APPENDIX K. CONCEPTUAL RESOURCE MANAGEMENT PLAN

Conceptual Resource Management Plan, Starlight Solar Project, Boulevard, San Diego County, California

PDS2022-MUP-22-010

JULY 2025

PREPARED FOR

County of San Diego
and
Empire II LLC

PREPARED BY

SWCA Environmental Consultants

CONCEPTUAL RESOURCES MANAGEMENT PLAN
STARLIGHT SOLAR PROJECT,
BOULEVARD, SAN DIEGO COUNTY, CALIFORNIA
PDS2022-MUP-22-010

Prepared for:

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1.0 INTRODUCTION

The Starlight Solar proposed mitigation site consists of approximately 447.93 acres located in the community of Boulevard, in unincorporated San Diego County, California, as shown in Figure 1 of the Project Biological Resources Report (Project BRR) (SWCA Environmental Consultants [SWCA] 2025). The mitigation site is proposed as mitigation for impacts to biological resources for the Starlight Solar project (project). The mitigation site consists of high-value natural communities as well as areas that have been impacted by anthropogenic activities such as the development of unpaved access roads. The mitigation site is not open to the public, and there are no plans to make it accessible to the public.

1.1 Purpose of Biological Resources Management Plan

The purpose of this Conceptual Resource Management Plan (RMP) is to detail how the mitigation needs for the project will be met on the 447.93- acre proposed mitigation site. In total, 424.36 acres (77.11 acres in Phase I and 347.25 acres in Phase II) of habitat are required to mitigate for impacts to sensitive habitats and special-status species documented on the project site. As specified in the Project BRR (SWCA 2025), mitigation measure M-BI-4 requires that a RMP be prepared.

The objectives of the RMP are as follows:

- Guide management of vegetation communities, plant and animal species, and programs described herein to protect and, where appropriate, enhance biological values.
- Serve as a descriptive inventory of vegetation communities, habitats, and plant and animal species that occur on or use the mitigation site.
- Establish the baseline conditions from which adaptive management will be determined and success will be measured.
- Provide an overview of the operation, maintenance, administrative, and personnel requirements to implement management goals, and serves as a budget planning aid.

The details of this Conceptual RMP may be modified when the Final RMP is prepared and submitted to the County of San Diego (County) for approval. The County will review the Final RMP to ensure that it meets the specified purpose and objectives.

1.2 Implementation

1.2.1 Resource Manager Qualifications and Responsible Parties

Proposed Resource Manager:

The resource manager shall be one of the following:

- Conservancy group

- Natural resources land manager
- Natural resources consultant
- County Department of Parks and Recreation
- County Department of Public Works
- Federal or state wildlife agency (U.S. Fish and Wildlife Service [USFWS], California Department of Fish and Game)
- Federal land manager such as Bureau of Land Management
- City land managers, including but not limited to the Departments of Public Utilities, Parks and Recreation, and Environmental Services.

If the developer desires the Department of Parks and Recreation (DPR) to manage the land, the following criteria must be met:

a. The land must be located inside a Pre-Approved Mitigation Area (PAMA) or proposed PAMA, or otherwise deemed acceptable by DPR.
b. The land must allow for public access.
c. The land must allow for passive recreational opportunities such as a trails system.

The resource manager shall be approved in writing by the Director of Planning and Land Use (DPLU), the Director of Public Works (DPW), or the Director of Parks and Recreation. Any change in the designated resource manager shall also be approved in writing by the director of the County department that originally approved the resource manager. Appropriate qualifications for resource managers include but are not limited to the following:

- Ability to carry out habitat monitoring or mitigation activities
- Fiscal stability including preparation of an operational budget (using an appropriate analysis technique) for the management of this RMP
- At least one staff member with a biology, ecology, or wildlife management degree from an accredited college or university, or a Memorandum of Understanding (MOU) with a qualified person with such a degree
- A cultural resource professional on staff or an MOU with a cultural consultant, if cultural sites are present
- Experience with habitat and cultural resource management in Southern California

The proposed resource manager is SWCA.

Proposed Land Owner:

Fee title of separate open space lots may be held by the homeowners' association (HOA), a land/resource manager, or another appropriate landowner (e.g., land trust, conservancy, or public agency), depending on the particular circumstances.

The proposed land owner is to be determined.

Proposed Easement Holder:

If the land is transferred in fee title to a non-governmental entity, a Biological Open Space Easement or Conservation Easement must be recorded. This easement should be dedicated to the County but may also include other appropriate agencies as a grantee or third-party beneficiary. If title to the land is transferred to the County or other public conservation entity, no easement is necessary.

The proposed easement holder is to be determined. Since the project is proposed in two phases, the recordation of an open space or conservation easement would also occur in two phases as each phase of the project proceeds, prior to the issuance of a grading permit for each phase.

Restoration Entity:

Revegetation/restoration activities are required. A conceptual revegetation/restoration plan is provided as Appendix L to the Project BRR (SWCA 2025). Management responsibility for the revegetation/restoration area shall remain with the restoration entity until restoration/revegetation has been completed. Upon County/Agency acceptance of the revegetated/restored area, management responsibility for the revegetation/restoration area will be transferred to the resource manager.

The proposed restoration entity will be provided with the submission of the final Resource Management Plan.

1.2.2 Financial Mechanism

Acceptable financial mechanisms include the following:

- Special District. Formation of a Lighting and Landscape District or Zone, or Community Facility District as determined appropriate by the Director of DPLU, DPW or DPR.
- Endowment. A one-time non-wasting endowment, which is tied to the property, to be used by the resource manager to implement the RMP.
- Other acceptable types of mechanisms including annual fees, to be approved by the Director of DPLU, DPW or DPR
- Transfer of ownership to existing entity (e.g., Borrego Foundation, Cleveland National Forest, City of San Diego) for management

The proposed financial mechanism is a one-time non-wasting endowment or other funding mechanism acceptable to the County funded by Empire II LLC. This funding would be provided prior to the issuance of a grading permit for each of the two phases of the project.

1.2.3 Conceptual Cost Estimate

A cost estimate will be developed and submitted to the County as part of the Final RMP for both phases of the project. Table 1 lists the management tasks that the cost estimate will be based on.

