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Project Title:	Soda Mountain Solar
TN #:	264861
Document Title:	Project Impacts and Mitigation
Description:	This memo provides revised project impacts and compensatory mitigation ratios/acreages.
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Submitter Role:	Applicant Representative
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Soda Mountain Solar, LLC
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Subject: Impacts Evaluation for the Soda Mountain Solar Project in Unincorporated San Bernadino County, California

This report has been prepared by Rincon Consultants to provide revised impact estimates and updated compensatory mitigation ratios/acreages specific to desert tortoise (*Gopherus agassizii*), burrowing owl (*Athene cunicularia*), and impacts to water. The report has two primary purposes: 1) to summarize updated evaluations of impacts to biological and water resources within the Project boundaries of the proposed Soda Mountain Solar Project (Project) based on modifications to the project's proposed construction activity and methods and the proposed revegetation and management plan; and 2) to present proposed revisions to the mitigation ratios and/or acreages based on the updated impacts evaluation.

Rincon has prepared this report based on two primary sources of existing information: 1) vegetation community and habitat mapping prepared by SWCA (2024a) and reviewed by the California Energy Commission; and 2) information on advanced construction technology and 30 percent site design provided by ZGlobal and their Design/Build contractor. This evaluation considered the currently proposed alternative technology for solar array installation in the context of previously disclosed existing conditions, proposed mitigation measures, and proposed compensatory mitigation.

Revisions to the construction activity and methodology include implementation of Mitigation Measures BIO-3 which would require the project to utilize advanced terrain-following solar tracker systems which would significantly reduce mass grading efforts. This construction methodology would reduce permanent impacts from 2,059 acres to 289.08 acres by significantly reducing the extent of site grading. Reduced levels of grading would reduce permanent impacts to ephemeral drainages to 28.35 acres. Temporary impacts would be limited to minimal ground disturbance associated with mowing and driving over vegetation which would result in a quicker revegetation of the project site.

Recommendations for levels of compensatory mitigation were revised based on ratios contained in the initial 2016 Record of Decision, in the context of reduction of permanent impacts, reduction in loss of functional habitat, and suggested agency guidelines based on established procedures.

Methodology

Rincon Consultants (Rincon) conducted desktop analysis and literature review to evaluate existing biological conditions within the Project area and to assess potential impacts and mitigation strategies. This analysis relied on a comprehensive review of previously published technical documents, environmental assessments, and biological studies relevant to the Soda Mountain Solar Project. The 30 percent site design provided by ZGlobal and their Design/Build contractor was used to estimate impact footprints and assess spatial overlap with sensitive biological resources.



The following sources were used in the impacts evaluation:

- Soda Mountain Solar Project Environmental Impact Report (EIR) prepared by the Bureau of Land Management (BLM 2015),
- Record of Decision Soda Mountain Solar Project and Amendment to the California Desert Conservation Area Plan. (BLM 2016)
- CEC Docket TN #261603 Soda Mountain Solar Project Biological Resources Technical Report (Appendix D-1) (SWCA 2024a)
- CEC Docket TN #261597 Revised EIR Section 3.4 Biological Resources February 2025 (SWCA 2025a)
- CEC Docket TN #261595 Chapter 2 Project Description February 2025 (SWCA 2025b)

These primary sources were supplemented by additional technical documents that provided species specific data, hydrological data, and mitigation implementation details:

- CEC Docket TN #257930 Water Supply Assessment for the Soda Mountain Solar Project (Appendix J) (SWCA 2025c)
- CEC Docket TN# 261587 Mitigation Measure MM BIO-3 (Appendix Z) (SWCA 2025d)

Background

Project Description

The Soda Mountain Solar Project is located approximately 7 miles southwest of Baker, CA, directly adjacent to Interstate 15. A Record of Decision (ROD) was initially issued by the Bureau of Land Management in March 2016, however, was later rejected by the San Bernardino County supervisors.

