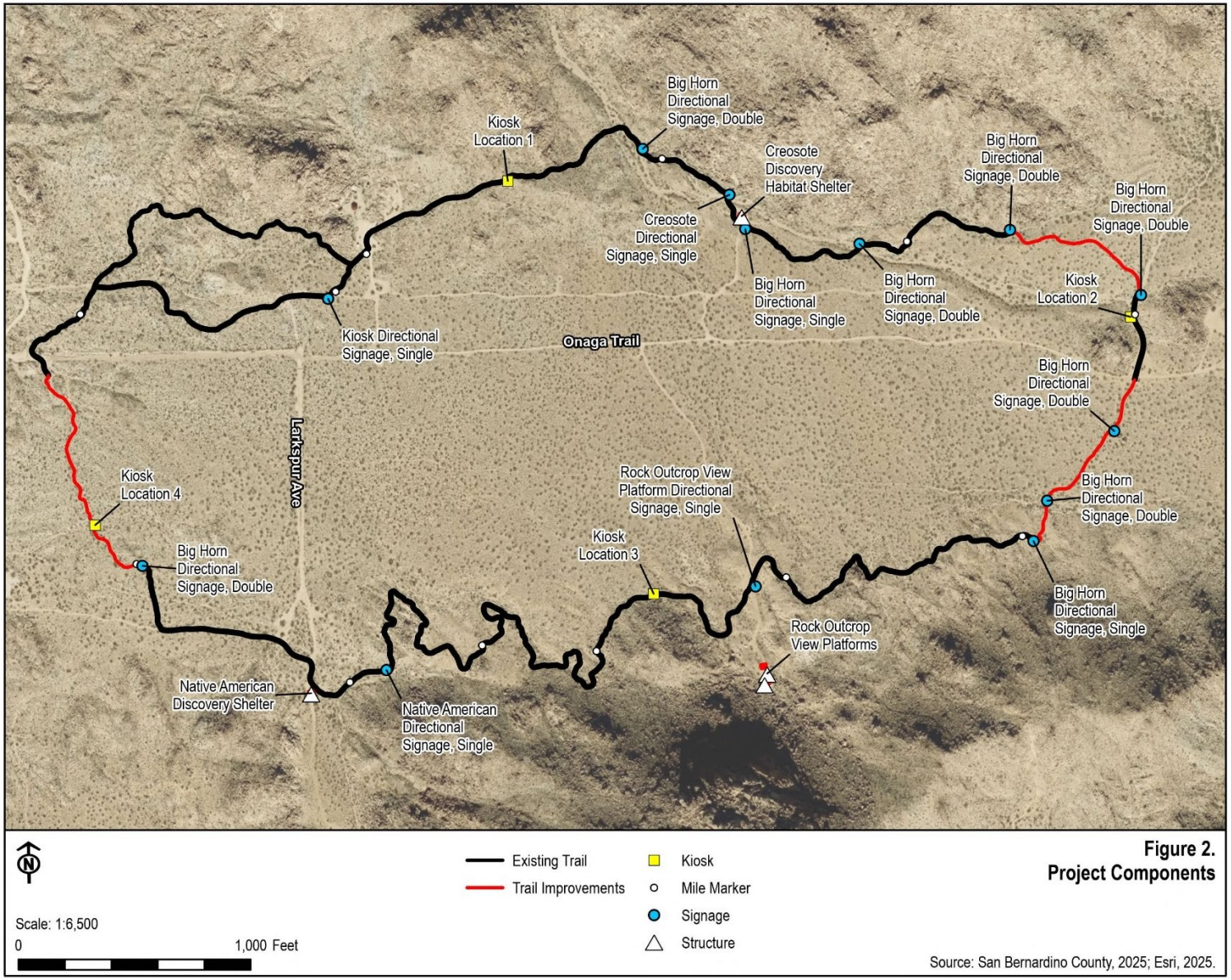
Informational Kiosks. Four informational kiosks with trail maps would be installed along the trails. These kiosks would offer hikers a shaded area to rest, as well as directional maps to assist them on their routes. Interpretive panels would be installed in the kiosks to provide educational insights into the diverse wildlife of the DVCA, thereby enriching the hiking experience with engaging, informative content. Topics addressed by the interpretive panels include specific rare and endangered species endemic to the DVCA, prominent geological features, survival adaptations of local species, Native American culture, and stargazing.

Discovery Shelters. The Creosote Discovery Shelter and the Native American Discovery Shelter would provide information on local desert flora and fauna, geology, environmental concerns of the desert environment, historical use by Native Americans, and the night sky's significance in Native American culture. The Native American Discovery Shelter would be located within the southwestern portion of the DVCA. The shelter would also include a concrete bench and table as well as educational and interpretive signage. The Creosote Habitat Discovery Shelter would be located within the northern portion of the DVCA and provide information on rock formations, geology, the creosote bush, and desert adaptations of native plants and wildlife. In addition, a geology stone veneer concrete podium, seating, and educational and interpretive signage would be provided at the shelter. Both shelters would be constructed of steel panels depicting artwork of Native American glyphs, symbols, and scenery representing the local natural environment.

Viewing Platforms. Two rock outcrop viewing platforms are proposed in the southeastern portion of the DVCA at different elevations (see Figure 2). The platforms would be accessed via the Big Horn Sheep Trail. Visitors would be able to view the local rock outcrops and wildlife from this platform.

Other Structures. Additional minimal site improvements are proposed at the viewing platform, including an overhead steel shade structure, concrete picnic table, bench seating, native rocks and boulders from the DVCA site for landscaping, interpretive signage, and a small amount of concrete paving displaying various animal footprints. Any rock or boulders with petroglyphs would not be used for landscaping and would be protected in place.

Figure 2. Project Components



2.4.2 Construction

Construction of the proposed Project is anticipated to occur over approximately 160 days. Construction is expected to occur Monday through Friday between 8:00 a.m. and 6:00 p.m. (one shift per day). Construction is not expected to occur on weekends. Construction would not require any new lighting or relocation of utilities. Access to the Project site and staging areas would be provided primarily by Park Boulevard, Quail Springs Road, Onaga Trail, and Larkspur Avenue. A generator would be required for the installation of the proposed shade structures. Concrete would primarily be produced off site and delivered to the Project site. Construction equipment would include trucks (including water trucks), a loader, backhoe, grader, crane, generator, mini excavator, plate compactor, cement mixer, auger, chainsaws, welders, and hand tools.

2.4.3 Operations

Operations would involve recreational day use of the site between 7 a.m. and 7 p.m. Visitors would access the proposed improvements for recreational and educational use. Access and use of the DVCA would be limited to foot and equestrian traffic on designated trails. Operations would be restricted to day use only, with camping, fires, motorized recreational vehicles, motorcycles, bicycles, and trailblazing prohibited.

3.0 INITIAL STUDY ENVIRONMENTAL CHECKLIST

This Initial Study has been prepared in accordance with State CEQA Guidelines Section 15063 and State CEQA Guidelines Appendix G.

1. Project Title:	Phase II Desert View Conservation Area Recreational Trails Project
2. Lead Agency Name and Address:	San Bernardino County Department of Public Works – Special Districts – County Service Area 20 Joshua Tree (CSA 20) 222 West Hospitality Lane, 2nd Floor, San Bernardino, CA 92415
3. Contact Person and Phone Number:	John Hernandez, Project Manager (909) 386-8800
4. Project Location:	Desert View Conservation Area, Joshua Tree, CA 92252, San Bernardino County
5. Project Sponsor's Name and Address:	Wildlife Conservation Board P.O. Box 944209, Sacramento, CA 94244-2090
6. General Plan Designation:	Resource Conservation
7. Zoning:	Open Space
8. Description of Project:	The San Bernardino County Department of Public Works, Special Districts proposes to construct improvements that include trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, discovery interpretive panels, and picnic tables, throughout the Desert View Conservation Area (DVCA). The proposed Project components would improve the DVCA as a conservation and regional recreational area.
9. Surrounding Land Uses/Setting	The approximately 605-acre DVCA is an existing recreational area managed by Special Districts. As a key conservation and regional recreational area, the DVCA is open to the public for day use for various recreational activities along the trails, including mountain biking, hiking, horseback riding, picnicking, and other relatively low impact activities. The Project site is largely undeveloped, containing a desert ecosystem characterized by native vegetation such as Joshua trees, creosote brush, cacti, and wildlife, including desert tortoise, coyote, and various bird species. The area experiences arid climate conditions with limited annual rainfall. The Project surroundings consist primarily of open space, with sparse residential and commercial development to the south and west.
10. Other Public Agencies Whose Approval is Required	Mojave Desert Air Quality Management District, California Department of Fish and Wildlife

11. Have California Native American Tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code 21808.3.1?	Yes (refer to Section XVIII, Tribal Cultural Resources)

3.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would potentially be affected by this proposed Project, requiring implementation of mitigation. These environmental factors are indicated by "Less than Significant with Mitigation Incorporated" in the checklists throughout Sections I through XX.

	Aesthetics		Agriculture and Forest Resources		Air Quality
X	Biological Resources	X	Cultural Resources		Energy
	Geology and Soils		Greenhouse Gas Emissions		Hazards and Hazardous Materials
	Hydrology and Water Quality		Land Use and Planning		Mineral Resources
	Noise		Population and Housing		Public Services
	Recreation		Transportation	X	Tribal Cultural Resources
	Utilities and Service Systems		Wildfire	X	Mandatory Findings of Significance

3.2 DETERMINATION

On the basis of this initial evaluation:

	I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the proposed Project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed Project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Noel Mondragon Division Manager San Bernardino County Public Works – Special Districts	01/06/2026 Date

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "no impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "no impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "no impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially significant impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "potentially significant impact" entries when the determination is made, an EIR is required.
4. "Negative declaration: less than significant with mitigation incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "potentially significant impact" to a "less than significant impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063[c][3][D]). In this case, a brief discussion should identify the following:
   (a) Earlier analysis used. Identify and state where earlier analyses are available for review.
   (b) Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   (c) Mitigation measures. For effects that are "less than significant with mitigation incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting information sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   (a) the significance criteria or threshold, if any, used to evaluate each question, and

(b) the mitigation measure identified, if any, to reduce the impact to a less than significant level.

10. The evaluations with this Initial Study assume compliance with all applicable federal, state, and local laws, regulations, rules, and codes. In addition, the evaluation assumes that all conditions in applicable agency permits are complied with, including but not limited to local permits, air quality district permits, water quality permits and certifications, USACE permits, and other agency permits, as applicable.

Potential impacts associated with the proposed Project are addressed in the Initial Study Checklist and impact discussions below.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS** Except as provided in Public Resources Code Section 21099, **would the project:**				
a.	Have a substantial adverse effect on a scenic vista?				X
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				X
c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

Discussion:

a. Would the project have a substantial adverse effect on a scenic vista?

No Impact. The proposed Project is not located within a designated Scenic Corridor and would not have a substantial adverse effect on a scenic vista, as none are identified within the vicinity of the Project site that would be affected by the proposed development. The proposed Project includes the development of trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, discovery interpretive panels, and picnic tables. The proposed structures would not be tall enough to obstruct views of vistas from surrounding sensitive viewing locations, which are areas where viewers are particularly concerned about the visual quality of the landscape, such as residential or recreational areas in Joshua Tree. No impacts would occur, and no mitigation measures are required.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

No Impact. The proposed Project is not located on or near a state scenic highway and therefore would not substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. No existing rock outcroppings

would be altered by the Project, and no trees or historic buildings would be affected by the Project. Therefore, no impacts would occur, and no mitigation measures are required.

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-Significant Impact. The Project site is located in a non-urbanized area. The proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings, because the Project is consistent with the rural desert visual character of the area given the minor nature of the improvements that are intended to enhance existing recreational uses. The trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, discovery interpretive panels, and picnic tables would be designed to blend in with the natural surroundings in order to maintain the existing visual character of the site. A less-than-significant impact would occur, and no mitigation measures are required.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. The proposed Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area because there would not be any lighting fixtures. Construction would not require any new lighting. Therefore, no impacts would occur and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FOREST RESOURCES** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**				
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?				X
d.	Result in the loss of forest land or conversion of forest land to non-forest use?				X
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

Discussion:

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The proposed Project would not convert farmland to a non-agricultural use. The Project site is not being used for agricultural purposes and is not considered Prime Farmland,

Unique Farmland or Farmland of Statewide Importance (Farmland) Therefore, no impact would occur, and no mitigation measures are required.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project site is not designated or zoned for agricultural use, and the proposed Project does not conflict with any agricultural land use or Williamson Act land conservation contract. Therefore, no impacts would occur, and no mitigation measures are required.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?

No Impact. The proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. The Project site is currently an outdoor recreational area developed with trails, signage, and other features which has never been designated as forest land or timberland. The zoning designation of the Project site is Open Space. No forestry resources exist on site; as such, the proposed Project would not cause any impacts to forestry resources. Therefore, no impacts would occur, and no mitigation measures are required.

d. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The proposed Project would not involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to a non-agricultural use because the site is currently not used for agricultural purposes. Therefore, no impacts would occur, and no mitigation measures are required.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As discussed in Sections II(a) through II(d), no farmland or forest land exists within the Project site or the surrounding area. As such, the proposed Project would not involve changes in the existing environment that could result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, no impacts would occur, and no mitigation is required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III.	**AIR QUALITY** Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. **Would the project:**				
a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?			X	
c.	Expose sensitive receptors to substantial pollutant concentrations?			X	
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Discussion:

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less-than-Significant Impact. The proposed Project includes construction of recreational facilities, including trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, interpretive panels, and picnic tables. It would not include any major stationary emissions sources (such as diesel generators, concrete batch plants, backup generators, or industrial equipment) or cause new population growth, and would have limited operations and maintenance activities.

The Project was evaluated for the potential for adverse impacts to the ambient air quality due to construction and operational emissions. Construction emissions would include fugitive dust generated from grading activities, heavy construction equipment exhaust emissions, and construction worker vehicle travel. Operational emissions would result from vehicle trips from visitors using the park. Minor emissions may be associated with energy use and landscaping in those areas where landscaping would be maintained.

The Mojave Desert Air Quality Management District (MDAQMD) has an air quality management plan to address ozone nonattainment conditions. The applicable Air Quality Management Plan for the MDAQMD is the Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Non-Attainment Area), which establishes a date of 2021 for attainment of the 8-hour National Ambient Air Quality Standard (NAAQS) for ozone. Projects must be consistent with the MDAQMD Rules and Regulations to be consistent with the applicable Air Quality Management Plan. The proposed Project includes construction of recreational facilities, including trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, interpretive

panels, and picnic tables. The proposed Project would not include major stationary emissions sources or cause new growth and would have limited operations and maintenance activities. Because the proposed Project consists of recreational improvements, it would not facilitate additional growth in population or employees. The proposed Project would comply with applicable rules, and would not conflict with or obstruct implementation of the attainment plan.

Construction emissions for the proposed Project would be localized and short term, occurring over the course of 160 days. Construction would be required to follow all applicable rules and regulations, and the construction workforce would not contribute to permanent population or employment growth in the area, as the Project neither requires a substantial workforce, nor would it attract new residents to the area. Therefore, the proposed Project would not conflict with, or obstruct, the applicable air quality plans. Impacts from Project construction and operation would be less than significant, and no mitigation measures are required.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?

Less-than-Significant Impact. The proposed Project's emissions would occur during construction activities to install recreational facilities. Emissions emitted during proposed Project construction would include those from off-road equipment, as well as emissions emitted during vehicle travel for employees and hauling. These emissions would be minimal and short term and are not anticipated to affect local or regional long-term air quality. Table 2 identifies daily maximum air pollutant emissions estimates that would occur during proposed Project construction.

Table 2. DVCA Trails Project: Construction, Daily Emissions

	Maximum Daily Emissions (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Maximum Emissions	1.43	11.06	11.77	0.03	13.00	1.74
MDAQMD Construction Significance Thresholds for CEQA Purposes	**137**	**137**	**548**	**137**	**82**	**65**
Exceedance?	**No**	**No**	**No**	**No**	**No**	**No**

Source: MDAQMD, 2016. Appendix A.

Construction equipment and on-road vehicle traffic associated with construction would create exhaust emissions from fuel combustion and particulate matter from ground disturbing activities. The MDAQMD gives thresholds for daily and annual values such that projects that are shorter than one year may use the daily value to determine significance. Since the proposed Project would be less than a year, the daily threshold value would apply to the proposed Project (MDAQMD, 2016). As shown in Table 2, daily air pollutant emissions are less than the MDAQMD construction significance thresholds.

During operations, emissions would be negligible and would be limited to inspections and maintenance of Project components. Impacts to air quality would be less than significant, and no mitigation measures are required.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact. The proposed Project's criteria pollutant emissions are not considered a high enough level to cause direct health impacts to local sensitive receptors. The proposed Project would not involve any new stationary sources of toxic air contaminants (TACs), and construction-related diesel equipment emissions would not occur at any single location for an excessive duration. According to the MDAQMD's CEQA guidelines, a project's impacts would be significant if its emissions result in exposure of sensitive receptors to emissions resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (noncancerous) greater than or equal to 1. Risks would be associated with emissions of TACs, including diesel particulate matter (DPM). DPM would be emitted from off-road equipment and diesel vehicles during construction. However, because health effects from DPM are based on long-term exposure, and construction activities would be short-term and temporary, no significant exposure of sensitive receptors is anticipated. Furthermore, sensitive receptors are located over 500 feet west of the proposed Project. Parks are not identified as significant sources of TACs, and therefore the proposed Project would not expose sensitive receptors to substantial pollutant concentrations.

For any given proposed industrial land use development that is within 1,000 feet of an existing residential use, the MDAQMD recommends conducting an evaluation of whether the project would expose sensitive receptors to substantial pollutant concentrations (MDAQMD, 2016), which can result in cancer risks or health hazards. The proposed Project would not be a new industrial land use development or install new sources that could emit substantial levels of toxic air contaminants. Accordingly, the proposed Project would not warrant further analysis of air quality health risks or hazards. Construction and operation impacts would be less than significant, and no mitigation measures are required.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-than-Significant Impact. Some objectionable odors may be temporarily created during construction-related activities, such as those from diesel exhaust and paving activities. The effects of any odors would be minimal because of the mandatory use of ultra-low sulfur diesel fuel by construction equipment, and the number of people adjacent to construction sources would be limited to those on the Project site. The nearest sensitive receptors would be located over 500 feet west of the proposed Project. As such, construction-related odors would not affect a substantial number of people, and this impact would only occur for a limited duration of time. Therefore, this impact would be less than significant, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES** **Would the project:**				
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?				X

Discussion:

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation. As described in the Biological Resources Technical Report (Appendix B), one plant that is a candidate for listing under the California Endangered Species Act (CESA), western Joshua tree, is present throughout the Project site. Additionally, two special-status plants, one with a California Rare Plant Rank (CRPR) of 1B.2, Latimer's woodland-gilia, and one with a CRPR of 4.2, Utah vine milkweed, were observed within the Project site.

Trail improvements along the existing alignment associated with the Project have a potential to result in direct impacts to individual western Joshua trees and other special-status plant species documented within the Project site or were determined to have potential to occur within the Project site. These impacts may include the removal of individual plants, disturbance to root systems, and soil compaction within the immediate construction footprint. Grading, vegetation clearing, and equipment movement may also damage seedlings or disrupt microhabitat conditions essential for plant survival.

In addition to direct impacts, the Project may result in indirect impacts to special-status plant species located adjacent to construction areas. These impacts may include increased dust deposition, which can reduce plant vigor, as well as changes in soil moisture and microclimate conditions. These impacts are expected to be temporary and primarily restricted to trail improvement areas, kiosk locations, viewing platforms, and discovery shelters. Human activity associated with trail use may also lead to trampling of nearby vegetation, the spread of invasive species, and increased risk of unauthorized off-trail access. These impacts can degrade habitat quality and reduce the reproductive success of sensitive plant populations. However, the Project is not expected to attract an increase in recreational visitors such that these impacts would be substantial.

As described in the Biological Resources Technical Report (Appendix B), one state and federally listed wildlife species, desert tortoise is known from the Project site. Additionally, one candidate for listing under FESA, monarch, and one candidate for state listing under CESA, Crotch bumble are either present in the Project site or known from the region. Furthermore, one California Department of Fish and Wildlife (CDFW) Fully Protected species, desert bighorn sheep, is known to occur in the Project site and several additional special-status wildlife species have at least a moderate potential to be present.

The proposed trail improvements associated with the Project site are anticipated to result in both direct and indirect impacts to special-status wildlife species. The Project site supports a variety of habitats that provide essential breeding and foraging habitat for special-status wildlife. Construction activities such as vegetation clearing, grading, and increased human presence have the potential to disturb or displace wildlife and degrade habitat quality.

The Project is expected to result in both direct and indirect impacts to special-status pollinators, including Crotch bumble bee and monarch butterfly. Direct impacts include the removal of native flowering plants which serve as nectar sources for Crotch bumble bees and monarch, and are essential for foraging, reproduction, and survival. Ground disturbance and vegetation clearing may also destroy nesting or overwintering sites for Crotch bumble bees. Indirect impacts include increased human activity, which may lead to trampling of native flowering plants and a potential

increase in invasive species. For monarchs, the loss of milkweed and nectar plants along migratory corridors can significantly reduce breeding success and migratory viability. Avoidance and mitigation measures such as preserving native vegetation, providing workers training, and implementing seasonal work restrictions would be required to minimize these impacts and support pollinator conservation.

Desert tortoises and their burrows have the potential to be directly and indirectly impacted because of the Project. Direct impacts include the mortality or injury of individuals from construction equipment and vehicles, as well as the destruction or disturbance of burrows, which serve as critical shelter and nesting sites. Ground disturbance and vegetation removal can also eliminate forage plants and reduce cover, increasing exposure to predators and environmental stressors. Indirect impacts include increased access for predators such as ravens, which are often subsidized by human activity and infrastructure, and would likely result in increased predation. Additionally, increased human presence and off-trail recreation can lead to trampling of burrows, or unintentional harassment. The spread of invasive plant species and changes in surface hydrology due to trail improvements may also reduce habitat quality. To avoid and minimize these impacts, pre-construction surveys would be conducted by a qualified biologist, and a biological monitor would be present during all ground-disturbing activities. Additional measures such as speed limits and worker training would be implemented to further reduce the risk of harm.

Project activities pose a variety of direct and indirect threats to special-status reptiles, including the Southern California legless lizard, red-diamond rattlesnake, and coast horned lizard. Direct impacts include the destruction of habitat through grading, vegetation removal, and soil compaction, which can result in the mortality or displacement of individuals. The Southern California legless lizard is vulnerable to soil disturbance and removal of essential cover. The red-diamond rattlesnake may be directly harmed by construction equipment or displaced from basking and foraging areas, while the coast horned lizard is at risk of being crushed or disturbed during surface activity, especially in sandy, open habitats. Indirect impacts include increased human activity, which can lead to harassment, trampling, and predation, as well as habitat degradation from the spread of invasive plant species and altered microclimatic conditions. These changes can reduce prey availability, disrupt thermoregulation, and degrade sheltering and nesting sites. To mitigate these impacts, mitigation measures including pre-construction surveys, providing workers training, biological monitoring during all ground-disturbing activities, habitat avoidance and buffers, and seasonal work restrictions would be implemented.

The Project has the potential to result in both direct and indirect impacts to the burrowing owl. Direct impacts include the destruction or collapse of active or potential burrows during grading, excavation, or heavy equipment use, which can lead to injury or mortality of adults, juveniles, or eggs. Construction activities near occupied burrows may also cause nest abandonment or reproductive failure, particularly during the breeding season. Indirect impacts include habitat degradation from vegetation removal, which reduces prey availability and cover, and increased human disturbance, which can lead to displacement, or increased predation risk. To mitigate these impacts, mitigation measures including pre-construction surveys, worker training, biological monitoring, and seasonal avoidance buffers would be implemented.

Nesting and special-status birds including loggerhead shrike and Le Conte’s thrasher have the potential to be directly and indirectly impacted by the Project. Direct impacts may include the disturbance or destruction of active nests during vegetation clearing, grading, or equipment operation. Ground-nesting and shrub-nesting species are particularly vulnerable to direct mortality or nest abandonment if construction occurs during the breeding season (typically

February 1 through August 31). In addition to direct impacts, the Project may result in indirect impacts to nesting birds due to increased human activity, noise, and habitat disturbance associated with trail construction and recreational use. These disturbances can lead to nest abandonment, reduced reproductive success, and increased vulnerability to predators. Noise and visual disturbance from construction equipment or trail users may disrupt normal breeding behavior, particularly for species that are sensitive to human presence. To minimize these impacts, pre-construction nesting bird surveys would be conducted. If active nests are identified, appropriate no-disturbance buffers (generally 50 to 500 feet, depending on species and activity) would be established and maintained until the young have fledged or the nest is no longer active.

The Project is not expected to affect nesting golden eagle or prairie falcon, as the Project site lacks suitable nesting habitat for either species. However, temporary impacts to foraging behavior may occur during construction activities due to increased noise, human presence, and habitat disturbance. To avoid potential impacts to these raptors, avoidance and minimization measures would be implemented. These would include pre-construction surveys to confirm the absence of nesting activity in adjacent areas, biological monitoring during ground-disturbing activities, and environmental awareness training for all personnel to ensure compliance with wildlife protection protocols.

Project impacts may result in direct impacts on desert kit fox and the American badger. Project activities can lead to mortality or injury of individuals from construction equipment and vehicles, as well as the destruction or disturbance of dens, which are essential for shelter and reproduction. The removal of native vegetation results in habitat loss and fragmentation, reducing prey availability and increasing the risk of displacement. To mitigate these impacts, mitigation measures include conducting pre-construction surveys to identify active dens or burrows, establishing buffer zones, implementing seasonal work restrictions, and educating construction personnel.

The Project is not expected to have a direct effect on mountain lions, as the site lacks suitable habitat for denning. However, mountain lions are known to occur in the region and may utilize adjacent hillsides for denning or foraging. Occasional foraging activity within the Project site is possible. To avoid potential impacts to mountain lions, the Project would implement pre-construction surveys, biological monitoring during ground-disturbing activities, and provide workers training to ensure awareness of potential wildlife encounters and appropriate response protocols.

Project activities may result in both direct and indirect impacts to special-status species, including the pallid bat, which has the potential to roost in rock crevices and man-made structures and forage within the Project site. Direct impacts include the disturbance or destruction of day roosts or maternity colonies during vegetation clearing, or grading. If construction occurs near active roosts, particularly during the breeding season, it may lead to roost abandonment, reduced reproductive success, or mortality of young. Indirect impacts include habitat degradation through the loss of foraging areas and insect prey due to vegetation removal and increased human activity. Additionally, increased human presence may lead to disturbance of roosting sites, especially if located near trails or recreational areas. These impacts can reduce the availability of suitable roosting and foraging habitat. Mitigation measures such as pre-construction roost surveys, seasonal work restrictions, restricting work to daylight hours, and habitat buffers would be required to minimize adverse effects.

Potential impacts would be avoided with the implementation of Mitigation Measures (MMs) BIO-1 through BIO-12 by implementing species-specific avoidance and minimization measures, including pre-construction surveys, protective buffers, biological monitoring, and, where necessary, agency-approved mitigation such as seed collection and salvage.

Mitigation Measures

MM BIO-1 Qualified Biologist. A Qualified Biologist shall monitor the construction crew and remain on site during initial ground disturbing and vegetation removal, or when heavy equipment is being operated. The Qualified Biologist shall ensure that impacts to special-status species and other sensitive biological resources are avoided. The Qualified Biologist shall have the authority, and obligation, to immediately stop any activity that could impact special-status species and other sensitive biological resources or that does not comply with proposed mitigation measures.

At a minimum, the responsibilities of the Qualified Biologist shall include:

- Implementing a Worker Environmental Awareness Program (WEAP) for all construction personnel prior to conducting any work in sensitive areas. This will also include daily morning training to remind crews of the sensitive resources that occur in the Project site.
- Conduct pre-construction sweeps within the designated work area prior to the start of any ground-disturbing activities. These sweeps will be performed by a qualified biologist to ensure that no special-status plant or wildlife species, including nesting birds, are present.
- Ensuring the proposed mitigation measures and any additional regulatory permit conditions are properly implemented.
- Ensuring that all Project activities occur within approved project limits and access roads.
- Inspecting all open holes and trenches regularly and just prior to back-filling or covering and ensuring all open excavations are backfilled prior to crews leaving the work area.
- Immediately stop work if any special-status wildlife species are observed within 50 feet of active work areas and ensure that no work activities occur until the animal has left the area under its own volition.

MM BIO-2. Worker Environmental Awareness Program (WEAP). A WEAP training shall be prepared and provided to all Project personnel prior to the commencement of any on-site activities. The training shall include an overview of special-status species (i.e. protected plants, wildlife, and nesting birds) that are known to occur or have the potential to occur within the Project site. It will also cover sensitive habitat types, applicable regulatory requirements, and the specific mitigation measures that must be followed during construction to prevent unauthorized impacts. The WEAP shall emphasize the roles and responsibilities of all personnel, the importance of complying with environmental permits, and the procedures for reporting wildlife encounters or environmental concerns. Upon completion of the training, all Project personnel shall be required to sign a log sheet confirming that they have received the training and understand the mitigation measures and environmental compliance expectations.

MM BIO-3. General Protection Measures. To minimize potential impacts to biological resources, the following general protection measures shall be implemented:

- All Project activities, including driving on access roads, shall occur during daylight hours.
- All litter and debris shall be removed from work areas daily.
- Domestic and working dogs are prohibited from the Project site, access routes during Project activities, except those in the possession of authorized security personnel or federal, state, or local law enforcement officials.
- No firearms, other than those of law enforcement personnel, shall be permitted within the Project site at any time during construction.
- Wildlife encountered within the work areas shall be allowed to leave the work area unharmed.
- Pre-construction surveys for special status species shall be conducted by a qualified biologist within 30 days prior to the start of work.

MM BIO-4. Special-Status Plants. Pre-construction botanical surveys shall be conducted within the Project site during the appropriate growing season prior to the initiation of Project activities. Surveys shall be performed by a qualified botanist in accordance with current California Department of Fish and Wildlife and California Native Plant Society protocols. If special-status plant species are identified during pre-activity botanical surveys, they shall be protected through the establishment of a clearly marked buffer zone. The buffer shall be of sufficient size as determined appropriately by a qualified botanist in consultation with regulatory agencies to avoid direct and indirect impacts. The buffer zone shall be maintained throughout the duration of Project activities to ensure the protection of the identified plant populations.

MM BIO-5. Western Joshua Tree. Prior to Project activities, San Bernardino County Department of Public Works – Special Districts shall work with California Department of Fish and Wildlife (CDFW) to ensure compliance with the Western Joshua Tree Conservation Act. If western Joshua trees are present within the project site and can be avoided, an Incidental Take Permit (ITP) will not be required. However, if during Project implementation, it becomes necessary to impact a western Joshua tree, including its roots, an ITP shall be obtained from CDFW prior to any impact Additionally, prior to Project activities, a survey shall be conducted to determine the presence of western Joshua trees within the Project site prior to the start of ground-disturbing activities. Crews shall not allow vehicles, equipment, or materials to be parked, or placed on top of any western Joshua trees. Vehicles or equipment left within the Project site overnight shall be located at least 50 feet from all western Joshua trees. If a western Joshua tree is damaged because of the Project, the Designated Botanist(s) shall immediately notify CDFW of the damage.

MM BIO-6. Monarch Butterly. All milkweed plants shall be avoided to the maximum extent feasible during Project activities. If the removal or destruction of a milkweed plant cannot be avoided, the Qualified Biologist shall inspect the plant prior to activities to ensure that no monarch butterfly adults, larvae, or eggs are present. If monarch butterfly adults, larvae, or eggs are present, the plant shall be avoided.

MM BIO-7. Crotch Bumble Bee. A pre-construction survey shall be conducted no more than 14

days prior to the start of any ground-disturbing activities. Surveys shall be performed by a Qualified Biologist during the species' active season (typically late spring through early fall) and shall cover the entire Project footprint, including a 50-foot buffer. Surveys shall follow the most current guidance provided by California Department of Fish and Wildlife.

MM BIO-8. Desert Tortoise. A qualified biologist shall conduct pre-construction surveys no more than 14 days prior to the start of ground-disturbing activities. Surveys shall cover the entire Project footprint and a 50-foot survey buffer to identify any active burrows or individuals. If a burrow is determined to be active, the Qualified Biologist shall establish a no-disturbance buffer of 50 feet or greater around the burrow.

A Qualified Biologist shall be present during all ground-disturbing activities, vegetation removal, or when heavy equipment is being operated within desert tortoise habitat and shall stop work if a desert tortoise is detected at or within 50 feet of work activities, until the individual leaves on its own.

Lastly, within desert tortoise habitat, vehicles shall not exceed 15 miles per hour on access roads during periods of increased desert tortoise activity (March 1 through October 31). If a vehicle is parked, the ground around and under the vehicle shall be inspected for desert tortoises before the vehicle is moved. If a desert tortoise is present, the equipment or vehicle shall remain place until the desert tortoise moves 50 feet from the equipment or vehicle. All field personnel shall immediately inform the Qualified Biologist if a desert tortoise is seen during the implementation of any Project activity. Lastly, no desert tortoise shall be handled or disturbed.

MM BIO-9. Nesting Birds. If Project activities cannot occur outside the bird breeding season, then pre-construction surveys for active nests shall be conducted within 500 feet of the Project site no more than seven days before the initiation of construction that would occur between February 1 and August 15. Active nests must be monitored during construction. If Project activities disturb nesting, the Biological Monitor shall notify the construction manager. The Biological Monitor has the authority to implement measures to reduce disturbance in the vicinity. If Loggerhead shrike and Le Conte's thrasher nests are found during the survey, a 500-foot avoidance buffer shall be established. The avoidance buffer shall be maintained until the young have fledged. The frequency of the monitoring visits will be determined by the Biological Monitor.

MM BIO-10. Burrowing Owl. Within 14 days prior to the start of Project activities, a qualified biologist shall conduct burrowing owl (BUOW) surveys within 500 feet of the Project site. If an active burrow is detected, a 500-foot avoidance buffer shall be established around each burrow during the nesting season (February 1 through August 31). If active BUOW burrows are observed outside of the nesting season, a minimum 150-foot no-disturbance buffer shall be established around each burrow. Occupied burrows shall not be disturbed during the breeding season (February 1 through August 31) unless an approved biologist verifies, through non-invasive methods, that both 1) the birds have not begun egg-laying and incubation, and 2) that juveniles from the occupied burrow are foraging independently and are capable of independent survival. If BUOW are present and have a potential to be impacted by the Project, Special Districts shall obtain an Incidental Take Permit from California Department of Fish and Wildlife.

MM BIO-11. Desert Bighorn Sheep. If any desert bighorn sheep are observed during Project activities, work within 500 feet of the sheep would be halted, and activities would resume after the animal moves away on its own. Project activities shall also use noise-reducing construction methods as feasible and limit work to daylight hours to reduce disturbance. Lastly, Project activities that result in loud noises shall occur outside of the lambing season (January through June).