Table 1. Biological Resources Management Tasks

Task	Frequency	Phase I Units Required	Phase II Units Required
Biological Tasks			
Baseline Inventory of biological resources	One time	8 hours	32 hours
Update biological mapping	Once every 5 years	8 hours	8 hours
Update aerial photography	Once every 5 years	1 hour	1 hour
Removal of invasive species	Monthly	4 hours	8 hours
Habitat Restoration / Installation	One time	24 hours	48 hours
Habitat Restoration / Monitoring and Management	Monthly	8 hours	16 hours
Rare plant surveys (early, middle, and late blooming season surveys combined)	Once every 5 years	40 hours	120 hours
Operations, Maintenance and Administration Tasks			
Establish and maintain database and analysis of data	Annually	8 hours	8 hours
Write and submit annual report to County	Annually	40 hours	60 hours
Submit review fees for County review of annual report	Annually	$	$
Review and if necessary, update management plan	Once every 5 years	20 hours	40 hours
Construct permanent signs	One time	# signs	# signs
Replace signs	Annually	# signs	# signs
Removal of graffiti	As needed	# signs	# signs
Repair vandalism	As needed	TBD	TBD
Construct permanent fencing/gates	One time	# feet	# feet
Maintain permanent fencing/gates	Annually	# feet/year	# feet/year
Remove trash and debris	Monthly	4 hours	8 hours
Coordinate with DEH and Sheriff	Annually	2 hours	2 hours
Maintain access roads	Annually	# miles/year	# miles/year
Maintain regular office hours	Weekly	1 hour	1 hour
Inspect and service heavy equipment and vehicles	Quarterly	2 hours	2 hours
Coordinate with law enforcement and emergency services (e.g., fire)	Annually	2 hours	2 hours
Coordinate with adjacent land managers	Annually	2 hours	2 hours
Fire Management Tasks			
Coordinate with applicable fire agencies and access (gate keys, etc.) for these agencies	Annually	1 hour	1 hour
Protect areas with high biological importance	Annually	2 hours	4 hours
Post-Fire Tasks			

Task	Frequency	Phase I Units Required	Phase II Units Required
Control post-fire erosion	As needed	4 hours	8 hours
Remove post-fire sediment	As needed	4 hours	8 hours
Reseed after fire	As needed	4 hours	8 hours
Replant after fire	As needed	4 hours	8 hours

1.2.4 Reporting Requirements

An RMP annual report will be submitted to the County (and resource agencies, as applicable), along with the submittal fee to cover County staff review time. The annual report shall discuss the previous year's management and monitoring activities, as well as management/monitoring activities anticipated in the upcoming year.

The annual report shall provide a concise but complete summary of management and monitoring methods, identify any new management issues, and address the success or failure of management approaches (based on monitoring). The report shall include a summary of changes from baseline or previous year conditions for species and habitats, and address any monitoring and management limitations, including weather (e.g., drought). The report shall also address any adaptive management (changes) resulting from previous monitoring results and provide a methodology for measuring the success of adaptive management.

For new sensitive species observations or significant changes to previously reported species, the annual report shall include copies of completed California Natural Diversity Database (CNDDB) forms with evidence that they have been submitted to the State. The report shall also include copies of invasive plant species forms submitted to the State or County.

A fee for staff review time will be collected by Planning and Development Services upon submittal of the annual report. The RMP may also be subject to an ongoing deposit account for staff to address management challenges as they arise. Deposit accounts, if applicable, must be replenished to a defined level as necessary.

1.2.5 RMP Agreement

The County will require an Agreement with the applicant when an RMP is required. The Agreement will be executed when the County accepts the Final RMP. The Agreement will obligate the applicant to implement the RMP and provide a source of funding to pay the cost to implement each of the two phases of open space dedication in perpetuity, as the project is developed. The Agreement shall also provide a mechanism for the funds to be transferred to the County if the resource manager fails to meet the goals of the RMP.

The Agreement will specify that RMP funding or funding mechanism be established prior to the following milestones:

- For subdivisions, prior to the approval of grading or improvement plans, or prior to approval of the Parcel/Final Map, whichever is first
- For permits, prior to construction or use of the property in reliance on the permit

1.3 Limitations and Constraints

The mitigation site is along the U.S.–Mexico border and in the past has been subject to individuals illegally crossing the border and U.S. Border Patrol activities, both of which could be potential long-term sources of disturbance to on-site biological resources. Due to recent increased border security, the flow of people has been greatly reduced. In the event that individuals were able to illegally cross the border, the mitigation site may be subject to noise impacts from Border Patrol helicopters, crushing of wildlife and vegetation by vehicles, as well as trash deposition and the increased risk of fires.

2.0 PROPERTY DESCRIPTION

2.1 Legal Description

The mitigation site is located just north of the U.S.–Mexico border in the community of Boulevard, in unincorporated San Diego County. The mitigation site is accessible from Jewel Valley Road and unnamed dirt access roads. The mitigation site consists of Assessor's Parcel Numbers 659-130-03, 659-140-01, and 659-140-02 (SWCA 2025: Figure 3). Refer to the Project BRR (SWCA 2025) for more information.

2.2 Environmental Setting

The mitigation site is within the Peninsular Range in a transitional area between the coast and the desert. Typical climatic conditions are dry with average temperatures near the community of Boulevard ranging from approximately 34 to 94 degrees Fahrenheit, and average rainfall is less than 15 inches per year (Western Regional Climate Center 2024).

On-site elevation generally ranges from 3,440 feet above mean sea level (amsl) in the drainage toward the eastern edge of the mitigation site to 3,745 feet amsl at the top of a rocky hill toward the western edge of the mitigation site.

Soils mapped on the mitigation site consist of Acid igneous rock land (AcG), La Posta rocky loamy coarse sand, 5 to 30 percent slopes, eroded (LcE2), and Tollhouse coarse sandy loam, 5 to 35 percent slopes, eroded, very stony (ToE2) (NRCS 2023).

AcG is characterized by large boulders and rock outcrops of granite, gabbro, and other igneous rocks ranging from 50% to 90% of the total area. Soil material is loam to loamy coarse sand and is very shallow over decomposed granite or basic igneous rock with scattered pockets of deep soil between rocks (USDA 1973).

The La Posta series consists of somewhat excessively drained loamy coarse sands that formed in material weathered from granodiorite. The surface layer is typically slightly acid and loamy

coarse sand approximately 10 inches thick, followed by slightly acid loamy coarse sand to deeply weathered granodiorite at approximately 29 inches. LcE2 is moderately sloping to moderately steep and is 16 to 30 inches deep over weathered granodiorite with moderate rill and gully erosion. Rock outcrop covers 5 to 10 percent of the surface (USDA 1973).

The Tollhouse series consists of excessively drained, shallow to very shallow coarse sandy loams that formed in material weathered from granodiorite. The surface layer is typically neutral and slightly acid coarse sandy loam approximately 12 inches thick, followed by slightly acid coarse sandy loam. At approximately 16 inches in depth there is hard granodiorite. ToE2 is gently sloping to moderately steep soil with approximately 10% of the surface area covered with rock outcrops and 20% with boulders (USDA 1973).

The mitigation site is within a Focused Conservation Area covered by the in-process East County Multiple Species Conservation Program (SWCA 2025: Figure 8).

2.3 Land Use

The mitigation site is undeveloped and is surrounded by undeveloped land to the north, east, and west, with the wall along the U.S.–Mexico border to the south. Dirt access roads within the mitigation site have a typical width of approximately 20 feet and are used by U.S. Border Patrol.

3.0 BIOLOGICAL RESOURCES DESCRIPTION

In 2022 SWCA conducted a preliminary biological resources survey of the mitigation site to quantify vegetation communities, the results of which were used in the preparation of this Conceptual RMP. Additional field surveys were conducted on the project site to determine plant and wildlife species presence and determine occurrence potential for special-status species. Given the mitigation site's location 0.6 mile south of the project site and similar habitat composition, it is expected that the assemblage of species on-site and potential for special-status species to occur will also be substantially similar. Due to this proximity, these results, along with desktop analyses are used to describe the potential biological resources present on the mitigation site. The Project BRR (SWCA 2025) provides a more detailed description of the biological resources on the entire project site.