The 2016 Project included the development of a 287 megawatts (MW) photovoltaic solar facility and associated infrastructure and facilities within 2,942-acre project boundary (Project). Surface disturbance was anticipated at 2,059 acres of which 1,767 acres would be permanently impacted.

The current design includes the development of a 300 MW photovoltaic solar farm and includes 300 MW battery storage within 2,670-acre project boundary. Surface disturbance will remain at 2,059 acres, however permanent impacts will be reduced to approximately less than 289.08 acres.

The project site remains within the 2016 ROD location site. The site remains located adjacent to existing roadways that provide access for construction and operations. Figure 1 and Figure 2 document Limits of Disturbance and anticipated Temporary and Permanent Disturbance.

Existing Conditions

The existing conditions within the Project boundaries remain consistent with the 2016 Project design (BLM 2016). Vegetation within the Project boundaries consists primarily of Mojavean desert scrub and desert wash scrub habitats, with sandy soils and scattered gravel and cobble. Within the project boundary, five native vegetation communities were identified, including Creosote Bush– White Bursage Bush Scrub, Creosote Bush Scrub, Rigid Spine Flower – Hairy Desert Sunflower, Cheesebush– Sweetbush Scrub, and California Joint Fir–Longleaf Joint-fir Scrub (SWCA 2024). Two sensitive vegetative “associations” were present. Table 1 presents the mapped vegetation communities within the project Study Area and the total acreages of each community. The Study Area also included disturbed (i.e., previous surface disruption or mechanical clearing) and developed areas (i.e., maintained dirt roads).



Desert tortoise and burrowing owl sign were observed during survey efforts conducted in May 2023. No desert tortoise were directly observed, however suitable burrows and scat was present within the Project boundary.

Table 1 Vegetation Communities and Land Cover Types

Vegetation Community	Global Rank*	State Rank†	Acres within Project Boundary
Creosote Bush – White Bursage Scrub Larrea tridentata – Ambrosia Dumosa Shrubland Alliance	G5	S5	2,459
Creosote Bush Scrub Larrea tridentata Shrubland Alliance	G5	S5	145
Rigid Spineflower – Hairy Desert Sunflower Chorizanthe rigida – Geraea canescens Desert Pavement Sparsely Vegetated Alliance, (Chorizanthe rigida – Geraea canescens Desert Pavement Association)	G4	S4 (Sensitive Association)	32
Cheesebush – Sweetbush Scrub Ambrosia salsola – Bebbia juncea Shrubland Alliance	G4	S4	8.2
California Joint Fir – Longleaf Joint-fir Ephedra californica – Ephedra trifurca Shrubland Alliance, (Ephedra californica – Ambrosia salsola Association)	G5	S4 (Sensitive Association)	1.2
Developed/Disturbed	NA	NA	25
*Global Rank (NatureServe 2024):			
• G4 = Over 100 viable occurrences worldwide/statewide and/or more than 32,000 acres			
• G5 = Demonstrably secure because of its worldwide/statewide abundance			
†State Rank (NatureServe 2024):			
• S4 = Over 100 viable occurrences worldwide/statewide and/or more than 32,000 acres			
• S5 = Demonstrably secure because of its worldwide/statewide abundance			

Table 2 Special Status Species Suitable Habitat

Species	Suitable Habitat (Acres)	Suitable Habitat Description
desert tortoise (<i>Gopherus agassizii</i>)	2645.4	Variety of environments from sandy flats to rocky foothills, including alluvial fans, washes and canyons. Arid land with sparse vegetation. All native vegetation communities in project area.
burrowing owl (<i>Athene cunicularia</i>)	2645.4	Open dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. All native vegetation communities in project area.