MM BIO-12. Kit Fox and Badger. Within 14 days prior to the start of Project activities, a qualified biologist shall conduct surveys for desert kit fox and American badger within the Project site, including a 500-foot survey buffer around the Project site. If an active desert kit fox den is identified during the breeding season (January 15 through September 15), a 500-foot avoidance buffer shall be established and no activities within the buffer will be allowed unless authorized by a Qualified Biologist. If activities occur outside of the breeding season and an active den is identified, a 150-foot avoidance buffer will be established, and no MM activities will be allowed within the buffer unless authorized by a Qualified Biologist. If an active American badger is identified, the den shall be protected with a 100-foot no-disturbance buffer.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less-than-Significant Impact. As described in the Biological Resources Technical Report (Appendix B), a sensitive natural community, Joshua tree woodland, is present within the Project site. Impacts to Joshua tree woodland are expected to be less than significant given the nature of the trail improvements with relatively minor construction activities anticipated. No major grading, or excavation would occur, and disturbance footprints associated with Project components would be minor and limited to the relatively small structures that would be constructed. Any impact would be limited to a narrow impact area within a vast Joshua tree woodland that extends beyond the Project site. Therefore, impacts to a sensitive natural community would be less than significant, and no mitigation is required.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than Significant. The Project site does not include any state or federally protected wetland; however, as described in the Biological Resources Technical Report (Appendix B), several ephemeral drainages are present within the Project site.

Project activities would avoid these ephemeral drainages during construction and would not physically alter or remove any channel banks or compact soils within the drainage bed. The hydrology of the drainages would remain as they do under existing conditions. No grading would occur that would degrade downstream aquatic habitats. Impacts would be less than significant, and no mitigation is required.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant with Mitigation Incorporated. As described in the Biological Resources Technical Report (Appendix B), nesting birds are protected under the federal Migratory Bird

Treaty Act and the California Fish and Game Code. Nesting birds have the potential to be directly and indirectly impacted by the Project. Direct impacts may include the disturbance or destruction of active nests during vegetation clearing, grading, or equipment operation. Ground-nesting and shrub-nesting species are particularly vulnerable to direct mortality or nest abandonment if construction occurs during the breeding season (typically February 1 through August 31). In addition to direct impacts, the Project may result in indirect impacts to nesting birds due to increased human activity, noise, and habitat disturbance associated with trail construction and recreational use. These disturbances can lead to nest abandonment, reduced reproductive success, and increased vulnerability to predators. Noise and visual disturbance from construction equipment or trail users may disrupt normal breeding behavior, particularly for species that are sensitive to human presence.

Potential impacts to nesting birds would be avoided with the implementation of MM BIO-9 (Nesting Birds) by implementing avoidance of nesting season, pre-construction surveys, and monitoring of bird nests.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The Project does not conflict with any local policies or ordinances regarding biological resources. Therefore, development of the proposed Project would not conflict with local policies or ordinances protecting such resources. Therefore, no impact would occur, and no mitigation measures are required.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

No Impact. There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other similar plans that overlap with the Project site. Therefore, no impact would occur, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES** **Would the project:**				
a.	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?		X		
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c.	Disturb any human remains, including those interred outside of dedicated cemeteries?		X		

Cultural Resources Overview

This section provides an analysis of proposed Project impacts on cultural resources, including historical and archaeological resources as well as human remains. This analysis is based on the results of a cultural resources record search conducted by Aspen staff at the South Central Coastal Information Center (SCCIC), a review of past cultural resources reports, and the results of a Sacred Lands File (SLF) Search conducted by the Native American Heritage Commission (NAHC). A cultural resources survey was conducted at the Project site; however, no cultural resources were observed.

Regulatory Framework

CEQA requires a Lead Agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC] Section 21084.1), archaeological resources, or human remains. A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources; or any object, building, structure, site, area, place, record, or manuscript that a Lead Agency determines to be historically significant (State CEQA Guidelines Section 15064.5[a][1-3]). Resources listed on the National Register of Historic Places (NRHP) are automatically listed on the CRHR, along with State Landmarks and Points of Interest. The CRHR can also include properties designated under local ordinances or identified through local historical resource surveys. In addition, pursuant to PRC Section 5024.1(c), a resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

If it can be demonstrated that a project would cause damage to a unique archaeological resource, the CEQA Lead Agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed,

mitigation measures are required (PRC Section 21083.2[a-b]). PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Methodology

A search of the California Historical Resources Information System (CHRIS) was conducted to identify any previously recorded cultural resources and previously conducted cultural resources studies within the Project site and a 0.25-mile radius surrounding it. On June 9, 2025, Aspen archaeologists conducted the record search at California State University, Fullerton. The searches included a review of previous cultural resource studies and recorded resources. In addition, Aspen completed a review of the NRHP, the CRHR, the Historic Resources Inventory, and local inventories. An NAHC SLF search of the Project site and surrounding vicinity was also requested on May 22, 2025.

As a result of the record search, the SCCIC did not identify any previously recorded cultural resources within the Project site. One previously recorded cultural resources was identified within the 0.25-mile radius consisting of one precontact habitation site. Additionally, the SCCIC identified one previous cultural resource study within 0.25 mile of the Project site. The study encompasses all or portions of the Project site (Chandler et. al, 2010). Lastly, a SLF search was completed by the NAHC on June 18, 2025, with negative results.

Discussion:

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Less than Significant with Mitigation Incorporated. As discussed above, no previously recorded historical resources were identified within the Project site. However, ground disturbing activity, such as grading, trenching, or excavations, has the potential to impact unknown buried resources that may be considered significant under CEQA. Implementation of MMs CUL-1 (Worker Environmental Awareness Program), CUL-2 (Archaeological Monitoring), CUL-3 (Inadvertent Discovery of Cultural Remains), and CUL-4 (Treatment of Human Remains) would reduce impacts to unknown resources to a less-than-significant level.

Mitigation Measures

MM CUL-1 Worker Environmental Awareness Program. Prior to the initiation of construction, all construction personnel shall be trained by a qualified archaeologist regarding the recognition of possible buried cultural resources (i.e., precontact and/or historical artifacts, objects, or features) and protection of all archaeological resources during construction. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural materials. All personnel shall be instructed that unauthorized removal or collection of artifacts is a violation of State law. Any excavation contract (or contracts for other activities that may have subsurface soil

impacts) shall include clauses that require construction personnel to attend the Worker Environmental Awareness Program, so they are aware of the potential for inadvertently exposing buried archaeological deposits.

MM CUL-2 **Archaeological Monitoring.** During initial ground disturbance within each of the seven recreational features in the Project site, a qualified archaeological monitor shall be present to observe the initial ground disturbing activity. Monitoring frequency can be increased or decreased based on soil conditions and observations, in concurrence with San Bernardino County Department of Public Works, Special Districts.

MM CUL-3 **Inadvertent Discovery of Cultural Remains.** If previously unidentified cultural resources are uncovered during construction activities, construction work within 50 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist assesses the significance of the resource. The archaeologist, in consultation with the San Bernardino County Department of Public Works, Special Districts (Special Districts), shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the find(s) is found to be eligible to the National or California Registers, or qualify as a unique archaeological resource under CEQA (PRC Section 21083.2). If the find is determined to potentially be a Tribal Cultural Resource, local Native American tribes shall be contacted and included in decision making regarding the resource.

If the find(s) do(es) not meet the definition of a historical, unique archaeological, or Tribal Cultural Resource, no further study or protection is necessary prior to Project implementation. If the find meets the definition of a historical, unique archaeological, or Tribal Cultural Resource, then it shall be avoided by Project activities. If avoidance is not feasible, adverse effects to such resources shall be mitigated in accordance with the recommendations of the archaeologist. Recommendations shall include collection, recordation, and analysis of any significant cultural materials. A report of findings documenting any data recovery shall be submitted to the County of San Bernardino, Native American Heritage Commission (Tribal Cultural Resources), and the South Central Coastal Information Center (SCCIC).

Special Districts shall ensure that construction personnel do not collect or move any cultural material during implementation of the Project.

MM CUL-4 **Treatment of Human Remains.** All human remains discovered are to be treated with respect and dignity. Upon discovery of human remains, all work within 100 feet of the discovery area must cease immediately, disturbance must be avoided, and the area must be secured. The San Bernardino County Coroner's Office shall be called. The Coroner has 2 working days to examine the remains after notification. The appropriate land manager/owner of the site shall be called and informed of the discovery. It is very important that the suspected remains, and the area around them, are undisturbed and the proper authorities called to the scene as soon as possible, because it could be a crime scene. The Coroner shall determine if the remains are archaeological/historic or of modern origin and whether there are any criminal or jurisdictional questions.

If the Coroner determines that the remains are archaeological/historic-era, the Coroner shall make recommendations concerning the treatment and disposition of

the remains to the person responsible for the excavation, or to his or her authorized representative. If the Coroner believes the remains to be those of a Native American, he/she shall contact the Native American Heritage Commission (NAHC) by telephone within 24 hours.

The NAHC would immediately notify the person it believes to be the most likely descendant (MLD) of the remains. The MLD has 48 hours from the time given to access the site to make recommendations to the landowner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner does not accept the descendant's recommendations, the owner or the descendant may request mediation by NAHC.

According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant with Mitigation Incorporated. The record search did not identify any known archaeological resources in the Project site. However, the record search did identify prehistoric archaeological resources within a 0.25-mile radius. Ground disturbing activity, such as grading, trenching, or excavations, has the potential to impact unknown buried resources that may be considered a unique archaeological resource per CEQA. Implementation of MMs CUL-1 (Worker Environmental Awareness Program), CUL-2 (Archaeological Monitoring), CUL-3 (Inadvertent Discovery of Cultural Remains), and CUL-4 (Treatment of Human Remains) would reduce impacts to unknown resources to a less-than-significant level.

c. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant with Mitigation Incorporated. No known human remains, or informal, undocumented cemeteries were identified within the Project site as a result of the record search, archival research, NAHC SLF search, or intensive pedestrian survey. In the unlikely event unknown buried human remains are encountered during ground disturbing activity, the implementation of MMs CUL-1 (Worker Environmental Awareness Program), CUL-2 (Archaeological Monitoring), CUL-3 (Inadvertent Discovery of Cultural Remains), and CUL-4 (Treatment of Human Remains) would reduce potential impacts to a less-than-significant level.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI.	**ENERGY** **Would the project:**				
a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Discussion:

a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-than-Significant Impact. Construction of the proposed Project would require the use of energy in the form of gasoline and diesel fuel for equipment and transportation of materials, which would not be an unnecessary consumption of energy resources. The use of fuel and electricity for construction would not be large scale and would be temporary. Energy usage would not be wasteful or inefficient and would not adversely affect local or regional energy supplies. As such, construction impacts would be less than significant, and mitigation is not required.

Operation of the proposed Project could require the intermittent use of fuel for maintenance trucks and other equipment to maintain the Project site for continued recreational use, which would not be an unnecessary consumption of energy resources. The use of fuel would be relatively minimal and would not be considered wasteful or inefficient. Operation impacts would be less than significant, and no mitigation measures are required.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less-than-Significant Impact. The Project would not conflict with energy efficiency plans, restrict the development of renewable energy projects, or restrict the use of renewable energy. The proposed Project does not include energy consumption sources that are directly subject to state or local energy efficiency plans. The use of on-road and off-road vehicles during Project construction would be temporary, limited, and be required to meet current federal and state fuel efficiency requirements. During operations, potential maintenance activities would be similar to existing conditions with limited increase in energy use due to maintenance of recreation components and improvements. Therefore, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII.	**GEOLOGY AND SOILS** **Would the project:**				
a.	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
	ii) Strong seismic ground shaking?			X	
	iii) Seismic-related ground failure, including liquefaction?				X
	iv) Landslides?				X
b.	Result in substantial soil erosion or the loss of topsoil?			X	
c.	Be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?			X	
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Discussion:

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The Project site is located in a seismically active area of Southern California with numerous active faults in the vicinity; however, no Alquist-Priolo Fault Zones or other known Quaternary faults cross or are immediately adjacent to the Project site (DOC, 2025; USGS, 2022). The closest Alquist-Priolo Fault Zone to the Project is the Pinto Mountain Fault Zone, which includes the Morongo Valley Fault Zone and is located approximately two miles north of the Project (DOC, 2025; USGS, 2022). The closest Quaternary fault to the Project is the Pinto Mountain Fault, located approximately two miles to the north (USGS, 2022). Given the distance of this fault from the Project site, and relatively minor construction activities, the Project would not cause the rupture of an earthquake fault. Therefore, no impact would occur, and no mitigation measures are required.

(ii) Strong seismic ground shaking?

Less-than-Significant Impact. The Project site would likely be subject to ground shaking associated with earthquakes on local and regional active faults. The intensity of the seismic ground shaking during an earthquake is dependent on the distance between the Project site and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the Project site. Earthquakes occurring on faults closest to the Project site would most likely generate the largest ground motions. Significant active faults near the Project that could generate large earthquakes resulting in seismic ground shaking at the Project site include the following: the Pinto Mountain Fault, the Eureka Peak Fault, and the Burnt Mountain Fault (USGS, 2022). Large earthquakes on other regional faults could also trigger ground shaking at the Project site.

The exposure of people and structures to seismic ground shaking is a potential risk with or without the proposed Project and cannot be avoided. Construction and operation of the proposed Project would not exacerbate the risks and hazards of seismic ground shaking in the event of an earthquake, given that the Project components, primarily consisting of trail signage, shade structures, and other small built structures are located in an outdoor recreational area. Additionally, incorporation of modern standard engineering and seismic safety standards in Project design would further minimize adverse effects to people by ensuring that the proposed recreational facilities would withstand strong seismic ground shaking. Therefore, the Project would not increase the risk of loss, injury, or death during seismic events. This impact would be less than significant, and no mitigation measures are required.

(iii) Seismic-related ground failure, including liquefaction?

No Impact. Liquefaction is the phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced strong ground shaking. The susceptibility of a site to liquefaction is a function of the depth, density, and water content of the

granular sediments and the magnitude and frequency of earthquakes in the surrounding region. Saturated, unconsolidated silts, sands, and silty sands within 50 feet of the ground surface are most susceptible to liquefaction (unconsolidated sediments with groundwater levels of 50 feet below ground surface or less). Liquefaction-related phenomena include lateral spreading, ground oscillation, flow failures, loss of bearing strength, subsidence, and buoyancy effects. The California Geological Survey does not identify the proposed Project site within a Liquefaction Zone (DOC, n.d.). Therefore, no impact associated with liquefaction and related ground failures would occur, and no mitigation measures are required.

(iv) Landslides?

No Impact. According to the California Geological Survey, the Project site is not within a Landslide Zone. No steep hills, bluffs, or mountains are located near the Project site. Construction activities would include minor excavation and trenching to create level surfaces for the installation of the proposed structures. The proposed structures would not be constructed on any steep slopes or hillsides. Additionally, all Project activities would be conducted in compliance with relevant standards and building codes related to seismic resistance and structural integrity, which also address the potential for landslide risks. The proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Therefore, no impact would occur, and no mitigation measures are required.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Less-than-Significant Impact. Project construction would include minor grading excavation and trenching to create level surfaces for the installation of the proposed structures. This would temporarily expose and loosen soils, making them susceptible to erosion by wind and water. Maintenance activities associated with repairs of structures or vegetation maintenance may also cause minor disturbance of soils. However, soil disturbance would be minimal and temporary during the construction period, and would be required infrequently and on a small scale during the operation period on an as-needed basis. Additionally, the proposed Project would implement Best Management Practices (BMPs) to limit erosion from construction activities, as well as implementation of standard erosion control measures during Project operation. Implementation of standard construction BMPs during Project construction and standard measures during maintenance activities throughout Project operation would reduce potential soil erosion impacts to less than significant. No mitigation measures are required.

c. Would the project be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-than-Significant Impact. The Project would have a less-than-significant impact regarding landslides, slope stability, and liquefaction as discussed above.

Subsidence is the sinking or gradual lowering of the earth's surface. Subsidence can result from either natural geologic causes such as faulting or from man-made causes such as groundwater pumping or oil and gas production. As groundwater or oil and gas is withdrawn, the pore pressure in the sediments decreases allowing the weight of the overlying sediment to permanently compact or compress the fine-grained units. The United States Geological Survey (USGS) Land Subsidence in California website includes maps of groundwater and oil subsidence in California and indicates that the Project is not located in an area of groundwater or oil subsidence (USGS,

2018). Accordingly, the proposed Project would not exacerbate subsidence in the area, and impacts resulting in subsidence would be less than significant. No mitigation measures are required.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less-than-Significant Impact. Expansive soils are characterized by their ability to undergo great volume change (shrink and swell) due to variation in soil moisture content. Changes in soil moisture could result from several factors, including rainfall, landscape irrigation, utility leakage, and/or perched groundwater. Expansive soils are typically very fine grained with a high to very high percentage of clay. The geotechnical investigations found that near surface materials within the Project site consisted of silty sand soils, which have a "Very Low" classification on the Expansion Index (Architerra Design Group, 2024).

Additionally, no changes in soil moisture would result from the proposed Project as no landscape irrigation or water utilities are proposed. Therefore, the proposed Project would have no impact, and no mitigation measures are required.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The proposed Project does not include any wastewater disposal facilities or septic tanks; therefore, there would be no impact, and no mitigation measures are required.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant. A paleontological records review conducted in 2025 indicated that although the sediments within the Project site have the potential to contain fossils, no fossil specimens have been previously recorded within the Project site and a one-mile radius and the Project site is primarily located within the quartz monzonite surrounding the valley, which does not have the potential to contain fossils. The nearest recorded fossil specimen occurs within similar sediments approximately 4.8 miles away. To further reduce the potential for impacts, a standard requirement would be applied to the proposed Project that requires Special Districts to contact the San Bernardino County Museum for a determination of appropriate measures if any finds are made during construction. Therefore, impacts would be less than significant, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII.	**GREENHOUSE GAS EMISSIONS Would the project:**				
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b.	Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Discussion:

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. The proposed Project would emit greenhouse gases (GHGs) through construction directly from the off-road equipment used at the Project site and the on-road motor vehicles needed to mobilize crew, equipment, and materials. The construction period would be short-term, lasting approximately six months. Maintenance and operations are limited to routine cleaning and inspection, and thus operational GHG emissions would be negligible.

The Mojave Desert Air Quality Management District (MDAQMD) recommends that lead agencies should determine the significance of GHG emissions by evaluating whether the direct and indirect GHG emissions generated by a project exceed 100,000 tons or 90,719 metric tons of CO2e per year (MDAQMD, 2016). The proposed Project's estimated total construction emissions would be 119 MTCO2e which would be well below the significance criteria. Therefore, the proposed Project would have less-than-significant GHG emissions impacts, and no mitigation measures are required.

b. Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-Significant Impact. GHG emissions for the proposed Project would be generated from off-road equipment uses and on-road vehicle trips during construction and are expected to be minimal. Operational GHG emissions would be negligible. Estimated GHG emissions of the proposed Project would be well below the threshold of the federal and State mandatory reporting regulation. The proposed Project is not anticipated to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. In January of 2012, the County of San Bernardino adopted a Greenhouse Gas Emissions Reduction Plan (GHG Plan). The GHG Plan established a GHG emissions reduction target for the year 2020 that is 15 percent below 2007 emissions and is consistent with AB 32 and sets the County on a path to achieve more substantial long-term reductions after 2020.

The AB32 Climate Change Scoping Plan was originally passed by the California legislature in 2008. Two updates were passed in 2013 and 2017, and the 2022 update aims to address changes in GHG

emissions reductions goals. This plan includes emission reduction strategies to reach the State's GHG reduction target of 40 percent below 1990 levels by 2030 (CARB, 2022). Emissions reduction strategies include increasing renewable energy and fuel use, increasing building efficiency, increasing zero or near zero emission vehicles, and community design strategies including public transit and walkable or bikeable communities. Most emission reduction strategies in the AB32 Climate Change Scoping Plan do not directly impact construction emissions, however, strategies involving vehicle standards, vehicle idling time, and waste reduction apply to construction phase activities. Vehicles at the Project site would be required to comply with the Vehicle Climate Change Standards and limit idling time.

In summary, GHG emissions from the proposed Project would be minimal and would conform to State and local GHG emissions reduction/climate change regulations and policies/strategies. Therefore, the proposed Project would have less-than-significant impacts, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX.	**HAZARDS AND HAZARDOUS MATERIALS** **Would the project:**				
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

Discussion:

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-Significant Impact. Some hazardous materials, such as diesel fuel, would be used during construction and operation. The use of such materials would only be present during construction and would be required infrequently during operation on an as-needed basis. No

hazardous materials would be transported to the site because vehicles would be fueled and serviced off-site. Given that relatively small quantities of hazardous materials would be used during Project construction and operation, and would be typical of routine vehicle and equipment uses, hazards to the public or environment would result from the use of these materials would be less than significant. Therefore, impacts would be less than significant, and no mitigation measures are required.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

No Impact. The proposed Project involves the development of trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, discovery interpretive panels, and picnic tables within existing recreational trails, which would not create hazards related to accidents involving hazardous materials. No hazardous materials would be stored on site during construction or operation of the proposed Project. Daily operation of the DVCA would not result in a new hazard to the public or the environment. Therefore, no impacts would occur, and no mitigation measures are required.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. There are no schools within one-quarter mile of the proposed Project. No impacts would occur, and no mitigation measures are required.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The Project site is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC, 2025; SWRCB, 2025). The proposed Project would not create a significant hazard to the public or the environment. Therefore, no impacts would occur, and no mitigation measures are required.

e. Would the project for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The closest airport to the Project site is the Palm Springs International Airport, located approximately 23 miles to the southwest. No impacts would occur, and no mitigation measures are required.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, because use of the site would be limited to outdoor recreation and is not anticipated to generate large volumes of traffic. No impact would occur, and no mitigation measures are required.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less-than-Significant Impact. As discussed in Section XX (Wildfire), the Project site is not located within a moderate, high, or very high fire hazard severity zone (FHSZ) and is located approximately 0.5 mile east of the nearest moderate FHSZ in Joshua Tree (CAL FIRE, 2025). Construction activities would not pose a substantial risk of wildfire, as the Project would comply with federal and State regulations for construction fire safety. The nearest fire station, Fire Station 36, is located at 6715 Park Boulevard in Joshua Tree, approximately 1.5 miles northwest, and would provide sufficient fire protection services in the event of a fire during construction or operation. Once operational, the proposed Project would not introduce a new risk of fire hazards, as open flames and other flammable materials would be prohibited on-site during operations. Therefore, the proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Therefore, impacts would be less than significant, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X.	**HYDROLOGY AND WATER QUALITY** **Would the project:**				
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	(i) result in substantial erosion or siltation on- or off-site;			X	
	(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X	
	(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
	(iv) impede or redirect flood flows?			X	
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Discussion:

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less-than-Significant Impact. Water pollutants could be generated, including soil sediment and petroleum-based fuels or lubricants associated with equipment used primarily during Project construction. If not properly addressed, stormwater pollution and erosion may occur, which could affect surface water quality during construction. Impacts to water quality during construction would be minimized through implementation of standard erosion control measures (e.g., silt fence, sediment traps, and fiber rolls), as well as standard measures that would be implemented during maintenance activities. Therefore, this impact would be less than significant, and no mitigation measures are required.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less-than-Significant Impact. Construction of the proposed Project would not require dewatering of groundwater or substantial use of any groundwater supplies, as water requirements during construction would be minimal and temporary, primarily limited to dust control and restroom use for construction workers. Operation of the proposed Project would not withdraw groundwater from an aquifer or groundwater table and would not substantially deplete groundwater supplies or interfere with groundwater recharge, as no water service is proposed for operations. Therefore, impacts related to decreasing groundwater supplies or interfering with groundwater recharge would be less than significant, and no mitigation measures are required.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

Less-than-Significant Impact. The proposed Project would require minor excavation and grading, potentially resulting in temporary erosion or siltation. BMPs for erosion and sediment control could include practices such as preserving existing vegetation, mulching, hydroseeding, using geotextiles, and installing sediment traps, fiber rolls, and gravel bag berms. These standard BMPs would ensure that erosion and siltation impacts would be less than significant.

Although the Project would involve a small amount of paving, it would be minimal, such that site drainage patterns would not substantially change. Any exposed soil from the minor excavation and grading would be covered with the proposed structures. The site topography would be restored similar to existing conditions, with no substantial increase in impervious surfaces, and substantial erosion or siltation would not occur. There would be no streams or rivers that would be altered. Therefore, impacts would be less than significant, and no mitigation measures are required.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite

Less-than-Significant Impact. As described above, the site topography would be restored similar to existing conditions after the installation of the few proposed structures, and the site would

remain minimally developed (i.e., no large structures or paved areas) with no substantial changes to site drainage patterns. Therefore, surface runoff rates would remain similar to existing conditions, and impacts would be less than significant. No mitigation measures are required.

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less-than-Significant Impact. Minimal ground disturbance required during construction for grading and excavation and the presence of construction equipment may temporarily contribute to polluted runoff. Implementation of BMPs would address runoff pollution during construction.

Due to the limited proposed paving and infrequent maintenance activities, operation of the proposed Project would not create or contribute a substantial increase in runoff water capable of exceeding the capacity of existing or planned stormwater drainage systems, or create substantial polluted runoff. Therefore, impacts would be less than significant, and no mitigation measures are required.

(iv) impede or redirect flood flows?

Less-than-Significant Impact. The Project site is within an Area of Undetermined Flood Risk (Zone D) per the Federal Emergency Management Agency (FEMA) Flood Map Service Center (FEMA, 2023). Project activities would not interfere with potential flood flows such that they would be impeded or redirected, given the relatively minimal development associated with the proposed recreational improvements. Therefore, impacts would be less than significant, and no mitigation measures are required.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less-than-Significant Impact. There are no bodies of water, such as lakes or oceans, near the Project site that could cause a seiche or tsunami. The proposed Project would not construct any structures or involve operations that would release a substantial amount of pollutants, and it would not exacerbate flood risk. Therefore, impacts relating to the risk of release of pollutants in a flood hazard, tsunami, or seiche zone would be less than significant, and no mitigation measures are required.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-Significant Impact. The proposed Project is required to comply with the Clean Water Act, Porter-Cologne Water Quality Control Act, and the Water Quality Control Plan for the Colorado River Basin Region. Construction and postconstruction BMPs would be implemented to meet the requirements of these permits. Therefore, this impact would be less than significant, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI.	**LAND USE AND PLANNING** **Would the project:**				
a.	Physically divide an established community?				X
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

Discussion:

a. Would the project physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a linear feature, such as a major highway or railroad tracks, or removal of a means of access, such as a local road or bridge, that would impair mobility within an existing community or between a community and outlying area. The proposed Project would construct and operate minor recreational facilities, including trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, interpretive panels, and picnic tables. Existing trails would be maintained and improved where needed, and no new trail segments would be constructed that would physically divide an established community. No residential communities exist within the Project boundaries. Existing local roads would remain open to facilitate continuous mobility. As such, the Project would not create a barrier that could divide the surrounding community. Therefore, no impact would occur, and no mitigation measures are required.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed Project would be subject to the policies and ordinances of the San Bernardino County Countywide Plan and Joshua Tree Community Action Guide. According to the San Bernardino County Countywide Plan, the Project site is zoned as Joshua Tree/Open Space and designated as Open Space (San Bernardino County, 2020b).

Construction and operation of the proposed Project would not conflict with the designated zoning or land use, as they would only improve the existing recreational use of the DVCA. As noted in Section 1.2, Anticipated Permits and Coordination, coordination with several regulatory State and local/regional agencies would be required to allow for construction, operation, and maintenance of the proposed Project. As such, the proposed Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, no impact would occur, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII.	**MINERAL RESOURCES** **Would the project:**				
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?				X
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

Discussion:

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

No Impact. The Project site is not currently being used for mineral resource extraction and is not known as a mineral resource area that is of value to the region and State residents. Furthermore, the Project site is not identified in the County of San Bernardino General Plan, Mineral Resources Element as a Mineral Resource Zone (County of San Bernardino, 2020b). The proposed Project would develop a formal educational trail system to enhance existing recreational uses on the Project site. As such, no impact would occur, and no mitigation measures are required.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The Project site has not been used or designated as a mineral resource recovery site. No impact would occur, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.	**NOISE** **Would the project result in:**				
a.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b.	Generation of excessive groundborne vibration or groundborne noise levels?			X	
c.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Discussion:

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?

Less-than-Significant Impact. Project construction activities are estimated to be completed over approximately 160 days, which could result in increases in ambient noise levels in the Project area on a short-term basis due to the use of construction equipment. However, noise generated by the construction of the proposed Project would be temporary, and no permanent noise sources would be created during operations. Additionally, the nearest residential area is over 500 feet west of the Project, resulting in minimal exposure of persons to increased noise levels that would only be limited to nearby recreational users. Therefore, impacts during construction would be less than significant.

During operations, the Project site would continue to operate as part of DVCA and provide additional recreational components and improvements. No new operational noise would be generated. Operational noise levels would remain similar to existing ambient noise levels. Operational noise impacts would be negligible given the type of activities that would be allowed and the distance to residential areas (over 500 feet west). As such, on-site noise from operations would not result in a substantial permanent increase in ambient noise levels and operational impacts would be less than significant. No mitigation measures are required.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. Vibration from routine construction equipment and activities might be perceptible to people in the immediate vicinity of construction activities, which would include recreational users. Minor excavation and compacting restored ground surfaces and the passing of heavy trucks on uneven surfaces could each create perceptible vibration in the immediate vicinity of the activity. Other possible sources of substantial vibration, such as an impact activity like pile driving or use of explosives for rock blasting, are not a part of the proposed Project.

As discussed above, Project construction activities are estimated to be completed over approximately 160 days, which could result in increases in ambient noise levels in the Project area on a short-term basis due to the use of construction equipment. However, groundborne noise and vibration generated by the construction of the proposed Project would be temporary, and no permanent noise sources would be created. The nearest residential area is over 500 feet west of the Project; as such, any groundborne noise or vibration would substantially dissipate over this distance.

Operation of the proposed Project would not generate new operational groundborne noise or vibration; operational noise is expected to remain the same as baseline noise levels because the Project would not expand the capacity of DVCA or attract a substantial number of new visitors. As such, construction and operation of the proposed Project would not result in excessive groundborne vibration or groundborne noise levels, and impacts would be less than significant. No mitigation measures are required.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project site is not located within an airport land use plan. The nearest public airport is the Palm Springs International Airport, located approximately 23 miles to the southwest. Given the distance between the Project site and the airport, the Project would not expose the public or workers in the area to excessive noise levels due to a public airport or public use airport. No impact would occur, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV.	**POPULATION AND HOUSING** **Would the project:**				
a.	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Discussion:

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The proposed Project would include recreational improvements to the DVCA. The proposed Project would not add additional housing or create jobs that would induce population growth. No impact would occur, and no mitigation measures are required.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere because the Project site is an existing recreational area. All construction and operational activities would occur within the DVCA. Therefore, no impacts would occur and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV.	**PUBLIC SERVICES** Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
a.	Fire protection?			X	
b.	Police protection?			X	
c.	Schools?				X
d.	Parks?			X	
e.	Other public facilities?				X

Discussion:

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

a. Fire Protection

Less-than-Significant Impact. The Project would not result in the provision of or need for new or physically altered facilities, as no new major structures such as housing would be developed, and a substantial increase in population would not occur as a result of the Project. Fire protection is provided by the San Bernardino County Fire Department. The closest fire station to the Project site is Fire Station 36, located at 6715 Park Boulevard in Joshua Tree, approximately 1.5 miles northwest. Therefore, the proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection. As such, impacts would be less than significant, and no mitigation measures are required.

b. Police Protection

Less-than-Significant Impact. The Project would not result in the provision of or need for new or physically altered facilities, and a substantial increase in population would not occur as a result of the Project. The San Bernardino County Sheriff provides police services to the Joshua Tree community. The closest sheriff station is located at 6602 White Feather Road in Joshua Tree, approximately 2 miles northwest of the Project site. The proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered

governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection. As such, impacts would be less than significant, and no mitigation measures are required.

c. Schools

No Impact. The need for new schools is generally associated with an increase in the school-aged population or a decrease in the accessibility and availability of existing schools. Residential development would not occur under the proposed Project, and the school-aged population would not increase. As such, construction and operation of the proposed Project would not significantly affect the operation of existing school facilities, and new or physically altered facilities would not be needed. Therefore, no impact would occur, and no mitigation measures are required.

d. Parks

Less-than-Significant Impact. The proposed Project would develop trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, discovery interpretive panels, and picnic tables across at the DVCA. These improvements would not result in a substantial increase in recreational visitors such that new or physically altered governmental facilities would need to be constructed to meet acceptable service ratios, response times, or other performance objectives for any public service. Impacts would be less than significant, and no mitigation measures are required.

e. Other Public Facilities

No Impact. As previously discussed in Section XIV(a), the proposed Project does not include development that would induce substantial unplanned population growth that would increase the use of libraries, community centers, hospitals, or other public facilities. As such, a substantial increase in the use of these public facilities would not occur, and would not result in the provision of or need for new or physically altered facilities. Therefore, no impacts on other public facilities would occur, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI.	**RECREATION**				
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?			X	

Discussion:

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The proposed Project would develop trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, discovery interpretive panels, and picnic tables at the DVCA. It would not increase the use of existing neighborhood and regional parks. The proposed trail system would provide educational and recreational opportunities. A beneficial impact to recreation would occur. Therefore, no impacts would occur, and no mitigation measures are required.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less-than-Significant Impact. As discussed in Section XIV(a), Population and Housing, the proposed Project would not impact the area's population, and thus no increase in the demand for recreational facilities would occur. The trail directional signage, mileage posts, informational kiosks, habitat shelters, viewing platforms, discovery interpretive panels, and picnic tables would be designed to blend in with the natural surroundings in order to maintain the existing character of the site and minimize potential adverse physical effects. Therefore, impacts on the physical environment would be less than significant, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII.	**TRANSPORTATION** **Would the project:**				
a.	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b.	Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?			X	
c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d.	Result in inadequate emergency access?			X	

Discussion:

a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less-than-Significant Impact. The San Bernardino County Countywide General Plan Transportation and Mobility Element establishes goals and policies including the following: maintaining adequate roadway capacity, establishing road design standards, minimizing vehicle miles traveled, providing improvements that allow for alternatives to private car usage, maintaining a transportation system that supports the logistics industry and minimizes congestion, and establishing a network of airports to meet aviation needs (San Bernardino County, 2020). Access to the Project site and staging areas would be provided primarily by Quail Springs Road, Park Boulevard, Onaga Trail, and Larkspur Avenue. No lane closures or detours would be required during construction.

Operations at the Project site would be similar to existing recreational day use. Therefore, the proposed Project would not require the alteration or construction of new roadways or other features that would conflict with the existing circulation system. The Southern California Association of Governments' Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) identifies a forecasted regional development pattern coupled with transportation measures and policies. Because the proposed Project would not conflict with the local transportation network, the proposed Project would be consistent with the RTP/SCS. The proposed Project would not conflict with a program, plan, ordinance or policy addressing the circulation system. Therefore, impacts would be less than significant, and no mitigation measures are required.

b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?

Less-than-Significant Impact. State CEQA Guidelines Section 15064.3 subdivision (b) provides criteria for analyzing transportation impacts. The guidelines state that vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact.