3.1 Habitat Types

Seven vegetation communities were identified within the mitigation site. Vegetation is dominated by redshank chaparral and granitic northern mixed chaparral (Table 2). The remainder is composed of five other vegetation types: montane buckwheat scrub, big sagebrush scrub, disturbed, coast live oak woodland, and nonnative grassland. Descriptions of the vegetation communities observed during the survey follow Table 2 and are depicted on Figure 10 of the Project BRR (SWCA 2025).

Table 2. Natural Communities and Cover Types Mapped within the Mitigation Site

Natural Communities and Cover Types	Acres
Granitic Northern Mixed Chaparral (37131)	107.44
Redshank Chaparral (37300)	308.24
Montane Buckwheat Scrub (37K00)	15.81
Big Sagebrush Scrub (35210)	1.16
Disturbed (11300)	7.50
Coast Live Oak Woodland (71161)	5.52
Non-native Grassland (42200)	2.25
Total*	**447.93**

*Numbers may not sum due to rounding

Granitic northern mixed chaparral is composed of dense vegetation in granitic soils. Growth occurs primarily during the spring, slowing in the fall and winter. Regular fires stimulate growth of chaparral species, an adaptation which defines this habitat type. After fires, early successional species including annual herbs species re-establish first, succeeded by perennials and then small shrubs. Finally, after several years, the characteristic chaparral species dominate once again.

Redshank chaparral can be found mostly on slopes ranging from 300 to 6,000 feet amsl. It is a habitat type predominantly composed of red shank (*Adenostoma sparsifolium*). The vegetation within this habitat community is not as thick as chaparral, with taller growth creating larger gaps in the understory.

Montane buckwheat scrub is defined by its almost entirely homogeneous collection of California buckwheat (*Eriogonum fasciculatum*), which makes up approximately 50% of the cover. It often lies on the outskirts of chaparral or redshank chaparral, a part of primary succession following a large disturbance. Progressively, this habitat will give way to the development of larger shrubs and eventually transition into the habitat types that surrounded it initially. This habitat type can be found at higher elevations.

Big sagebrush scrub is distinguished by the presence of soft-wooded shrubs, with big sagebrush being the overriding species. The vegetation height reaches up to 6 feet, and is usually dense, with some patches of bare ground between and beneath the shrubbery. Flowers within this classification can be seen during the blooming period of late spring (e.g., antelope bush [*Purshia* spp.]) to early autumn (e.g., sagebrush [*Artemisia* spp.]), rabbitbrush (*Chrysothamnus* spp.), with growth ceasing during the winter months (Oberbauer et al. 2008). Preferred elevation is between 4,000 and 9,000 feet and is distributed on the peripheries and encompassed by the Mojave and Sonoran deserts, as well as within the mountainous areas of Southern California. It is extensive between the mountain ranges of the west. Required soil type and temperature range is versatile. It occurs within rocky, granular, and fine soils both in depressed areas and hillsides withstanding varying temperatures and both moist and dry conditions.

Disturbed habitat is distinguished by the dominance of nonnative plants, with obvious signs of human interference, or where the landscape has been obviously altered by construction or farming. In disturbed areas there is little to no evidence of native species. Most species have been removed or altered by human activities. Disturbed habitat has no conservation value unless it is restored.

Coast live oak woodland generally marks the transition into woodland habitat types, and often co-occurs with other habitat types including chaparral and riparian. Open coast live oak woodland is an evergreen forest dominated by coast live oak with gaps in the canopy creating a cover of less than 50% (Oberbauer et al. 2008). The canopy typically reaches a height between approximately 30 and 80 feet. The understory species range from condensed woody subshrubs to patchy herbaceous cover and can also contain grassland. Open coast live oak woodlands are often found along drainages on north-facing slopes.

Nonnative grasslands are defined as having a vegetative layer of annual grasses that ranges from minimal to dense. This habitat type may also contain herbaceous flowering species mixed in with the grasses. It can be correlated with previous disturbances such as grazing. Ratios of wildflowers to annual grasses are dependent upon precipitation; however, the distinguishing feature is the dominance of nonnative grasses, which will eventually dominate the landscape. Soils within these habitat types range from extremely saturated in the winter to dehydrated in the summer months. While nonnative grassland is not a natural community, it has largely replaced native grassland in California and thus has limited conservation value.

A detailed inventory of biological resources documenting plant and wildlife species on the mitigation site has not been conducted. Focused surveys for special-status species have also not been conducted.

3.2 Flora

In total, 171 vascular plant taxa, consisting of 151 native taxa (88%) and 20 nonnative taxa (12%), have been documented on the project site during initial surveys and rare plant surveys. Common species documented within each natural community type are noted in Section 3.1. A cumulative list of plant species observed on-site is provided in Appendix C of the Project BRR (SWCA 2025).

3.3 Fauna

Scrub, chaparral, grassland, woodland, and wetland habitats on the project site provide foraging and nesting habitat for migratory and resident bird species and other wildlife. Large mammal use of the project site was documented, as mule deer (*Odocoileus hemionus*) scat was commonly observed throughout on-site habitats.

The County defines raptor foraging habitat as land that is a minimum of 5 acres (not limited to project boundaries) of fallow or open areas with any evidence of foraging potential (e.g., burrows, raptor nests). The entirety of the project site meets this definition of raptor foraging habitat.

In total, 82 wildlife taxa (25 birds, six mammals, three reptiles, and 48 invertebrates), all of which are native, have been observed so far during field surveys. A cumulative list of all wildlife species observed on-site is provided in Appendix D of the Project BRR (SWCA 2025).

3.4 Special-Status Plant Species

The potential for special-status plant species to occur with the project site was evaluated as described in the Project BRR; Appendix E of the Project BRR (SWCA 2025) presents the special-status plant species evaluated for potential to occur on-site. There is no USFWS-designated critical habitat for plant species on-site (USFWS 2024a, 2024b).

Special-status plants are those taxa in one or more of the following categories:

- Taxa listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) (50 Code of Federal Regulations [CFR] 17.12 and various notices in the *Federal Register* [proposed species])
- Taxa that are candidates for possible future listing as threatened or endangered under the ESA (67 Federal Register 40657, June 13, 2002)
- Taxa listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 California Code of Regulations 670.5)
- Taxa that meet the definitions of rare or endangered under the California Environmental Quality Act (CEQA) (State CEQA Guidelines Section 15380)
- Taxa listed as rare under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.)
- Taxa with a California Rare Plant Rank (CRPR) of 1 through 4
- Taxa included on the County of San Diego Sensitive Plant List, List A, B, C, or D

Nine sensitive plant species have been observed on the project site: Jacumba milk-vetch (*Astragalus douglasii* var. *perstrictus*), long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*), Tecate tarplant (*Deinandra floribunda*), sticky geraea (*Geraea viscida*), desert beauty (*Linanthus bellus*), Payson's jewelflower (*Caulanthus simulans*), Colorado desert larkspur (*Delphinium parishii* ssp. *subglobosum*), low bush monkeyflower (*Diplacus aridus*), and pride-of-California (*Lathyrus splendens*). Each of these species' life histories, estimated abundance, and status in relation to the County of San Diego Sensitive Plant List is discussed in detail in the Project BRR (SWCA 2025).