Applicable Mitigation Measures and Site Restoration

Mitigation measures have been incorporated to minimize impacts to wildlife and water resources and to maintain wildlife access and habitat during Project operation and maintenance. The implementation of MM BIO-3 will significantly reduce the need for site grading, thereby limiting permanent soil disturbance and preserving native topography (MM BIO-3). Temporarily disturbed areas will be restored to pre-project conditions through implementation of a Temporary Disturbance Revegetation Plan, which includes top-soil salvage, native seeding, and performance standards, including monitoring and reporting (MM BIO-28). To maintain site permeability for wildlife, project fencing will be designed to allow re-entry of desert tortoise and direct animals toward designated undercrossings to



prevent obstruction of movement (MM BIO-8). Additionally, if required, desert tortoise exclusion fencing will be installed along the I-15 corridor to prevent roadway mortality and guide tortoises to existing undercrossings (MM BIO-11). Collectively, these measures will reduce the extent and severity of habitat disturbance, support habitat restoration, and ensure continued wildlife access through and around the facility. These mitigation measures are provided in Attachment 2.

Restoration

Following construction activities, temporary disturbance areas will be restored in accordance with MM BIO-28, which requires implementation of a Temporary Disturbance Revegetation Plan. The plan will help restore temporary impacts to functional desert tortoise habitat within the project area. Desert tortoise primarily use creosote bush and white bursage for cover, which is the dominant vegetation community present in the project area, totaling 2,459 acres (Esque et al. 2021). Creosote bush is capable of resprouting following disturbance by heavy vehicles, regaining a full canopy within 5 years (Gibson et al. 2004). Reseeding shrub seedlings will also provide further mitigation to the damage caused during the minimal ground disturbance (Abella & Berry, 2016). Annuals, necessary for forage, revegetate faster, taking 1-15 years to reestablish (Abella & Berry, 2016). Previous solar projects in alluvial fans have utilized the post-construction addition of biocrust to further advance restoration of temporary disturbed areas impacted by minimal ground disturbance (Phoenix 2019). The implementation of MM BIO-28 and MM BIO-3 will provide a comprehensive plan to limit the impact of ground disturbance throughout the project timeline.

Case studies by Valley Electrical Association in the Mojave Desert demonstrated minimal ground disturbance, followed by revegetation of shrubs and forage along with wildlife friendly fencing, leads to desert tortoise re-utilizing the habitat within solar farms (VEA 2022). The use of minimal ground disturbance methods, combined with updated restoration plans, should result in the long-term maintenance and viability of suitable desert tortoise and burrowing owl habitat within the solar array areas, significantly reduce long-term habitat degradation and support the recovery and continued use of the site by desert tortoise and burrowing owl. As such, a reduction in compensatory mitigation to offset loss of burrowing owl and desert tortoise habitat to align with the revised permanent impact acreage is appropriate.

Fencing

The implementation of MM BIO-8 will reduce mortality of desert tortoise individuals and encourage the use of wildlife connectivity corridors across I-15 for desert tortoise. Prior to construction activities, exclusion fencing will be installed to prevent all wildlife from entering the project area. As part of the construction activities wildlife friendly fencing will be installed around the entire project area, with openings capable of fitting adult desert tortoises (10 inches by 7 inches). These openings are found and used by desert tortoises when they encounter fencing while traversing their habitat (Ruby et al. 1994). When all construction activities are completed, exclusion fencing will be removed. All wildlife friendly fencing will remain installed for the duration of the project's operation and maintenance. The presence of wildlife friendly fencing will allow for the recolonization of the site by desert tortoise and other wildlife. In other photovoltaic projects using the same process, wildlife, including desert tortoise, rattlesnake, desert kit fox, rabbits, and other species, were found to reoccupy the site after removal of exclusion fencing (Cypher et al. 2021). The measures proposed to mitigate impacts will allow for wildlife species to reoccupy the project site during operation and maintenance.