The intent of State CEQA Guidelines Section 15064.3, subdivision (b)(1) and CEQA Screening Thresholds for Land Use Projects is to assess whether a land use project would have a potentially significant transportation impact. The thresholds include a screening threshold for small projects to determine if a project should be expected to cause a less-than-significant impact or if a more detailed analysis is needed, stating:

> *Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact (OPR, 2018).*

For the purposes of this analysis, the CEQA screening threshold of 110 vehicle trips per day is being applied to automobile, light duty truck, and heavy-duty truck trips. Peak construction trips are estimated to be approximately 62 trips per day, and peak operation trips are estimated to be approximately 50 trips per day. These trips would be well below the threshold of 110 or more daily vehicle trips during construction or operation. For this reason, the proposed Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Therefore, the proposed Project would result in a less-than-significant impact, and no mitigation measures are required.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed Project does not include any modifications to existing roads or construction of new roads that may have hazardous designs. No new intersections or changed traffic conditions would occur as a result of the proposed Project. The proposed Project does not include incompatible uses, as it would be consistent with existing operations at the Project site. Therefore, no impacts would occur, and no mitigation measures are required.

d. Would the project result in inadequate emergency access?

Less-than-Significant Impact. During construction, vehicles would travel on local roads including Quail Springs Road, Park Boulevard, Onaga Trail, and Larkspur Avenue to access the Project site to transport materials, construction equipment, and workers. Construction equipment and vehicles may impede emergency access on these local roads. However, this effect would be temporary and intermittent, as construction activities would be limited to the hours of 8:00 a.m. and 6:00 p.m. and last approximately 160 days. Additionally, notification would be provided to emergency service providers to ensure that emergency response is not impaired. While construction vehicles and equipment would be accessing the Project site during construction, no road closures or long-term interruptions would occur such that emergency access to and from the area would be rendered inadequate. The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, because the site has minimal traffic that would not impact road capacity in the area. Any potential temporary impacts to emergency access would cease during operations, as operations would

consist of the movement of regular passenger vehicles and trucks. Therefore, the proposed Project would result in a less-than-significant impact, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII.	**TRIBAL CULTURAL RESOURCES** Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a.	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or		X		
b.	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

Background on Tribal Cultural Resources

Tribal Cultural Resources (TCRs) is a newly defined class of resources under Assembly Bill (AB) 52. TCRs include sites, features, places, cultural landscapes, and sacred places or objects that have cultural value or significance to a California Native American tribe (Tribe). To qualify as a TCR, the resource must either: (1) be listed on, or be eligible for listing on, the CRHR or other local historic register; or (2) constitute a resource that the lead agency, at its discretion and supported by substantial evidence, determines should be treated as a TCR (PRC Section 21074). AB 52 also states that tribal representatives are considered experts appropriate for providing substantial evidence regarding the locations, types, and significance of TCRs within their traditional and cultural affiliated geographic areas. Therefore, the identification and analysis of TCRs should involve government-to-government tribal consultation between the CEQA lead agency and interested tribal groups and/or tribal persons. (PRC Section 21080.3.1(a)).

Approach to Analysis of Tribal Cultural Resources

Information presented in this section was gathered through AB 52 government-to-government consultation between San Bernardino County Department of Public Works, Special Districts and the California Native American Tribes that have cultural affiliations with the Project site and that have requested to consult on the proposed Project. Supplementary information was gathered from the cultural resources literature and records search and the NAHC SLF search.

Project Notification

AB 52 requires that within 14 days of the lead agency determining that a project application is complete, a formal notice and invitation to consult about the proposed Project is to be sent to all tribal representatives who have requested, in writing, to be notified of projects that may have a significant effect on TCRs located within the proposed Project area (PCR Section 21080.3.1(d)).

AB 52 notification letters were sent to the following tribes identified by the NAHC Native American Contact List on August 11, 2025:

- Agua Caliente Band of Cahuilla Indians
- Augustine Band of Cahuilla Indians
- Cabazon band of Cahuilla Indians
- Cahuilla Band of Indians
- Los Coyotes Band of Cahuilla and Cupeno Indians
- Morongo band of Mission Indians
- Quechan Indian Tribe of the Fort Yuma Reservation
- Ramona Band of Cahuilla
- San Manuel Band of Mission Indians
- Santa Rosa Band of Cahuilla Indians
- Serrano Nation of mission Indians
- Soboba Band of Luiseno Indians
- Torrez-Martinez Desert Cahuilla Indians
- Twenty-Nine Palms Band of Mission Indians

AB 52 Tribal Consultation

The NAHC SLF search results were negative, and no resource has been determined by the lead agency, in its discretion, to be a TCR. However, several requests to consult were received from the of the above listed tribes within the 30-day response time. The Quechan Indian Tribe of the Fort Yuma Reservation, the Agua Caliente Band of Cahuilla Indians, and the Yuhaaviatam of San Manuel Nation (YSMN, also known as the San Manuel Band of Mission Indians), and the Twenty-Nine Palms Band of Mission Indians all responded to AB 52 consultation. Details of each tribe's consultation can be found below.

Quechan Indian Tribe of the Fort Yuma Reservation

On August 19, 2025 the Quechan Indian Tribe of the Fort Yuma Reservation responded to formal AB 52 consultation by deferring to local tribes, stating they do not wish to comment on the Project.

Agua Caliente Band of Cahuilla Indians

On August 21, 2025 the Agua Caliente Band of Cahuilla Indians (Agua Caliente) responded to formal AB 52 consultation requesting formal government to government consultation on the Project. The Agua

Caliente requested full design plans for the Project for review. On August 29, 2025, Agua Caliente completed its review and stated they have no further requests or comments at this time.

Yuhaaviatam of San Manuel Nation (San Manuel Band of Mission Indians)

On August 29, 2025, the YSMN responded to formal AB 52 consultation requesting they be provided with the completed Cultural Report, including Department of Parks and Recreation forms for sites identified, the Geotechnical Report, and Project plans showing the depth of the disturbance. On September 2, 2025 after reviewing the relevant information, the YSMN responded stating that the has a high potential for inadvertent discoveries, and the Tribe would like to incorporate mitigation measures in addition to those measures in the Cultural Resource section (see Section V) to manage the impact.

Twenty-Nine Palms Band of Mission Indians

On September 12, 2025, the Twenty-Nine Palms Band of Mission Indians determined that the Project is within the Chemehuevi Traditional Use Area. The Tribe noted that presently, no known cultural resources are located within the Project Area of Potential Effect, but there exists the possibility of surface and/or buried archaeological materials. The Tribe requests that Special Districts follows specific conditions for all cultural resources on any developmental plans or entitlement applications, later clarifying that they request that MM CUL-2 (Archaeological Monitoring) and MM CUL-3 (Inadvertent Discovery of Cultural Remains) be required. The tribe also requested that they be notified and any inadvertent discoveries. On October 9, 2025, Twenty-Nine Palms Band of Mission Indians confirmed they have no further comments.

Discussion:

Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or

Less than Significant with Mitigation Incorporated. As discussed above, the NAHC SLF search yielded negative results and the responses to AB 52 notifications did not indicate the presence of any Tribal Cultural Resources (TCR) within the Project area; however, the potential for inadvertent discoveries is high. Due to this, MMs CUL-1 (Worker Environmental Awareness Program), CUL-2 (Archaeological Monitoring), CUL-3 (Inadvertent Discovery of Cultural Remains), CUL-4 (Treatment of Human Remains), and TCR-1 (Treatment of Cultural Resources During Project Implementation) would be implemented. Therefore, with mitigation incorporated, there would be a less-than-significant impact.

MM CUL-1 Worker Environmental Awareness Program. See the full text of this measure under Section V(a).

MM CUL-2 Archaeological Monitoring. See the full text of this measure under Section V(a).

MM CUL-3 Inadvertent Discovery of Cultural Remains. See the full text of this measure under Section V(a).

MM CUL-4 Treatment of Human Remains. See the full text of this measure under Section V(a).

MM TCR-1 Treatment of Cultural Resources During Project Implementation. If a pre-contact cultural resource is discovered during Project implementation, ground disturbing activities shall be suspended 60 feet around the resource(s), and an Environmentally Sensitive Area physical demarcation/barrier constructed.

The Project Archaeologist shall develop a research design that shall include a plan to evaluate the resource for significance under CEQA criteria. Representatives from Yuhaaviatam of San Manuel Nation (YSMN), the Archaeologist, and the Lead Agency shall confer regarding the research design, as well as any testing efforts needed to delineate the resource boundary. Following the completion of evaluation efforts, all parties shall confer regarding the resource's archaeological significance, its potential as a Tribal Cultural Resource (TCR), and avoidance (or other appropriate treatment) of the discovered resource. Removal of any cultural resource(s) shall be conducted with the presence of a Tribal monitor representing the Tribe, unless otherwise decided by YSMN. All plans for analysis shall be reviewed and approved by the applicant and YSMN prior to implementation, and all removed material shall be temporarily curated on-site.

It is the preference of YSMN that removed cultural material be reburied as close to the original find location as possible. However, should reburial within/near the original find location during Project implementation not be feasible, then a reburial location for future reburial shall be decided upon by YSMN, the landowner, and the Lead Agency, and all finds shall be reburied within this location. Additionally, in this case, reburial shall not occur until all ground disturbing activities associated with the Project have been completed, all monitoring has ceased, all cataloguing and basic recordation of cultural resources have been completed, and a final monitoring report has been issued to the Lead Agency, California Historical Resources Information System (CHRIS), and YSMN. All reburials are subject to a reburial agreement that shall be developed between the landowner and YSMN outlining the determined reburial process/location, and shall include measures and provisions to protect the reburial area from any future impacts.

Should it occur that avoidance, preservation in place, and on-site reburial are not an option for treatment, the landowner shall relinquish all ownership and rights to this material and confer with YSMN to identify an American Association of Museums-accredited facility within the County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 California Curation Guidelines. A curation agreement with an appropriate qualified repository shall be developed between the landowner and museum that legally and physically transfers the collections and associated records to the facility. This agreement shall stipulate the payment of fees necessary for permanent curation of the collections and associated records and the obligation of the Project developer/applicant to pay for those fees.

All draft records/reports containing the significance and treatment findings and data recovery results shall be prepared by the Archaeologist and submitted to the Lead Agency and YSMN for their review and comment. After approval from all parties, the final reports and site/isolate records are to be submitted to the local CHRIS Information Center, the Lead Agency, and YSMN.

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant with Mitigation Incorporated. As discussed above, the NAHC SLF search yielded negative results, and responses to AB 52 notifications did not indicate the presence of any TCRs within the Project area. However, the potential for inadvertent discoveries is high. As a result, MMs CUL-1 (Worker Environmental Awareness Program), CUL-2 (Archaeological Monitoring), CUL-3 (Inadvertent Discovery of Cultural Remains), CUL-4 (Treatment of Human Remains), and TCR-1 (Treatment of Cultural Resources During Project Implementation) would be implemented. Therefore, with mitigation incorporated, the impact would be less than significant.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX.	**UTILITIES AND SERVICE SYSTEMS Would the project:**				
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
d.	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Discussion:

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less-than-Significant Impact. Proposed Project construction would not require or result in the relocation or construction of new or expanded facilities. During operations, the proposed Project would not generate wastewater or require expanded electrical power, natural gas, or telecommunications facilities. No impacts would occur, and no mitigation measures are required.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less-than-Significant Impact. The proposed Project would require water supplies during construction primarily for dust suppression. However, the demand for water supplies would be temporary and only occur during the approximately 160-day construction period. As such, water demand during construction would not require new or expanded water supply resources. Operation of the proposed Project would not result an increase in demand for water, as no new water sources would be provided at the Project site. Therefore, the proposed Project would result in a less-than-significant impact, and no mitigation measures are required.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The proposed Project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, as operation of the proposed Project would not increase the demand for wastewater treatment. Therefore, no impacts would occur and no mitigation measures are required.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-Significant Impact. Construction activities would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure. During operations, waste generated by the Project would be primarily limited to green waste and small amounts of trash. Operations would not generate a large quantity of solid waste in excess of the capacity of local infrastructure. The proposed Project is served by the Landers Sanitary Landfill, which has sufficient permitted capacity to accommodate the Project's solid waste disposal needs. Therefore, no impacts would occur and no mitigation measures are required.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The proposed Project would comply with all federal, state, and local statutes and regulations related to solid waste. The Project would consist of short-term construction activities (with short-term waste generation limited to minor quantities of construction debris) and thus would not result in long-term solid waste generation. Operations would not generate a large quantity of solid waste in excess of the capacity of local infrastructure. Therefore, no impacts would occur, and no mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX.	**WILDFIRE** If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, **would the project:**				
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?			X	
c.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed Project would not cause any changes that would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Roadways accessing the trailhead sites are not part of an adopted or designated emergency evacuation route or plan. Trail development for the Project would not block ingress or egress on any roadway, or alter any existing evacuation route. Therefore, no impacts would occur, and no mitigation measures are required.

b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

Less-than-Significant Impact. The Project site is in a primarily open, undeveloped setting in the western Mojave Desert. This region is characterized by rugged terrain and vegetated by desert scrub and Joshua tree woodlands. It is not located within a moderate, high, or very high fire hazard severity zone (FHSZ) and is located approximately 0.5 mile east of the nearest moderate FHSZ in Joshua Tree (CAL FIRE, 2025). Construction activities would not pose a substantial risk of wildfire, as the Project would comply with federal and State regulations for construction fire safety, such

as requiring spark arrester protection in vehicles to reduce the potential of ignition. The nearest fire station, Fire Station 36, is located at 6715 Park Boulevard in Joshua Tree, approximately 1.5 miles northwest, and would provide sufficient fire protection services in the event of a fire during construction or operation. Once operational, the proposed Project would not introduce a new risk of fire hazards, as open flames and other flammable materials would be prohibited on-site during operations. Therefore, the Project would have a less-than-significant impact on exacerbating wildfire risks and exposing people to pollutants from a wildfire, and no mitigation measures are required.

c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less-than-Significant Impact. The proposed Project would develop trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, discovery interpretive panels, and picnic tables that would not exacerbate the risk of fire. Construction activities would occur along existing trails, and the Project would comply with federal and State regulations for construction fire safety. As described in Section XX(b), the proposed improvements would not pose a risk of fire hazards, as the Project is not located within a FHSZ. Typical maintenance of the trail system would include the use of maintenance trucks on existing trails and would not exacerbate the risk of fire. As a result, impacts would be less than significant, and no mitigation measures are required.

d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less-than-Significant Impact. The proposed Project is not located within a moderate, high, or very high FHSZ and is approximately 0.5 mile east of the nearest moderate FHSZ in Joshua Tree (CAL FIRE, 2025). While the Project is in a primarily minimally developed desert setting that is vulnerable to wildfire hazards and post-wildfire topographical instability, camping, fires, motorized recreational vehicles, motorcycles, bicycles, and trailblazing would be strictly prohibited in the Project site. No people or occupied structures would be located nearby that could be exposed to downslope hazards. Additionally, the California Department of Conservation (DOC) Earthquake Zones of Required Investigation map indicates that the Project does not fall within a landslide zone (DOC, 2025). Therefore, the Project would have a less-than-significant impact on exposing people and structures to downslope flooding or landslides as a result of post-fire slope instability and drainage changes. No mitigation measures are required.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI.	**MANDATORY FINDINGS OF SIGNIFICANCE**				
a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c.	Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion:

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. As discussed in Section IV, Biological Resources, the Project could have adverse direct and indirect impacts on candidate, sensitive, or special-status species through plant removal or disturbance, soil compaction, temporary increase of human presence, construction equipment use, and other construction activities. Implementation of MMs BIO-1 through BIO-12 would reduce impacts to a less-than-significant level.

As discussed in Section V (Cultural Resources), a record search and NAHC SLF search were conducted, and a review of the NRHP, CRHR, Historic Resources Inventory, and local inventories was conducted. The record searches and literature reviews did not show the presence of any

previously recorded cultural resources within the Project site, and the SLF search produced negative results. As discussed in Section V(a), the proposed Project would involve ground disturbing activities that may still potentially impact unknown buried resources that may be considered significant under CEQA. Implementation of MMs CUL-1 (Worker Environmental Awareness Program), CUL-2 (Archaeological Monitoring), CUL-3 (Inadvertent Discovery of Cultural Remains), and CUL-4 (Treatment of Human Remains) would reduce impacts to unknown resources to a less-than-significant level. As such, impacts to major examples of California history or prehistory would be less than significant with mitigation.

With mitigation, the proposed Project would have less-than-significant impacts regarding the potential to degrade the quality of the environment, reduce habitat and wildlife populations, eliminate plant or animal communities, reduce the range of special-status species, and eliminate California historical resources.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less-than-Significant Impact. As discussed in each issue area in Sections I through XX, the proposed Project would not have any significant impacts. Furthermore, given the relatively limited size, localized impacts, remote location of the Project, and brief duration of construction, the Project would not contribute incrementally to cumulative impacts. Generally, contributions to air quality and greenhouse gas emissions impacts are cumulative due to the regional and global nature of air pollution and climate change, respectively. As described in Sections III (Air Quality) and VIII (Greenhouse Gas Emissions), the proposed Project would have less-than-significant impacts to these issue areas. All projects in the region would comply with applicable laws, further reducing their cumulative impacts to air quality and greenhouse gas emissions. Therefore, the proposed Project would not have a cumulatively considerable impact regarding these issues. Impacts are less than significant, and no mitigation measures are required.

c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?

Less-than-Significant Impact. Based on the analyses in Sections I through XX, the proposed Project would not have significant impacts that would cause substantial adverse effects on human beings, either directly or indirectly. All impacts related adverse effects on human beings, such as aesthetics, air quality, greenhouse gases, hazards and hazardous materials, hydrology and water quality, noise, and wildfire are less than significant with no mitigation measures required.

3.4 MITIGATION MEASURES

The following mitigation measures were identified for the proposed Project.

MM BIO-1 Qualified Biologist. A Qualified Biologist shall monitor the construction crew and remain on site during initial ground disturbing and vegetation removal, or when heavy equipment is being operated. The Qualified Biologist shall ensure that impacts to special-status species and other sensitive biological resources are avoided. The Qualified Biologist shall have the authority, and obligation, to immediately stop any activity that could impact special-status species and other sensitive biological resources or that does not comply with proposed mitigation measures.

At a minimum, the responsibilities of the Qualified Biologist shall include:

- Implementing a Worker Environmental Awareness Program (WEAP) for all construction personnel prior to conducting any work in sensitive areas. This will also include daily morning training to remind crews of the sensitive resources that occur in the Project site.
- Conduct daily pre-construction sweeps within the designated work area prior to the start of any ground-disturbing activities. These sweeps will be performed by a qualified biologist to ensure that no special-status plant or wildlife species, including nesting birds, are present.
- Ensuring the proposed mitigation measures and any additional regulatory permit conditions are properly implemented.
- Ensuring that all Project activities occur within approved project limits and access roads.
- Inspecting all open holes and trenches daily and just prior to back-filling or covering and ensuring all open excavations are backfilled prior to crews leaving the work area.
- Immediately stop work if any special-status wildlife species are observed within 50 feet of active work areas and ensure that no work activities occur until the animal has left the area under its own volition.

MM BIO-2. Worker Environmental Awareness Program (WEAP). A WEAP training shall be prepared and provided to all Project personnel prior to the commencement of any on-site activities. The training shall include an overview of special-status species (i.e. protected plants, wildlife, and nesting birds) that are known to occur or have the potential to occur within the Project site. It will also cover sensitive habitat types, applicable regulatory requirements, and the specific mitigation measures that must be followed during construction to prevent unauthorized impacts. The WEAP shall emphasize the roles and responsibilities of all personnel, the importance of complying with environmental permits, and the procedures for reporting wildlife encounters or environmental concerns. Upon completion of the training, all Project personnel shall be required to sign a log sheet confirming that they have received the training and understand the mitigation measures and environmental compliance expectations.

MM BIO-3. General Protection Measures. To minimize potential impacts to biological resources, the following general protection measures shall be implemented:

- All Project activities, including driving on access roads, shall occur during daylight hours.
- All litter and debris shall be removed from work areas daily.
- Domestic and working dogs are prohibited from the Project site, access routes during Project activities, except those in the possession of authorized security personnel or federal, state, or local law enforcement officials.
- No firearms, other than those of law enforcement personnel, shall be permitted within

the Project site at any time during construction.

- Wildlife encountered within the work areas shall be allowed to leave the work area unharmed.
- Pre-construction surveys for special status species shall be conducted by a qualified biologist within 30 days prior to the start of work.

MM BIO-4. Special-Status Plants. Pre-construction botanical surveys shall be conducted within the Project during the appropriate growing season prior to the initiation of Project activities. Surveys shall be performed by a qualified botanist in accordance with current California Department of Fish and Wildlife and California Native Plant Society protocols. If special-status plant species are identified during pre-activity botanical surveys, they shall be protected through the establishment of a clearly marked buffer zone. The buffer shall be of sufficient size as determined appropriately by a qualified botanist in consultation with regulatory agencies to avoid direct and indirect impacts. The buffer zone shall be maintained throughout the duration of Project activities to ensure the protection of the identified plant populations.

MM BIO-5. Western Joshua Tree. Prior to Project activities, San Bernardino County Department of Public Works – Special Districts shall work with California Department of Fish and Wildlife (CDFW) to ensure compliance with the Western Joshua Tree Conservation Act. If western Joshua trees are present within the project site and can be avoided, an Incidental Take Permit (ITP) will not be required. However, if during project implementation, it becomes necessary to impact a western Joshua tree, including its roots, an ITP shall be obtained from CDFW prior to any impact Additionally, prior to Project activities, a survey shall be conducted to determine the presence of western Joshua trees within the Project site prior to the start of ground-disturbing activities. Crews shall not allow vehicles, equipment, or materials to be parked, or placed on top of any western Joshua trees. Vehicles or equipment left within the Project site overnight shall be located at least 50 feet from all western Joshua trees. If a western Joshua tree is damaged because of the Project, the Designated Botanist(s) shall immediately notify CDFW of the damage.

MM BIO-6. Monarch Butterly. All milkweed plants shall be avoided to the maximum extent feasible during Project activities. If the removal or destruction of a milkweed plant cannot be avoided, the Qualified Biologist shall inspect the plant prior to activities to ensure that no monarch butterfly adults, larvae, or eggs are present. If monarch butterfly adults, larvae, or eggs are present, the plant shall be avoided.

MM BIO-7. Crotch Bumble Bee. A pre-construction survey shall be conducted no more than 14 days prior to the start of any ground-disturbing activities. Surveys shall be performed by a Qualified Biologist during the species' active season (typically late spring through early fall) and shall cover the entire Project footprint, including a 50-foot buffer. Surveys shall follow the most current guidance provided by California Department of Fish and Wildlife.

MM BIO-8. Desert Tortoise. A qualified biologist shall conduct pre-construction surveys no more than 14 days prior to the start of ground-disturbing activities. Surveys shall cover the entire Project footprint and a 50-foot survey buffer to identify any active burrows or individuals. If a burrow is determined to be active, the Qualified Biologist shall establish a no-disturbance buffer of 50 feet or greater around the burrow.

A Qualified Biologist shall be present during all ground-disturbing activities within desert tortoise habitat and shall stop work if a desert tortoise is detected at or within 50 feet of work activities, until the individual leaves on its own.

Lastly, within desert tortoise habitat, vehicles shall not exceed 15 miles per hour on access roads during periods of increased desert tortoise activity (March 1 through October 31). If a vehicle is parked, the ground around and under the vehicle shall be inspected for desert tortoises before the vehicle is moved. If a desert tortoise is present, the equipment or vehicle shall remain place until the desert tortoise moves 50 feet from the equipment or vehicle. All field personnel shall immediately inform the Qualified Biologist if a desert tortoise is seen during the implementation of any Project activity. Lastly, no desert tortoise shall be handled or disturbed.

MM BIO-9. Nesting Birds. If Project activities cannot occur outside the bird breeding season, then pre-construction surveys for active nests shall be conducted within 500 feet of the Project site no more than seven days before the initiation of construction that would occur between February 1 and August 15. Active nests must be monitored during construction. If Project activities disturb nesting, the Biological Monitor shall notify the construction manager. The Biological Monitor has the authority to implement measures to reduce disturbance in the vicinity. If Loggerhead shrike and Le Conte's thrasher nests are found during the survey, a 500-foot avoidance buffer shall be established. The avoidance buffer shall be maintained until the young have fledged.

MM BIO-10. Burrowing Owl. Within 14 days prior to the start of Project activities, a qualified biologist shall conduct burrowing owl (BUOW) surveys within 500 feet of the Project site. If an active burrow is detected, a 500-foot avoidance buffer shall be established around each burrow during the nesting season (February 1 through August 31). If active BUOW burrows are observed outside of the nesting season, a minimum 150-foot no-disturbance buffer shall be established around each burrow. Occupied burrows shall not be disturbed during the breeding season (February 1 through August 31) unless an approved biologist verifies, through non-invasive methods, that both 1) the birds have not begun egg-laying and incubation, and 2) that juveniles from the occupied burrow are foraging independently and are capable of independent survival. If BUOW are present and have a potential to be impacted by the Project, Special Districts shall obtain an Incidental Take Permit from California Department of Fish and Wildlife.

MM BIO-11. Desert Bighorn Sheep. If any desert bighorn sheep are observed during Project activities, work within 500 feet of the sheep would be halted, and activities would resume after the animal moves away on its own. Project activities shall also use noise-reducing construction methods as feasible and limit work to daylight hours to reduce disturbance. Lastly, Project activities that result in loud noises shall occur outside of the lambing season (January through June).

MM BIO-12. Kit Fox and Badger. Within 14 days prior to the start of Project activities, a qualified biologist shall conduct surveys for desert kit fox and American badger within the Project site, including a 500-foot survey buffer around the Project site. If an active desert kit fox den is identified during the breeding season (January 15 through September 15), a 500-foot avoidance buffer shall be established and no activities within the buffer will be allowed unless authorized by a Qualified Biologist. If activities occur outside of the breeding season and an active den is identified, a 150-foot avoidance buffer will be established, and no activities will be allowed within the buffer unless authorized by a Qualified Biologist. If an active American badger is identified, the den shall be protected with a 100-foot no-disturbance buffer.

MM CUL-1 **Worker Environmental Awareness Program.** Prior to the initiation of construction, all construction personnel shall be trained by a qualified archaeologist regarding the recognition of possible buried cultural resources (i.e., precontact and/or historical artifacts, objects, or features) and protection of all archaeological resources during construction. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural materials. All personnel shall be instructed that unauthorized removal or collection of artifacts is a violation of State law. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend the Worker Environmental Awareness Program, so they are aware of the potential for inadvertently exposing buried archaeological deposits.

MM CUL-2 **Archaeological Monitoring.** During initial ground disturbance within each of the seven recreational features in the Project site, a qualified archaeological monitoring shall be present to observe the initial ground disturbing activity. Monitoring frequency can be increased or decreased based on soil conditions and observations, in concurrence with San Bernardino County Department of Public Works, Special Districts.

MM CUL-3 **Inadvertent Discovery of Cultural Remains.** If previously unidentified cultural resources are uncovered during construction activities, construction work within 50 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist assesses the significance of the resource. The archaeologist, in consultation with the San Bernardino County Department of Public Works, Special Districts (Special Districts), shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the find(s) is found to be eligible to the National or California Registers, or qualify as a unique archaeological resource under CEQA (PRC Section 21083.2). If the find is determined to potentially be a Tribal Cultural Resource, local Native American tribes shall be contacted and included in decision making regarding the resource.

If the find(s) do(es) not meet the definition of a historical, unique archaeological, or Tribal Cultural Resource, no further study or protection is necessary prior to Project implementation. If the find meets the definition of a historical, unique archaeological, or Tribal Cultural Resource, then it shall be avoided by Project activities. If avoidance is not feasible, adverse effects to such resources shall be mitigated in accordance with the recommendations of the archaeologist. Recommendations shall include collection, recordation, and analysis of any significant cultural materials. A report of findings documenting any data recovery shall be submitted to the County of San Bernardino, Native American Heritage Commission (Tribal Cultural Resources), and the South Central Coastal Information Center (SCCIC).

Special Districts shall ensure that construction personnel do not collect or move any cultural material during implementation of the Project.

MM CUL-4 **Treatment of Human Remains.** All human remains discovered are to be treated with respect and dignity. Upon discovery of human remains, all work within 100 feet of the discovery area must cease immediately, disturbance must be avoided, and the area must be secured. The San Bernardino County Coroner's Office shall be called. The Coroner has 2 working days to examine the remains after notification. The appropriate land manager/owner of the site is to be called and informed of the discovery. It is very important that the suspected remains, and the area around them, are undisturbed and the proper authorities called to the scene as soon as possible, because it could be a crime scene. The Coroner shall determine if the remains are

archaeological/historic or of modern origin and whether there are any criminal or jurisdictional questions.

If the Coroner determines that the remains are archaeological/historic-era, the Coroner shall make recommendations concerning the treatment and disposition of the remains to the person responsible for the excavation, or to his or her authorized representative. If the Coroner believes the remains to be those of a Native American, he/she shall contact the Native American Heritage Commission (NAHC) by telephone within 24 hours.

The NAHC would immediately notify the person it believes to be the most likely descendant (MLD) of the remains. The MLD has 48 hours from the time given to access the site to make recommendations to the landowner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner does not accept the descendant's recommendations, the owner or the descendant may request mediation by NAHC.

According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).

MM TCR-1 Treatment of Cultural Resources During Project Implementation. If a pre-contact cultural resource is discovered during Project implementation, ground disturbing activities shall be suspended 60 feet around the resource(s), and an Environmentally Sensitive Area physical demarcation/barrier constructed.

The Project Archaeologist shall develop a research design that shall include a plan to evaluate the resource for significance under CEQA criteria. Representatives from Yuhaaviatam of San Manuel Nation (YSMN), the Archaeologist, and the Lead Agency shall confer regarding the research design, as well as any testing efforts needed to delineate the resource boundary. Following the completion of evaluation efforts, all parties shall confer regarding the resource's archaeological significance, its potential as a Tribal Cultural Resource (TCR), and avoidance (or other appropriate treatment) of the discovered resource. Removal of any cultural resource(s) shall be conducted with the presence of a Tribal monitor representing the Tribe, unless otherwise decided by YSMN. All plans for analysis shall be reviewed and approved by the applicant and YSMN prior to implementation, and all removed material shall be temporarily curated on-site.

It is the preference of YSMN that removed cultural material be reburied as close to the original find location as possible. However, should reburial within/near the original find location during Project implementation not be feasible, then a reburial location for future reburial shall be decided upon by YSMN, the landowner, and the Lead Agency, and all finds shall be reburied within this location. Additionally, in this case, reburial shall not occur until all ground disturbing activities associated with the Project have been completed, all monitoring has ceased, all cataloguing and basic recordation of cultural resources have been completed, and a final monitoring report has been issued to the Lead Agency, California Historical Resources Information System (CHRIS), and YSMN. All reburials are subject to a reburial agreement that shall be developed between the landowner and YSMN outlining the determined reburial process/location, and shall include measures and provisions to protect the reburial area from any future impacts.

Should it occur that avoidance, preservation in place, and on-site reburial are not an option for treatment, the landowner shall relinquish all ownership and rights to this material and confer with YSMN to identify an American Association of Museums-accredited facility within the County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 California Curation Guidelines. A curation agreement with an appropriate qualified repository shall be developed between the landowner and museum that legally and physically transfers the collections and associated records to the facility. This agreement shall stipulate the payment of fees necessary for permanent curation of the collections and associated records and the obligation of the Project developer/applicant to pay for those fees.

All draft records/reports containing the significance and treatment findings and data recovery results shall be prepared by the Archaeologist and submitted to the Lead Agency and YSMN for their review and comment. After approval from all parties, the final reports and site/isolate records are to be submitted to the local CHRIS Information Center, the Lead Agency, and YSMN.