3.5 Special-Status Animal Species

The potential for special-status animal species to occur on-site was evaluated as described in Section 1.3.2. A list of special-status animal species evaluated for potential to occur on-site is provided in Appendix G. There is no USFWS-designated critical habitat for animal species on-site (USFWS 2024a, 2024b). Special-status animals are those taxa in one or more of the following categories:

- Taxa listed or proposed for listing as threatened or endangered under the federal ESA 50 CFR 17.11 and various notices in the *Federal Register* [proposed species])
- Taxa that are candidates for possible future listing as threatened or endangered under the ESA (*Federal Register* 67:40657, June 13, 2002)
- Taxa listed or proposed for listing by the State of California as threatened or endangered under the CESA (14 California Code of Regulations 670.5)
- Taxa that meet the definitions of rare or endangered under the CEQA (State CEQA Guidelines Section 15380)
- Taxa fully protected in California (California Fish and Game Code Sections 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish])
- Taxa listed on the California Special Animals List such as Species of Special Concern (SSC), Fully Protected, and for invertebrates, all species regardless of the reason for inclusion (California Department of Fish and Wildlife [CDFW] 2025)
- Taxa included on the County of San Diego Sensitive Animal List, Group 1 or 2

Fourteen sensitive wildlife species have been detected on the project site: Cooper's hawk (*Accipiter cooperi*), sharp-shinned hawk (*Accipiter striatus*), Bell's sage sparrow (*Artemisiospiza belli belli*), turkey vulture (*Cathartes aura*), California horned lark (*Eremophila alpestris actia*), western bluebird (*Sialia mexicana*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), mule deer (*Odocoileus hemionus*), mountain lion (*Puma concolor*), Southern California legless lizard (*Anniella stebbinsi*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), coast horned lizard (*Phrynosoma blainvillii*) and western spadefoot (*Spea hammondii*). Each of these species along with other wildlife species with potential to occur within the project site is discussed in detail in the Project BRR (SWCA 2025).

3.6 Habitat Connectivity and Wildlife Corridors

Wildlife corridors and habitat linkages are features that promote habitat connectivity. Wildlife corridors are typically discrete linear features within a landscape that are constrained by development or other non-habitat areas. Habitat linkages are networks of corridors through and between larger natural open space that facilitate movement of wildlife, thus providing long-term resilience of ecosystems against the detrimental effects of habitat fragmentation. Regional connection between high-quality open space habitats is critical to ongoing interchange of genetic material between populations, wildlife movement to escape natural disasters (fires, floods), colonization and expansion of populations, and plant propagation.

Per Attachment A of the *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements, Biological Resources* (County of San Diego 2010), a corridor is "A specific route that is used for movement and migration of species. A corridor may be different from a 'Linkage' because it represents a smaller or narrower avenue for movement." A linkage is defined as "an area of land which supports or contributes to the long-term

movement of wildlife and genetic exchange by providing live-in habitat that connects to other habitat areas."

While mapped as a Focused Conservation Area in the draft East County MSCP Plan, the mitigation site occurs in a less permeable area, as evaluated by the California Essential Habitat Connectivity (CEHC) model. The site also occurs within Connections with Implementation Flexibility per the Areas of Conservation Emphasis modeling. Based on these model results and the presence of the U.S.–Mexico border, it is likely that wildlife movement would be limited to an east-west orientation, which is further supported by the CEHC Essential Connectivity Area (SWCA 2025: Figure 13). Details of these models and their relation to the proposed project can be found in the Project BRR (SWCA 2025).

4.0 BIOLOGICAL RESOURCE MANAGEMENT

This RMP sets forth goals to manage and preserve the sensitive biological resources within the mitigation site. The primary goal is to preserve and manage the 464 acres of on-site open space and vegetation communities described in Section 3.1.

4.1 Management Goals

The management goals of this RMP are as follows:

- Preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the RMP land.
- Manage the land for the benefit of sensitive species, Multiple Species Conservation Program–covered species, and existing natural communities, without substantive efforts to alter or restrict the natural course of habitat development and dynamics.
- Reduce, control, and where feasible eradicate nonnative, invasive flora and/or fauna known to be detrimental to native species and/or the local ecosystem.

4.2 Biological Management Tasks

4.2.1 Baseline Inventory

A baseline inventory of biological resources on the mitigation site was completed by SWCA in 2022 to quantify and map vegetation communities and habitat types. The existing vegetation in the mitigation site and biological resources associated with the project site are described in detail in Section 3. This inventory data will allow the designated resource managers to measure changes in vegetation communities and to evaluate management tasks.

4.2.2 Update Biological Mapping and Aerial Photography

Vegetation and sensitive natural resources will be mapped using current aerial photographs every 5 years. Updating aerial photography will be supplemented by updated biological mapping of natural resources on-site. The vegetation mapping shall conform to Oberbauer et al. (2008)

or the County's most current vegetation mapping standards. Incidental observations of special-status resources shall be recorded and reported in the annual reports.

4.2.3 Removal of Invasive Species

Removal of invasive species will be the responsibility of the resource manager and will be evaluated monthly. It will be their responsibility to track infestations if they should occur on-site. Use of chemical pesticides should be used only if deemed necessary and shall be in compliance with all federal and state laws and regulations. Use of chemical pesticides shall be determined in coordination with the County Department of Environmental Health.

4.2.4 Habitat Restoration Installation

Restoration of habitat will primarily occur through the revegetation of rare plants inventoried within the project site that require a 2:1 or 1:1 replacement mitigation. This will occur one time at the discretion of the resource manager and will involve transplanting or establishment from seed collected from individuals within the project site footprint. Success of this mitigation effort will be achieved when at least 3,594 Jacumba milk-vetch, 1,378 sticky geraea, 843 desert beauty, 150 long-spined spineflower, and 1,284 Tecate tarplant are documented within the mitigation site during 1 or more years in the 3-year monitoring period. Further details of the revegetation and restoration plans can be found in the Conceptual Revegetation Plan for the project (SWCA 2025: Appendix L).

4.2.5 Habitat Restoration Monitoring and Management

Monitoring of revegetation of rare plants will occur monthly by the designated resource manager. Measures to monitor and manage the success of these transplanted or seeded sensitive plants, as necessary, to ensure the success of revegetation efforts. A complete inventory of rare plants on the mitigation site will occur every 5 years as a part of the updates to biological mapping.

4.2.6 Rare Plant Surveys

As part of the success criteria of the restoration and revegetation rare plant surveys will occur every 5 years. Qualitative and quantitative monitoring will occur on-site and will be included in a rare plant and restoration plan.

4.3 Adaptive Management

The resource manager is responsible for interpreting the results of site monitoring to determine the ongoing success of the RMP. If it is necessary to modify the plan between regularly scheduled updates, plan changes shall be submitted to the County and agencies for approval as required.

4.4 Operations, Maintenance and Administration Tasks

Operations, maintenance and administration tasks are included in Table 1.

4.5 Public Use Tasks

There is no anticipated public use of the mitigation site.

4.6 Fire Management Tasks

Fire management tasks are included in Table 1.