Installation Methods

Advanced Technology

The Project's utilization of MM BIO-3 would substantially reduce the extent of ground disturbance, vegetation removal and direct impacts from project development as compared to previous technology that requires more extensive grading to prepare the site for panel installation. The proposed project would use Nextracker NX Horizon-XTR-0.75 10-inch tracker system, Nevados All Terrain Tracker system, or other similar systems under development that would limit disturbance for each pile installation to 1 square foot per pile (approximately 3 acres per every 100,000 piles). These trackers can accommodate up to 15 percent or more slope compared to typical equipment.

Site Preparation and Installation

Site clearing and preparation will be required for pile installation to allow access for work on the solar array but at levels far less extensive and intrusive. Site preparation will include limited mowing and grubbing within the site, removal of large boulders, and spot grading to allow for equipment usage. In most instances equipment would be rolled over vegetation to minimize vegetation loss.

Installation of the Solar Array system will not change from what was described in CEC Docket TN #261595 Chapter 2 Project Description. Construction of the solar arrays would begin with the installation of array support posts, which would be driven into the soil using a pile/vibratory/rotary driving technique to a depth of approximately 6 to 12 feet. Once the support structures are in place, solar panels would be attached to the support frame. The assembled groups of solar panels would be wired together into strings through connectors on the back of the modules. Assembled panel sections would then be connected to combiner boxes located throughout the arrays that would deliver power to the inverter. Output wires from combiner boxes would be routed along an underground trench system approximately 3 to 6 feet deep and 1 to 6 feet wide, to the central inverter. Central inverters would be mounted on concrete pads or driven piles. Central inverters would be brought in by tractor-trailers through the Rasor Road site entrance and delivered directly to the mounting pad sites where they are placed by mobile crane (SWCA 2025). Racking systems and modules will be installed using terrain telehandlers, trucks, trailers, UTVs. Approximately 55 acres of permanent disturbance will be attributed to the installation of the solar panels under implementation of MM BIO-3. The entire project site, including solar panels and other project components, will result in 289 acres of permanent disturbance under MM BIO-3. Of the 289 acres, approximately 78.73 acres of permanent disturbance will be associated with the installation of solar panels.

Impact Calculations

Use of alternative technology identified in MM BIO-3 would reduce overall impacts. Calculations redefining total impacts are summarized below.

Temporary and Permanent Impacts

Without implementation of MM BIO-3, impacts would result in a total of 2,059 acres of permanent disturbance associated with grubbing and grading required to level rough and undulating areas. Grubbing and grading would be required for installation of pile foundations, preparation of soils for concrete foundations for substation equipment, inverters, energy storage systems, and operation and maintenance of building. Implementation of MM BIO-3 will reduce permanent impacts to less than 289.08 acres. Table 3 summarized revised impacts to each components utilizing MM BIO-3.



The cumulative permanent impacts of the terrain-following solar tracking system infrastructure within the Project area total 55 acres.

As a result, permanent impacts to suitable habitat would be reduced. Table 4 provides revised impacts to suitable habitat for desert tortoise and burrowing owl based on the update calculation of permanent impacts.

Table 3 Revised Impacts based on Advance Technology Utilization

Project Component	Temporary (acres)	Permanent (acres)
East Array	337.02	4.65
South Array 1	201.96	3.62
South Array 2	622.01	10.03
South Array 3	321.21	5.43
Substation	.07	4.99
Gen-Tie Corridor ¹	30.39	0.00
Outside of ROW (Along I-15)	3.41	0.00
Remaining Project Site (Outside of Solar Arrays)	308.79	205.37
Terrain-Following Solar Tracking System	-55	+55
Total	1769.88	289.08

Table 4 Revised Impacts to Suitable Wildlife Habitat

Species	Temporary (acres)	Permanent (acres)
burrowing owl (<i>Athene cunicularia</i>)	1769.88	289.08
Desert tortoise (<i>Gopherus agassizii</i>)	1769.88	289.08

Water Resources Impacts

Without implementation of MM BIO-3, impacts to water resources could result in up to 3 times more impacts. Table 5 summarizes anticipated impacts to water resources, within implementation of MM BIO-3.