4.0 LIST OF PREPARERS

Table 3. CEQA Lead Agency: San Bernardino County Department of Public Works, Special Districts

Name	Project Role
John Hernandez	Project Manager, Special Districts Division
Noel Mondragon	Division Manager, Special Districts Division
Michele Derry	Supervising Planner, San Bernardino Department of Public Works
Zachariah Smith	Planner III – Regulatory Specialist

Table 4. CEQA Consultant Team: Aspen Environmental Group

Name	Project Role
Stephanie Tang	Project Manager
Avery Robinson	Energy, Geology and Soils, Hydrology and Water Quality, Land Use and Planning, Noise, Transportation
Max Meyers	Aesthetics, Agriculture and Forest Resources, Hazards and Hazardous Materials, Mineral Resources, Population/Housing, Public Services, Recreation, Utilities and Service Systems, Wildfire
Rachael Dal Porto, PhD, PE	Air Quality, Greenhouse Gas Emissions
Justin Wood, MS	Biological Resources
Matthew Schaap	Biological Resources
Lauren DeOliveira, RPA	Cultural Resources, Tribal Cultural Resources
Michael Hoke	Cultural Resources, Tribal Cultural Resources
Kellie Keefe	Geographic Information Systems

5.0 LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
BMP	beset management practice
BUOW	burrowing owl
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CHRIS	California Historical Resources Information System
CO	carbon monoxide
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
DOC	Department of Conservation
DPM	diesel particulate matter
DVCA	Desert View Conservation Area
FEMA	Federal Emergency Management Agency
FHSZ	fire hazard severity zone
GHG	greenhouse gas
ITP	Incidental Take Permit
MDAQMD	Mojave Desert Air Quality Management District
MLD	most likely descendant
MM	mitigation measure
MT	metric tons
NAAQS	National Ambient Air Quality Standard
NAHC	Native American Heritage Commission
NOx	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
PM 2.5	particulate matter (diameter of 2.5 micrometers or less)
PM10	particulate matter (diameter of 10 micrometers or less)
RTP/SCS	Regional Transportation Plan and Sustainable Communities Strategy
SCCIC	South Central Coastal Information Center
SCS	Sustainable Communities Strategy
SLF	Sacred Lands File
SOx	sulfur oxides
TAC	toxic air contaminant
TCR	Tribal Cultural Resource
USGS	United States Geological Survey
WEAP	Worker Environmental Awareness Program
VMT	vehicle miles traveled
VOC	volatile organic compound
YSMN	Yuhaaviatam of San Manuel Nation

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Appendix A

Air Quality Emissions Calculations

DVCA Trails Detailed Report

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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	DVCA Trails
Construction Start Date	1/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	14.4
Location	34.08843078767214, -116.35800065214434
County	San Bernardino-Mojave Desert
City	Unincorporated
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5142
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.30

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Recreational	604	User Defined Unit	604	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.55	0.47	4.69	6.16	0.02	0.18	12.6	12.8	0.17	1.38	1.56	—	2,616	2,616	0.04	0.28	5.07	2,704
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.43	1.20	11.1	11.8	0.03	0.38	12.6	13.0	0.36	1.38	1.74	—	3,891	3,891	0.08	0.29	0.13	3,978
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.19	0.16	1.65	2.05	0.01	0.06	2.60	2.66	0.06	0.29	0.34	—	698	698	0.01	0.06	0.47	717
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.03	0.30	0.37	< 0.005	0.01	0.47	0.48	0.01	0.05	0.06	—	116	116	< 0.005	0.01	0.08	119

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.55	0.47	4.69	6.16	0.02	0.18	12.6	12.8	0.17	1.38	1.56	—	2,616	2,616	0.04	0.28	5.07	2,704

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.43	1.20	11.1	11.8	0.03	0.38	12.6	13.0	0.36	1.38	1.74	—	3,891	3,891	0.08	0.29	0.13	3,978
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.19	0.16	1.65	2.05	0.01	0.06	2.60	2.66	0.06	0.29	0.34	—	698	698	0.01	0.06	0.47	717
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.04	0.03	0.30	0.37	< 0.005	0.01	0.47	0.48	0.01	0.05	0.06	—	116	116	< 0.005	0.01	0.08	119

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.28	0.26	0.28	2.64	0.01	< 0.005	0.56	0.57	< 0.005	0.14	0.15	0.00	664	664	0.02	0.03	2.09	675
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25	0.23	0.30	2.00	0.01	< 0.005	0.56	0.57	< 0.005	0.14	0.15	0.00	606	606	0.02	0.03	0.05	615
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	0.15	0.23	1.63	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.11	0.00	484	484	0.01	0.02	0.71	492
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.03	0.04	0.30	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	0.00	80.2	80.2	< 0.005	< 0.005	0.12	81.4

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.28	0.26	0.28	2.64	0.01	< 0.005	0.56	0.57	< 0.005	0.14	0.15	—	664	664	0.02	0.03	2.09	675
Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.28	0.26	0.28	2.64	0.01	< 0.005	0.56	0.57	< 0.005	0.14	0.15	0.00	664	664	0.02	0.03	2.09	675
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.25	0.23	0.30	2.00	0.01	< 0.005	0.56	0.57	< 0.005	0.14	0.15	—	606	606	0.02	0.03	0.05	615
Area	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.25	0.23	0.30	2.00	0.01	< 0.005	0.56	0.57	< 0.005	0.14	0.15	0.00	606	606	0.02	0.03	0.05	615
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.16	0.15	0.23	1.63	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.11	—	484	484	0.01	0.02	0.71	492
Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.16	0.15	0.23	1.63	< 0.005	< 0.005	0.44	0.44	< 0.005	0.11	0.11	0.00	484	484	0.01	0.02	0.71	492
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.03	0.03	0.04	0.30	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	80.2	80.2	< 0.005	< 0.005	0.12	81.4
Area	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.03	0.04	0.30	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	0.00	80.2	80.2	< 0.005	< 0.005	0.12	81.4

3. Construction Emissions Details

3.1. Mobilization/Site Prep (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.35	3.73	6.85	0.01	0.12	—	0.12	0.11	—	0.11	—	1,055	1,055	0.04	0.01	—	1,058
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	11.8	11.8	< 0.005	1.18	1.18	—	30.3	30.3	< 0.005	< 0.005	< 0.005	31.8
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.9	28.9	< 0.005	< 0.005	—	29.0

Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.31	0.31	< 0.005	0.03	0.03	—	0.83	0.83	< 0.005	< 0.005	< 0.005	0.87
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.78	4.78	< 0.005	< 0.005	—	4.80
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.14
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.15	1.54	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	380	380	0.01	0.01	0.04	384
Vendor	0.01	0.01	0.33	0.14	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	313	313	< 0.005	0.04	0.02	325
Hauling	0.03	0.03	1.58	0.34	0.01	0.03	0.36	0.39	0.03	0.09	0.12	—	1,337	1,337	< 0.005	0.21	0.07	1,400
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.7	10.7	< 0.005	< 0.005	0.02	10.9
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.56	8.56	< 0.005	< 0.005	0.01	8.92
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.6	36.6	< 0.005	0.01	0.03	38.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.77	1.77	< 0.005	< 0.005	< 0.005	1.80

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.42	1.42	< 0.005	< 0.005	< 0.005	1.48
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.06	6.06	< 0.005	< 0.005	0.01	6.35

3.3. Trail Realignment and Manicuring (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	0.47	4.63	6.35	0.01	0.21	—	0.21	0.19	—	0.19	—	967	967	0.04	0.01	—	971
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	11.8	11.8	< 0.005	1.18	1.18	—	30.3	30.3	< 0.005	< 0.005	< 0.005	31.8
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	37.1	37.1	< 0.005	< 0.005	—	37.2
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.43	0.43	< 0.005	0.04	0.04	—	1.16	1.16	< 0.005	< 0.005	< 0.005	1.22

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.14	6.14	< 0.005	< 0.005	—	6.16
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.15	1.54	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	380	380	0.01	0.01	0.04	384
Vendor	0.01	0.01	0.33	0.14	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	313	313	< 0.005	0.04	0.02	325
Hauling	0.03	0.03	1.58	0.34	0.01	0.03	0.36	0.39	0.03	0.09	0.12	—	1,337	1,337	< 0.005	0.21	0.07	1,400
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.0	15.0	< 0.005	< 0.005	0.02	15.2
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.0	12.0	< 0.005	< 0.005	0.01	12.5
Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	51.2	51.2	< 0.005	0.01	0.05	53.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.48	2.48	< 0.005	< 0.005	< 0.005	2.52
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.98	1.98	< 0.005	< 0.005	< 0.005	2.07
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.48	8.48	< 0.005	< 0.005	0.01	8.89

3.5. Demobilization/Cleanup (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	0.26	2.49	3.19	< 0.005	0.14	—	0.14	0.13	—	0.13	—	481	481	0.02	< 0.005	—	482
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	11.8	11.8	< 0.005	1.18	1.18	—	30.2	30.2	< 0.005	< 0.005	0.06	31.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.22	9.22	< 0.005	< 0.005	—	9.25
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.22	0.22	< 0.005	0.02	0.02	—	0.58	0.58	< 0.005	< 0.005	< 0.005	0.61
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.53	1.53	< 0.005	< 0.005	—	1.53

Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.10
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.13	2.32	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	429	429	0.02	0.01	1.45	435
Vendor	0.01	0.01	0.31	0.13	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	312	312	< 0.005	0.04	0.79	326
Hauling	0.03	0.03	1.49	0.33	0.01	0.03	0.36	0.39	0.03	0.09	0.12	—	1,336	1,336	< 0.005	0.21	2.77	1,401
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.50	7.50	< 0.005	< 0.005	0.01	7.60
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.99	5.99	< 0.005	< 0.005	0.01	6.24
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.03
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44

3.7. Shade Structure Installation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.24	1.04	8.95	9.71	0.02	0.35	—	0.35	0.32	—	0.32	—	1,831	1,831	0.07	0.01	—	1,837
Onsite truck	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	11.8	11.8	< 0.005	1.18	1.18	—	30.3	30.3	< 0.005	< 0.005	< 0.005	31.8
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.42	0.45	< 0.005	0.02	—	0.02	0.02	—	0.02	—	85.3	85.3	< 0.005	< 0.005	—	85.6
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.53	0.53	< 0.005	0.05	0.05	—	1.41	1.41	< 0.005	< 0.005	< 0.005	1.48
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.1	14.1	< 0.005	< 0.005	—	14.2
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10	0.10	< 0.005	0.01	0.01	—	0.23	0.23	< 0.005	< 0.005	< 0.005	0.24
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.15	1.54	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	380	380	0.01	0.01	0.04	384
Vendor	0.01	0.01	0.33	0.14	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	313	313	< 0.005	0.04	0.02	325

Hauling	0.03	0.03	1.58	0.34	0.01	0.03	0.36	0.39	0.03	0.09	0.12	—	1,337	1,337	< 0.005	0.21	0.07	1,400
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.2	18.2	< 0.005	< 0.005	0.03	18.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.6	14.6	< 0.005	< 0.005	0.02	15.2
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	62.2	62.2	< 0.005	0.01	0.06	65.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.01	3.01	< 0.005	< 0.005	< 0.005	3.06
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.41	2.41	< 0.005	< 0.005	< 0.005	2.51
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.3	10.3	< 0.005	< 0.005	0.01	10.8

3.9. Overlook Deck Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.64	6.38	8.94	0.01	0.33	—	0.33	0.31	—	0.31	—	1,363	1,363	0.06	0.01	—	1,367
Onsite truck	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	11.8	11.8	< 0.005	1.18	1.18	—	30.3	30.3	< 0.005	< 0.005	< 0.005	31.8
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.56	< 0.005	0.02	—	0.02	0.02	—	0.02	—	85.9	85.9	< 0.005	< 0.005	—	86.2

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.71	0.71	< 0.005	0.07	0.07	—	1.91	1.91	< 0.005	< 0.005	< 0.005	2.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.2	14.2	< 0.005	< 0.005	—	14.3
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13	0.13	< 0.005	0.01	0.01	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.33
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.15	1.54	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	380	380	0.01	0.01	0.04	384
Vendor	0.01	0.01	0.33	0.14	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	313	313	< 0.005	0.04	0.02	325
Hauling	0.03	0.03	1.58	0.34	0.01	0.03	0.36	0.39	0.03	0.09	0.12	—	1,337	1,337	< 0.005	0.21	0.07	1,400
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.6	24.6	< 0.005	< 0.005	0.04	25.0
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	19.7	19.7	< 0.005	< 0.005	0.02	20.5
Hauling	< 0.005	< 0.005	0.10	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	84.2	84.2	< 0.005	0.01	0.08	88.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.08	4.08	< 0.005	< 0.005	0.01	4.13
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.26	3.26	< 0.005	< 0.005	< 0.005	3.40
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.9	13.9	< 0.005	< 0.005	0.01	14.6

3.11. Trail Kiosks Installation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	0.28	2.70	3.35	< 0.005	0.15	—	0.15	0.14	—	0.14	—	509	509	0.02	< 0.005	—	511
Onsite truck	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	11.8	11.8	< 0.005	1.18	1.18	—	30.2	30.2	< 0.005	< 0.005	0.06	31.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.76	9.76	< 0.005	< 0.005	—	9.79
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.22	0.22	< 0.005	0.02	0.02	—	0.58	0.58	< 0.005	< 0.005	< 0.005	0.61
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.62	1.62	< 0.005	< 0.005	—	1.62
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.10
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.14	0.13	2.32	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	429	429	0.02	0.01	1.45	435
Vendor	0.01	0.01	0.31	0.13	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	—	312	312	< 0.005	0.04	0.79	326
Hauling	0.03	0.03	1.49	0.33	0.01	0.03	0.36	0.39	0.03	0.09	0.12	—	1,336	1,336	< 0.005	0.21	2.77	1,401

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.50	7.50	< 0.005	< 0.005	0.01	7.60
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.99	5.99	< 0.005	< 0.005	0.01	6.24
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.03
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

User Defined Recreational	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Mobilization/Site Prep	Site Preparation	1/1/2026	1/14/2026	5.00	10.0	—
Trail Realignment and Manicuring	Site Preparation	3/12/2026	3/31/2026	5.00	14.0	—
Demobilization/Cleanup	Site Preparation	4/10/2026	4/20/2026	5.00	7.00	—
Shade Structure Installation	Building Construction	1/15/2026	2/6/2026	5.00	17.0	—
Overlook Deck Construction	Building Construction	2/7/2026	3/11/2026	5.00	23.0	—

Trail Kiosks Installation	Building Construction	4/1/2026	4/9/2026	5.00	7.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Mobilization/Site Prep	Tractors/Loaders/Backhoes	Diesel	Average	4.00	6.00	84.0	0.37
Mobilization/Site Prep	Skid Steer Loaders	Diesel	Average	1.00	6.00	71.0	0.37
Trail Realignment and Manicuring	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37
Trail Realignment and Manicuring	Skid Steer Loaders	Diesel	Average	1.00	6.00	71.0	0.37
Trail Realignment and Manicuring	Excavators	Diesel	Average	1.00	6.00	36.0	0.38
Trail Realignment and Manicuring	Plate Compactors	Diesel	Average	2.00	6.00	8.00	0.43
Trail Realignment and Manicuring	Other Construction Equipment	Diesel	Average	2.00	6.00	82.0	0.42
Demobilization/Cleanup	Other Construction Equipment	Diesel	Average	2.00	6.00	82.0	0.42
Shade Structure Installation	Cranes	Diesel	Average	1.00	6.00	367	0.29
Shade Structure Installation	Generator Sets	Diesel	Average	2.00	8.00	14.0	0.74
Shade Structure Installation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37
Shade Structure Installation	Welders	Diesel	Average	2.00	8.00	46.0	0.45
Shade Structure Installation	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Overlook Deck Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37

Overlook Deck Construction	Skid Steer Loaders	Diesel	Average	1.00	6.00	71.0	0.37
Overlook Deck Construction	Other Construction Equipment	Diesel	Average	3.00	8.00	82.0	0.42
Trail Kiosks Installation	Cement and Mortar Mixers	Diesel	Average	1.00	4.00	10.0	0.56
Trail Kiosks Installation	Other Construction Equipment	Diesel	Average	2.00	6.00	82.0	0.42

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Mobilization/Site Prep	—	—	—	—
Mobilization/Site Prep	Worker	30.0	18.5	LDA,LDT1,LDT2
Mobilization/Site Prep	Vendor	10.0	10.2	HHDT,MHDT
Mobilization/Site Prep	Hauling	20.0	20.0	HHDT
Mobilization/Site Prep	Onsite truck	2.00	4.00	HHDT
Trail Realignment and Manicuring	—	—	—	—
Trail Realignment and Manicuring	Worker	30.0	18.5	LDA,LDT1,LDT2
Trail Realignment and Manicuring	Vendor	10.0	10.2	HHDT,MHDT
Trail Realignment and Manicuring	Hauling	20.0	20.0	HHDT
Trail Realignment and Manicuring	Onsite truck	2.00	4.00	HHDT
Demobilization/Cleanup	—	—	—	—
Demobilization/Cleanup	Worker	30.0	18.5	LDA,LDT1,LDT2
Demobilization/Cleanup	Vendor	10.0	10.2	HHDT,MHDT
Demobilization/Cleanup	Hauling	20.0	20.0	HHDT
Demobilization/Cleanup	Onsite truck	2.00	4.00	HHDT
Shade Structure Installation	—	—	—	—
Shade Structure Installation	Worker	30.0	18.5	LDA,LDT1,LDT2

Shade Structure Installation	Vendor	10.0	10.2	HHDT,MHDT
Shade Structure Installation	Hauling	20.0	20.0	HHDT
Shade Structure Installation	Onsite truck	2.00	4.00	HHDT
Overlook Deck Construction	—	—	—	—
Overlook Deck Construction	Worker	30.0	18.5	LDA,LDT1,LDT2
Overlook Deck Construction	Vendor	10.0	10.2	HHDT,MHDT
Overlook Deck Construction	Hauling	20.0	20.0	HHDT
Overlook Deck Construction	Onsite truck	2.00	4.00	HHDT
Trail Kiosks Installation	—	—	—	—
Trail Kiosks Installation	Worker	30.0	18.5	LDA,LDT1,LDT2
Trail Kiosks Installation	Vendor	10.0	10.2	HHDT,MHDT
Trail Kiosks Installation	Hauling	20.0	20.0	HHDT
Trail Kiosks Installation	Onsite truck	2.00	4.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Mobilization/Site Prep	50.0	50.0	0.00	0.00	—

Trail Realignment and Manicuring	50.0	50.0	0.00	0.00	—
Demobilization/Cleanup	50.0	50.0	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Recreational	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	20.0	50.0	50.0	10,429	800	200	200	229,429

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
User Defined Recreational	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
User Defined Recreational	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
User Defined Recreational	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.4	annual days of extreme heat
Extreme Precipitation	1.25	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	2.19	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	93.6
AQ-PM	1.19
AQ-DPM	2.02
Drinking Water	55.8
Lead Risk Housing	39.1
Pesticides	0.00
Toxic Releases	3.93
Traffic	13.3
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	64.3
Cardio-vascular	98.4
Low Birth Weights	48.5

Socioeconomic Factor Indicators	—
Education	56.5
Housing	51.8
Linguistic	0.92
Poverty	83.7
Unemployment	93.5

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	34.59514949
Employed	1.822148082
Median HI	28.94905685
Education	—
Bachelor's or higher	38.95803927
High school enrollment	100
Preschool enrollment	54.90825099
Transportation	—
Auto Access	48.80020531
Active commuting	24.48351084
Social	—
2-parent households	67.68895162
Voting	64.93006544
Neighborhood	—
Alcohol availability	83.49801104
Park access	26.58796356
Retail density	5.41511613

Supermarket access	2.399589375
Tree canopy	0.397792891
Housing	—
Homeownership	42.92313615
Housing habitability	75.36250481
Low-inc homeowner severe housing cost burden	62.17117926
Low-inc renter severe housing cost burden	95.17515719
Uncrowded housing	75.52932119
Health Outcomes	—
Insured adults	18.50378545
Arthritis	0.0
Asthma ER Admissions	18.6
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	4.9
Cognitively Disabled	7.9
Physically Disabled	10.4
Heart Attack ER Admissions	1.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	71.8
Physical Health Not Good	0.0
Stroke	0.0

Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.4
SLR Inundation Area	0.0
Children	50.1
Elderly	11.7
English Speaking	81.0
Foreign-born	1.4
Outdoor Workers	3.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	95.3
Traffic Density	14.7
Traffic Access	23.0
Other Indices	—
Hardship	67.2
Other Decision Support	—
2016 Voting	75.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	31.0
Healthy Places Index Score for Project Location (b)	26.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Estimate
Land Use	604 acres
Construction: Off-Road Equipment	Estimate
Construction: Trips and VMT	Estimated trips
Operations: Vehicle Data	Estimate
Operations: Architectural Coatings	No architectural coatings

Appendix B

Biological Resources Technical Report

BIOLOGICAL RESOURCES TECHNICAL REPORT

Phase II Desert View Conservation Area Recreational Trails Project

Prepared for

San Bernardino County Department of Public Works, Special Districts

Submitted by

Aspen environmental group

October 2025

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EXECUTIVE SUMMARY

This report describes the biological resources present or potentially present within the proposed San Bernardino County Department of Public Works, Special Districts' (Special Districts') Phase II Desert View Conservation Area (DVCA) Recreational Trails Project (Project) area.

Biological field surveys were conducted beginning in May 2025. A total of five vegetation and cover types were identified within the Survey Area, which includes the Project area and a 50-foot buffer. One sensitive natural community, Joshua tree woodland, ranked as S3 (Vulnerable) by the California Department of Fish and Wildlife (CDFW), was documented within the Survey Area.

One State candidate species, western Joshua tree (*Yucca brevifolia*), was identified within the Survey Area. Additionally, two special-status plant species recognized as California Rare Plant Rank (CRPR) species by the California Native Plant Society (CNPS) were observed: Utah vine milkweed (*Funastrum utahense*) and Latimer's woodland-gilia (*Saltugilia latimeri).* The potential for the occurrence of other special-status plant species is evaluated in detail in Table 4-1.

One federally and State-listed species, desert tortoise (*Gopherus agassizii*), was observed during focused biological surveys conducted within the Survey Area. In addition, several CDFW Species of Special Concern and Fully Protected species were documented, including desert bighorn sheep (*Ovis canadensis nelsoni*), loggerhead shrike (*Lanius ludovicianus*), and yellow warbler (*Setophaga petechia*). This report evaluates the potential for occurrence of other special-status wildlife species not observed during surveys. These species may occur within or adjacent to the Project alignment. A summary of potential occurrence for all other special-status wildlife species is provided in Table 4-3.

No designated critical habitat is present within the Project area. The nearest designated critical habitat is for the desert tortoise and is located approximately 14 miles east of the Project area.

The Project area is located outside of the natural landscape blocks and the broader California Essential Habitat Connectivity corridor, indicating that it does not serve as a primary linkage for regional wildlife movement corridors identified in the western Mojave Desert.

The Project area contains several ephemeral drainages that exhibit characteristics of jurisdictional waters of the State under the regulatory authority of the Colorado River Basin Regional Water Quality Control Board (RWQCB) and CDFW streambeds. These features are characterized by well-defined channels, evidence of ordinary high-water marks, and hydrologic connectivity to downstream waters during significant precipitation events. A formal jurisdictional delineation would be required to confirm the extent and regulatory status of these features.

1. INTRODUCTION

This Biological Resources Technical Report provides an assessment of the biological resources that are present or potentially present within the proposed San Bernardino County Department of Public Works, Special Districts' (Special Districts') Phase II Desert View Conservation Area (DVCA) Recreational Trails Project (Project) area. The District proposes to enhance public access and recreational opportunities within the Desert View Conservation Area, located in the Mojave Desert region of San Bernardino County, California. The Project is designed to support low-impact, non-motorized recreational use while preserving the area's natural and cultural resources.

The purpose of this report is to evaluate the potential impacts of the proposed Project on sensitive biological resources, including special-status plant and wildlife species, sensitive natural communities, and jurisdictional features. The findings presented herein are intended to inform environmental compliance and permitting processes by providing sufficient detail to determine the extent to which Project implementation may affect these resources.

1.1. Project Location

The DVCA encompasses approximately 605 acres of predominantly undisturbed high desert habitat. It is situated in the western Mojave Desert, approximately 1.5 miles south of the town of Joshua Tree and 2 miles north of Joshua Tree National Park, in San Bernardino County, California (Figure 1, Attachment 1). The primary access road to the site, Quail Springs Road, is located approximately 0.5 miles east of the Project site. It connects to Onaga Trail, an unpaved road that runs east-west and provides direct access to the entrance of the Project site. The DVCA is in Section 6 of Township 1 S, Range 7 E within the U.S. Geological Survey (USGS) 7.5-minute Joshua Tree South quadrangle San Bernardino Base and Meridian. The DVCA includes Assessor Parcel Numbers (APN) 0589-311-25 and 0589-321-73. The elevation of the Project ranges from approximately 3,100 to 3,400 feet above mean sea level (amsl).

1.2. Project Description

The proposed Project includes the construction of recreational improvements such as trail directional signage, mileage posts, informational kiosks, habitat shelters with seating areas, viewing platforms, discovery interpretive panels, and picnic tables along approximately 3.1 miles of existing trails within the DVCA. An overview of the Project area is provided in Figure 2 (Attachment 1). The Project would include vegetation removal and regrading to some existing trail alignments to re-define portions that have become overgrown or damaged by erosion.

2. METHODOLOGY

This section outlines the methodologies used to identify biological resources known to occur or with the potential to occur within the Survey Area, which includes existing trails and the Project area, as well as a 50-foot buffer around them. The assessment incorporated both desktop and field-based approaches. The desktop review included an evaluation of existing online databases and published literature to identify previously documented biological resources. Field investigations were conducted to verify and supplement desktop findings and included: vegetation mapping, a preliminary delineation of jurisdictional waters, general botanical surveys, focused wildlife surveys, and habitat assessments.

2.1. Literature Review

Prior to the field surveys, Aspen biologists reviewed available literature to identify special-status biological resources known from the Project vicinity, which for the purposes of this report is defined as the five-mile area surrounding the Project area. The following literature and databases were reviewed:

- U.S. Fish & Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) (USFWS 2025a),
- California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) for the Yucca Valley North, Yucca Valley South, Joshua tree North, Joshua Tree South, Sunfair, Indian Cove, Keys View, Seven Palms Valley, and East Deception Canyon 7.5-minute USGS topographic quads (CDFW 2025a),
- State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2025b),
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2025c),
- CDFW Special Animals List (CDFW 2025d),
- CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2025e),
- CDFW Sensitive Natural Communities (CDFW 2025f),
- California Native Plant Society Inventory of Rare and Endangered Plants of California (CNPS 2025),
- Consortium of California Herbaria (CCH 2025),
- The Cornell Lab of Ornithology eBird Hotspot Database (eBird 2025),
- Citizen science inventory, iNaturalist (iNaturalist 2025).

The CNDDB results are listed in Attachment 2 and the IPaC Resource List is provided as Attachment 3. Several special-status species identified during literature review only occur in specialized native habitats that are absent from the Project area or occur at higher or lower elevations. These plants and animals are listed in Attachment 4 but are not addressed further in this report.

2.2. Field Surveys

Aspen Biologists Justin Wood, Shaun Kehrmeyer, Haley Jensen, and Rachel Tageant conducted biological surveys of the Project area on May 30, 2025. Mr. Wood also conducted an initial reconnaissance-level site visit on May 16, 2025. The biological survey includes a protocol-level survey for desert tortoise, a focused survey for rare plants, and a western Joshua tree (*Yucca brevifolia*) inventory. The survey involved walking all accessible portions of the site to document plant and wildlife species and to map vegetation communities. The western Joshua tree inventory was conducted within 50 feet of all proposed ground disturbance, including proposed improvements along existing trail alignments, new interpretative signs, viewing platforms, and shade structures (WJT Census Area). All observed species were recorded in field notes, and locations of any special-status species, with the exception of western Joshua trees outside of the WJT Census Area, were documented using an Arrow Global Positioning System (GPS) unit. A complete list of plant and wildlife species observed during the survey is provided in Attachment 5, and representative site photographs are included in Attachment 6.

Wildlife surveys included the identification of species through direct observation and diagnostic sign (e.g., vocalizations, tracks, scat, nests, skeletal remains, and burrows), as well as the evaluation of habitat features such as rock piles, cavities, and outcrops that may support special-status species.

2.3. Vegetation Mapping

Mapping was conducted in May 2025 to identify vegetation communities within the Survey Area. Vegetation maps were prepared by drawing tentative vegetation type boundaries onto high-resolution aerial images in the field on tablets using a sub-meter Arrow GPS unit and an iPad with the ESRI Field Maps application. Vegetation descriptions and names are based on nomenclature used in *A Manual of California Vegetation* (Sawyer et al., 2009). Some areas, such as locations dominated by disturbed/developed habitat or locations that support little to no vegetation do not fall within communities described under the *A Manual of California Vegetation*. The minimum mapping unit used for this project was 0.01-acres.

2.4. Preliminary Delineation of Aquatic Resources

Prior to conducting delineations, several resources were reviewed to evaluate the potential active channels and wetland features in the Survey Area. These included current and historic aerial photographs, the local and state hydric soil list (NRCS 2025), the soil surveys for Joshua Tree National Park, California, Mojave Desert Area, West Central Part, California (NRCS 2025), the National Wetland Inventory (USFWS 2025), and the 2022 wetland plant rating in the National Wetland Plant List (USACE 2025). Based on this information, field maps were generated to identify areas to evaluate in the field. Potentially jurisdictional features were identified with GPS coordinates to assist in field verification.

2.5. Botanical Surveys

Botanical surveys were performed by Mr. Wood on May 16, 2025, and May 30, 2025, to ensure adequate blooming periods for most plant species occurring in the Survey Area. Surveys were conducted according to the most recent CDFW survey protocols (CDFW 2018) and were: (a) floristic in nature; (b) consistent with conservation ethics; (c) inclusive of all habitat types within the Survey Area; and (d) well documented by this report and by voucher specimens to be deposited at the California Botanic Garden (formerly Rancho Santa Ana Botanic Garden). The surveys were performed during the time of year when most species would be detectable.

Annual rainfall in 2024/2025 was above average (US Climate Data, 2025) and adequate for rare annuals to have germinated and for perennial herbs to have flowered. All areas that were accessible were surveyed. Surveys were not conducted where the terrain posed a safety risk to the biologists. The Survey Area was inspected by walking loosely spaced parallel transects with particular attention given to areas of suitable habitat for special-status plants. All plant species observed were identified in the field or collected for later identification. Plants were identified using keys, descriptions, and illustrations in Baldwin et al. (2012), the Jepson Flora project (2025), and other regional references.

3. ENVIRONMENTAL SETTING

3.1. Regional Overview

The Project is situated in the western Mojave Desert, within the transition zone between the Mojave and Colorado Deserts in Southern California. This region is characterized by rugged terrain, desert mountain ranges, and expansive alluvial fans that support a mosaic of desert scrub and Joshua tree woodlands. The Project area lies near the northern boundary of Joshua Tree National Park and is part of a broader ecological corridor that includes the Little San Bernardino Mountains. The area plays a vital role in regional conservation efforts by preserving habitat for sensitive species, supporting native vegetation communities, and maintaining landscape connectivity in an increasingly fragmented desert environment.

3.2. Regional Climate

The Project area is located in the western Mojave Desert near Joshua Tree, California and experiences a hot desert climate characterized by long, hot summers and mild, dry winters. Average summer temperatures frequently exceed 100 degrees Fahrenheit (°F), while winter daytime temperatures typically range from 60 to 70°F. Precipitation is sparse and highly variable, averaging less than 6 inches annually, with most rainfall occurring during brief winter storms and occasional summer monsoonal events. The region is also subject to strong winds, particularly in spring, and experiences low relative humidity year-round. These arid conditions shape the area's unique desert ecosystems and influence the distribution of sensitive plant and wildlife species.

As of May 2025, Joshua Tree, California has received approximately 6.12 inches of rainfall for the 2024/2025 water year, equating to approximately 120% of the average for a full water year (US Climate Data 2025). This total is slightly above the region's long-term average for this period, reflecting a wetter-than-normal season for the western Mojave Desert.

3.3. Vegetation Communities

The vegetation mapping was completed by Aspen biologists in May 2025. Vegetation was mapped according to names and descriptions in *A Manual of California Vegetation* (Sawyer et al., 2009) and the State status according to the CDFW is also noted below. A total of five native vegetation communities were identified in the Survey Area. One additional cover type, including disturbed/developed was also mapped. The specific vegetation types present in the Project area are described below, summarized in Table 3-1, and shown on Figure 3 (Attachment 1).

Table 3-1. Vegetation and Land Cover within the Project Area

Cover Type	Acreages		
Vegetation Types	**Survey Area**	**Impact Area**	**Total Area**
California buckwheat - Parish's goldeneye scrub (*Eriogonum fasciculatum - Viguiera parishii* Shrubland Alliance)	3.43	0.00	3.43
Catclaw acacia - desert lavender - chuparosa scrub (*Senegalia greggii - Hyptis emoryi - Justicia californica* Shrubland Alliance)	1.98	0.01	1.99
Creosote bush - white bursage scrub (*Larrea tridentata - Ambrosia dumosa* Shrubland Alliance)	22.97	0.30	23.27
Joshua tree woodland (*Yucca brevifolia* Woodland Alliance) †	2.15	0.24	2.39
Mojave yucca scrub (*Yucca schidigera* Shrubland Alliance)	7.77	0.07	7.84
Other Land Cover Types			
Disturbed/Developed	1.59	0.04	1.63
Total:	**39.89**	**0.66**	**40.55**

† = Indicates Sensitive or Rare Natural Vegetation Community.

California buckwheat - Parish's goldeneye scrub (*Eriogonum fasciculatum - Viguiera parishii* Shrubland Alliance). California buckwheat - Parish's goldeneye scrub is dominated by (*Eriogonum fasciculatum*), Parish Viguiera (*Viguiera parishii*). Other species such as creosote bush (*Larrea tridentata*) and white

bursage (*Ambrosia dumosa*) are also common in this vegetation type but are less abundant. Within the Survey Area, it occurs along the margins of washes and rocky or bouldery slopes in the southern portion of the Survey Area, along existing trial alignments (Figure 3, Attachment 1). California buckwheat - Parish's goldeneye scrub has a State rank of S4 and is therefore not recognized as a sensitive natural community by CDFW (CDFW 2025f).

Creosote bush - white bursage scrub (*Larrea tridentata - Ambrosia dumosa* Shrubland Alliance). Within the Survey Area, Creosote bush - white bursage scrub is widespread in sandy soils and alluvium on valley floors, upland slopes, and the margins of washes (Figure 3, Attachment 1). The community is dominated by creosote bush and white bursage, with other species such as Acton brittlebush (*Encelia actonii*), and Nevada ephedra (*Ephedra nevadensis*), Mojave yucca (*Yucca schidigera*), and western Joshua tree present in lower abundance. Creosote bush - white bursage scrub has a State rank of S5 and is therefore not recognized as a sensitive natural community by CDFW (CDFW 2025f).

Catclaw acacia - desert lavender - chuparosa scrub (*Senegalia greggii - Hyptis emoryi - Justicia californica* Shrubland Alliance). Catclaw acacia - desert lavender - chuparosa scrub is present along washes and the bottoms of slopes throughout the Survey Area. It is present along existing trail alignments in the northern and eastern portions of the DVCA (Figure 3, Attachment 1). Catclaw acacia - desert lavender - chuparosa scrub is dominated by catclaw acacia (*Senegalia greggii*) and Indigo-bush (*Psorothamnus arborescens*), with other shrubs such as desert willow (*Chilopsis linearis*), Nevada ephedra, spiny senna (*Senna armata*) present in lower abundance. It has a State rank of S4 and is therefore not recognized as a sensitive natural community by CDFW (CDFW 2025f).

Joshua tree woodland (*Yucca brevifolia* Woodland Alliance). Joshua tree woodland is dominated by western Joshua tree, creosote bush and white bursage scrub. Other species, such as Nevada ephedra (*Ephedra nevadensis*) and Mojave yucca (*Yucca schidigera*) are also present in lower numbers. Within the Survey Area, Joshua tree woodland is present on the valley floor within Creosote bush - white bursage scrub along two existing trail alignments to be improved (Figure 3, Attachment 1). Joshua tree woodland has a State rank of S3 and is therefore recognized as a sensitive natural community by CDFW (CDFW 2025f).

Mojave yucca scrub (*Yucca schidigera* Shrubland Alliance). Mojave yucca scrub is dominated by Mojave yucca and white bursage. Other species present included Acton brittlebush and Parish viguiera. The composition of this vegetation type varied considerably across the Survey Area but was best classified as Mojave yucca scrub, as it generally met the cover requirements for Mojave yucca (Sawyer et al., 2009). Mojave yucca scrub was observed throughout the Survey Area, along north and south facing rocky slopes, and valley floors (Figure 3, Attachment 1). It has a State rank of S4 and is therefore not recognized as a sensitive natural community by CDFW (CDFW 2025f).

Disturbed/Developed. This land cover type was used to map all developed and disturbed areas within the Project area. This includes the existing trails, parking areas, access roads, and other permanent developments. Vegetation is either absent in these areas or includes a few scattered ruderal species such as brome grasses (*Bromus* spp.), redstem filaree (*Erodium cicutarium*), and common mediterranean grass (*Schismus barbatus*). Disturbed/developed areas have no State rank and are therefore not recognized as a sensitive natural community by CDFW (CDFW 2025f).

3.4. Common Plant Species Observed

Botanical surveys conducted within the Survey Area documented a total of 87 species of native and non-native plants. Many of the species observed are characteristic of desert scrub and woodland habitats,

which are prevalent in the region. A complete list of all plant species recorded during the surveys is provided in Attachment 5.

3.5. Common Wildlife and Fish Species

The Project area is home to a variety of wildlife species. A complete list of all wildlife species recorded during the surveys is provided in Attachment 5. Reptiles that have been commonly observed in the Project area or in the general vicinity include common chuckwalla (*Sauromalus ater*), western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), gopher snake (*Pituophis melanoleucus*), red racer (*Coluber flagellum*), and southwestern speckled rattlesnake (*Crotalus pyrrhus*).

Over 60 species of birds are known to occur within the Project area (eBird 2025). Some of these included black-throated sparrow (*Amphispiza bilineata*), horned lark (*Eremophila alpestris*), Brewer's sparrow (*Spizella breweri*), mourning dove (*Zenaida macroura*), and white-crowned sparrow (*Zonotrichia leucophrys*). Other species known to occur in the area include Gambel's quail (*Callipepla gambelii*), Anna's hummingbird (*Calypte anna*), cactus wren (*Campylorhynchus brunneicapillus*), common raven (*Corvus corax*), greater roadrunner (*Geococcyx californianus*), ash-throated flycatcher (*Myiarchus cinerascens*), phainopepla (*Phainopepla nitens*), blue-gray gnatcatcher (*Polioptila caerulea*), and rock wren (*Salpinctes obsoletus*).