5.0 REFERENCES

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APPENDIX L. CONCEPTUAL REVEGETATION PLAN

Conceptual Revegetation Plan for the Starlight Solar Project, Boulevard, San Diego County, California

PDS2022-MUP-22-010

JULY 2025

PREPARED FOR

County of San Diego
and
Empire II LLC

PREPARED BY

SWCA Environmental Consultants

CONCEPTUAL REVEGETATION PLAN FOR THE STARLIGHT SOLAR PROJECT, BOULEVARD, SAN DIEGO COUNTY, CALIFORNIA

PDS2022-MUP-22-010

Prepared for:

County of San Diego

and

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SWCA Project No. 53792

July 2025

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ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
amsl	above mean sea level
Applicant	Empire II LLC
BESS	battery energy storage system
CDFW	California Department of Fish and Wildlife
CNPS	California Native Plant Society
County	County of San Diego
CRPR	California Rare Plant Rank
I-8	Interstate 8
MUP	Major Use Permit
MW	megawatt
MWh	megawatt-hour
PEP	plant establishment period
PLS	pure live seed
PV	photovoltaic
RL-80	Rural Lands 80

1.0 INTRODUCTION

Empire II LLC (Applicant) is requesting a Major Use Permit (MUP) from the County of San Diego (County) to develop, finance, construct, and operate an unoccupied renewable energy solar and battery storage project in southeastern San Diego County. The *San Diego County General Plan: A Plan for Growth, Conservation, and Sustainability* (County of San Diego 2011) designates the project site as Rural Lands with an 80-acre minimum size (RL-80), and the County Zoning Ordinance (County of San Diego 2025a) identifies the site as General Rural (S92). Section 6954 of the County Zoning Ordinance states that solar power plant projects are considered a Major Impact Service and Utility in all zones and thus require the approval of a MUP.

1.1 Project Summary

The project would use photovoltaic (PV) electric generation system technology to produce approximately 100 megawatts (MW) of alternating current (AC) of solar energy at the utility scale. The project would also include an 868 megawatt-hour (MWh) (approximately 217 MW, 4-hour batteries) battery energy storage system (BESS). The project site encompasses a total of approximately 588 acres within the Mountain Empire Subregion in unincorporated San Diego County. The project would be constructed in two phases: the first phase would consist of 20 MW solar energy generation and 17.4 MW of battery storage, and the second would consist of 80 MW solar energy generation and 200 MW of battery storage. A biological open space easement (also known as the mitigation site) would be granted over an approximately 448-acre area that includes sensitive vegetation communities, special-status plant species, and habitat for special-status species.

1.2 Location of the Development Project

The proposed project site is located in unincorporated San Diego County, south of the community of Boulevard and approximately 0.93 mile north of the United States border. The project site is approximately 1 mile south of Interstate 8 (I-8) and Old Highway 80, and east of Tierra Del Sol Road. Regional access to the project site would be provided by State Route 94 and I-8. Access to the project site would be provided by Jewel Valley Road, which connects to Old Highway 80 in Boulevard. Additional emergency fire access would be provided via Tule Jim Lane, which connects to Old Highway 80. Revegetation work will occur south of the project site on the mitigation site.

1.3 Responsible Parties

The Applicant is requesting a MUP from the County of San Diego (County) to develop, finance, construct, and operate an unoccupied renewable energy solar and battery storage project in the southeastern region of the county. The Applicant will be the owner of the proposed project site and mitigation site and will thus be responsible for the success of the revegetation plan. A Revegetation Agreement shall be signed and notarized by the property owner following approval

of the Final Revegetation Plan and accompanied by the required security as agreed upon by the County.

1.3.1 Restoration Ecologist

- The Applicant will contract with a qualified Restoration Ecologist. The Restoration Ecologist will provide ecological guidance and restoration oversight. The Restoration Ecologist will be designated by the applicant and approved by the County and the California Department of Fish and Wildlife (CDFW). The restoration ecologist will be experienced with habitat restoration projects in in the high desert transition zone in southeast San Diego County, including the local flora and fauna. The Restoration Ecologist will oversee restoration planning, implementation, maintenance, monitoring, reporting and adaptive management. They will support the Restoration Contractor in managing and implementing this plan, including—but not limited to—the following:
- Review all temporary disturbance sites to evaluate soil compaction, vegetation condition, susceptibility to erosion, weed invasion, or as dust sources, and specify site-specific treatments such as erosion control, soil treatment, decompaction, mulch application, or reseeding for each site.
- Estimate overall project seed requirements; update estimates as needed; and coordinate with the restoration contractor and the applicant to obtain and maintain seed inventory.
- Oversee and manage site treatments, including erosion control, reseeding, and other requirements.
- Oversee monitoring and evaluate success.
- Plan and direct follow-up remedial work as needed to meet success criteria.
- Prepare and submit annual reports to the Applicant and resource agencies
- Ensure that no off-road vehicle access occurs on the site until preconstruction surveys and special-status plant salvage, and other special-status species clearance or exclusion, have been completed.
- Ensure that no off-road vehicle access occurs off-site for plant salvage or seed collection or other project-related activities.
- Schedule all preconstruction clearance surveys for all project components, to include seasonal surveys for all special-status plants and animal species in the areas where they have been previously documented.
- Ensure that each person assigned to survey, salvage, transplantation, collect seed, reseed, monitor, or any other aspect of this plan is qualified for each task.
- For rare or special-status plant locations to be avoided by adjusting work area, the Restoration Ecologist will designate and mark a buffer area surrounding the location and will be responsible for monitoring the site throughout the construction phase of the project.

- Review and approve plant materials, erosion control materials, and other materials to ensure they are certified weed-free certification.
- Communicate with the Applicant and resource agencies regarding restoration and revegetation activities.
- Coordinate restoration activities with other project activities including construction and maintenance work as well as mitigation and compliance requirements
- Prepare and submit monitoring reports to the Applicant and resource agencies.

1.3.2 Restoration Contractor

The Restoration Contractor will be a qualified firm with successful experience in Southern California and direct experience with the special-status plants and vegetation communities of the high desert transition zone in southeastern San Diego County. The Restoration Contractor must hold a Landscape Contractor's license (C-27) and Qualified Applicator's license with the California Department of Pesticide Regulation. The installation contractor will be responsible for salvage and transplantation of the focal species prior to enhancement or grading.

1.3.3 County of San Diego

The County is the designated Lead Agency for the project and is responsible for the review and approval of the Conceptual Revegetation Plan. The County will have the authority to oversee restoration efforts and assess success as defined in the Final Revegetation Plan.

2.0 GOALS

2.1 County List A and B Plant Species Occurrences and Estimated Impacts and Mitigation

2.1.1 Jacumba Milk-Vetch

Jacumba milk-vetch (*Astragalus douglasii* var. *perstrictus*) is a California Rare Plant Rank (CRPR) 1B.2 and County List A species in the pea family (Fabaceae). This perennial herb blooms from April to June and grows in chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, and valley and foothill grassland between 2,900 and 4,500 feet above mean sea level (amsl). In total, 1,351 Jacumba milk-vetch individuals were observed within the survey area in granitic northern mixed chaparral, redshank chaparral, chamise chaparral, urban/developed, and field/pasture during spring rare plant surveys. Direct, permanent impacts to Jacumba milk-vetch will be mitigated at a 2:1 replacement ratio.