Table 5 Summary of Impacts to Water Resources

Project Component	RWQCB Jurisdiction		CDFW Jurisdiction	
	Non-Wetland Waters of the State		Streambed	
	Temporary (acres/linear feet)	Permanent (acres/linear feet)	Temporary (acres/linear feet)	Permanent (acres/linear feet)
East Array	27.86/453,249	0.38/6,253	42.66/453,249	0.59/6,253
South Array 1	25.12/210,539	0.45/3,773	40.03/210,539	0.72/3,773
South Array 2	42.38/523,418	0.68/8,440	70.51/523,418	1.14/8,440
South Array 3	11.54/111,495	0.20/1,884	22.13/111,495	0.37/1,844
Remaining Project Site	23.28/290,867	15.48/193,456	37.05/290,867	24.64/193,456
Gen-Tie Corridor ¹	1.65/14,255	0.07/2,103	2.89/14,255	0.29/2,103
Totals	131.83/1,603,823	17.26/215,909	215.27/1,603,823	27.75/215,909

Notes: No USACE Jurisdiction was determined present in the Project site. No wetland waters of the state were determined present in the Project site.

1: Based on field data and mapping the full extent of the OHWM for RWQCB jurisdiction and full extent of the streambed from top of bank for CDFW jurisdiction.

Cut and Fill

MM BIO-3 will also reduce earthwork efforts within the solar array placement locations. Table 6 provides a comparison of changes to Cut and Fill resulting from implementation of MM BIO-3.

Table 6 Changes to Cut and Fill

Project Component	Cut (CY)		Fill (CY)		Net (CY)	
	Current Project	Proposed Project	Current Project	Proposed Project	Current Project	Proposed Project
Solar Arrays	71,000	3,300	91,000	36,700	20,000 (FILL)	33,400 (FILL)
Drainage Channels	145,500	145,500	0	0	145,500 (CUT)	145,500 (CUT)
Sediment Basins	413,500	413,500	89,100	89,100	324,400 (CUT)	324,400 (CUT)
Total	630,000	562,300	180,100	125,800	449,900 (CUT)	436,500 (CUT)

Conclusion

Revised Impacts

With implementation of MM BIO-3, on-site grading and associated ground disturbance would be significantly reduced. Under current anticipated design, implementation of MM BIO-3 would reduce permanent ground disturbance from 1,719 acres to approximately 289.08 acres. Installation of terrain following solar panels will convert the total permanent impacts to both desert tortoise and burrowing owl to 289.08 acres and temporary impacts to 1,769.88 acres.

The reduction in on-site grading and associated ground disturbance reduces the direct, indirect and cumulative impacts to biological and water resources, including a reduced potential for the project to result in direct, indirect or cumulative impacts to candidate and special status species. This reduction would minimize habitat loss and fragmentation for sensitive species, including desert tortoise and burrowing owl.



Water Resources Impacts

The reduction in on-site grading and associated ground disturbance would reduce the potential for the project to result in direct, indirect or cumulative impacts related to water quality standards, waste discharge requirements, surface and groundwater quality degradation and the alteration of onsite drainage patterns (SWCA 2025d).

Implementation of MM BIO-3 and the reduction of grading earthwork efforts will allow ephemeral washes to maintain natural drainage patterns, minimize soil disruption and preserve hydrologic connectivity. The reduction in ground disturbance and grading efforts would reduce the overall use of water for dust control measures, reduce compaction of soils, and reduce erosion and sedimentation to downstream channels.

Low impact grading will allow natural contour reestablishment and surface stabilization to allow for the ecological function of these features. As such as low-impact grading, that avoid permanent alteration to wash morphology can warrant mitigation scaling based on actual function loss rather than raw acreage.