A variety of mammals are known from this area and include white-tailed antelope squirrel (*Ammospermophilus leucurus*), Merriam's kangaroo rat (*Dipodomys merriamii*), desert woodrat (*Neotoma lepida*), California ground squirrel (*Otospermophilus beecheyi*), and desert cottontail (*Sylvilagus audubonii*). Mid-size mammals including American badger (*Taxidea taxus*), gray fox (*Urocyon cinereoargenteus*), and desert kit fox (*Vulpes macrotis arsipus*) have been detected in the general area. Desert bighorn sheep (*Ovis canadensis nelsoni)* also use the site and large, and far-ranging mammal species, including bobcat (*Lynx rufus*) and mountain lion *(Puma concolor)* are known from the area.

Bats forage over most of the Project area where prey species such as small insects, moths, and other invertebrates occur. Rock outcrops, crevices, and caves in the Project area and vicinity may provide suitable roost sites for several bat species known from the region. However, no bat roosts were detected in the Survey Area.

4. SPECIAL-STATUS SPECIES, VEGETATION, AND HABITAT

This section summarizes the results of the literature review and field surveys conducted within the Survey Area. One sensitive vegetation community, Joshua tree woodland, was identified within the Survey Area. Several special-status plant species were observed, including Utah vine milkweed (*Funastrum utahense*), Latimer's woodland-gilia (*Saltugilia latimeri*), and western Joshua tree, along existing trail alignments (Figures 4 and 5, Attachment 1). Four special-status wildlife species were detected within the Survey Area including desert tortoise (*Gopherus agassizii*), loggerhead shrike (*Lanius ludovicianus*), yellow warbler (*Setophaga petechia*), and desert bighorn sheep.

Tables 4-1 and 4-3 provide an overview of the known and potential occurrences of special-status plant and wildlife species documented in the region. Special-status species that were evaluated but determined to be unlikely to occur within the Project area are listed in Attachment 4.

4.1. Sensitive Natural Communities

CDFW defines sensitive natural communities as “communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects” (CDFW 2025f).

CDFW identifies that "Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents." S4 communities are defined as apparently secure, uncommon, but not rare in the state, with some cause for long-term concern due to declines or other factors.

The literature review identified one sensitive natural community, Desert Fan Palm Oasis Woodland (CDFW 2025a), in the vicinity of, but outside, the Project area. This community was not observed within the Project area. However, one additional sensitive vegetation community, Joshua tree woodland, was identified within the Survey Area (see Section 3.3).

4.2. Special-Status Plants

A literature review identified several special-status plant species with potential to occur within the Project site. All special-status plant species known to occur in the region and associated with habitats similar to those found within the Project area are addressed in Table 4-1. The table includes brief descriptions of each species' habitat preferences, distribution, conservation status, and an assessment of their potential to occur on-site. This evaluation is based on factors such as habitat suitability, elevation, and proximity to known occurrences.

Species determined to be unlikely to occur—due to their restriction to higher elevations, locations outside the Project's geographic range, or dependence on specialized native habitats (e.g., wetlands, riparian areas, or aeolian sands)—and are not present within the Project area are listed in Attachment 4 and are not discussed further in this report.

Table 4-1. Known and Potential Occurrence of Special-Status Plants within the Project Area

Scientific Name Common Name	Natural History and Habitat Requirements	Blooming Period	Conservation Status	Potential for Occurrence
Allium parishii Parish's onion	Perennial bulb; rocky soils in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland habitat about 2955 - 5695 feet elevation; San Bernardino, Riverside, and San Diego Counties.	Apr-May	4.3	**Low:** Limited suitable habitat present. Historic collection 5.9 miles southeast in Joshua Tree National Park.
Astragalus bernardinus San Bernardino milk-vetch	Perennial herb; often on granitic or carbonate soil in Joshua tree woodland and pinyon and juniper woodland habitat about 2955 - 6560 feet elevation. Endemic to Riverside and San Bernardino Counties.	Apr-Jun	1B.2	**Moderate:** Suitable habitat is present. Multiple recent iNaturalist records are in Project vicinity.
Astragalus tricarinatus Triple-ribbed milk-vetch	Perennial herb; exposed rocky slopes, canyon walls, alluvial fan habitat about 1475 - 3905 feet elevation within in San Bernardino County.	Feb-May	FE, 1B.2	**Low:** Suitable habitat is present. Multiple recent iNaturalist records are in Project vicinity.
Canbya candida White pygmy-poppy	Annual herb, gravelly; sandy, granitic places within Joshua tree woodland, Mojavean desert scrub and pinyon/juniper woodland; about 1970 - 4790 feet elevation	Mar-Jun	4.2	**Low:** Suitable habitat present. Recent iNaturalist record located 10 miles east in Desert Heights.

Scientific Name Common Name	Natural History and Habitat Requirements	Blooming Period	Conservation Status	Potential for Occurrence
	within western Mojave Desert and adjacent Sierra Nevada foothills.			
Cymopterus multinervatus Purple-nerve cymopterus	Perennial herb; sandy and rocky slopes within Mojavean desert scrub and pinyon/juniper woodland habitats about 2590 - 5905 feet elevation; Mojave Desert in Inyo, Riverside and San Bernardino Counties to Utah and New Mexico.	Mar-Apr	2B.2	**Low:** Suitable habitat present. Multiple recent iNaturalist records located 8 miles north.
Euphorbia vallis-mortae Death Valley sandmat	Perennial herb; arid, sandy soils; shrublands; southern Owens Valley, western Mojave Desert, and adjacent foothills; about 755 - 4790 feet elevation in Inyo, Kern, and San Bernardino Counties.	May-Oct	4.2	**Low:** Suitable habitat is present. A historic record is located 6 miles northeast near Yucca Valley Airport.
Eschscholzia androuxii Joshua Tree poppy	Annual; desert washes, flats, and slopes; sandy, gravelly, or rocky soils in Joshua tree woodland, Mojavean desert scrub; 1900-5500 feet elevation in Coachella Valley, Little San Bernardino Mtns., Morongo Valley.	Feb-Jun	4.3	**High:** Suitable habitat is present. Recent collections within 0.7 miles of the DVCA.
Funastrum utahense Utah vine milkweed	Perennial herb; sandy or gravelly soils; about 330 - 4710 feet elevation, Mojave Desert through Joshua Tree National Park and Anza-Borrego regions, to Nevada, Arizonia, and Utah.	Apr-Jun	4.2	**Present:** A total of 58 individuals were identified within the Survey Area.
Galium angustifolium ssp. *gracillimum* Slender bedstraw	Perennial herb; granitic, rocky soils in Joshua tree woodland, Sonoran Desert scrub; about 426 - 5085 feet elevation in Imperial, Los Angeles, Riverside, San Bernardino, and San Diego Counties.	Apr-Jun	4.2	**High:** Suitable habitat is present. Multiple recent iNaturalist records are in Project vicinity.
Linanthus maculatus ssp. *maculatus* Little San Bernardino Mtns. linanthus	Annual herb; sandy washes or dunes in desert shrubland habitats; Whitewater Canyon. through Joshua Tree Natl. Park; about 460 - 4005 feet elevation.	Mar-May	1B.2	**Moderate:** Suitable habitat is present. Multiple recent iNaturalist records are in Project vicinity.
Matelea parvifolia Spear-leaf matelea	Perennial herb; rocky sites in Mojavean and Sonoran Desert scrub, about 1445 - 3595 feet elevation, central and eastern deserts and Anza-Borrego State Park; to Nevada, Texas, and Baja California.	Mar-May	2B.3	**Moderate:** Suitable habitat is present. Multiple recent iNaturalist records are in Project vicinity.
Monardella robisonii Robison's monardella	Perennial herb; desert shrubland and pinyon-juniper woodland;	Feb-Oct	1B.3	**Moderate:** Suitable habitat is present.

Scientific Name Common Name	Natural History and Habitat Requirements	Blooming Period	Conservation Status	Potential for Occurrence
	about 2000 - 4920 feet elevation, in Riverside and San Bernardino Counties.			Multiple recent iNaturalist records are in Project vicinity.
Muhlenbergia appressa Appressed muhly	Annual herb; rocky areas in coastal scrub, Mojavean desert scrub, and valley and foothill grassland, 65 - 5250 feet elevation, southern California to Arizonia and Baja California.	Apr-May	2B.2	**Low:** Suitable habitat is present. Records are located 7 miles south in Joshua Tree National Park.
Muilla coronata Crowned muilla	Perennial herb; desert shrublands and woodlands; about 2,200 - 6,430 feet elevation, San Bernardino County north to Tulare and Inyo Counties and Nevada.	Mar-Apr (May)	4.2	**High:** Suitable habitat is present. Multiple recent iNaturalist records are in Project vicinity.
Penstemon clevelandii var. *mohavensis* Mojave beardtongue	Perennial herb; granitic and rocky soils in Mojavean desert scrub and pinyon and juniper woodland, about 3035 - 5315 feet elevation, endemic to Riverside and San Bernardino Counites.	Mar-May	1B.2	**Low:** Marginal habitat present. Multiple recent iNaturalist records are in Project vicinity.
Penstemon thurberi Thurber's beardtongue	Perennial herb; sandy/gravelly slopes and mesas, desert shrublands to pinyon woodland, about 1,640-4,005 feet elevation; Joshua Tree National Park east to Texas.	May-Jul	4.2	**Moderate:** Suitable habitat is present. Multiple recent iNaturalist records are in Project vicinity.
Portulaca halimoides Desert portulaca	Annual herb, sandy areas within Joshua tree woodland, about 3,280 - 3,935 feet elevation, Riverside and San Bernardino Counties east to Virginia.	Sep	4.2	**Low:** Suitable habitat is present. Multiple recent iNaturalist records are in Project vicinity.
Saltugilia latimeri Latimer's woodland-gilia	Annual herb; granitic, rocky, or sandy soils and washes in desert shrubland, chaparral, and pinyon and juniper woodland; about 1,310 - 6,235 feet elevation; Riverside County to Inyo County.	Mar-Jun	1B.2	**Present:** Several plants likely observed within the Survey Area; identification difficult to confirm due to senescence.
Sphaeralcea rusbyi var. *eremicola* Rusby's desert-mallow	Perennial herb; carbonate soils; sometimes in washes within creosote bush scrub, blackbush scrub and Joshua tree woodland; about 3,200 - 5,395 feet elevation.; Inyo, Riverside, and San Bernardino Counties.	Mar-Jun	1B.2	**Low:** Suitable habitat present. iNaturalist records are located 6 miles southeast in Joshua Tree National Park.
Yucca brevifolia Western Joshua tree	Tree, Joshua tree woodland, creosote bush scrub, pinyon and juniper Woodland, about 1,300 -	Mar-Jun	SCT, CBR	**Present:** A total of 44 individuals were observed within the

Scientific Name Common Name	Natural History and Habitat Requirements	Blooming Period	Conservation Status	Potential for Occurrence
	5,900 feet elevation, San Bernardino, Los Angeles, Kern, and Riverside Counties.			Survey Area.

Source: Baldwin et al., 2012; CDFW 2025a, 2025b, 2025e; CNPS 2025; CCH2025.

Conservation Status

***Federal designations* (*Fed*):** (federal ESA, USFWS).

FE – Federally Listed Endangered

FT – Federally Listed Threatened

***State designations* (*CA*):** (CESA, CDFW)

SCT – California Candidate for listing as Threatened

California Rare Plant Rank (CRPR) designations. Note: According to the California Native Plant Society (http://www.cnps.org/cnps/rareplants/ranking.php), plants ranked as CRPR 1A, 1B, and 2 meet definitions as threatened or endangered and are eligible for state listing. That interpretation of the state Endangered Species Act is not in general use.

CRPR 1B – Rare or endangered in California and elsewhere

CRPR 2 – Rare or endangered in California, more common elsewhere

CRPR 4 – Limited Distribution (Watch List)

CRPR CBR-Considered but rejected.

0.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2 = Fairly threatened in California (20-80% occurrences threatened)

0.3 = Not very threatened in California (<20% of occurrences threatened or no current threats known

Definitions of occurrence probability: Estimated occurrence probabilities-based literature sources cited earlier and field surveys and habitat analyses reported here.

Present: Taxon was observed within the project area during recent botanical surveys or population has been documented by CDFW, USFWS, or local experts.

High: Both a documented recent record (within 10 years) exists of the taxon within the project area or immediate vicinity (approximately 5 miles) and the environmental conditions (including soil type) associated with presence of the taxon occur within the project area.

Moderate: Both a documented recent record (within 10 years) exists of the taxon within the project area or the immediate vicinity (within approximately 10 miles) and the environmental conditions associated with taxa presence are marginal and/or limited within the project area, or the project area is located within the known current distribution of the taxon and the environmental conditions (including soil type) associated with presence of the taxon occur within the project area.

Low: A historical record (over 10 years old) exists of the taxon within the project area or general vicinity (within approximately 10 miles) and the environmental conditions (including soil type) associated with presence of the taxon are marginal and/or limited within the project area.

4.2.1. Listed Threatened or Endangered Plants

This section summarizes plant species reported from the region that are listed as threatened or endangered under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA), and that are either present or have at least a moderate potential to occur within the Project area. Based on the results of the database review and surveys, the western Joshua tree, currently a candidate for listing under CESA, is the only species known from the Project area or with at least a moderate potential to be present. No other plant species listed under the federal ESA or CESA were detected during field surveys.

Western Joshua tree (*Yucca brevifolia*). The western Joshua tree is a candidate for listing under the CESA (CDFW 2025a). It is in the century plant family (Agavaceae). It is predominantly found in the Mojave Desert. Its range extends northward into Nevada. Western Joshua trees typically occur in creosote bush and white bursage scrublands at lower elevations (approximately 2,461 feet amsl) and in juniper-pinyon woodlands at higher elevations (up to 7,218 feet amsl) (USFWS 2018). During field surveys, a total of 44 individuals were observed within the WJT Census Area (Figures 5a through 5c, Attachment 1). Of these, 28 individuals were dead, while 16 were living. Among the living individuals, five were less than 1 meter in height, nine ranged from 1 to 5 meters, and two exceeded 5 meters in height. The western Joshua trees are summarized below in Table 4-2 by size class and impact type. Direct impacts to western Joshua trees are not expected to occur due to Project activities. To ensure this, the location of ground disturbing

impacts, such as trail improvement activities and the installation of interpretive features or shade structures, are expected to shift slightly to avoid any western Joshua trees within 50 feet of these activities. In the unlikely event that direct impacts to western Joshua trees within 50 feet of any planned activities cannot be avoided, a western Joshua tree incidental take permit application and inventory will need to be completed and submitted to CDFW prior to ground disturbance.

Table 4-2. Western Joshua Tree Inventory Summary

	Impact Type		
Size Class	**Direct**	**Indirect**	**Total**
A (Less than 1 meter in height)	0	5	5
B (Between 1 and 5 meters in height	0	9	9
C (Greater than 5 meter in height)	0	2	2
Dead	0	28	28
Total	**0**	**44**	**44**

4.2.2. California Rare Plant Rank Plants

In addition to the federal and State listed species regulations noted above, CDFW and CNPS maintain lists of plants of conservation concern. The CDFW compiles these species including CDFW and CNPS rankings as CRPR 1, 2, 3, or 4 in its compendium of "Special Plants" (CDFW 2025b). These plant species with a rank of 3 or higher are discussed below.

San Bernardino milk-vetch (*Astragalus bernardinus*). San Bernardino milk-vetch has a CRPR of 1B.2 (CDFW 2025a). It is a perennial herb in the pea family (Fabaceae). It is endemic to Riverside, and San Bernardino Counties. It often occurs on granitic or carbonate soil in Joshua tree woodland and pinyon and juniper woodland habitats at elevations from 1,475 to 3,905 feet amsl (CNPS 2025). It flowers from April to June. San Bernardino milk-vetch was not observed during surveys. Suitable habitat for the species is present within the Survey Area. Multiple recent iNaturalist records of the species are in the vicinity of the Project area. Based on habitat suitability and proximity to known occurrences, San Bernardino milk-vetch is considered to have a moderate potential to occur within the Project area.

Little San Bernardino Mountains linanthus (*Linanthus maculatus* ssp. *maculatus*). Little San Bernardino Mountains linanthus has a CRPR of 1B.2 (CDFW 2025a). It is an annual herb in the phlox family (Polemoniaceae). It is endemic to Riverside, and San Bernardino Counties. Little San Bernardino Mountains linanthus occurs in sandy areas within desert dunes, Joshua tree woodland, Mojavean desert scrub, and Sonoran Desert scrub habitats at elevations from 460 to 4,005 feet amsl (CNPS 2025). It flowers from March to May. Little San Bernardino Mountains linanthus was not observed during surveys. Suitable habitat for the species is present within the Survey Area. Multiple recent iNaturalist records of the species are located approximately eight miles north of the Project area. Based on habitat suitability and proximity to known occurrences, little San Bernardino Mountains linanthus is considered to have a moderate potential to occur within the Project area.

Spear-leaf matelea (*Matelea parvifolia*). Spear-leaf matelea has a CRPR of 2B.3 (CDFW 2025a). It is a perennial herb in the dogbane family (Apocynaceae). Its range extends from California south into Baja California and east to Texas. Within California, it occurs in Imperial, Riverside, San Bernardino, and San Diego Counties. Spear-leaf matelea occurs in rocky areas within rocky areas in Mojavean and Sonoran Desert scrub habitats at elevations from 1,445 to 3,595 feet amsl (CNPS 2025). It flowers from March to May. Spear-leaf matelea was not observed during surveys. Suitable habitat for the species is present within the Survey Area. Multiple recent iNaturalist records of the species are located within the vicinity of

the Project area. Based on habitat suitability and proximity to known occurrences, spear-leaf matelea is considered to have a moderate potential to occur within the Project area.

Robison's monardella (*Monardella robisonii*). Robison's monardella has a CRPR of 1B.3 (CDFW 2025a). It is a perennial herb in the mint family (Lamiaceae). It is endemic to Riverside and San Bernardino Counties. Robison's monardella occurs in desert shrubland and pinyon-juniper woodland habitats at elevations from 2,000 to 4,920 feet amsl (CNPS 2025). It flowers from February to October. Robison's monardella was not observed during surveys. Suitable habitat for the species is present within the Survey Area. Multiple recent iNaturalist records of the species are located within the vicinity of the Project area. Based on habitat suitability and proximity to known occurrences, Robison's monardella is considered to have a moderate potential to occur within the Project area.

Latimer's woodland-gilia (*Saltugilia latimeri*). Latimer's woodland-gilia has a CRPR of 1B.2 (CDFW 2025a). It is an annual herb in the phlox family (Polemoniaceae). It is endemic to Inyo, Riverside, San Bernardino, and San Diego Counties. Latimer's woodland-gilia occurs in granitic, rocky, or sandy soils and washes in desert shrubland, chaparral, and pinyon and juniper woodland habitats at elevations from 1,310 to 6,235 feet amsl (CNPS 2025). It flowers from March to June. Suitable habitat for the species is present within the Survey Area. Additionally, multiple recent iNaturalist records of the species are located within the vicinity of the Project area. During surveys, several plants which are likely Latimer's woodland-gilia were observed along an existing trail alignment in the southern portion of the Project area (Figure 4, Attachment 1). Although definitive identification was not possible due to senescence, these plants are located outside of the Project footprint and are not expected to be impacted by Project activities.

4.2.2.1. Limited Distribution Special-Status Plants

Special-status plants with a limited distribution are ranked as CRPR 4 and considered a "Watch List" species. During field surveys, one CRPR 4 species Utah vine milkweed (*Funastrum utahense*) was documented in the Survey Area, with a total of 58 plants distributed over three populations. Of the 58 Utah vine milkweed plants observed, 26 were identified near proposed work locations: 25 were within 15 feet of a proposed structure along the existing northern trail alignment, and a single plant was within 15 feet of a proposed trail improvement alignment near the eastern boundary of the DVCA (Figure 4, Attachment 1). Four additional CRPR 4 species are known from documented occurrences in the vicinity of the Project area and were determined to have at least a moderate potential to occur with the Project area. These species include Joshua Tree poppy (*Eschscholzia androuxii*), slender bedstraw (*Galium angustifolium* ssp. *gracillimum*), crowned muilla (*Muilla coronata*), and Thurber's beardtongue (*Penstemon thurberi*).

4.3. Special-Status Wildlife

All special-status wildlife occurring in the region in habitats like those found on the Project area are addressed in Table 4-3, with brief descriptions of habitat and distribution, conservation status, and probability of occurrence on the site. Special-status species that were considered but were determined to be unlikely to occur in the Project area are provided in Attachment 4. A complete list of wildlife species observed during surveys is provided in Attachment 5.

Table 4-3. Known and Potential Occurrence of Special-Status Wildlife within the Project Area

Scientific Name Common Name	Natural History and Habitat Requirements	Conservation Status	Potential for Occurrence
INVERTEBRATES			

Scientific Name Common Name	Natural History and Habitat Requirements	Conservation Status	Potential for Occurrence
Bombus crotchii Crotch's bumble bee	Occurs in open grassland and scrub habitats. This species is a ground nesting species. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*. Occurs in coastal California east to the Sierra-Cascade crest and south into Mexico.	CS	**Moderate:** Suitable habitat and floral resources are present within the Project area. A recent iNaturalist record is located 5.6 miles southwest in Black Rock Canyon.
Danaus plexippus pop. 1 Monarch butterfly - California overwintering population	Occurs in a variety of habitats with ample floral resources. Adults require abundant nectar sources, while larvae develop on milkweed, their obligate host plant. Generally Migratory. Overwintering roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), generally near the coast, with nectar and water sources nearby.	FPT, SA	**High:** Suitable foraging habitat for adult butterflies is present, species and floral resources observed within 2 miles of the Project.
Paranomada californica California cuckoo bee	Known only from Yucca Valley and Burns Canyon Road, northwest of Pioneertown in San Bernardino County. Habitat consists of dry, desert-habitats. Known floral resources are restricted to sticky snakeweed (*Gutierrezia microcephala*).	SA	**Low:** Suitable desert scrub habitat present. Historic record located 5.5 miles west at the Yucca Valley Airport.
REPTILES			
Anniella stebbinsi Southern California legless lizard	Generally, south of the Transverse Range, south to NW Baja Calif. Sandy or loose loamy soils under sparse vegetation; soils typically have high moisture content.	SSC	**Low:** Suitable habitat is present. Recent CNDDB records 4.5 miles southwest in Joshua Tree National Park.
Crotalus ruber Red-diamond rattlesnake	Occurs in chaparral, woodland, grassland, desert areas; prefers rocky areas with dense vegetation; Coastal CA east to Whitewater Canyon.	SSC	**High:** Suitable rocky areas are present. Recent iNaturalist records located within the vicinity of the Project.
Gopherus agassizii Desert tortoise	Typically associated with gravelly flats or sandy soils with some clay. Found in creosote, shadscale, and Joshua tree series of Mojave Desert scrub. Occurs only in California, extreme southern Nevada, extreme southwest Utah, and extreme northwest Arizona. Ranges from below sea level to 7,300 feet in elevation.	FT, ST	**Present:** Suitable habitat is present. Eight desert tortoise scat were identified within the Survey Area.

Scientific Name Common Name	Natural History and Habitat Requirements	Conservation Status	Potential for Occurrence
Phrynosoma blainvillii Coast horned lizard	Requires loose, fine soils with a high sand fraction, abundance of native ants or other insects, open areas with limited overstory for basking and areas with low, dense shrubs for refuge. Range is Pacific coast to the deserts and the Sierra Nevada, north to the Bay Area, and south into Baja California. The elevational range is 30 to 7,000 feet.	SSC	**High:** Suitable habitat is present. Recent iNaturalist records within the Project area.
BIRDS			
Aquila chrysaetos Golden eagle	Nests in remote trees and cliffs; but will also use transmission line towers. Forages over shrublands and grasslands; breeds throughout western North America, winters to east coast.	FP, WL, BGEPA, BCC	**Nesting Low:** Marginal nesting habitat present. Historic nesting record is located 7.7 miles south in Joshua Tree National Park. **Foraging High:** Suitable foraging habitat present. Recent eBird records are located within the Project area.
Athene cunicularia Burrowing owl	Nests mainly in wildlife burrows, usually in open grassland or shrubland communities; forages in open habitats. Occurs in California through western U.S. and Mexico.	BCC, CS, SSC	**Moderate:** Suitable habitat present, eBird record located 6.5 southeast in Joshua Tree National Park.
Falco mexicanus Prairie falcon	Nests along cliff faces or rocky outcrops, forages over open spaces, agricultural fields. Occurs throughout arid western U.S. and Mexico.	WL	**Nesting Low:** Marginal nesting habitat present. Historic nesting record is located to the east in Joshua Tree National Park. **Foraging High:** Suitable foraging habitat present. Multiple recent eBird records in the Project area.
Lanius ludovicianus Loggerhead shrike	Occurs in broken woodland, savannah, pinyon-juniper woodland, Joshua tree woodland, riparian woodland, desert oases, scrub, and washes; prefers open areas for foraging. Nesting widespread in North America.	SSC	**Present:** Suitable nesting and foraging habitat present. The species was observed during surveys.
Setophaga petechia Yellow warbler	Riparian plant associations prefer willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging.	SSC	**Present:** No suitable riparian woodland habitat present for nesting or foraging**.** An individual was observed migrating through the Project area during surveys.

Scientific Name Common Name	Natural History and Habitat Requirements	Conservation Status	Potential for Occurrence
Toxostoma bendirei Bendire's thrasher	Occurs in flat areas of desert succulent shrub/Joshua tree habitats in Mojave Desert. Nests in cholla, yucca, palo verde.	BCC, SSC	**Low:** Suitable habitat is present. Historic CNDDB records are located 4.4 miles south in Joshua Tree National Park
Toxostoma lecontei Le Conte's thrasher	Occurs in sparse desert scrub such as creosote bush, Joshua tree, and saltbush scrubs, or sandy-soiled cholla-dominated vegetation. Nests in dense, spiny shrubs or densely branched cactus in desert wash habitat.	BCC, SSC	**High:** Suitable habitat present. Multiple eBird records are present within the Project area.
MAMMALS			
Antrozous pallidus Pallid bat	Desert, grassland, shrubland, woodland, forest; most common in open, dry habitats with rocky areas for roosting; very sensitive to disturbance of roosting sites.	SSC	**Roosting Low:** Marginal habitat is present for roosting. **Foraging High:** Suitable habitat is present. Multiple iNaturalist records within the Project vicinity.
Bassariscus astutus octavus Southern California ringtail	Many habitats throughout southern CA, typically associated with rock outcrops and other rocky habitats; primarily nocturnal and highly secretive.	FP	**Moderate:** Suitable habitat is present. Recent iNaturalist record located 10 miles east.
Chaetodipus fallax pallidus Pallid San Diego pocket mouse	Occurs in desert scrub, desert succulent scrub, pinyon and juniper woodland; prefers sandy, herbaceous areas, associated with rocks or coarse gravel. Occurs in portions of Riverside and San Bernardino counties.	SA	**Low:** Marginal habitat is present for roosting. Low: Suitable habitat present, historic records 4.5 miles south in Joshua Tree National Park
Eumops perotis californicus Western mastiff bat	Lowlands (rare exceptions); cent. and S Calif., S Ariz., NM, SW Tex., N Mexico; roost in deep rock crevices, forage over wide area.	SSC	**Roosting Low:** Marginal habitat is present for roosting. **Foraging Low:** Suitable foraging habitat present. Historic records are located 9 miles south in Joshua Tree National Park.
Lasiurus cinereus Hoary bat	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense medium to large trees. Feeds primarily on moths and require water. Widespread across North America.	SA	**Roosting Low:** Marginal habitat is present for roosting. **Foraging Low:** Suitable foraging habitat present. Historic records are located 9 miles south in Joshua Tree National Park.

Scientific Name Common Name	Natural History and Habitat Requirements	Conservation Status	Potential for Occurrence
Lasiurus xanthinus Western yellow bat	Mexico and Cent. Amer., north to S AZ; Riv., Imperial, and San Diego Cos.; riparian and wash habitats; roosts in trees; evidently migrates from Calif. during winter.	SSC	**Roosting Low:** Marginal habitat is present for roosting. **Foraging Low:** Suitable foraging habitat present. Historic record located 6 miles west of the Project area.
Myotis thysanodes Fringed myotis	Occurs in a wide variety of habitats. Optimal habitats include pinyon–juniper, valley foothill hardwood and hardwood-conifer woodlands. Forms maternity colonies and roosts in caves, mines, buildings, and crevices.	SA	**Roosting Low:** Marginal habitat is present for roosting. **Foraging Low:** Suitable foraging habitat present. Historic record located 6 miles west of the Project area.
Nyctinomops femorosaccus Pocketed free-tailed bat	Deserts and arid lowlands, SW US, Baja Calif., mainland Mexico; roost mainly in crevices of high cliffs; forage over water and open shrubland.	SSC	**Roosting Low:** Marginal habitat is present for roosting. **Foraging Low:** Suitable foraging habitat present. Historic records are located 9 miles south in Joshua Tree National Park.
Nyctinomops macrotis Big free-tailed bat	Roosts in crevices of rocky cliffs, scattered localities in W N America through Central America; ranges widely from roost sites; often forages over water.	SSC	**Roosting Low:** Marginal habitat is present for roosting. **Foraging Low:** Suitable foraging habitat present. Historic records are located 9.5 miles south in Joshua Tree National Park.
Ovis canadensis nelsoni Desert bighorn sheep	Steep slopes (>80%) with abundant rock outcrops and sparse shrubs for escape terrain. Escarpment chaparral with ceanothus mountain mahogany associations for foraging. Range from 2,900 to 10,000 feet elevation.	FP	**Present:** Suitable habitat is present throughout the Project area. Scat was observed at multiple locations within the Survey Area.
Puma concolor Mountain lion	Utilize many habitats within their range including riparian, scrub, chaparral, grassland, and woodland habitats. Known from the urban wilderness interface.	CS	**High:** Suitable foraging habitat and prey base are present. The Survey Area lacks suitable den sites. Scat was identified 4.5 miles southwest of the Project area in Joshua Tree National Park.

Scientific Name Common Name	Natural History and Habitat Requirements	Conservation Status	Potential for Occurrence
Taxidea taxus American badger	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils; require sufficient food source, friable soils, and open, uncultivated ground; prey on burrowing rodents.	SSC	**Moderate:** Suitable habitat is present. Recent iNaturalist record located 9 miles west.
Vulpes macrotis ssp. *macrotis* Desert kit fox	Prefers open areas on flat to gently sloping desert terrain, with low shrub density, especially creosote bush scrub. It requires sandy and gravelly soils for den sites.	FB	**Moderate:** Suitable habitat is present. Recent iNaturalist record located 6 miles north.

Sources: CDFW 2025a, 2025c, 2025d; iNaturalist 2025, eBird 2025, Hansen and Shedd 2025, Nafis 2025.

Conservation Status

Federal Rankings:

FT = Federally Threatened
FPT = Federal Proposed for Listing as Threatened
BGEPA = Bald and Golden Eagle Protection Act
BCC = USFWS Bird of Conservation Concern

State Rankings:

ST = State Threatened
CS = Candidate for State Listing
FP = California Fully Protected
SA = CDFW Special Animal
WL = CDFW Watch List
SSC = California Species of Special Concern
FB = Protected Fur Bearing Mammal

Definitions of occurrence probability: Estimated occurrence probabilities-based literature sources, field surveys, and habitat analyses.

Present: Taxa (or sign) were observed in the project area or in the same watershed (aquatic taxa only) during the most recent surveys, or a population has been documented by CDFW, USFWS, or local experts.

High: Both a documented recent record (within 10 years) exists of the taxon within the project area or immediate vicinity (approximately 5 miles) and the environmental conditions (including soil type) associated with presence of the taxon occur within the project area.

Moderate: Both a documented recent record (within 10 years) exists of the taxon within the project area or the immediate vicinity (within approximately 10 miles) and the environmental conditions associated with taxa presence are marginal and/or limited within the project area, or the project area is located within the known current distribution of the taxon and the environmental conditions (including soil type) associated with presence of the taxon occur within the project area.

Low: A historical record (over 10 years old) exists of the taxon within the project area or general vicinity (within approximately 10 miles) and the environmental conditions (including soil type) associated with presence of the taxon are marginal and/or limited within the project area.

Unlikely: Limited marginal habitat occurs in the project area, no known occurrences occur within the past 20 years, and taxon was not detected during focused surveys.

4.3.1. Listed Threatened or Endangered Wildlife

This section summarizes wildlife species reported from the region that are listed as threatened or endangered under the federal ESA or the CESA, and that are either present or have at least a moderate potential to occur within the Project area. One federally and state-listed species, the desert tortoise (*Gopherus agassizii*), was sign observed within the Survey Area. Based on the results of a database review and field surveys, four additional species that are proposed for listing under the ESA and the CESA were identified as having at least moderate potential to occur within the Project area. These species are summarized below.

Crotch's bumble bee (*Bombus crotchii*). Crotch's bumble bee was recently petitioned for listing under the CESA but was determined to not be eligible for protection under CESA. Following changes to California Fish and Game Code, Crotch's bumble bee was then repetitioned and is currently a candidate for listing

under CESA. Crotch's bumble bee is a widespread secretive species known from more than two hundred locations over a broad geographic range (CDFW 2025a). It is typically found in openings in grassland and scrub habitats where it burrows into the ground and lives in colonies. It feeds on native plants including milkweed, pincushion, lupine, phacelia, sage, snapdragon, clarkia, bush poppy, and buckwheat, many of which are present in the Project area and in the surrounding habitats. However, the availability of these resources is expected to fluctuate annually, as forage for pollinators naturally varies with rainfall patterns that affect floral abundance.

Suitable habitat and floral resources for Crotch's bumble bee are within the Joshua tree woodland and desert scrub communities within the Project area. A recent iNaturalist record of Crotch's bumble bee is located 5.6 miles southwest of the Project area in Black Rock Cayon. Based on habitat suitability and the proximity to known occurrences, Crotch's bumble bee is considered to have a moderate potential to occur within the Project area.

Monarch butterfly (*Danaus plexippus* pop. 1). The monarch butterfly is a federal Candidate for listing under the ESA and is CDFW Special Animal (CDFW 2025a and 2025d). This taxon is not State listed as threatened or endangered. Monarch butterflies are brightly colored with orange wings contrasted by black veins and white spots. Their larvae are similarly distinctive, with bold black, white, and yellow bands along the body. The vivid coloration of monarch caterpillars and adults serves as a warning of their potential toxicity to predators, which they acquire as larvae by feeding on milkweed (primarily *Asclepias* spp.), their obligate host plant (USFWS 2024). In the western U.S., the widely distributed narrow-leaved milkweed (*A. fascicularis*) and showy milkweed (*A. speciosa*) are commonly used. Adult monarchs will visit milkweed plants to feed on nectar but also utilize a variety of desert plants such as sweetbush (*Bebbia juncea*), desert willow (*Chilopsis linearis*), rabbitbrush (E*ricameria* spp., *Chrysothamnus* spp.), sages (*Salvia* spp.), mallows (*Sphaeralcea* spp.), and many other plants in the sunflower family (Asteraceae) (Fallon et al., 2015; James 2024). The availability of forage for pollinators often depends on rainfall and seasonal patterns, as drought or dry periods can reduce plant growth, floral abundance, and nectar resources (Phillips et al., 2018). The monarch butterfly is notable for its long-distance multi-generational annual migrations. In the fall, most of the western U.S. population migrates to California to winter within a coastal strip from Los Angeles to Monterey (CDFW 2025a). Overwintering monarchs require roosting habitat in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nearby nectar and water sources. In February and March, monarchs breed at the roost site before dispersing to suitable habitat to lay their eggs. Spring and summer breeding areas for monarch butterflies are found throughout most of California (except for the northwest), where milkweed and nectar plants are available. In southern California, breeding is generally in more coastal locations, but records exist in all non-desert areas.