2.1.2 Long-Spined Spineflower

Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*), also known as knotweed spineflower, is a CRPR 1B.2 and County List A annual herb in the buckwheat family

(Polygonaceae) with a blooming period of April to July. It occurs from the coast inland in San Diego County, in northern Baja California, Mexico, and in chaparral, coastal scrub, meadows, seeps, valley and foothill grasslands, and vernal pools up to approximately 5,200 feet amsl. In total, 595 individuals were observed within the survey area in chamise chaparral during spring rare plant surveys. Direct, permanent impacts to long-spined spineflower will be mitigated at a 2:1 replacement ration.

2.1.3 Tecate Tarplant

Tecate tarplant (*Deinandra floribunda*) is a CRPR 1B.2 and a County List A species. A member of the sunflower (Asteraceae) family, this species blooms from August through October in chaparral and coastal scrub habitats. Tecate tarplant is an annual herb that occurs at elevations of 200 to 4,000 feet amsl. In total, 1,171 individuals were observed within the survey area in redshank chaparral, granitic northern mixed chaparral, montane buckwheat scrub, big sagebrush scrub, field/pasture, and southern riparian scrub during summer rare plant surveys. Direct, permanent impacts to Tecate tarplant will be mitigated at a 2:1 replacement ratio.

2.1.4 Sticky Geraea

Sticky geraea (*Geraea viscida*) is a CRPR 2B.2 and a County List B species. A member of the sunflower (Asteraceae) family, this perennial herb blooms from May through June in chaparral habitats and occurs at elevations between 1,400 and 5,600 feet amsl. In total, 2,536 sticky geraea individuals were observed on-site within granitic northern mixed chaparral, redshank chaparral, chamise chaparral, and montane buckwheat scrub during spring rare plant surveys. Direct, permanent impacts to sticky geraea will be mitigated at a 1:1 replacement ratio.

2.1.5 Desert Beauty

Desert beauty (*Linanthus bellus*) is a CRPR 2B.1 and a County List B species. A member of the phlox (Polemoniaceae) family, this annual herb blooms from April through May in chaparral habitats. This species typically occurs at elevations of 3,200 to 5,500 feet amsl. In total, 2,105 desert beauty individuals were observed on-site within openings in redshank chaparral, granitic northern mixed chaparral, and chamise chaparral during spring rare plant surveys. Direct, permanent impacts to desert beauty will be mitigated at a 1:1 replacement ratio.

3.0 EXISTING CONDITIONS

The Applicant is considering the use of land within 1,041.82 acres of open space (i.e., Starlight Solar mitigation site) to satisfy mitigation requirements for the habitat loss resulting from the development of solar facilities within the area. Both the mitigation site and the Starlight Solar project site are located south of the community of Boulevard, California. The off-site mitigation survey area is made up of eight parcels including Assessor's Parcel Numbers 65909006, 65914001, 65914002, 65908003, 659008006, 65908010, 65907016, and 65913003 which extend north, east, and west from the U.S.–Mexico Border. The mitigation site will compensate for habitat loss resulting from the solar farm project. Total acreages of the habitat communities affected by

the project have been calculated for comparison with the habitats available within the mitigation lands.

To protect sensitive biological resources, a biological open space easement (mitigation site) will be granted over 447.93 acres of sensitive vegetation communities, special-status plant species, and habitat for special-status species. This biological open space easement/mitigation site will be granted to the County or other approved conservation entity. Granting of this open space would authorize the County and its agents to periodically access the land to perform management and monitoring activities for the purposes of species and habitat conservation. This easement is for the protection of biological resources and prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. The biological open space easement would be unfenced.

The mitigation site ranges from 3,450 to 3,651 feet amsl in elevation. The land use on the site is primarily composed of open space, with the southernmost extent of the mitigation site abutting the U.S.–Mexico border. The mitigation site is generally within the Peninsular Range in a transitional area between the coast and the desert. Typical climatic conditions are dry with average temperatures near the community of Boulevard ranging from approximately 34 degrees Fahrenheit (°F) to 94°F, and an average rainfall of less than 15 inches per year (Western Regional Climate Center 2024).

Four soil series are mapped within the survey area (Natural Resources Conservation Service 2023): Mottsville loamy coarse sand, 2 to 9 percent slopes (MvC), Tollhouse rocky coarse sandy loam, 5 to 30 percent slopes, eroded (ToE2), La Posta rocky loamy coarse sand, 5 to 30 percent slopes, eroded (LcE2), and Acid igneous rock land, (AcG). None of the soils mapped within the survey area are considered hydric. ToE2, AcG, and MvC are the most common soils in the survey area.

MvC soils consist of 85% Mottsville and similar soils, and 15% minor components. Minor components consist of 5% Bull Trail, 5% La Posta, and 5% Calpine. Parent material for Mottsville soils is alluvium derived from granite. The top horizon (0–6 inches below the soils surface) consists of loamy coarse sand with deeper soils consisting of a stratified sand to loamy sand texture. These soils are considered well drained and are associated with 2% to 9% slopes. MvC soils and their minor components are not considered hydric.

ToE2 soils consist of 65% Tollhouse and similar soils, 25% rock outcrops, and 10% minor components. Rock outcrops are characterized as unweathered bedrock. Minor components consist of 4% Kitchen Creek, 3% Mottsville, and 3% La Posta. Parent material for Tollhouse and similar soils is residuum weathered from granodiorite. The topsoil horizon (0–16 inches below the soil surface) consists of a gravelly coarse sandy loam texture. These soils are considered somewhat excessively drained and are associated with 5% to 20% slopes. ToE2 soils in their entirety are not considered hydric.

LcE2 soils consist of 85% La Posta and similar soils and 15% minor components. Minor components consist of 5% Tollhouse, 5% Kitchen Creek, and 5% Rock Outcrops. Parent material for La Posta and similar soils is residuum weathered from granodiorite. The top horizon (0–8 inches below the soil surface) consists of a loamy coarse sand texture. Deeper soils consist of a gravelly loamy coarse sand texture. LcE2 soils are considered somewhat excessively drained and are associated with 5% to 30% slopes. LcE2 soils and their minor components are not considered hydric.

AcG soils consist of 50% boulders and rock outcrops composed of granite, quartz, diorite, gabbro, basalt, and various rock types. Less prevalent within Acid igneous rock land is soil material containing loam to loamy coarse sand textures covering igneous rock or decomposed granite. In most cases the topsoil is shallow, with some locations containing deeper soil within gaps in the rocks. Water runs off this soil type rapidly.

3.1 Habitat Types/Vegetation Communities

Eight vegetation communities or habitat types were recorded by SWCA within the mitigation parcels. Vegetation communities and land cover categories present on-site included granitic northern mixed chaparral, redshank chaparral, montane buckwheat scrub, big sagebrush scrub, disturbed, open coast live oak woodland, non-native grassland, and alkali marsh. The total acreages of each vegetation community found within the site are summarized in Table 1 below.

Each distinct natural community is described below in descending order of relative abundance. An overview of natural communities on-site is provided in Figure 2.