Compensatory Mitigation Ratio

Implementation of all reporting requirements will ensure that MM BIO-3, BIO-8, BIO-11, and BIO-28 are successfully executed and monitored. Reporting of project progress and the status of the mitigation measures will allow for up-to-date information on the impacts of revegetation and species repopulation efforts. The following compensatory mitigation measures are proposed based on existing conditions, proposed mitigation measures, and anticipated post-construction conditions.

Desert tortoise

MM BIO-14 of the draft EIR proposes 1:1 compensatory mitigation ratio for disturbed areas that will no longer provide viable long-term habitat for desert tortoise. Additionally, the 2016 ROD also specified a compensatory habitat mitigation ratio of 1:1 for impacts to suitable desert tortoise habitat. Due to the reduction of permanent impacts resulting from implementation of MM BIO-3, no change is proposed for permanent impacts. A 1:1 ratio is proposed to mitigate for permanent impacts.

Proposed compensatory land should be of equal or greater value. A total of approximately 289 acres is proposed.

Burrowing owl

Consistent with MM BIO-21, a compensatory mitigation ratio of 1:1 is proposed to mitigate for disturbed areas that will no longer provide viable long-term habitat. Proposed compensatory land should be of equal or greater value and total 289 acres.

Water Impacts

The 2016 ROD required the applicant to acquire 498.68 acres, in fee or in easement, of state jurisdictional waters, or comparable area based on actual project impacts to ephemeral dry wash that meets CDFW mitigation ratios. Acreage was based on anticipated impacts to ephemeral washes and translated to a 1:1 ratio. As the 2016 design anticipated mass grading efforts, permanent impacts to all ephemeral dry washes within the project boundary were anticipated. As the new design will utilize MM BIO-03, permanent impacts to ephemeral washes will be reduced to approximately 28.35 acres. It is recommended jurisdictional features for permanent impacts are mitigated at 1:1 totaling up to 28.35 acres.



Water Supplies

Water demands associated with the proposed project were evaluated in a February 2025 Water Supply Report, which assumed that temporary disturbance could occur on the entire project site of approximately 2,670 acres. MM BIO-3 would reduce temporary disturbance to approximately 1,770 acres during construction, which would also reduce the amount of water required for dust control during construction. Based upon the original estimation of 285.6 AF for dust control, the rate of application of water for dust control would be approximately 0.107 AF per acre; under the reduced temporary disturbance area of 1,770 acres, and assuming the same per-acre application rate of water for dust control, construction would require 189.4 AF for dust control. Other construction water needs and all operational water needs would be unchanged, as they are not dependent upon the area of temporary disturbance, and decommissioning water needs are assumed to be the same as during construction, consistent with the February 2025 Water Supply Report.

Due to the reduced area of temporary disturbance resulting from MM BIO-3, water needs for dust control (during construction and decommissioning) would reduce by approximately 33.7 percent. Water demands associated with O&M would be unchanged. Total water demands over the lifetime of the project would shift from 896.0 AF to 703.46 AF, a reduction of approximately 21.5 percent overall.

Sincerely,

Rincon Consultants, Inc.

A handwritten signature in blue ink, appearing to read "Marlyng Gama".

Marlyng Gama
Supervising Biologist

A handwritten signature in blue ink, appearing to read "David Daitch".