Monarch butterflies have been documented within two miles of the Project area. Additionally, suitable nectar plants, including apricot mallow (*Sphaeralcea ambigua*), desert willow, rabbitbrush, and Utah vine milkweed, were observed during surveys. Based on the availability of potential nectar sources and the proximity of known occurrences, the monarch butterfly has a high potential to be present within the Project area during its migratory period. However, as no milkweed plants were detected during surveys, the Project area is unlikely to support larval development. Additionally, the Project area lacks suitable overwintering habitat, and no overwintering sites occur within approximately 80 miles; therefore, monarchs are not expected to overwinter in the Project area.

Desert tortoise (*Gopherus agassizii*). The desert tortoise is listed as federally and State threatened under the federal ESA and CESA (CDFW 2025a). The desert tortoise is a large, long-lived, herbivorous reptile that can feed on a variety of herbaceous annual grasses, forbs, and flowers. In addition, they can occur in nearly every desert habitat. For example, they can occupy creosote bush scrub dominated by creosote bush and white bursage at lower elevations to rocky slopes in blackbrush scrub and juniper woodland ecotones at higher elevations (Germano et al., 1994). However, tortoises are more likely to occur in

habitats with friable, well-drained, sandy soils to allow for burrow and nest excavation (USFWS 1994). These preferred habitats also typically provide sufficient cover, as desert tortoises will burrow beneath shrubs, rock formations, or man-made objects. Desert tortoises are also known to excavate burrows in the open. Although desert tortoises do require access to freestanding water, adult tortoises can survive for more than a year without it (Henen et al., 1998).

No live desert tortoises or active/inactive burrows were observed within the Survey Area during surveys. However, eight desert tortoise scat were documented, indicating recent or past use of the area by this species. Suitable habitat for desert tortoise is present throughout the Project area. Based on the presence of scat and the availability of appropriate habitat, it is concluded that desert tortoises are present within the Project area, even though individuals were not directly observed during surveys.

Burrowing owl (*Athene cunicularia*). Burrowing owl is a CDFW Species of Special Concern and is a USFWS Bird of Conservation Concern (BCC). As of October 2024, the western burrowing owl has been officially designated as a candidate species for listing under CESA by the California Fish and Game Commission. It inhabits arid lands throughout much of the western U.S. and southern interior of western Canada (Poulin et al., 2020). In this portion of its range, some owls are migratory, while some are year-round residents. Burrowing owls prefer flat, open annual or perennial grassland or gentle slopes and sparse shrub or tree cover. However, they are routinely found in desert shrub communities, including those that are present in the Project area. Burrowing owls are unique among the North American owls in that they nest and roost in abandoned burrows, especially those created by ground squirrels, kit fox, desert tortoise, and other wildlife. Burrowing owls have a strong affinity for previously occupied nesting and wintering sites. Burrowing owls often return to burrows used in previous years, especially if they were successful at reproducing there in previous years (Gervais et al., 2008). The breeding season in southern California generally occurs from February to August with peak breeding activity from April through July (Poulin et al., 2020).

No burrowing owls or their burrows were observed during surveys. However, suitable habitat is present throughout the Project area. A recent eBird record documents a burrowing owl sighting approximately 6 miles southeast of the Project area, within Joshua Tree National Park. Based on the presence of suitable habitat and proximity to known occurrences, burrowing owl was determined to have a moderate potential to occur within the Project area.

Mountain lion (*Puma concolor*). The mountain lion (Southern California/Central Coast Evolutionarily significant unit) is a State candidate for listing under the CESA. Mountain lions will utilize many habitats within their range to hunt including riparian, scrub, chaparral, grassland, and woodland habitats (Dickson et al., 2005). While hunting, mountain lions prefer to stalk and pursue their prey along canyon bottoms and gentle slopes (Dickson and Beier 2006). Mountain lions will feed on steeper slopes in habitats with dense understory vegetation for cover (Benson et al., 2016). Although they will travel through open or human-disturbed habitat, they prefer expansive, intact, heterogeneous habitat (Dickson et al., 2005). Within California, mountain lions can be found in a variety of habitat types between sea level and 10,000 feet elevation.

Suitable foraging habitat for mountain lions is present within the Project area, particularly in open desert scrub and Joshua tree woodland that may support prey species such as desert bighorn sheep and small mammals. However, the Project area lacks suitable denning habitat, typically used for shelter and rearing young. No live individuals, dens, or signs (e.g., tracks, scat) were observed during surveys. Multiple recent iNaturalist records are present in the vicinity of the Project area. Based on the availability of foraging habitat and proximity to recent observations, mountain lions are considered to have a high potential to forage within the Project area, though they are unlikely to den on-site.

4.3.2. Species Protected Under the Federal Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. §§ 668-668d; BGEPA) prohibits take of bald eagles and golden eagles. The BGEPA defines *take* to include "pursuing, shooting, shooting at, poisoning, wounding, killing, capturing, trapping, collecting, molesting, and disturbing." The USFWS (2007) further defines *disturb* as "to agitate or bother a bald eagle or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

Golden eagle (*Aquila chrysaetos*). Golden eagle is federally protected under the BGEPA, is a fully protected species in California, and is a USFWS BCC. Golden eagles are year-round residents throughout most of their range in the western U.S. In the southwest, they are more common during winter when eagles that nest in Canada migrate south into the region. They breed from late January through August, mainly during late winter and early spring in the California deserts. In the desert, they generally nest in steep, rugged terrain, often on sites with overhanging ledges, cliffs, or large trees that are used as cover. Golden eagles are wide-ranging predators, especially outside of the nesting season, when they have no need to return daily to tend eggs or young at their nests. Foraging habitat consists of open terrain including grasslands, deserts, savanna, and early successional forest and shrubland habitats. They prey primarily on rabbits and rodents, but will take other mammals, birds, reptiles, and some carrion.

Golden eagle home ranges in the Mojave Desert range from 1.7 to 1,369 square miles, and average 119 square miles (Braham et al., 2015). It is common for the golden eagle to use alternate nest sites, and old nests are reused. In any given year, golden eagles may initiate nesting behavior at one nest, without any activity at the other nests. Eagles may complete breeding by laying eggs and raising chicks or may abandon the nest without successfully raising young. In any given year, all or most nests in a territory may be inactive, but eagles may return in future years to nest at previously inactive sites.

Golden eagles are known to occur throughout the region, with numerous documented occurrences within the vicinity of the Project. Although the Project area lacks suitable nesting habitat, golden eagles have been documented foraging over the site. The nearest historic nesting site is located approximately 7.7 miles south of the Project area within Joshua Tree National Park. Given the presence of suitable foraging habitat, golden eagles are considered unlikely to nest within the Project area but have a high potential to use the site for foraging.

4.3.3. CDFW Special-Status Wildlife

In addition to species listed or proposed for listing under the federal ESA or the CESA, the State of California recognizes additional non-listed special-status wildlife designations. These include species classified as CDFW Fully Protected species, Species of Special Concern, Watch List, and Special Animals. During field surveys, three species with these designations were observed within the Project area. In addition, seven other species were determined to have at least a moderate potential to occur based on habitat suitability and known regional occurrences. Descriptions of these species, including their status, habitat preferences, and potential for occurrence within the Project area, are provided below.

Red-diamond rattlesnake (*Crotalus ruber*). The red-diamond rattlesnake is a CDFW Species of Special Concern (CDFW 2025a). The red diamond rattlesnake typically inhabits arid and semi-arid environments in southern California and northern Baja California. Preferred habitats include coastal sage scrub and chaparral communities, but also Joshua tree woodland Mojave desert scrub, Colorado desert scrub, and rocky hillsides, often with sparse vegetation and abundant cover such as boulders, rock crevices, or scattered small shrubs (Hansen and Shedd 2025). This species is commonly associated with lower elevation foothills but may also be found in valley floors and alluvial fans where prey and shelter are

available. The red-diamond rattlesnake is the most active during warmer months and may use rodent burrows or rock outcrops for thermoregulation and refuge.

Suitable habitat for the red-diamond rattlesnake is present within the rocky areas and hillsides of the Project area, which provide thermoregulation and refuge required by this species. Multiple recent iNaturalist records document occurrences of red-diamond rattlesnakes in the vicinity of the Project area, indicating continued regional presence. Based on the availability of suitable habitat and the proximity of recent observations, the red-diamond rattlesnake is considered to have a high potential to occur within the Project area.

Coast horned lizard (*Phrynosoma blainvillii*). The coast horned lizard is a CDFW Species of Special Concern (CDFW 2025a). The coast horned lizard occurs in a wide variety of habitats throughout its range, though it is found primarily in chaparral and mixed chaparral-coastal sage scrub, to stands of pure coastal sage scrub. It is also known to occur in riparian habitats, washes, and most desert habitats. They are occasionally locally abundant in conifer-hardwood and conifer forests. This species is most common in open, sandy areas where abundant populations of native ant species (e.g., *Pogonomyrmex* and *Messer* spp.) are present (Jennings and Hayes 1994, Nafis 2025). Suitable habitat for the coast horned lizard is present in the Project area. Multiple recent iNaturalist records document occurrences of this species within or near the Project area. Based on the availability of appropriate habitat and the proximity of recent verified observations, the coast horned lizard is considered to have a high potential to occur within the Project area.

Prairie falcon (*Falco mexicanus*). Prairie falcon is a watch list species in California and is a USFWS BCC (CDFW 2025a). It breeds throughout much of arid western North America. Prairie falcons prey on a variety of small mammals, birds, reptiles, and some large insects. They nest almost exclusively on ledges of cliffs and rock escarpments or, occasionally, in stick nests built on the ledges by ravens or other raptors. There are a few regional breeding records and nesting prairie falcons may forage over very wide ranges (Johnsgard 1990).

No prairie falcons were observed during surveys. The site lacks suitable nesting habitat, such as cliffs or steep rock faces typically used for nesting. However, the Project area contains suitable foraging habitat that supports a prey base of small mammals and birds for prairie falcons. Recent eBird records for prairie falcons are present within the Project area. Based on the availability of foraging habitat and the proximity of recent observations, prairie falcons are considered to have a high potential to forage within the Project area, though they are unlikely to nest on-site.

Loggerhead shrike (*Lanius ludovicianus*). Loggerhead shrike is a CDFW Species of Special Concern (CDFW 2025a). It prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. This species most often occurs in open-canopied valley foothill hardwood forests, valley-foothill hardwood-conifer forests, valley foothill riparian, pinyon-juniper woodlands, desert riparian, and Joshua tree habitats. Suitable coastal sage scrub and chaparral habitat are present throughout the Project area. Multiple recent records are located within five miles of the Project area. There is a high potential for loggerhead shrikes to occur within the Project area.

Suitable nesting and foraging habitat for the loggerhead shrike is present throughout the Project area. During surveys, a single loggerhead shrike was observed within the Project area. Given the availability of appropriate habitat and the direct observation of the species, the loggerhead shrike is considered to have a high potential to nest and forage within the Project area.

Le Conte's thrasher (*Toxostoma lecontei*). Le Conte's thrasher is a CDFW Species of Special Concern and is a USFWS BCC (CDFW 2025a). The species is year-round resident of the Mojave and Colorado deserts, southwest Central Valley, Owens Valley, east to Nevada, Utah, and Arizona. Le Conte's thrashers occur in

sparse desert scrub such as creosote bush, Joshua tree, and saltbush scrubs, or sandy-soiled cholla-dominated vegetation. The species nests in dense, spiny shrubs or densely branched cactus in desert wash habitats.

Suitable nesting and foraging habitat for the Le Conte's thrasher is present throughout the Project area. Multiple recent eBird records are within the Project area (eBird 2025). Given the availability of appropriate habitat and recent eBird records of the species, the Le Conte's thrasher is considered to have a high potential to nest and forage within the Project area.

Yellow warbler (*Setophaga petechia*). The yellow warbler is a CDFW Species of Special Concern (CDFW 2025a). It inhabits riparian woodlands throughout California, favoring areas with dense, shrubby vegetation near water sources such as willows, cottonwoods, and alders. These habitats provide essential cover for nesting and foraging. The species typically nests in low shrubs or saplings, placing its open-cup nest between 2 to 16 feet above ground. Yellow warblers are also found in montane chaparral and open conifer forests with a substantial brush understory, particularly at middle elevations. During migration, they utilize a broader range of habitats, including woodlands, forests, and shrublands.

No suitable nesting or foraging habitat for the yellow warbler is present within the Project area, as it lacks the riparian woodland vegetation typically required by this species. However, a single yellow warbler was observed within the Survey Area during field surveys. Given the absence of appropriate breeding habitat, this individual was likely migrating through the area. While the Project area is unlikely to support nesting yellow warblers, it may provide transitory habitat during migration periods, offering temporary foraging opportunities.

Pallid bat (*Antrozous pallidus*). The pallid bat is a CDFW Species of Special Concern (CDFW 2025a). They occur in a variety of habitats, including grasslands, shrublands, woodlands, scattered desert scrub, agricultural fields, and mixed conifer forests (Barbour and Davis 1969). This species appears to prefer edges and open areas without trees. Roosting sites include rock crevices, mines, caves, tree hollows, buildings, bridges, and culverts (Hermanson and O'Shea 1983).

No live pallid bats or active roost sites were observed during surveys conducted within the Project area. However, rock outcroppings present on-site offer potential roosting habitat for this species. Additionally, the Project area contains suitable foraging habitat throughout, including open areas and desert scrub that support insect prey. Multiple recent iNaturalist records of pallid bats have been documented in the vicinity of the Project area (iNaturalist 2025). Based on the presence of potential roost sites, suitable foraging habitat, and nearby confirmed occurrences, the pallid bat is considered to have a high potential to roost and forage within the Project area.

Southern California ringtail (*Bassariscus astutus octavus*). Ringtail are recognized by CDFW as Fully Protected species under the state Fish and Game Code (CDFW, 2025a). Ringtail are nocturnal and high-secretive animals that inhabit a variety or rocky habitats throughout the southwestern United States. The southern California ringtail, a distinct sub-species, is known from coastal southern California and east into the Mojave Desert near Joshua Tree National Park. Multiple recent iNaturalist records of ringtail have been documented roughly 10 miles east of the Project area (iNaturalist 2025). Suitable denning and foraging habitat is present in the rocky habitat surrounding the Project area. Ringtail has a moderate potential to occur within the Project area.

Desert bighorn sheep (*Ovis canadensis nelsoni*). The desert bighorn sheep is a CDFW Fully Protected species (CDFW 2025a). It occurs in rugged and arid habitats within the Mojave and Sonoran Deserts, including the Mojave National Preserve and Joshua Tree National Park. They are typically found in steep, rocky terrain such as canyons, cliffs, and escarpments, which provide critical escape terrain from predators. These areas are often interspersed with desert scrub, creosote bush, and mixed cactus

communities, offering limited but essential forage. Access to permanent water sources is a key habitat requirement, especially during the dry season. Desert bighorn sheep are highly adapted to extreme desert conditions and exhibit seasonal movements to optimize access to forage and water.

No live desert bighorn sheep were observed within the Survey Area during surveys. However, desert bighorn sheep sign was documented throughout the Project area, including scat, and one horn drop, indicating recent or past use of the area by this species. Suitable habitat for desert bighorn sheep is present throughout the Project area. Additionally, several small bedrock pools suitable for bighorn sheep watering were observed along the southern trail alignment (Figure 4, Attachment 1). These pools are shallow and are expected to hold water for a short duration following rain events. Based on the presence of desert bighorn sheep sign and the availability of suitable habitat, it is concluded that desert bighorn sheep are present within the Project area, even though individuals were not directly observed during surveys.

American badger (*Taxidea taxus*). The American badger is a CDFW Species of Special Concern (CDFW 2025a). They exploit a wide variety of open, arid habitats, but are mostly found in grasslands, savannas, mountain meadows, and open areas of desert scrub (Stephenson and Calcarone 1999). Basic requirements that have been identified for this species appear to be sufficient food (burrowing rodents), friable soils, and relatively open, uncultivated ground (Williams 1986).

Suitable habitat for the American badger is present within the Project area, including open desert scrub and sandy soils that support fossorial prey and allow for denning. However, no live individuals or dens were observed during field surveys. A recent iNaturalist record of the species is located approximately 6.5 miles east of the Project area. Based on the availability of suitable habitat and the proximity of recent observations, the American badger is considered to have a moderate potential to occur within the Project area.

Desert kit fox (*Vulpes macrotis arsipus*). Desert kit fox is protected under Title 14, Section 460, California Code of Regulations, as well as the California Fish and Game Code (Sections 4000-4012), which defines kit fox as a protected furbearing mammal. Both regulations prohibit take of the species. Desert kit fox is an uncommon to rare permanent resident of arid regions of southern California and Nevada. Desert kit foxes occur in grasslands, or grassy open, arid stages of vegetation dominated by scattered herbaceous species. They prey on rabbits, ground squirrels, kangaroo rats, and various species of insects, lizards, and birds (Zeiner et al., 1990). Desert kit fox is primarily nocturnal, and inhabits open, flat areas with patchy shrubs. Friable soil is necessary for the construction of dens, which are used throughout the year for cover, thermoregulation, water conservation, and pup rearing.

Suitable habitat for the desert kit fox is present within the Project area, including open desert scrub and sandy soils that support fossorial prey and allow for denning. However, no live individuals or dens were observed during field surveys. A recent iNaturalist record of the species is located approximately 6 miles north of the Project area (iNaturalist 2025). Based on the availability of suitable habitat and the proximity of recent observations, desert kit fox is considered to have moderate potential to occur within the Project area.

4.3.4. USFWS Bird of Conservation Concern

Eight additional bird species identified as Birds of Conservation Concern were identified in the USFWS IPaC search (Attachment 3) and include black-chinned sparrow (*Spizella atrogularis*), California thrasher (*Toxostoma redivivum*), Costa's hummingbird (*Calypte costae*), golden eagle, Lawrence's goldfinch (*Spinus lawrencei*), Le Conte's thrasher, long-eared owl (*Asio otus*), and pinyon jay (*Gymnorhinus cyanocephalus*) (USFWS 2025a).

Most native bird species, including their nests and eggs, are protected under the federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. § 703) and the California Fish and Game Code. Specifically, Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, their nests, or eggs. These protections apply broadly, even to species that do not have additional special-status designations.

Within the Project area, eBird data indicates that 61 bird species have been recorded (eBird 2025). The site supports suitable foraging and nesting habitat for a variety of protected bird species, as well as stopover habitat for migratory songbirds during seasonal movements. These habitats include desert scrub, Joshua tree woodland, and open areas with scattered shrubs and perches.

4.4. Designated Critical Habitat and Special Habitat Designations

Based on a review of the USFWS Critical Habitat Mapper (USFWS 2025c), no designated critical habitat occurs within the Project area. The nearest designated critical habitat is for the desert tortoise, located approximately 14 miles east of the Project area.

4.5. Wildlife Corridors and Special Linkages

The ability for wildlife to move freely among populations and habitat areas is important to long-term genetic variation and demography. Fragmentation and isolation of natural habitat may cause loss of native species diversity in fragmented habitats. In the short term, wildlife movement may also be important to individual animals' ability to occupy their home ranges, if their ranges extend across a potential movement barrier. These considerations are especially important for rare, threatened, or endangered species, and wide-ranging species such as large mammals, which exist in low population densities.

The California Essential Habitat Connectivity Project was commissioned by the California Department of Transportation (Caltrans) and CDFW to create a statewide assessment of essential habitat connectivity to be used for conservation and infrastructure planning (Caltrans and CDFW 2010). One of its goals was to create the Essential Connectivity Map, which depicts large, relatively natural habitat blocks that support native biodiversity (natural landscape blocks) and areas essential for ecological connectivity between them (essential connectivity areas). This map does not reflect the needs of individual species but is based on overall biological connectivity and ecological integrity. A more detailed analysis is required to assess local and regional needs for connectivity and develop linkage designs based on the requirements of individual species (Caltrans and CDFW 2010).

The Essential Connectivity Map (Caltrans and CDFW 2010, CDFW 2025g) identifies several natural landscape blocks within the western Mojave Desert that are important for maintaining regional wildlife movement and ecological connectivity. These landscape blocks are located outside the Project area. Additionally, the Project area lies beyond the boundaries of the broader California Essential Habitat Connectivity corridor, which facilitates terrestrial wildlife movement across the western Mojave Desert and Joshua Tree National Park (CDFW 2025g). Based on this information, the Project is not expected to impact local or migratory wildlife movement between natural landscape blocks within the San Bernardino Mountains, western Mojave Desert, or the broader southern California region.

5. JURISDICTIONAL FEATURES

The Project area contains several ephemeral drainages that exhibit characteristics of jurisdictional waters of the State under the regulatory authority of the Colorado River Basin Regional Water Quality Control Board (RWQCB) and CDFW as jurisdictional streambeds. These features are primarily characterized by

well-defined channels with bed and bank, evidence of ordinary high-water marks, and connectivity to downstream waters during significant precipitation events. The drainages generally flow in a southeasterly direction, contributing to the regional hydrologic network. Although these features are typically dry for most of the year, they play an important role in stormwater conveyance and support a variety of desert-adapted vegetation along their margins. A formal jurisdictional delineation would be required to confirm the extent and regulatory status of these features.

6. REGULATORY ENVIRONMENT

6.1. Federal Regulations and Plans

6.1.1. National Environmental Policy Act

The National Environmental Policy Act of 1969 (NEPA) requires all federal agencies to examine the environmental impacts of their actions, incorporate environmental information, and utilize public participation in the planning and implementation of all actions. Federal agencies must integrate NEPA with other planning requirements and prepare appropriate NEPA documents to facilitate better environmental decision making. NEPA requires federal agencies to review and comment on federal agency environmental plans/documents when the agency has jurisdiction by law or special expertise with respect to any environmental impacts involved (42 U.S.C. 4321- 4327) (40 CFR 1500-1508).

6.1.2. Endangered Species Act

The federal ESA and its subsequent amendments protect plants and wildlife (and their habitats) listed as endangered or threatened by the USFWS and National Marine Fisheries Service. Section 9 of the ESA specifically prohibits the taking of ESA-protected wildlife and lists prohibited actions. The ESA defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 Code of Federal Regulations [CFR] 17.3). The ESA also governs the removal, possession, malicious damage, or destruction of endangered plants on federal land. Pursuant to the requirements of the ESA, an agency proposing a project or reviewing a proposed project within its jurisdiction (action agency) must determine whether any federally listed species may be present in the study area and determine whether the proposed project will have a significant effect upon such species or its habitat. The action agency is also encouraged to determine whether the project is likely to jeopardize any proposed or candidate species in an effort to avert any potential future conflict.

The Department of the Interior, on April 17, 2025, put forth a proposed rule titled "Rescinding the Definition of 'Harm' Under the Endangered Species Act." If this rule is finalized, it would eliminate the existing definition of "Harm," which would have significant negative consequences for endangered species, including the loss of protection for their critical habitats. This proposed change is already facing legal challenges, and as of August 2025, has not yet been implemented as a final rule.

6.1.3. Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. §§ 703–712) is a federal law that protects over 1,000 species of migratory birds by prohibiting the take, possession, sale, purchase, barter, transport, or export of any migratory bird, or any part, nest, or egg of such bird, except as permitted by regulation. The MBTA implements treaties between the United States and Canada, Mexico, Japan, and Russia. Although recent regulatory changes have clarified that incidental take (i.e., unintentional harm resulting from otherwise lawful activities) is not currently subject to enforcement under the MBTA, project activities will

be conducted in a manner that avoids direct impacts to migratory birds, particularly during the nesting season, to ensure compliance with the spirit and intent of the Act

On April 11, 2025, the Department of Interior reissued a memo that brings back the 2017 Trump administration's interpretation of the MBTA. This interpretation specifically excludes the accidental or incidental killing of birds from its protections. This 2017 interpretation is currently involved in legal disputes and does not cover incidental take, which refers to unintentional harm to birds.

6.1.4. Bald and Golden Eagle Protection Act

Bald and golden eagles are protected under the BGEPA, originally passed in 1940 (amended in 1962). The BGEPA prohibits the take, possession, sale, purchase, barter, offer to sell, transport, export, or import of any bald or golden eagle, alive or dead, including any part, nest, and/or egg, unless allowed by permit (16 U.S.C. 668[a]; 50 CFR 22).

6.1.5. Federal Clean Water Act Section 404

Section 404 of the Clean Water Act (CWA) regulates the discharge of dredged material, placement of fill material, or certain types of excavation within "Waters of the U.S." (resulting in more than incidental fallback of material) and authorizes the Secretary of the Army, through the Chief of Engineers, to issue permits for such actions. Permits can be issued for individual projects (individual permits) or for general categories of projects (general permits). The definition of federally jurisdictional wetlands and "waters of the U.S." have changed several times recently and the latest interpretation of the CWA is discussed below.

In 2020, the U.S. Environmental Protection Agency (USEPA) updated the CWA and its definition of navigable waters (USACE and USEPA 2020). The Navigable Waters Protection Rule (NWPR) revised the definition of "Waters of the U.S." to encompass traditional navigable waters; perennial and intermittent tributaries that contribute surface waters flow to such waters; certain lakes, ponds, and impoundments of jurisdictional waters; and wetlands adjacent to other jurisdictional waters. Ephemeral waters were not included in the NWPR definition of "Waters of the U.S." In 2021, the USEPA and U.S. Army Corps of Engineers (USACE) were directed by the Biden Administration and the U.S. District Court to vacate the 2020 NWPR and revert to the pre-2020 rule. On January 18, 2023, the USEPA published the "Revised Definition of 'Waters of the United States'" (the January 2023 Rule), with a definition of "Waters of the U.S" that reutilized the 2006 Rapanos ruling's permanent and significant nexus standards.

Most recently on May 25, 2023, the U.S. Supreme Court decision in *Sackett v. Environmental Protection Agency* concluded that the significant nexus standard is inconsistent with the CWA. On August 29, 2023, the USACE and USEPA issued a prepublication of the final rule to amend the January 2023 Rule and define "Waters of the U.S." as follows, once again not including ephemeral waters:

- Traditional navigable waters, the territorial seas, and interstate waters (referred to as "(a)(1) waters").
- Impoundments of "Waters of the U.S.", other than impoundments of waters identified under paragraph (a)(5) (referred to as "(a)(2) waters").
- Tributaries to traditional navigable waters, the territorial seas, and interstate waters that are relatively permanent, standing or continuously flowing bodies of water (referred to as "(a)(3) waters" or "jurisdictional tributaries").
- Wetlands adjacent to and having a continuous surface connection with (a)(1) waters or relatively permanent, standing or continuously flowing (a)(2) waters (referred to as "jurisdictional adjacent wetlands").

- Intrastate lakes and ponds not identified as (a)(1) through (4) waters that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to (a)(1) or (a)(3) waters.

On March 12, 2025, the USACE and the USEPA released a memo clarifying their interpretation of "continuous surface connection." This term is from the 2023 Conforming Rule, and its key to determining what falls under the CWA. The memo states that for an Adjacent Wetland or Relatively Permanent Water to be subject to CWA jurisdiction, it must directly border waters already defined as jurisdictional. The USACE and USEPA also indicated they will publish a notice in the Federal Register titled "WOTUS Notice: The Final Response to SCOTUS," to provide further details on future implementation.

6.1.6. Federal Clean Water Act Section 401

Section 401 of the CWA requires that any applicant, for a Federal permit for activities that involve a discharge to “waters of the State,” shall provide the Federal permitting agency a certification (from the State in which the discharge is proposed) that states that the discharge will comply with the applicable provisions under the federal CWA.

Therefore, before the USACE may issue a Section 404 permit, a permittee must apply for and receive Section 401 Water Quality Certification from the RWQCB. The RWQCB may add conditions to their certification to remove or mitigate potential impacts to water quality standards. Such conditions must ultimately be included in the Federal Section 404 permit.

6.1.7. Fish and Wildlife Coordination Act

This act applies to any federal project where the waters of any stream or other body of water are impounded, diverted, deepened, or otherwise modified. Requires consultation among USFWS and State wildlife agencies. Implemented through the NEPA process and Section 404 permit process.

6.1.8. Plant Protection Act of 2000

The Plant Protection Act of 2000 prevents importation, exportation, and spread of pests that are injurious to plants, and provides for the certification of plants and the control and eradication of plant pests. The Act consolidates requirements previously contained within multiple federal regulations including the Federal Noxious Weed Act, the Plant Quarantine Act, and the Federal Plant Pest Act.

6.1.9. Federal Noxious Weed Act of 1974

The Federal Noxious Weed Act of 1974 defines a noxious weed as any living stage of a plant that can directly or indirectly injure crops, other useful plants, livestock, poultry, or other interests of agriculture including irrigation, navigation, the fish and wildlife resources of the U.S., or public health. The act also:

- Regulates the sale, purchase, and transportation of noxious weeds into or through the U.S.
- Regulates the inspection and quarantine of areas suspected of infestation and provides for the disposal or destruction of infested products, articles, means of conveyance, or noxious weeds.
- Provides for fines of up to $5,000 and/or imprisonment up to one year for violation of the regulation.
- Requires federal agencies to work with state and local agencies to develop and implement noxious weed management programs on Federal lands.

6.2. State Regulations

6.2.1. California Endangered Species Act

The CESA provides that certain species of fish, wildlife, and plants that are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of California are of statewide concern and should be conserved, protected, and enhanced along with their habitats. The CESA establishes that it is the policy of the state that state agencies should not approve projects that would jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat that would prevent jeopardy.

6.2.2. California Code of Regulations (Title 14, sections 670.2 and 670.5)

Identifies the plants and animals of California that are declared rare, threatened, or endangered.

Under the California Code of Regulations (CCR), Title 14, Sections 670.2 and 670.5 identify plant and animal species that are formally recognized by the State of California as endangered, threatened, or rare.

Section 670.2 pertains to native plant species and lists those designated as:

- Endangered: At risk of extinction throughout all or a significant portion of their range.
- Threatened: Likely to become endangered in the foreseeable future.
- Rare: Although not currently threatened or endangered, these species are uncommon and face potential risks.

Section 670.5 addresses animal species, including mammals, birds, reptiles, amphibians, fish, and invertebrates, that are:

- Endangered or Threatened based on their population status, habitat vulnerability, and other ecological factors.

These listings are established by the California Fish and Game Commission and serve as the basis for regulatory protections under the CESA. Species listed under these sections require consideration during environmental review processes, including biological assessments and permitting.

6.2.3. Fully Protected Designations (Fish and Game Code Sections 3511, 4700, 5515, and 5050)

Designates 36 fish and wildlife species as “fully protected” from take, including hunting, harvesting, and other activities. The CDFW may only authorize take of designated fully protected species through a Natural Community Conservation Plan. Recent changes to legislation may remove some of these species from this list and provide take through the CESA.

6.2.4. Native Birds (Fish and Game Code Sections 3503, 3503.5, and 3513)

Prohibits take, possession, or needless destruction of birds, nests, or eggs except as otherwise provided by the code. Section 3513 provides for the adoption of the MBTA’s provisions (above).

6.2.5. California Environmental Quality Act (CEQA)

CEQA (California Public Resources Code §§ 21000-21177) requires state agencies, local governments, and special districts to evaluate and disclose impacts from "projects" in the state. Section 15380 of the CEQA

Guidelines clearly indicates that wildlife and plant species designated by the CDFW as Fully Protected or Species of Special Concern should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

6.2.6. Native Plant Protection Act

The state Native Plant Protection Act (NPPA) of 1977 (Fish and Game Code sections 1900-1913) was created with the intent to "preserve, protect and enhance rare and endangered plants in this state." The NPPA is administered by the CDFW. The Fish and Game Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The California Endangered Species Act of 1984 (Fish and game Code sections 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of Fish and Game Code.

6.2.7. California Streambed Alteration Notification/Agreement

Section 1602 of California Fish and Game Code requires that a streambed alteration application be submitted to the CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. Often, projects that require a streambed alteration agreement also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the streambed alteration agreement may overlap.

6.3. Other Applicable Organizations

6.3.1. California Native Plant Society Rare Plant Program

The mission of the CNPS Rare Plant Program is to develop current, accurate information on the distribution, ecology, and conservation status of California's rare and endangered plants, and to use this information to promote science-based plant conservation in California. Once a species has been identified as being of potential conservation concern it is put through an extensive review process. Once a species has gone through the review process, information on all aspects of the species (listing status, habitat, distribution, threats, etc.) are entered into the online CNPS Inventory and given a CRPR. In 2011 the CNPS officially changed the name "CNPS List" to "CRPR." The Program currently recognizes more than 1,600 plant taxa (species, subspecies, and varieties) as rare or endangered in California.

Vascular plants listed as rare or endangered by the CNPS, but which might not have designated status under state endangered species legislation, are defined by the following CRPR:

- CRPR 1A – Plants considered by the CNPS to be extinct in California.
- CRPR 1B – Plants rare, threatened, or endangered in California and elsewhere.
- CRPR 2 – Plants rare, threatened, or endangered in California, but more numerous elsewhere.
- CRPR 3 – Plants about which we need more information – a review list.
- CRPR 4 – Plants of limited distribution – a watch list.

In addition to the CRPR designations above, the CNPS adds a Threat Rank as an extension added onto the CRPR and designates the level of endangerment by a 1 to 3 ranking, with 1 being the most endangered and 3 being the least endangered. The Threat Ranks are described as follows:

- 1. Seriously threatened in California (high degree/immediacy of threat).
- 2. Fairly threatened in California (moderate degree/immediacy of threat).

- 3. Not very threatened in California (low degree/immediacy of threats or no current threats known.

7. ENVIRONMENTAL CONSEQUENCES

The Project has the potential to result in adverse impacts to sensitive vegetation communities, special-status plant and wildlife species, and aquatic features within the Survey Area. Specifically, minor impacts are anticipated to Joshua tree woodland, a sensitive natural community. These impacts are expected to be limited in extent and will be minimized through the implementation of avoidance measures, protective buffers, and best management practices during construction.

The Project could result in impacts to individual western Joshua trees, Latimer's woodland gilia, and Utah vine milkweed documented within the Survey Area. The Project could also result in impacts to several special-status wildlife species that were documented within the Survey Area, including desert tortoise, loggerhead shrike, and desert bighorn sheep. The Project could also result in impacts to several special-status plant and wildlife species, including those listed or candidates for listing under the federal ESA and the CESA, that were not detected during field surveys but are considered to have at least moderate potential to occur within the Project area.

The Project is also expected to result in impacts to ephemeral drainages under the jurisdiction of the Colorado River Basin RWQCB and the CDFW. It is not expected to adversely affect local hydrology or downstream areas, as alterations to natural drainage patterns or increases in runoff would not occur.

The Project will not impact designated critical habitat, natural landscape blocks, or the California Essential Habitat Connectivity corridors. Due to the Project’s limited footprint and location outside of key connectivity zones, impacts to these features are expected to be minimal or nonexistent.

7.1. Impacts to Sensitive Natural Communities

Vegetation removal along the existing trails within the Project area is expected to result in direct impacts to Joshua tree woodland. These impacts may include the removal or disturbance of individual Joshua trees, soil compaction, and fragmentation of habitat due to trail grading and construction activities. Although the overall footprint of disturbance is limited, trail alignments intersect portions of intact woodland, potentially affecting root zones.