Table 1. Summary of Vegetation Community Acreages

Habitat Types/Vegetation Communities	Code[1]	Existing Acreage Within Mitigation Lands
Granitic Northern Mixed Chaparral*	37131	550.3
Redshank Chaparral*	37300	433.89
Montane Buckwheat Scrub*	37K00	16.27
Big Sagebrush Scrub*	35210	4.37
Disturbed	11300	14.75
Coast Live Oak Woodland*	71161	5.52
Non-Native Grassland*	42200	15.09
Alkali Marsh*	52300	1.64
Total:		1,041.82

[1] Holland (1986) as modified by Oberbauer et al. (2008)

*Considered special-status by the County (2010)

3.2 Functions and Values

Due to the types and quantity of the vegetation types, elevation ranges, soils, and location of the mitigation parcel in proximity to the project site, the mitigation lands contain sufficient habitat to adequately mitigate the impacts to special-status vegetation communities, wildlife, and plant species that will result from development of the Starlight Solar Project. The total acreage of proposed mitigation lands exceeds the total required mitigation for the project. Although not all habitats impacted on the project site are present in the mitigation site, the proposed mitigation site would preserve nearly 150 acres beyond the total required mitigation acreage. Additionally, the significant overlap between habitat types within the project site and the mitigation site will provide the acreage needed to support rare plant species present within the project area including sticky geraea, Jacumba milkvetch, desert beauty, Payson's jewelflower (*Caulanthus simulans*), pride-of-California (*Lathyrus splendens*), low-bush monkeyflower (*Diplacus aridus*), desert larkspur (*Delphinium parishii* ssp. *subglobosum*), long-spined spineflower, and Tecate tarplant. Wildlife potentially impacted by the development of the Starlight Solar project includes coast horned lizard (*Phrynosoma blainvillii*), coastal tiger whiptail (*Aspidoscelis tigris stejnegeri*), Southern California legless lizard (*Anniella stebbinsi*), Cooper's hawk (*Accipiter cooperi*), sharp-shinned hawk (*Accipiter striatus*), Bell's sage sparrow (*Artemisiospiza belli belli*), California horned lark (*Eremophila alpestris actia*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). The special-status wildlife species that occur on the project site are generally widespread throughout the region and use a variety of habitat types, so the proposed mitigation site would adequately mitigate for impacts to these species as well.

3.3 Restoration Site Selection

Restoration site selection will be informed by updated vegetation community surveys and rare plants surveys. Vegetation will be surveyed per the CDFW *Survey of California Vegetation Classification and Mapping Standards* (2024), and the California Native Plant Society (CNPS) *Guidelines for Mapping Sensitive Natural Communities* (2023). Rare plant surveys will be conducted per the CDFW *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities* (2018) and the *CNPS Botanical Survey Guidelines* (2001). Site selection for direct seeding of County List A and B plant species will focus on the following:

- Suitable habitat, including soils and vegetation communities
- Known occupancy of target species within or adjacent to the restoration site(s)
- Presence of known associate species based on surveys conducted in the project area
- Reasonable site accessibility for maintenance and monitoring visits
- Condition of habitat (e.g., low weed cover)

Specific restoration site locations will be included in the Final Revegetation Plan.

4.0 RESTORATION IMPLEMENTATION FRAMEWORK

4.1 Seed Collection and Storage

Seed collection activities will be conducted within the project site prior to the commencement of construction activities and once seeds have matured. Seed collection will be overseen by the Restoration Ecologist and conducted by qualified/permitted botanists per CNPS guidance. Sites for seed collection will be determined in advance and may need coordination with CDFW and/or the County. Quantity (individual seed count or pounds) of seeds required will be based on the number of sensitive-listed plants being impacted and/or details of the approved seed mix and estimated acres of temporary disturbance for the project. Seed quantities will be included in the Final Revegetation Plan. If seed collection will be used as part of an approved seed mix for temporary disturbance areas, seeds will be collected, cleaned, tested for pure live seed (PLS), certified weed-free, and stored by the Restoration Contractor until they are ready for use, unless other arrangements approved by CDFW and the County.

4.1.1 Topsoil Salvage

Topsoil contains seed banks, nutrients and natural erosion control materials (e.g., native plant detritus). Where possible, topsoil salvage from areas impacted by project activities will occur prior to disturbance. Topsoil salvage will include best management practices set forth by the Restoration Ecologist including the following:

- Salvage locations
- Timing
- Salvage depth
- Storage specifications
- Soil translocation protocols

A topsoil salvage and translocation strategy will be included in the Final Revegetation Plan.

4.2 Seeding Schedule

Seeding will occur in late summer or early fall, to ensure that seed is in place prior to the onset of seasonal rain in late fall or early winter. Later seeding is likely to result in failed germination due to inadequate moisture availability.

Due to the arid climate and variable rainfall, germination and establishment success of seeded plants is not predictable. Supplemental activities (e.g., subsequent re-seeding, irrigation using backpack sprayers) may occur as needed to improve chances of meeting target vegetation density within the recovery monitoring timeline. Re-seeding will be scheduled to minimize potential seed loss to granivorous birds and small mammals and maximize exposure to seasonal

rainfall. A detailed schedule including all implementation tasks will be included in the Final Revegetation Plan.

4.3 Site Preparation

Site preparation may include invasive plant treatment, the installation of site protections against erosion (due to wind or water), and salvaged topsoil placement. The Restoration Ecologist will oversee all site preparation, and recommend best management practices. If necessary, off-site materials such as certified weed-free straw bales, straw wattles, or other erosion control materials may be used temporarily to address erosion. Where possible, mulch for erosion control will be sourced from native vegetation cleared from the project site.

4.3.1 Weed Control

The spread of nonnative, invasive plants poses a significant threat to restoration success. The Restoration Ecologist will plan and oversee an integrated pest management program to control or eradicate invasive plants in the restoration sites.

4.3.1.1 Manual Control Methods

Manual removal is often perceived as being more environmentally friendly than chemical control, as it does not rely on chemical herbicides that can have unintended effects on non-target species and the surrounding ecosystem. However, it can be time-consuming, labor-intensive, and may need to be repeated many times to achieve full control of the invasive species. Additionally, care must be taken to ensure that the removal process does not inadvertently spread the invasive species further, for instance by ensuring that seeds are not dispersed during removal. In addition, manual methods might not be the preferred choice of control in protected habitats, because methods such as using hand tools or machinery to dig out an invasive plant species have the potential to impact protected native species through the disturbance of nests or burrows, food sources, and habitat. Often, manual removal can be most effective when combined with chemical control. If manual control is preferred, there are several options available, described below.

Hand Pulling/Digging Out: This is the simplest form of manual removal, involving the physical extraction of invasive plants from the ground. It is most effective for species with shallow root systems or when the soil is moist, as this makes it easier to remove the entire plant, including the roots, to prevent regrowth. For invasive species with deeper or more complex root systems, tools such as shovels, digging forks, Pullerbears or mattocks may be necessary. This method aims to remove the entire root system from the soil, which is critical for preventing the plant from re-establishing. If plants are fruiting, the seedheads should be bagged to ensure the plant does not spread.