David Daitch
Vice President

Attachments

Attachment 1 Figures

Attachment 2 Mitigation Measures

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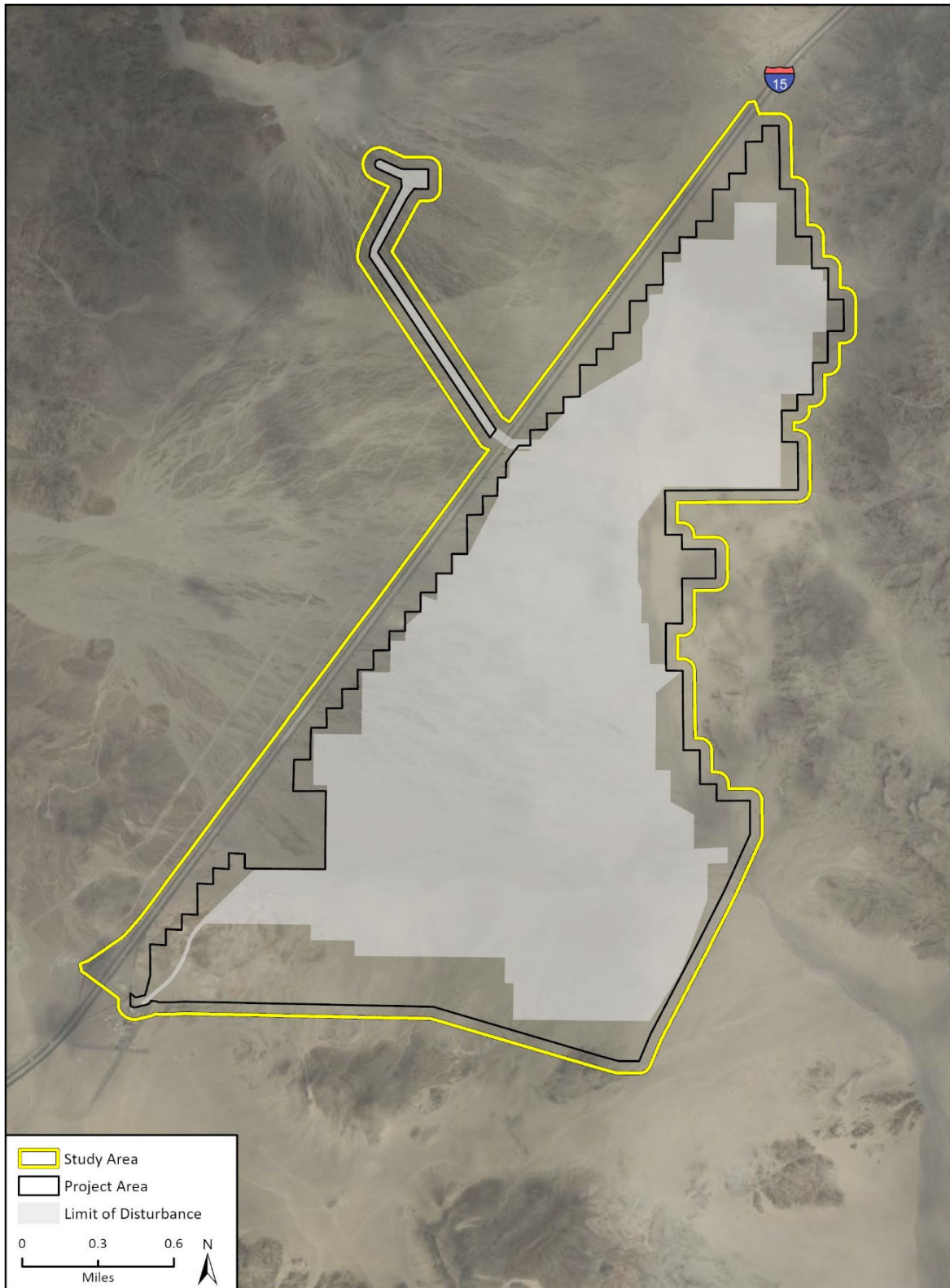
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Attachment 1