In addition to direct impacts, the Project may result in indirect impacts to Joshua tree woodland within and adjacent to the Project area. These impacts may include increased human presence, which can lead to soil compaction, trampling of seedlings, and the introduction of invasive plant species that compete with native vegetation. Dust generated by trail use and construction activities may also affect photosynthesis and overall plant health. Furthermore, increased access may elevate the risk of unauthorized off-trail activity which can degrade habitat quality.

To minimize direct and indirect effects, the Project will implement best management practices, including buffer zones, protective signage, and biological monitoring during construction.

7.2. Impacts to Special-Status Plants

Trail improvements along the existing alignment associated with the Project is expected to result in direct impacts to individual western Joshua trees and other special-status plant species documented within the Project area or were determined to have potential to occur within the Project area. These impacts may include the removal of individual plants, disturbance to root systems, and soil compaction within the

immediate construction footprint. Grading, vegetation clearing, and equipment movement may also damage seedlings or disrupt microhabitat conditions essential for plant survival.

In addition to direct impacts, the Project may result in indirect impacts to special-status plant species located adjacent to construction areas. These impacts may include increased dust deposition, which can interfere with photosynthesis and reduce plant vigor, as well as changes in soil moisture and microclimate conditions due to vegetation removal and altered surface hydrology. Human activity associated with trail use may also lead to trampling of nearby vegetation, the spread of invasive species, and increased risk of unauthorized off-trail access. These impacts can degrade habitat quality and reduce the reproductive success of sensitive plant populations.

To address these impacts, the Project will implement species-specific mitigation measures, including preconstruction surveys, protective buffers, biological monitoring, and, where necessary, agency-approved mitigation such as seed collection and salvage.

7.3. Impacts to Wildlife

The proposed trail improvements associated with the Project area is anticipated to result in both direct and indirect impacts to special-status wildlife species. The Project area supports a variety of habitats that provide essential breeding and foraging habitat for special-status wildlife. Construction activities such as vegetation clearing, grading, and increased human presence have the potential to disturb or displace wildlife and degrade habitat quality.

The Project is expected to result in both direct and indirect impacts to special-status pollinators, including Crotch bumble bee and monarch butterfly. Direct impacts include the removal of native flowering plants which serve as nectar sources for Crotch bumble bees and monarch, and are essential for foraging, reproduction, and survival. Ground disturbance and vegetation clearing may also destroy nesting or overwintering sites for Crotch bumble bees. Indirect impacts include increased human activity, which may lead to trampling of native flowering plants and a potential increase in invasive species. For monarchs, the loss of milkweed and nectar plants along migratory corridors can significantly reduce breeding success and migratory viability. Mitigation measures such as preserving native vegetation, providing workers training, and implementing seasonal work restrictions shall be required to minimize these impacts and support pollinator conservation.

Desert tortoises and their burrows have the potential to be directly and indirectly impacted because of the Project. Direct impacts include the mortality or injury of individuals from construction equipment and vehicles, as well as the destruction or disturbance of burrows, which serve as critical shelter and nesting sites. Ground disturbance and vegetation removal can also eliminate forage plants and reduce cover, increasing exposure to predators and environmental stressors. Indirect impacts include increased access for predators such as ravens, which are often subsidized by human activity and infrastructure, and would likely result in increased predation. Additionally, increased human presence and off-trail recreation can lead to trampling of burrows, or unintentional harassment. The spread of invasive plant species and changes in surface hydrology due to trail improvements may also reduce habitat quality. To avoid and minimize these impacts, pre-construction surveys will be conducted by a qualified biologist, and a biological monitor will be present during all ground-disturbing activities. Additional measures such as speed limits and worker training will be implemented to further reduce the risk of harm.

Project activities pose a variety of direct and indirect threats to special-status reptiles, including the California legless lizard, red-diamond rattlesnake, and coast horned lizard. Direct impacts include the destruction of habitat through grading, vegetation removal, and soil compaction, which can result in the mortality or displacement of individuals. The southern California legless lizard is vulnerable to soil

disturbance and removal of essential cover. The red-diamond rattlesnake may be directly harmed by construction equipment or displaced from basking and foraging areas, while the coast horned lizard is at risk of being crushed or disturbed during surface activity, especially in sandy, open habitats. Indirect impacts include increased human activity, which can lead to harassment, trampling, and predation, as well as habitat degradation from the spread of invasive plant species and altered microclimatic conditions. These changes can reduce prey availability, disrupt thermoregulation, and degrade sheltering and nesting sites. To mitigate these impacts, mitigation measures including pre-construction surveys, providing workers training, biological monitors will be present during all ground-disturbing activities, habitat avoidance and buffers, and seasonal work restrictions will be implemented.

The Project has potential to result in both direct and indirect impacts to the burrowing owl. Direct impacts include the destruction or collapse of active or potential burrows during grading, excavation, or heavy equipment use, which can lead to injury or mortality of adults, juveniles, or eggs. Construction activities near occupied burrows may also cause nest abandonment or reproductive failure, particularly during the breeding season. Indirect impacts include habitat degradation from vegetation removal, which reduces prey availability and cover, and increased human disturbance, which can lead to displacement, or increased predation risk. To mitigate these impacts, mitigation measures including pre-construction surveys, worker training, biological monitoring, and seasonal avoidance buffers will be implemented.

Nesting and special-status birds including loggerhead shrike and Le Conte's thrasher have the potential to be directly and indirectly impacted by the Project. Direct impacts may include the disturbance or destruction of active nests during vegetation clearing, grading, or equipment operation. Ground-nesting and shrub-nesting species are particularly vulnerable to direct mortality or nest abandonment if construction occurs during the breeding season (typically February 1 through August 31). In addition to direct impacts, the Project may result in indirect impacts to nesting birds due to increased human activity, noise, and habitat disturbance associated with trail construction and recreational use. These disturbances can lead to nest abandonment, reduced reproductive success, and increased vulnerability to predators. Noise and visual disturbance from construction equipment or trail users may disrupt normal breeding behavior, particularly for species that are sensitive to human presence. To minimize these impacts, pre-construction nesting bird surveys will be conducted. If active nests are identified, appropriate no-disturbance buffers (generally 50 to 500 feet, depending on species and activity) will be established and maintained until the young have fledged or the nest is no longer active.

The Project is not expected to affect nesting golden eagle or prairie falcon, as the Project area lacks suitable nesting habitat for either species. However, temporary impacts to foraging behavior may occur during construction activities due to increased noise, human presence, and habitat disturbance. To avoid potential impacts to these raptors, mitigation measures will be implemented. These will include pre-construction surveys to confirm absence of nesting activity in adjacent areas, the presence of a Qualified Biologist during ground-disturbing activities, and environmental awareness training for all personnel to ensure compliance with wildlife protection protocols.

Project impacts may result in direct impacts on desert kit fox and the American badger. Project activities can lead to mortality or injury of individuals from construction equipment and vehicles, as well as the destruction or disturbance of dens, which are essential for shelter and reproduction. The removal of native vegetation results in habitat loss and fragmentation, reducing prey availability and increasing the risk of displacement. To mitigate these impacts, mitigation measures include conducting pre-construction surveys to identify active dens or burrows, establishing buffer zones, implementing seasonal work restrictions, and educating construction personnel.

The Project is not expected to have a direct effect on mountain lions, as the site lacks suitable habitat for denning. However, mountain lions are known to occur in the region and may utilize adjacent hillsides for

denning or foraging. Occasional foraging activity within the Project area is possible. To avoid potential impacts to mountain lions, the Project will implement pre-construction surveys, require the presence of a qualified biological monitor during ground-disturbing activities, and provide workers training to all personnel to ensure awareness of potential wildlife encounters and appropriate response protocols.

Project activities may result in both direct and indirect impacts to special-status species, including the pallid bat, which has potential to roost in rock crevices and man-made structures and forage within the Project area. Direct impacts include the disturbance or destruction of day roosts or maternity colonies during vegetation clearing, or grading. If construction occurs near active roosts, particularly during the breeding season, it may lead to roost abandonment, reduced reproductive success, or mortality of young. Indirect impacts include habitat degradation through the loss of foraging areas and insect prey due to vegetation removal and increased human activity. Additionally, increased human presence may lead to disturbance of roosting sites, especially if located near trails or recreational areas. These impacts can reduce the availability of suitable roosting and foraging habitat. Mitigation measures such as pre-construction roost surveys, seasonal work restrictions, restricting work to daylight hours, and habitat buffers shall be required to minimize adverse effects.

7.4. Impacts to Designated Critical Habitat

The Project is located outside of the USFWS designated critical habitat. As such, designated critical habitat located outside of the Project area will not be directly or indirectly impacted by Project activities. No adverse modification to critical habitat is anticipated, and no critical habitat avoidance or minimization measures are required.

7.5. Impacts to Wildlife Corridors and Special Linkages

The Project is located outside of Natural Landscape Blocks and outside of the CEHC corridor, within the western Mojave Desert. As such, wildlife movement corridors and regional habitat connectivity areas will not be directly or indirectly impacted by Project activities. No adverse modification to these landscape-level conservation features is anticipated, and therefore, no avoidance or minimization measures related to wildlife corridors or habitat connectivity are required.

7.6. Impacts to Aquatic Resources

The Project area contains several ephemeral drainages that exhibit characteristics of jurisdictional waters under the regulatory authority of the Colorado River Basin RWQCB and the CDFW. Project activities would avoid these ephemeral drainages during construction and would not physically alter or remove any channel banks or compact soils within the drainage bed. The hydrology of the drainages would remain as they do under existing conditions. No grading would occur that would degrade downstream aquatic habitats.

Because these ephemeral drains would be avoided, the Project would not require any permits from the Colorado River Basin RWQCB or CDFW, as no jurisdictional waters would be impacted.

8. MITIGATION MEASURES

The Project has the potential to result in both direct and indirect impacts to sensitive biological resources. To address these potential impacts, Special Districts proposes implementing Mitigation Measures (MMs) designed to avoid, reduce, or otherwise minimize adverse effects on biological resources, including special-status species and their habitats. These measures will be implemented throughout the duration

of the Project, including the pre-construction and construction phases, as applicable. The following MMs are proposed to ensure compliance with environmental regulations and to support the conservation of sensitive biological resources:

MM-1. Qualified Biologist. Resumes for Qualified Biologists shall be submitted to CDFW for approval prior to commencement of any Project activities. A Qualified Biologist shall monitor the construction crew and remain on site throughout the duration of daily work activities. The Qualified Biologist shall ensure that impacts to special-status species and other sensitive biological resources are avoided. The Qualified Biologist shall have the authority, and obligation, to immediately stop any activity that could impact special-status species and other sensitive biological resources or that does not comply with proposed MMs.

At a minimum, the responsibilities of the Qualified Biologist shall include:

- Implementing a Worker Environmental Awareness Program (WEAP) for all construction personnel prior to conducting any work in sensitive areas. This will also include daily morning training to remind crews of the sensitive resources that occur in the Project area.
- Conduct daily pre-construction sweeps within the designated work area prior to the start of any ground-disturbing activities. These sweeps will be performed by a qualified biologist to ensure that no special-status plant or wildlife species, including nesting birds, are present.
- Ensuring the proposed MMs and any additional regulatory permit conditions are properly implemented.
- Ensuring that all Project activities occur within approved project limits and access roads.
- Inspecting all open holes and trenches daily and just prior to back-filling or covering and ensuring all open excavations are backfilled prior to crews leaving the work area.
- Immediately stop work if any special-status wildlife species are observed within 50 feet of active work areas and ensure that no work activities occur until the animal has left the area under its own volition.

MM-2. Worker Environmental Awareness Program (WEAP). A WEAP training shall be prepared and provided to all Project personnel prior to the commencement of any on-site activities. The training shall include an overview of special-status species (i.e. protected plants, wildlife, and nesting birds) that are known to occur or have the potential to occur within the Project area. It will also cover sensitive habitat types, applicable regulatory requirements, and the specific MMs that must be followed during construction to prevent unauthorized impacts. The WEAP shall emphasize the roles and responsibilities of all personnel, the importance of complying with environmental permits, and the procedures for reporting wildlife encounters or environmental concerns. Upon completion of the training, all Project personnel will be required to sign a log sheet confirming that they have received the training and understand the MMs and environmental compliance expectations.

MM-3. General Protection Measures. To minimize potential impacts to biological resources, the following general protection measures shall be implemented:

- All Project activities, including driving on access roads, shall occur during daylight hours.
- All litter and debris shall be removed from work areas daily.
- Domestic and working dogs are prohibited from the Project Area, access routes during Project activities, except those in the possession of authorized security personnel or federal, state, or local law enforcement officials.

- No firearms, other than those of law enforcement personnel, shall be permitted within the Project area at any time during construction.
- Wildlife encountered within the work areas shall be allowed to leave the work area unharmed.
- Pre-construction surveys for special status species shall be conducted by a qualified biologist within 30 days prior to the start of work.

MM-4. Special-Status Plants. Pre-construction botanical surveys shall be conducted within the Project during the appropriate growing season prior to the initiation of Project activities. Surveys shall be performed by a qualified botanist in accordance with current CDFW and CNPS protocols. If special-status plant species are identified during pre-activity botanical surveys, they shall be protected through the establishment of a clearly marked buffer zone. The buffer shall be of sufficient size as determined appropriately by a qualified botanist in consultation with regulatory agencies to avoid direct and indirect impacts. The buffer zone shall be maintained throughout the duration of Project activities to ensure the protection of the identified plant populations.

MM-5. Western Joshua Tree. Prior to Project activities, the Special Districts will work with CDFW to ensure compliance with the Western Joshua Tree Conservation Act. If an Incidental Take Permit (ITP) is deemed necessary, an ITP will be obtained. Additionally, prior to Project activities, a survey will be conducted to determine the presence of western Joshua trees within the Project area prior to the start of ground-disturbing activities. Crews shall not allow vehicles, equipment, or materials to be parked, or placed on top of any western Joshua trees. Vehicles or equipment left within the Project area overnight shall be located at least 50 feet from all western Joshua trees. If a western Joshua tree is damaged because of the Project, the Designated Botanist(s) shall immediately notify CDFW of the damage.

MM-6. Monarch Butterly. All milkweed plants shall be avoided to the maximum extent feasible during Project activities. If the removal or destruction of a milkweed plant cannot be avoided, the Qualified Biologist will inspect the plant prior to activities to ensure that no monarch butterfly adults, larvae, or eggs are present. If monarch butterfly adults, larvae, or eggs are present, the plant will be avoided.

MM-7. Crotch Bumble Bee. A pre-construction survey shall be conducted no more than 14 days prior to the start of any ground-disturbing activities. Surveys shall be performed by a Qualified Biologist during the species' active season (typically late spring through early fall) and shall cover the entire Project footprint, including a 50-foot buffer. Surveys shall follow the most current guidance provided by CDFW.

MM-8. Desert Tortoise. A qualified biologist shall conduct pre-construction surveys no more than 14 days prior to the start of ground-disturbing activities. Surveys shall cover the entire Project footprint and a 50-foot survey buffer to identify any active burrows or individuals. If a burrow is determined to be active, the Qualified Biologist shall establish a no-disturbance buffer of 50 feet or greater around the burrow.

A Qualified Biologist shall be present during all ground-disturbing activities within desert tortoise habitat and shall stop work if a desert tortoise is detected at or within 50 feet of work activities, until the individual leaves on its own.

Lastly, within desert tortoise habitat, vehicles shall not exceed 15 miles per hour on access roads during periods of increased desert tortoise activity (March 1 through October 31). If a vehicle is parked, the ground around and under the vehicle shall be inspected for desert tortoises before the vehicle is moved. If a desert tortoise is present, the equipment or vehicle shall remain place until the desert tortoise moves 50 feet from the equipment or vehicle. All field personnel shall immediately inform the Qualified Biologist if a desert tortoise is seen during the implementation of any Project activity. Lastly, no desert tortoise shall be handled or disturbed.

MM-9. Nesting Birds. If Project activities cannot occur outside the bird breeding season, then pre-construction surveys for active nests shall be conducted within 500 feet of the Project area no more than seven days before the initiation of construction that would occur between February 1 and August 15. Active nests must be monitored during construction. If Project activities disturb nesting, the Biological Monitor shall notify the construction manager. The Biological Monitor has the authority to implement measures to reduce disturbance in the vicinity. If Loggerhead shrike and Le Conte's thrasher nests are found during the survey, a 500-foot avoidance buffer will be established. The avoidance buffer shall be maintained until the young have fledged.

MM-10. Burrowing Owl. Within 14 days prior to the start of Project activities, a qualified biologist shall conduct burrowing owl (BUOW) surveys within 500-foot of the Project area. If an active burrow is detected, a 500-foot avoidance buffer shall be established around each burrow during the nesting season (February 1 through August 31). If active BUOW burrows are observed outside of the nesting season, a minimum 150-foot no-disturbance buffer shall be established around each burrow. Occupied burrows shall not be disturbed during the breeding season (February 1 through August 31) unless an approved biologist verifies, through non-invasive methods, that both 1) the birds have not begun egg-laying and incubation, and 2) that juveniles from the occupied burrow are foraging independently and are capable of independent survival. If BUOW are present and have a potential to be impacted by the Project, the District shall obtain an Incidental Take Permit from CDFW.

MM-11. Desert Bighorn Sheep. If any desert bighorn sheep are observed during Project activities, work within 500 feet of the sheep would be halted, and activities would resume after the animal moves away on its own. Project activities shall also use noise-reducing construction methods as feasible and limit work to daylight hours to reduce disturbance. Lastly, Project activities that result in loud noises should occur outside of the lambing season (January through June).

MM-12. Kit Fox and Badger. Within 14 days prior to the start of Project activities, a qualified biologist shall conduct surveys for desert kit fox and American badger within the Project area, including a 500-foot survey buffer around the Project area. If an active desert kit fox den is identified during the breeding season (January 15 through September 15), a 500-foot avoidance buffer shall be established and no activities within the buffer will be allowed unless authorized by CDFW. If activities occur outside of the breeding season and an active den is identified, a 150-foot avoidance buffer will be established, and no activities will be allowed within the buffer unless authorized by CDFW. If an active American badger is identified, the den shall be protected with a 100-foot no-disturbance buffer.

9. SUMMARY

Biological surveys conducted within the Project Area identified the presence of several special-status species, including the State candidate western Joshua tree and the federally and State-listed desert tortoise. In addition to these observations, a literature and database review determined that multiple other special-status plant and wildlife species have the potential to occur within the Project Area (see Tables 4-1 and 4-3).

While the Project Area does not fall within designated critical habitat or recognized wildlife movement corridors, it intersects numerous desert washes and braided stream systems.

The Project has the potential to result in both direct and indirect impacts to a range of sensitive biological resources, including special-status wildlife species and their habitats. Through the implementation of comprehensive MMs, including pre-construction surveys, biological monitoring, habitat protection, and worker environmental and awareness training, the Project is designed to reduce potential impacts to a

less-than-significant level. The Project is located outside of designated critical habitats, essential connectivity corridors, and other regionally significant conservation areas, further minimizing the potential for long-term ecological effects. With adherence to the proposed mitigation strategies, the Project is expected to comply with applicable environmental regulations and support the conservation of biological resources within the region.

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Attachment 1 FIGURES

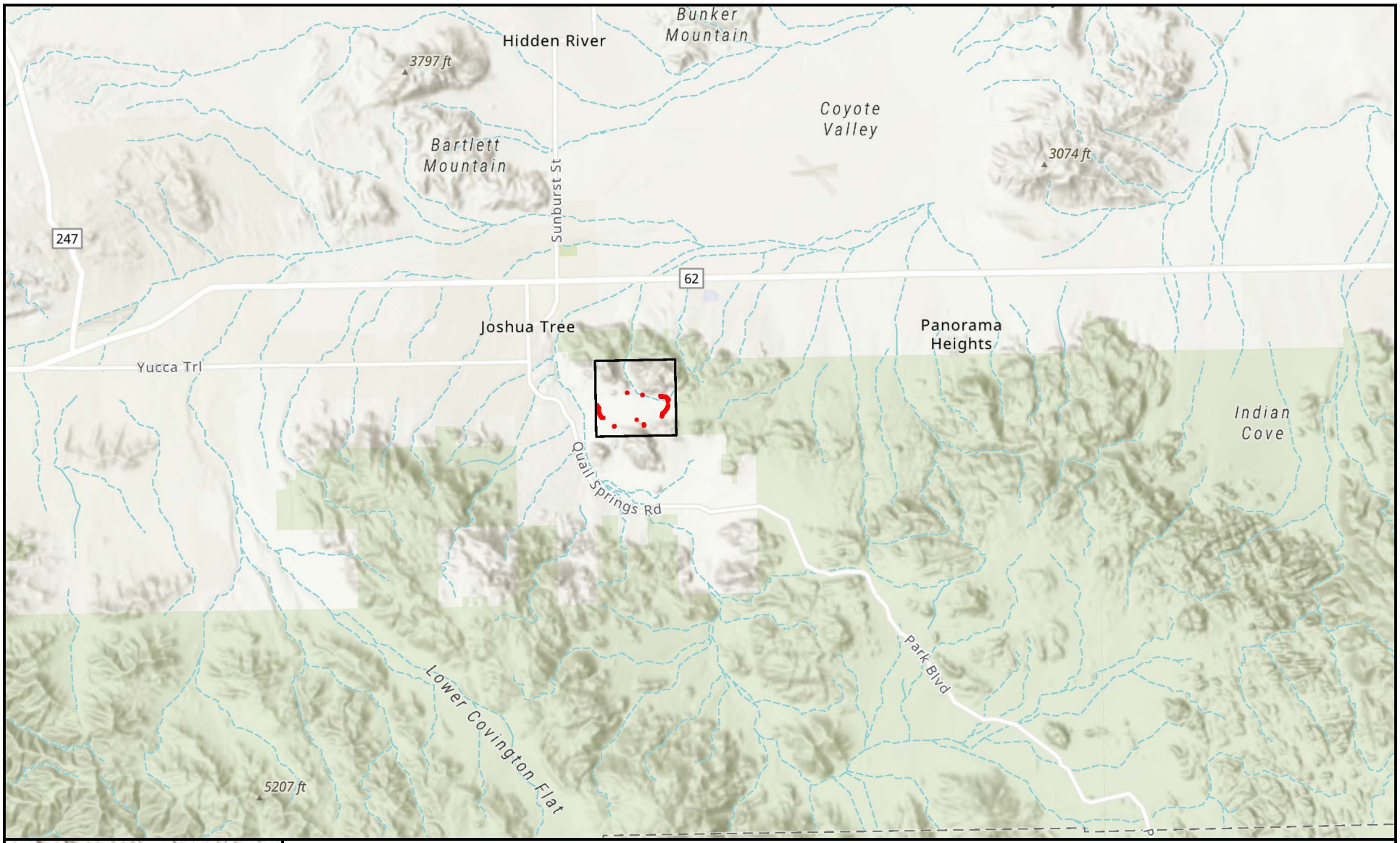


Figure 1

Project Overview

Source: Aspen, 2025; Esri, 2025; San Bernardino County Department of Public Works, Special Districts, 2025.

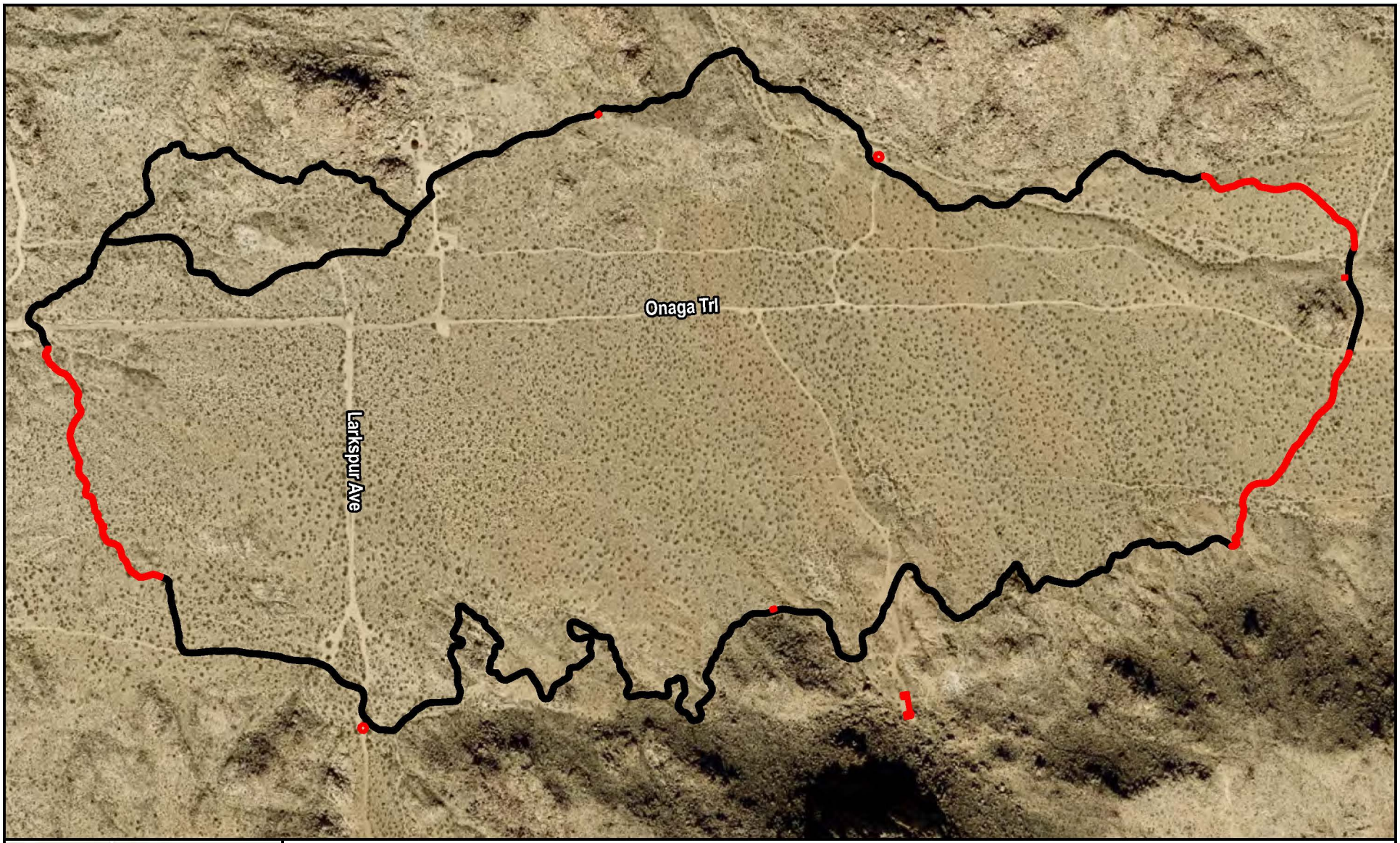
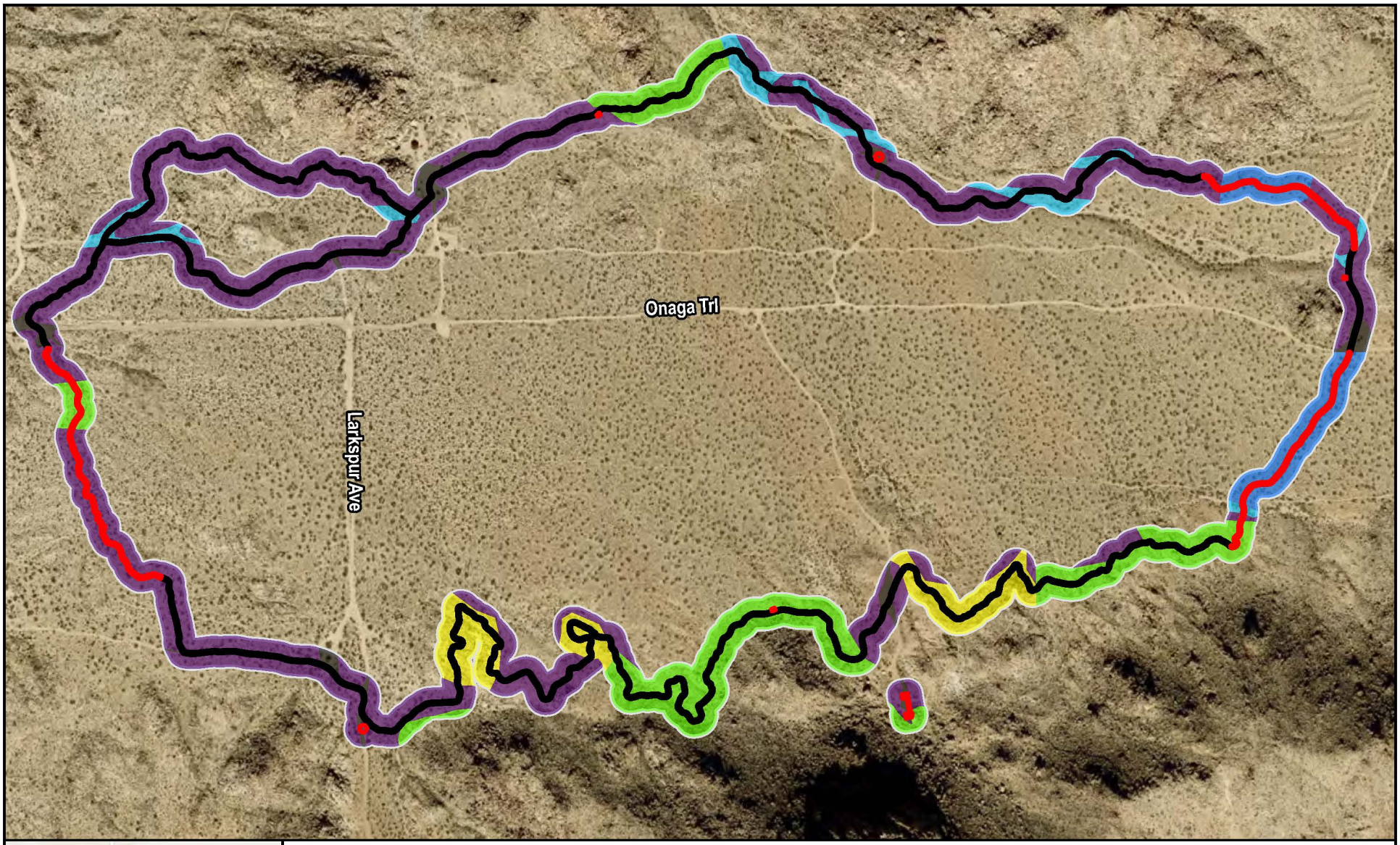


Figure 2

Project Area

Source: Aspen, 2025; Esri, 2025; San Bernardino County Department of Public Works, Special Districts, 2025.





1:6,000

Existing Trails
Project Area
Survey Area

0 500 feet

Vegetation and Cover Type

- Disturbed/Developed
- California buckwheat – Parish's goldeneye scrub - G4 S4
- Creosote Bush - White Bursage Scrub
- Catclaw Acacia – Desert Lavender – Chuparosa Scrub - G4 S4
- Joshua Tree Woodland - G4 S3
- Mojave Yucca Scrub - G4 S4

Figure 3

Vegetation and Land Cover

Source: Aspen, 2025; Esri, 2025; San Bernardino County Department of Public Works, Special Districts, 2025.

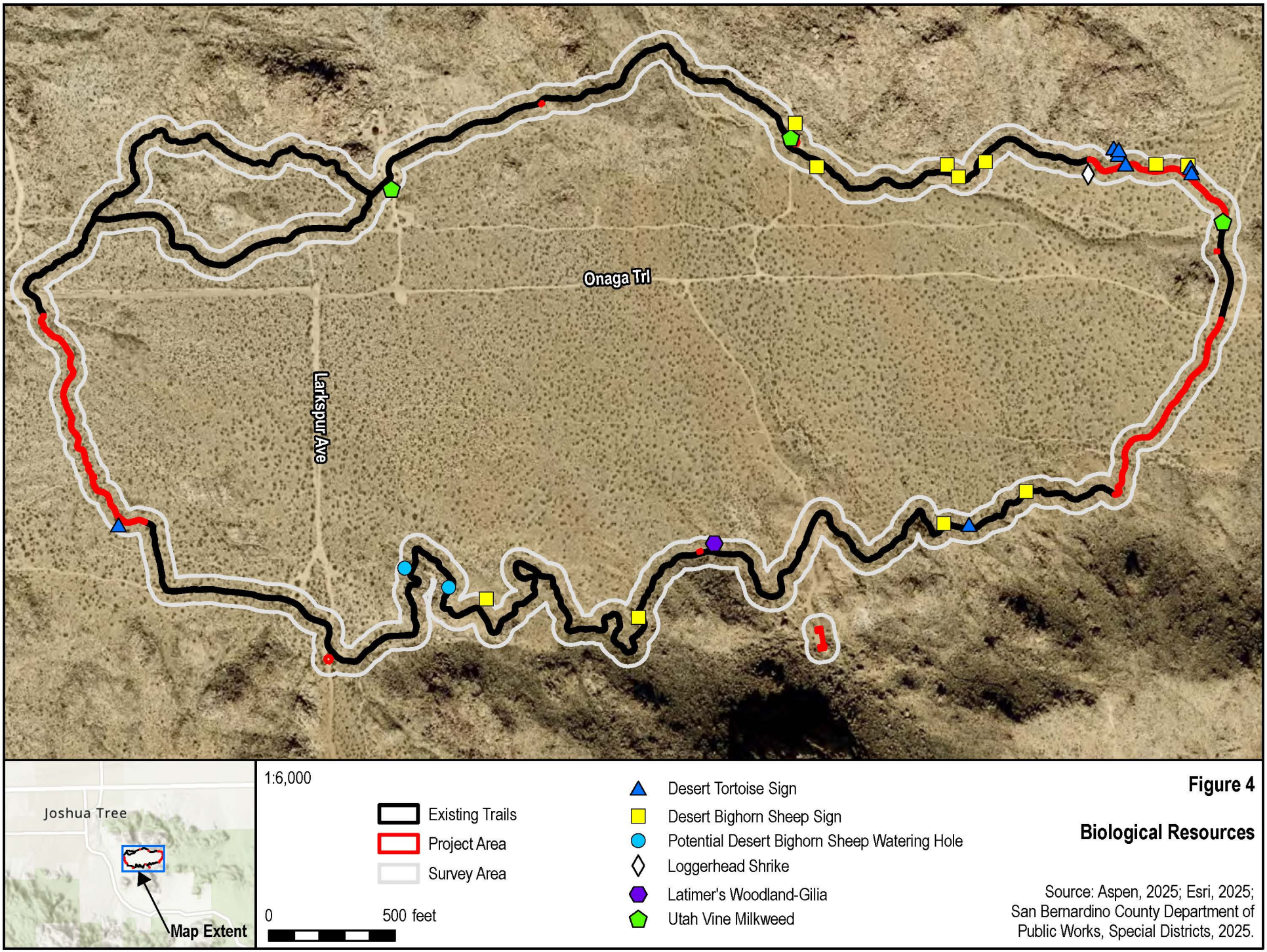


Figure 4

Biological Resources

Source: Aspen, 2025; Esri, 2025; San Bernardino County Department of Public Works, Special Districts, 2025.