Cutting: Invasive shrubs or trees may require cutting at or near ground level. This method often needs to be combined with other techniques, such as the application of an appropriate herbicide to the cut stump, to ensure that the plant does not resprout from the roots.

Mowing: Mowing or using a weed whacker can effectively control invasive species covering large areas by repeatedly cutting them down to exhaust their energy reserves over time. To minimize the species' spread, schedule mowing during stages that interrupt their growth cycle, ideally before they produce seeds. While this approach works well for managing invasive grasses and herbaceous plants, it can also be performed on woody species when integrated with other strategies, such as herbicide application or manual removal, especially for species with deep or extensive root systems that can resprout after cutting.

Grazing: Prescribed grazing using non-selective herbivores such as goats can be an efficient, cost-effective way to control invasive species, particularly in difficult terrain machinery cannot easily access.

4.3.1.2 Chemical Control Methods

Chemical control of invasive plants involves the use of herbicides to suppress, contain, or eradicate invasive species. This method is appropriate for managing large infestations or those that are difficult to control through manual means alone. Various herbicides and application methods can be tailored to specific situations, species, and environmental considerations. When using chemical control methods, it's crucial to consider the potential impacts on non-target species, water sources, and human health. Following label instructions, using the minimum effective dosage, and choosing the right time for application (e.g., avoiding windy days to prevent drift) are essential practices to minimize risks. A qualified applicator that is licensed per California Department of Pesticide Regulation is required when utilizing chemical herbicides.

4.4 Seeding Plan

4.4.1 Timing

Seed will be broadcasted at a pre-determined rate in the late fall, early winter, or spring dependent on rainfall. Seed will be manually tilled using hand rakes or comparable equipment to gently transfer seeds into the topsoil. Quantities of seeding will be provided in the Final Revegetation Plan.

4.5 Cost Estimate

A cost estimate will be provided in the Final Revegetation Plan.

5.0 FIVE-YEAR MAINTENANCE PLAN

5.1 120-Day Plant Establishment Period

A 120-day plant establishment period (PEP) will commence following initial seeding. This timeframe is important for long-term restoration success and may involve pre-maintenance tasks such as supplemental seeding and watering via the use of backpack sprayers. The Restoration Ecologist will direct and oversee the Restoration Contractor during all PEP activities.

5.2 Weed Control

The measures outlined in Section 4.3.1 above will be used for weed control.

5.3 Supplemental Watering

Supplemental watering may occur as needed via backpack sprayers filled by water truck. No temporary or permanent irrigation systems will be installed.

5.4 General Site Maintenance

These sites will be regularly monitored for weed presence and abundance, with weed control measures implemented as necessary. Additional maintenance activities, including erosion control, soil stabilization, or other measures, will be carried out as needed based on monitoring results and under the direction of the Restoration Ecologist.

5.5 Trash Removal

The mitigation site will be inspected daily during seeding, to ensure no trash or food-related waste is left behind. All personnel working within the site will carry trash receptacles in their vehicles to dispose of waste. Following the PEP, trash will be removed from the restoration areas during regular maintenance and monitoring visits.

5.6 Public Access Control

Throughout the PEP and 5-year maintenance and monitoring period, public access will be managed through temporary restoration site perimeter fencing and signage in both English and Spanish. When on-site, the Restoration Ecologist will communicate the importance of public exclusion with anyone seeking access to the Open Space Preserve. Temporary fencing and signage will be maintained by the Restoration Contractor.

6.0 FIVE-YEAR MONITORING AND REPORTING PROGRAM

6.1 Qualitative and Quantitative Monitoring

A comprehensive monitoring schedule will be included in the Final Revegetation Plan.

6.1.1 Vegetation and Rare Plant Surveys

Quantitative vegetation monitoring will consist of the site assessments, described below, as well as floristic surveys based on the CNPS guidelines. Quantitative vegetation monitoring will occur in the spring during the peak bloom period (March–May). The Restoration Ecologist will collect information on target plant species composition and cover. The assessments will inform adaptive

management by indicating if the restoration sites are progressing towards set goals of native and/or invasive species cover values and target species survivorship.

Plot sampling will provide data representative of the larger study area via quantitative assessments in consistent locations. A complete species list will be recorded within each quadrat sampling plot, with visual cover estimates assigned to each species using CNPS cover diagrams for reference. Quality control of visual percent cover estimation will be conducted by frequent comparison between evaluators. Species richness will be measured as the total number of species found within each sample area. Percent cover of invasive and native species will be summed for comparison to project goals. Vegetative cover and species richness will be calculated from the sampling plots, recording the species that occur within the plot, and estimating cover of each. Percent cover of each species across the site will be reported as the average value from all plots. Plot sampling method will be used to collect cotyledon cover estimate data during Year 1 to assess initial germination success.

6.1.2 Photo Monitoring

Photo monitoring points will be established across the mitigation site at predetermined intervals and directions, with baseline photos taken prior to seeding and repeated annually.

6.1.3 Signage and Fencing Inspections

Signs and fencing within the mitigation site will be surveyed for theft or damage on an annual basis during spring. During each survey, the location of any missing or damaged signs or fencing will be documented and replaced.

6.2 Adaptive Management

Qualitative and quantitative assessments will enable the Restoration Ecologist to implement adaptive management based on monitoring results. Adaptive management actions may include additional invasive species management, supplemental irrigation past the PEP, and/or additional seed collection and reseeding.

6.3 Reporting

After restoration work is completed, an annual report will be submitted to CDFW and the County by no later than the first week of January each year. Annual monitoring reports will be prepared by the Restoration Ecologist. The monitoring reports will be submitted to the County as follows:

- Year 1: Year-End Report
- Year 2: Annual
- Year 3: Annual
- Year 4: Annual

- Year 5: Annual

Monitoring and maintenance field data shall be included as an addendum to each report.

7.0 PERFORMANCE STANDARDS

Per Mitigation Measure M-BI-5 of the Biological Resources Report (SWCA 2025), restoration will provide 2:1 replacement of Jacumba milk-vetch, long-spined spineflower, and Tecate tarplant, and 1:1 replacement of sticky geraea and desert beauty. If Jacumba milk-vetch, long-spined spineflower, Tecate tarplant, sticky geraea, and desert beauty are transplanted through topsoil transfer or established from seed collected from individuals within the project footprint, then success of this Mitigation Program will be achieved for Phase 1 when at least 292 Jacumba milk-vetch, 336 sticky geraea, and 769 desert beauty are documented within the off-site biological open space easement during 1 or more years in the 3-year monitoring period. Similarly, success of the Mitigation Program will be achieved for Phase 2 when 2,104 Jacumba milk-vetch, 100 long-spined spineflower, 856 Tecate tarplant, 1,042 sticky geraea, and 74 desert beauty are documented within the open space.

8.0 COMPLETION OF COMPENSATORY MITIGATION

Upon successful achievement of success criteria, the Applicant will provide a written Notice of Completion to the County.

8.1 Contingency Measures

Any significant issue or contingency that arises on the job site (e.g. plant survival issues, fire, or flooding) shall be reported in writing to the County within 2 weeks from the date of the incident. Accompanying the report shall be a plan for remediation, with an implementation schedule and a monitoring schedule.

9.0 LITERATURE CITED

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