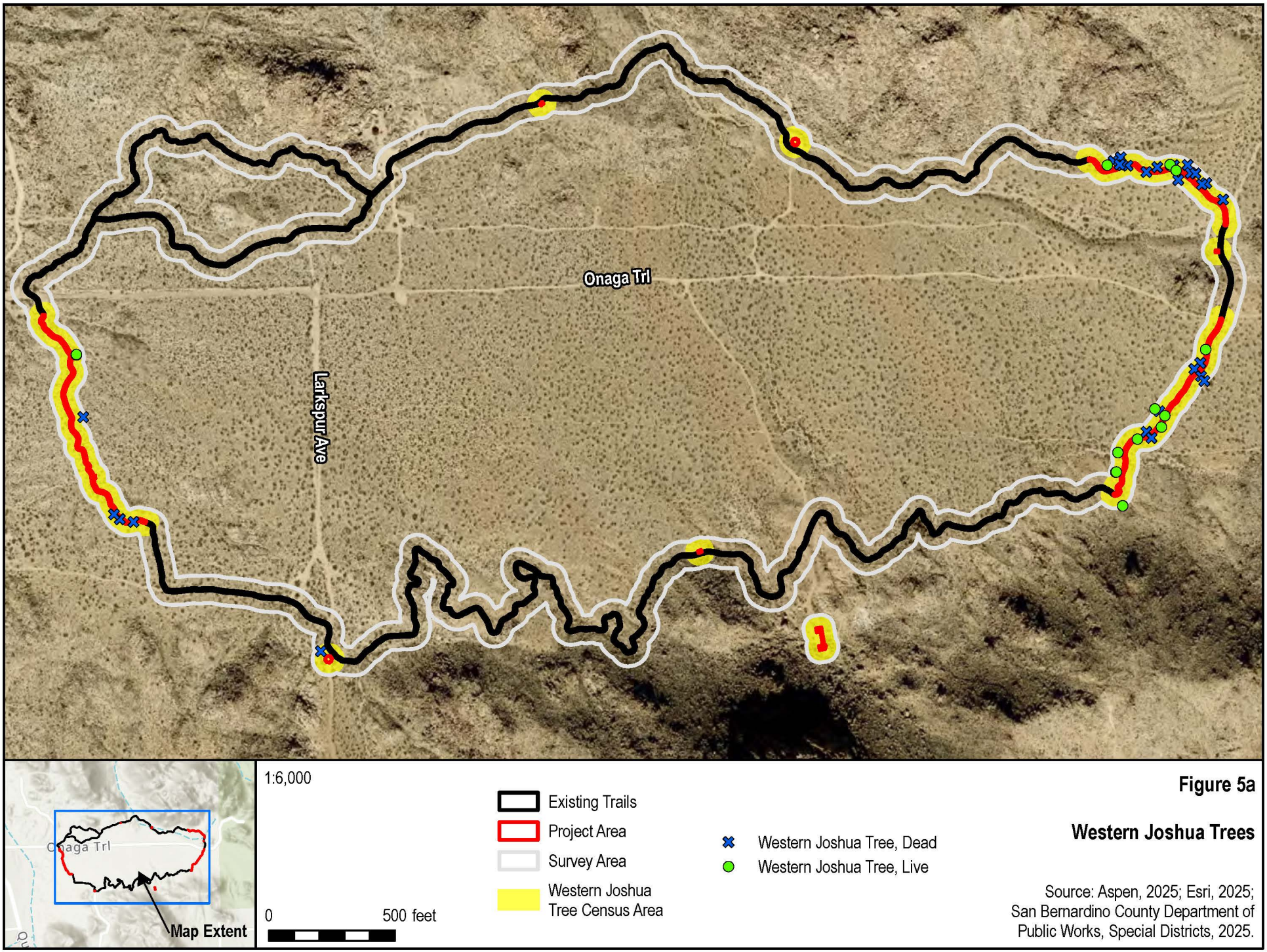


Figure 5a

Western Joshua Trees

Source: Aspen, 2025; Esri, 2025; San Bernardino County Department of Public Works, Special Districts, 2025.

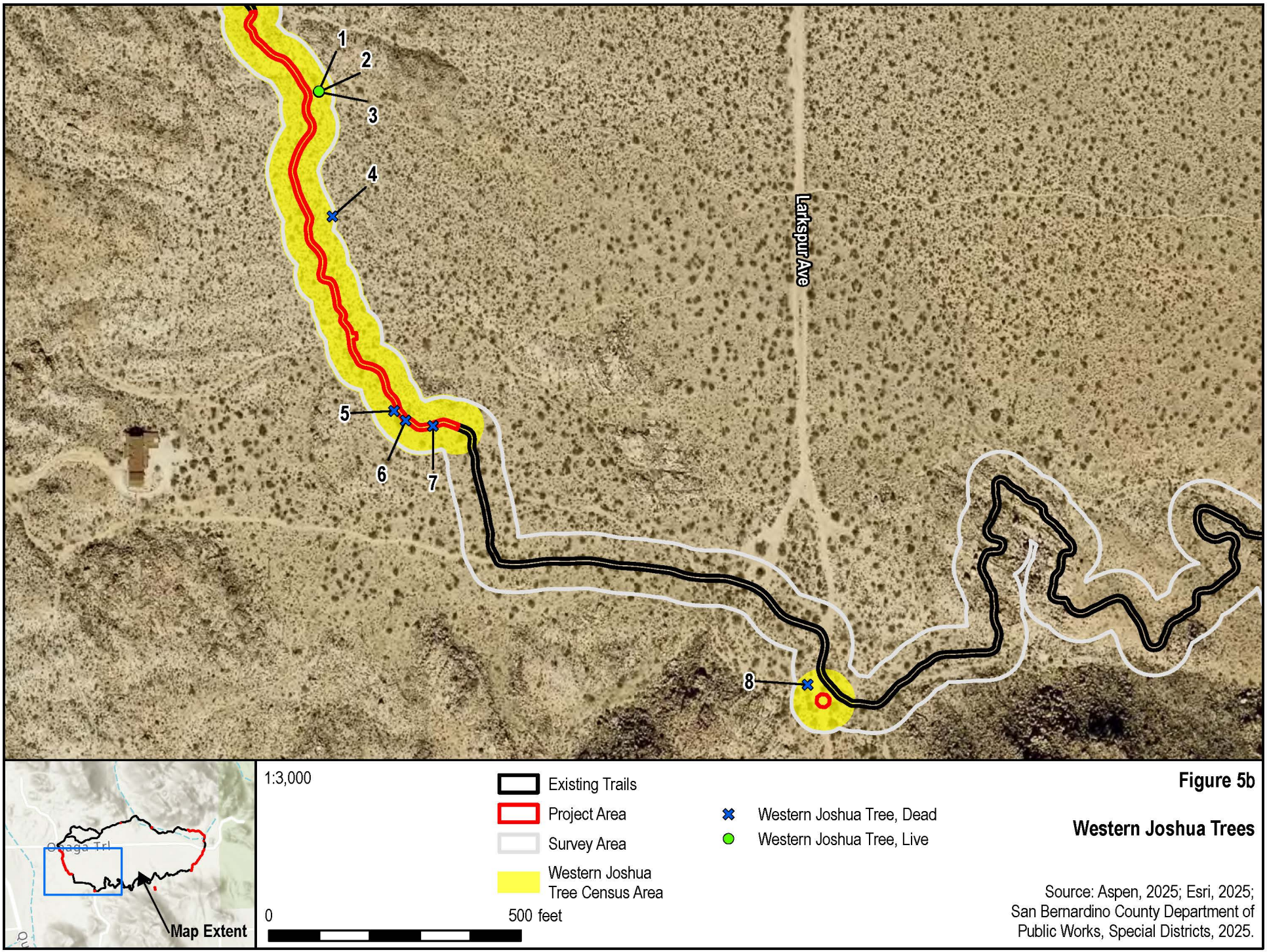


Figure 5b

Western Joshua Trees

Source: Aspen, 2025; Esri, 2025; San Bernardino County Department of Public Works, Special Districts, 2025.

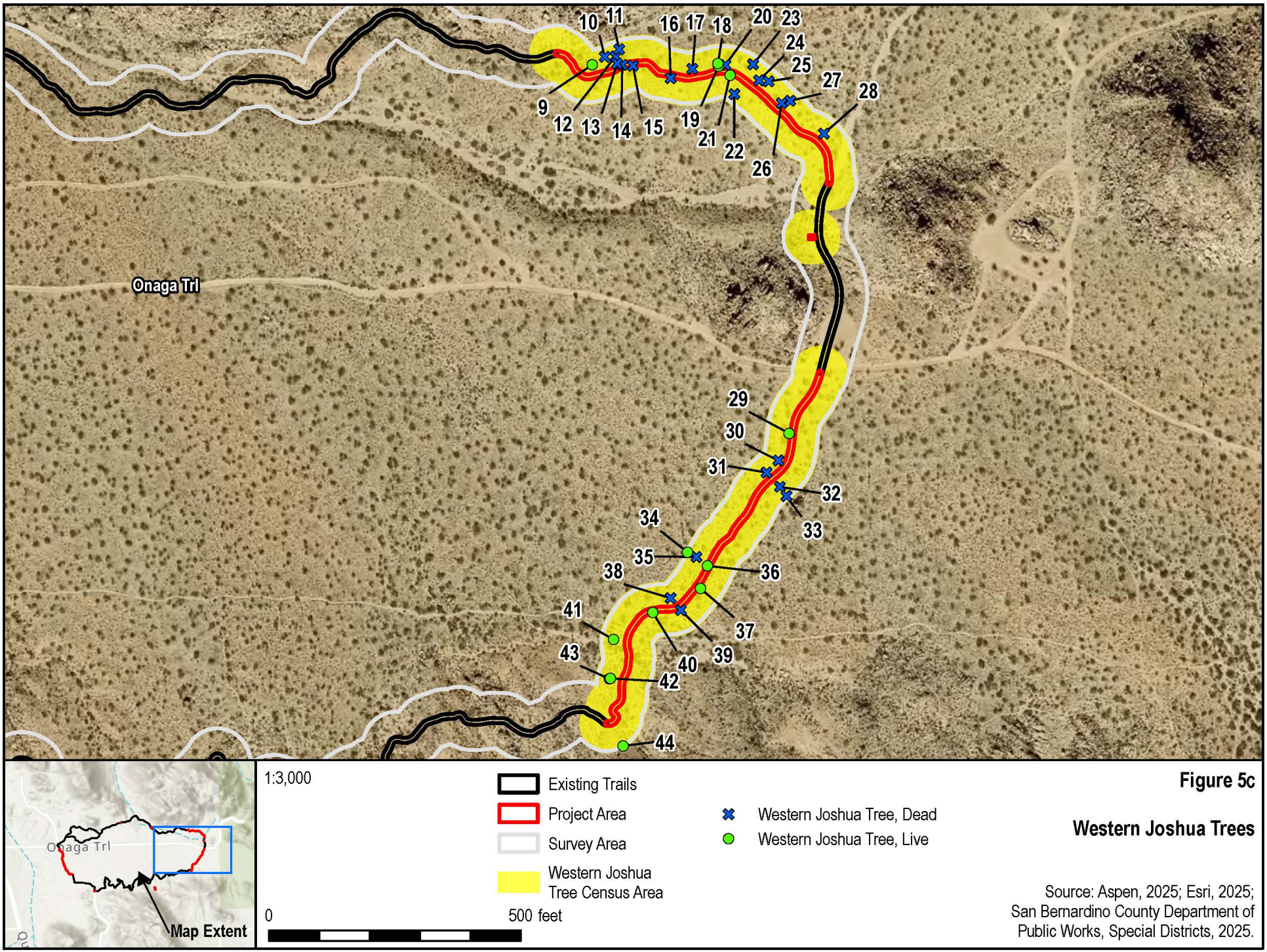


Figure 5c

Western Joshua Trees

Source: Aspen, 2025; Esri, 2025; San Bernardino County Department of Public Works, Special Districts, 2025.

Attachment 2 CNDDB QUERY RESULTS

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Yucca Valley North (3411624) OR Yucca Valley South (3411614) OR Joshua Tree North (3411623) OR Joshua Tree South (3411613) OR Sunfair (3411622) OR Indian Cove (3411612) OR Keys View (3311682) OR Seven Palms Valley (3311684) OR East Deception Canyon (3311683))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
Anniella stebbinsi Southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Astragalus bernardinus San Bernardino milk-vetch	PDFAB0F190	None	None	G3	S3	1B.2
Astragalus lentiginosus var. coachellae Coachella Valley milk-vetch	PDFAB0FB97	Endangered	None	G5T1	S1	1B.2
Astragalus tricarinatus triple-ribbed milk-vetch	PDFAB0F920	Endangered	None	G2	S2	1B.2
Athene cunicularia burrowing owl	ABNSB10010	None	Candidate Endangered	G4	S2	SSC
Berberis fremontii Fremont barberry	PDBER06060	None	None	G5	S3	2B.3
Boechera dispar pinyon rockcress	PDBRA060F0	None	None	G3	S3	2B.3
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Calochortus striatus alkali mariposa-lily	PMLIL0D190	None	None	G3	S2S3	1B.2
Chaetodipus fallax pallidus pallid San Diego pocket mouse	AMAFD05032	None	None	G5T3T4	S3S4	
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Cymopterus multinervatus purple-nerve cymopterus	PDAPI0U0Q0	None	None	G4G5	S2	2B.2
Desert Fan Palm Oasis Woodland Desert Fan Palm Oasis Woodland	CTT62300CA	None	None	G3	S3.2	
Eremothera boothii ssp. boothii Booth's evening-primrose	PDONA03052	None	None	G5T4	S3	2B.3
Erigeron parishii Parish's daisy	PDAST3M310	Threatened	None	G2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
Euphorbia arizonica Arizona spurge	PDEUP0D060	None	None	G5	S3	2B.3
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S4	WL
Gopherus agassizii desert tortoise	ARAAF01012	Threatened	Threatened	G3	S2S3	
Grusonia parishii Parish's club-cholla	PDCAC0D2H0	None	None	G3G4	S2	2B.2
Jaffueliobryum raui Rau's jaffueliobryum moss	NBMUS97010	None	None	G4	S2	2B.3
Lasiurus cinereus hoary bat	AMACC05032	None	None	G3G4	S4	
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G4G5	S3	SSC
Linanthus bernardinus Pioneertown linanthus	PDPLM09190	None	None	G1	S1	1B.2
Linanthus maculatus ssp. maculatus Little San Bernardino Mtns. linanthus	PDPLM041Y1	None	None	G2T2	S2	1B.2
Matelea parvifolia spear-leaf matelea	PDASC0A0J0	None	None	G5	S3	2B.3
Monardella robisonii Robison's monardella	PDLAM180K0	None	None	G3	S3	1B.3
Muhlenbergia appressa appressed muhly	PMPOA48020	None	None	G4	S3	2B.2
Myotis thysanodes fringed myotis	AMACC01090	None	None	G4	S3	
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Nyctinomops femorosaccus pocketed free-tailed bat	AMACD04010	None	None	G5	S3	SSC
Nyctinomops macrotis big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
Ovis canadensis nelsoni desert bighorn sheep	AMALE04013	None	None	G4T3	S3	FP
Paranomada californica California cuckoo bee	IIHYM82010	None	None	G1	S1	
Penstemon clevelandii var. mohavensis Mojave beardtongue	PDSCR1L1D3	None	None	G5T3?	S2	1B.2
Petalonyx linearis narrow-leaf sandpaper-plant	PDLOA04010	None	None	G4	S3?	2B.3

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC
Saltugilia latimeri Latimer's woodland-gilia	PDPLM0H010	None	None	G3	S3	1B.2
Selaginella eremophila desert spike-moss	PPSEL010G0	None	None	G4	S2S3	2B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3	SSC
Sphaeralcea rusbyi var. eremicola Rusby's desert-mallow	PDMAL140L1	None	None	G4T2	S2	1B.2
Streptanthus campestris southern jewelflower	PDBRA2G0B0	None	None	G3	S3	1B.3
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Toxostoma bendirei Bendire's thrasher	ABPBK06050	None	None	G4	S2	SSC
Toxostoma lecontei Le Conte's thrasher	ABPBK06100	None	None	G4	S3	SSC
Uma inornata Coachella Valley fringe-toed lizard	ARACF15010	Threatened	Endangered	G1Q	S1	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S3	

Record Count: 50

Attachment 3 IPaC Resource List

IPaC resource list

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

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

Location

San Bernardino County, California



NOT FOR CONSULTATION

Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

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Endangered species

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

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

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

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

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

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

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

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

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

Birds

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

Reptiles

NAME	STATUS
Desert Tortoise Gopherus agassizii There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4481	Threatened

Insects

NAME	STATUS

NOT FOR CONSULTATION

Monarch Butterfly	Danaus plexippus	Proposed Threatened

Wherever found

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.

https://ecos.fws.gov/ecp/species/9743

Critical habitats

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

There are no critical habitats at this location.

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

Bald & Golden Eagles

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

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

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- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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

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

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

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

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

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

Review the FAQs
The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON

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Golden Eagle Aquila chrysaetos

Breeds Dec 1 to Aug 31

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

Probability of Presence Summary

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

Probability of Presence (■)

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

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

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

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

Breeding Season (■)

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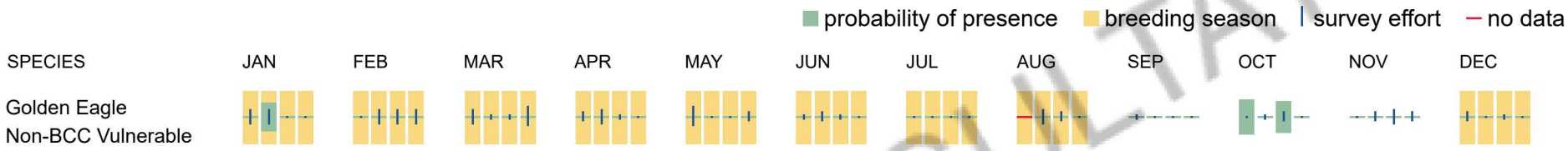
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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

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

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

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



Bald & Golden Eagles FAQs

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

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

Proper interpretation and use of your eagle report
On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be

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there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

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

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

Interpreting the Probability of Presence Graphs

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

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

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

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

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

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

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

Survey Timeframe

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

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

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

Additional information can be found using the following links:

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

Measures for Proactively Minimizing Migratory Bird Impacts

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

Ensure Your Migratory Bird List is Accurate and Complete

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

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

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Black-chinned Sparrow Spizella atrogularis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Costa's Hummingbird Calypte costae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31

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Lawrence's Goldfinch Spinus lawrencei — Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Leconte"s Thrasher Toxostoma lecontei — Breeds Feb 15 to Jun 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8969

Long-eared Owl asio otus — Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Pinyon Jay Gymnorhinus cyanocephalus — Breeds Feb 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9420

Probability of Presence Summary

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

Probability of Presence (■)

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

NOT FOR CONSULTATION

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

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

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

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

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

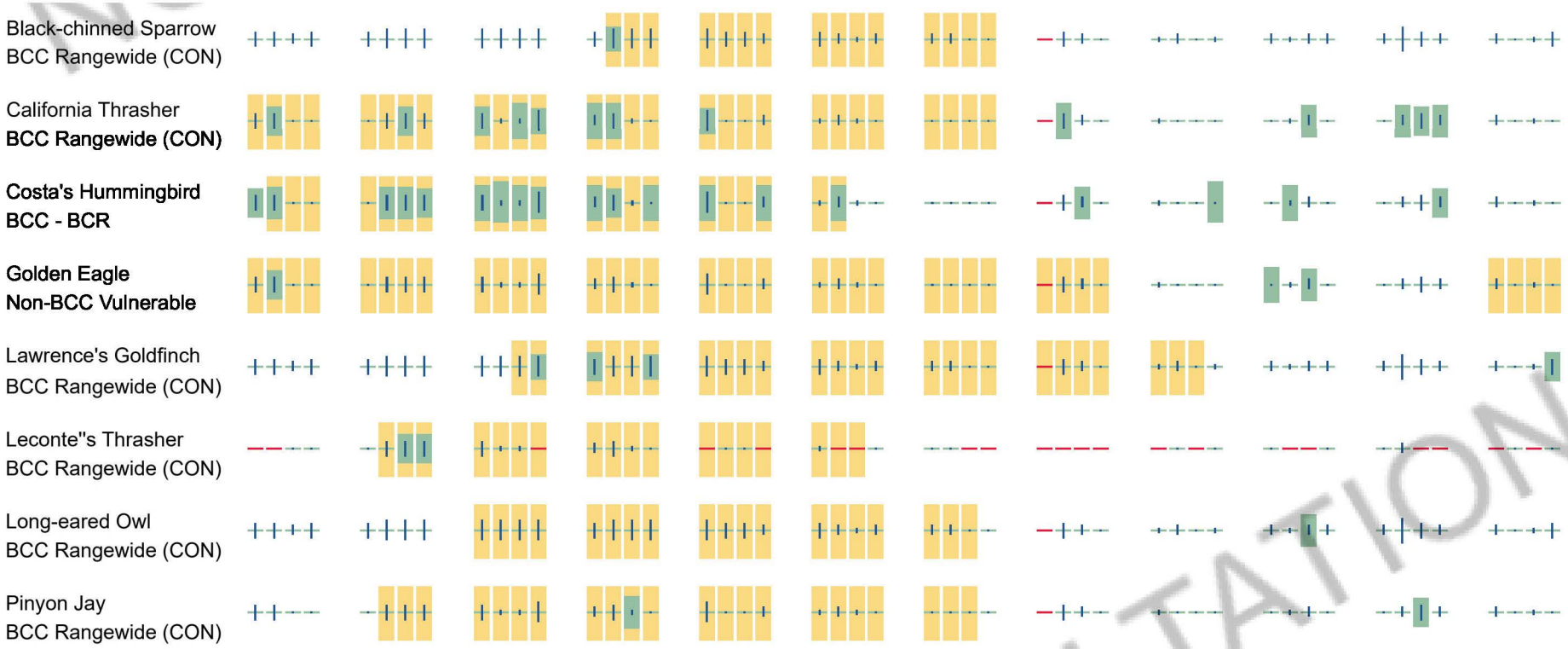
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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

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



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Migratory Bird FAQs

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

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

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

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

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

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

Why are subspecies showing up on my list?

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);

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

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

Details about birds that are potentially affected by offshore projects

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

Proper interpretation and use of your migratory bird report

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

Interpreting the Probability of Presence Graphs

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

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

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

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

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

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

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

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

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

Facilities

National Wildlife Refuge lands

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

NOT FOR CONSULTATION

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

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

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

This location overlaps the following wetlands:

RIVERINE
- R4SBJ
- R4SBA

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

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

Data limitations

NOT FOR CONSULTATION

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

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

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

Data exclusions

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

Data precautions

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

NOT FOR CONSULTATION

Attachment 4 SPECIAL-STATUS SPECIES NOT ADDRESSED

Attachment 4. Special-Status Species Not Addressed[1]

Latin Name	Common Name	Reason for Exclusion
NON-VASCULAR PLANTS		
Jaffueliobryum raui	*Rau's jaffueliobryum moss*	No calcium carbonate habitat present.
VASCULAR PLANTS		
Abronia villosa var. aurita	Chaparral sand-verbena	Well outside of the geographic range.
Astragalus lentiginosus var. *coachellae*	Coachella Valley milk-vetch	Well outside of the geographic range.
Berberis fremontii	Fremont barberry	Well below elevational range of species.
Boechera dispar	Pinyon rockcress	Well below elevational range of species.
Calochortus striatus	Alkali mariposa-lily	No suitable alkali soils present.
Eremothera boothii ssp. boothii	Booth's evening-primrose	Well outside of the geographic range.
Erigeron parishii	Parish's daisy	No calcium carbonate habitat present.
Euphorbia arizonicasss	Arizona spurge	Well above elevational range of species.
Grusonia parishii	Parish's club-cholla	Conspicuous species not observed.
Hulsea vestita ssp. parryi	Parry's sunflower	Well below elevational range of species.
Linanthus bernardinus	Pioneertown linanthus	Well below elevational range of species.
Lycium torreyi	Torrey's box-thorn	Conspicuous species not observed.
Petalonyx linearis	Narrow-leaf sandpaper-plant	Well outside of the geographic range.
Selaginella Eremophila	Desert spike-moss	Well outside of the geographic range.
Streptanthus campestris	Southern jewelflower	No suitable chaparral or woodland habitat.
REPTILES		
Uma inornata	Coachella Valley fringe-toed lizard	Well outside of the geographic range.
BIRDS		
Asio otus	Long-eared owl	No suitable riparian or woodland habitat.
Empidonax traillii extimus	Southwestern willow flycatcher	No suitable riparian woodland habitat.
Vireo bellii pusillus	Least Bell's vireo	No suitable riparian woodland habitat.
MAMMALS		
Neotoma lepida intermedia	San Diego desert woodrat	Well outside of the geographic range.

Note:
[1] Special-status species reported from the region, but not addressed in this report due to habitat or geographic range.

Attachment 5 OBSERVED SPECIES LIST

Attachment 5. Observed Species List	
Latin Name	**Common Name**
VASCULAR PLANTS	
Filicales (Ferns)	
PTERIDACEAE	BRAKE FAMILY
Myriopteris parryi	Parry's lip fern
Gymnosperms	
CUPRESSACEAE	CYPRESS FAMILY
Juniperus californica	California juniper
EPHEDRACEAE	EPHEDRA FAMILY
Ephedra nevadensis	Nevada ephedra
Dicotyledons	
APOCYNACEAE	DOGBANE FAMILY
Amsonia tomentosa	Amsonia
** *Funastrum utahense*	Utah vine milkweed
ASTERACEAE	ASTER FAMILY
Acamptopappus sphaerocephalus	Rayless goldenhead
Adenophyllum cooperi	Cooper's dyssodia
Ambrosia dumosa	White bur-sage, burrobush
Ambrosia salsola	Common burrobrush, cheesebush
Anisocoma acaulis	Scalebud
Bahiopsis parishii	Parish's goldeneye, Parish's vigueria
Brickellia atractyloides	Spear-leaved brickellia
Brickellia desertorum	Desert brickellbush
Brickellia frutescens	Shrubby brickellia
Chaenactis stevioides	Desert pincushion, broad-flowered pincushion
Chaenactis xantiana	Fleshy pincushion, Xantus's pincushion
Encelia actoni	Acton brittlebush
Ericameria cuneata	Wedgeleaf goldenbush
Eriophyllum wallacei	Wallace's woolly daisy
Malacothrix glabrata	Desert dandelion
Pleurocoronis pluriseta	Arrowleaf
Rafinesquia neomexicana	Desert chicory
Stephanomeria exigua	Wreath plant
Xylorhiza tortifolia var. *tortifolia*	Mojave-aster
BORAGINACEAE	BORAGE OR WATERLEAF FAMILY
Amsinckia tessellata	Checker fiddleneck
Cryptantha sp.	Unid. annual cryptantha
Cryptantha barbigera	Bearded cryptantha
Cryptantha micrantha	Purpleroot cryptantha
Emmenanthe penduliflora	Whispering bells
Phacelia campanularia	Desert bluebells
Phacelia crenulata	Heliotrope phacelia
Phacelia distans	Common phacelia
BRASSICACEAE	MUSTARD FAMILY
Lepidium fremontii	Fremont peppergrass
CACTACEAE	CACTUS FAMILY

Attachment 5. Observed Species List	
Latin Name	**Common Name**
Cylindropuntia echinocarpa	Silver cholla
Cylindropuntia ramosissima	Pencil cholla
Echinocactus polycephalus var. *polycephalus*	Clustered barrel cactus, cottontop cactus
Echinocereus engelmannii	Engelmann hedgehog cactus
Ferocactus cylindraceus	California barrel cactus
Mammillaria tetrancistra	Fishhook cactus
Opuntia basilaris var. *basilaris*	Beavertail cactus
CRASSULACEAE	STONECROP FAMILY
Dudleya saxosa spp. *aloides*	Desert dudleya
EUPHORBIACEAE	SPURGE FAMILY
Croton californicus	California croton
Stillingia linearifolia	Linear-leaved stillingia
FABACEAE	LEGUME FAMILY, PEA FAMILY
Acmispon rigidus	Shrubby deervetch, Desert lotus
Psorothamnus arborescens var. *simplicifolius*	Indigo-bush
Senegalia greggii	Catclaw, catclaw acacia
Senna armata	Spiny senna
GERANIACEAE	GERANIUM FAMILY
* *Erodium cicutarium*	Redstem filaree
KRAMERIACEAE	RHATANY FAMILY
Krameria erecta	Pima rhatany, purple heather
Krameria bicolor	White rhatany
LAMIACEAE	MINT FAMILY
Salvia columbariae	Chia
Scutellaria mexicana	Bladder-sage, paper bag bush
LOASACEAE	STICK-LEAF FAMILY
Mentzelia albicaulis	Small flowered blazing star
MALVACEAE	MALLOW FAMILY
Sphaeralcea ambigua	Globemallow, desert mallow
NYCTAGINACEAE	FOUR O'CLOCK FAMILY
Mirabilis laevis	Desert wishbone bush
ONAGRACEAE	EVENING-PRIMROSE FAMILY
Eremothera boothii ssp. *condensata*	Clustered booth's desert primrose
Loeseliastrum matthewsii	Desert calico
PAPAVERACEAE	POPPY FAMILY
Eschscholzia minutiflora	Small-flowered poppy
POLEMONIACEAE	PHLOX FAMILY
Eriastrum eremicum ssp. *eremicum*	Desert woolly-star
** *Saltugilia latimeri*	Latimer's woodland gilia
POLYGONACEAE	BUCKWHEAT FAMILY
Chorizanthe brevicornu	Brittle spineflower
Eriogonum fasciculatum	California buckwheat
Eriogonum inflatum	Desert trumpet
Eriogonum maculatum	Spotted wild buckwheat
Eriogonum plumatella	Yucca wild buckwheat

Attachment 5. Observed Species List	
Latin Name	**Common Name**
Eriogonum trichopes	Little desert trumpet
Eriogonum wrightii	Wright's buckwheat
ROSACEAE	ROSE FAMILY
Purshia tridentata var. *glandulosa* (*P. glandulosa*)	Bitterbrush, antelope bush
RUBIACEAE	MADDER FAMILY
Galium stellatum	Starry bedstraw
SIMMONDSIACEAE	JOJOBA FAMILY
Simmondsia chinensis	Jojoba, goat-nut
SOLANACEAE	NIGHTSHADE FAMILY
Lycium andersonii	Anderson box-thorn
Lycium cooperi	Peach desert thorn
Nicotiana obtusifolia	Desert tobacco
Physalis crassifolia	Thick-leaf ground-cherry
VISCACEAE	MISTLETOE FAMILY
Phoradendron californicum	Desert mistletoe
ZYGOPHYLLACEAE	CALTROP FAMILY
Larrea tridentata	Creosote bush
Monocotyledons	
AGAVACEAE	AGAVE FAMILY
** *Yucca brevifolia*	Western Joshua tree
Yucca schidigera	Mojave yucca
POACEAE	GRASS FAMILY
Aristida purpurea	Three-awn grass
* *Bromus madritensis* ssp. *rubens*	Red brome
Dasyochloa pulchella	Low fluffgrass
Hilaria rigida	Big galleta
Muhlenbergia microsperma	Littleseed muhly
* *Schismus* sp.	Unid. schismus
Stipa speciosa	Desert needle grass
VERTEBRATE ANIMALS	
REPTILIA	REPTILES
TESTUDINIDAE	LAND TORTOISES
** *Gopherus agassizii* (scat)	Desert tortoise
IGUANIDAE	IGUANID LIZARDS
Sauromalus obesus	Common chuckwalla
Sceloporus occidentalis	Western fence lizard
TEIIDAE	WHIPTAILS
Aspidoscelis tigris tigris	Great Basin whiptail
AVES	BIRDS
ACCIPITRIDAE	HAWKS, EAGLES, HARRIERS
Buteo jamaicensis	Red-tailed hawk
PHASIANIDAE	GROUSE AND QUAIL
Callipepla gambelii	Gambel's quail
COLUMBIDAE	PIGEONS AND DOVES
Zenaida macroura	Mourning dove

Attachment 5. Observed Species List	
Latin Name	**Common Name**
CUCULIDAE	CUCKOOS
Geococcyx californianus	Greater roadrunner
APODIDAE	SWIFTS
Aeronautes saxatalis	White-throated swift
TROCHILIDAE	HUMMINGBIRDS
Calypte costae	Costa's hummingbird
CORVIDAE	CROWS AND JAYS
Corvus corax	Common raven
TROGLODYTIDAE	WRENS
Salpinctes obsoletus	Rock wren
LANIIDAE	SHRIKES
** *Lanius ludovicianus*	Loggerhead shrike
EMBERIZIDAE	SPARROWS, WARBLERS, TANAGERS
** *Setophaga petechia*	Yellow warbler
Setophaga townsendi	Townsend's warbler
Spizella breweri	Brewer's sparrow
Amphispiza bilineata	Black-throated sparrow
Icterus cucullatus	Hooded oriole
FRINGILLIDAE	FINCHES
Haemorhous mexicanus	House finch
MAMMALIA	MAMMALS
SCIURIDAE	SQUIRRELS
Ammospermophilus leucurus	Antelope ground squirrel
BOVIDAE	SHEEP AND GOATS
** *Ovis canadensis nelsoni* (scat and horn drop)	Desert bighorn sheep

Note:
Species introduced to California are indicated by an asterisk. Special-status species have two asterisk. This list includes only species observed on the site. Invertebrate species observed throughout the site were not included in this list. Other species may have been overlooked or unidentifiable due to season (amphibians are active during rains, reptiles during summer, some birds (and bats) migrate out of the area for summer or winter, some mammals hibernate, many plants are identifiable only in spring). Plants were identified using keys, descriptions, and illustrations in Baldwin et al (2012). Plant taxonomy and nomenclature generally follow Baldwin et al. (2012). Wildlife taxonomy and nomenclature generally follow Hansen and Shedd (2025) for amphibians and reptiles, AOU (1998) for birds, and Wilson and Ruff (1999) for mammals.

Attachment 6 REPRESENTATIVE SITE PHOTOS



Photo 1: Existing trail in California buckwheat – Parish's goldeneye scrub facing east on May 30, 2025.



Photo 2: Existing trail in creosote bush – white bursage scrub facing northeast on May 30, 2025.



Photo 3: Example of one of the ephemeral washes that crossed the proposed trail on May 30, 2025.



Photo 4: Proposed trail in creosote bush – white bursage scrub facing northwest on May 30, 2025.



Photo 5: Proposed trail in Joshua tree woodland facing north on May 30, 2025.



Photo 6: Rocky out cropping along existing trail in California buckwheat – Parish's goldeneye scrub facing west on May 30, 2025.



Photo 7: Proposed trail in creosote bush – white bursage scrub facing northwest on May 30, 2025.



Photo 8: Example of signs and trail markers along an existing trail alignment on May 30, 2025.



Photo 9: Rocky out cropping along existing trail in Mojave Yucca scrub facing west on May 30, 2025.



Photo 10: Western Joshua tree observed along proposed trail on May 30, 2025.



Photo 11: Utah vine milkweed observed along existing trail on May 16, 2025.



Photo 12: A dead probable Latimer's woodland-gilia observed on May 16, 2025.



Photo 13: Recent desert tortoise scat observed on May 30, 2025.



Photo 14: A bighorn ram horn observed on May 30, 2025.



Photo 15: Recent bighorn sheep scat observed on May 30, 2025.



Photo 16: Example of a seasonal rock pool that is likely used by bighorn sheep and other wildlife after storms.