Figures

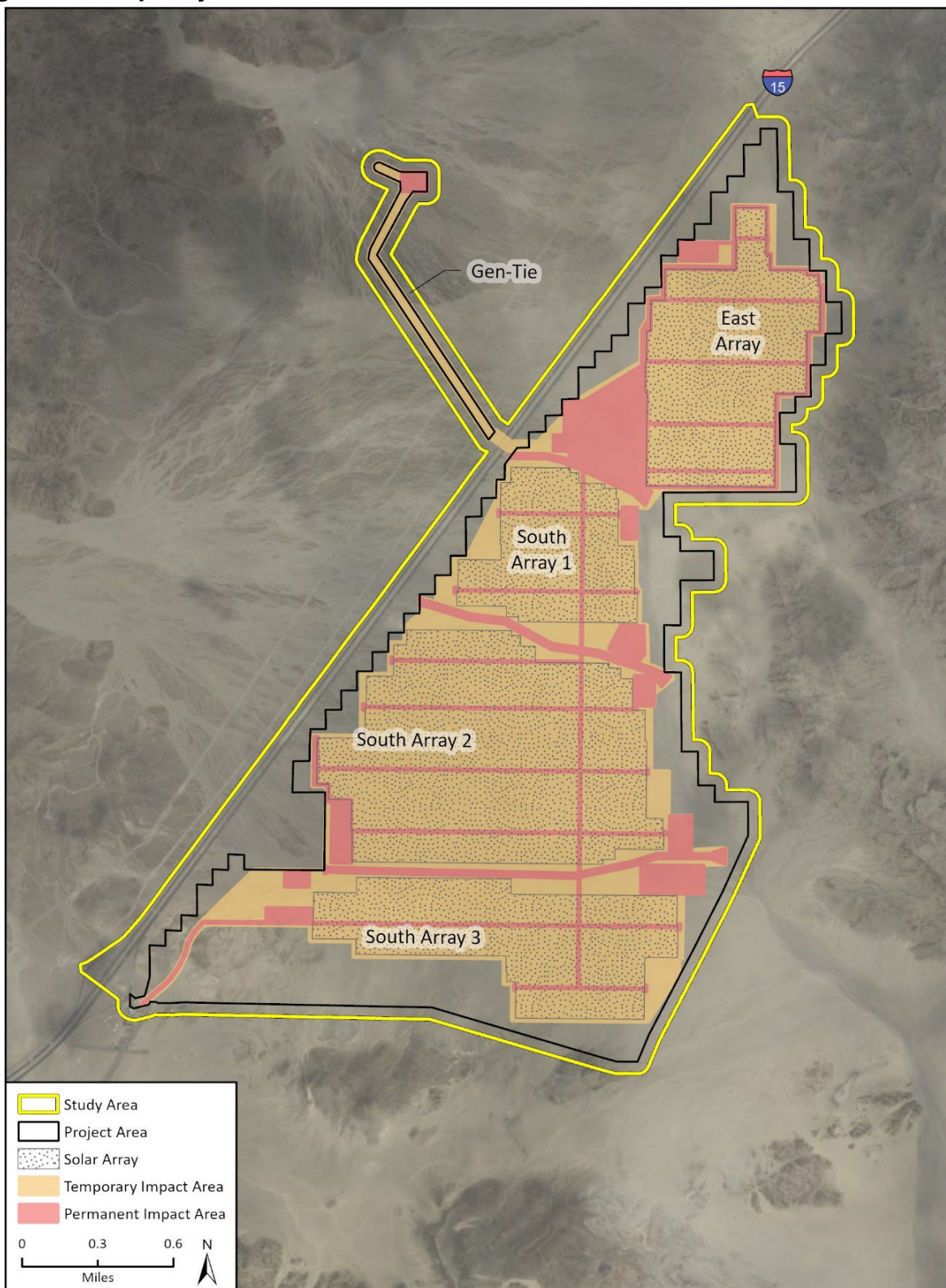
Figure 1 Limits of Disturbance



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Fig X Limit of Disturbance

Figure 2 Temporary and Permanent Disturbance



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Fig X Impact Area_8.5x11

Attachment 2

Mitigation Measures



Applicable Mitigation Measures

Mitigation measures have been conditioned under the 2025 Biological Resources Technical Report submitted to CEC under TN # 261603 docketed on February 7, 2025.

MM BIO-3 Construction Impact Minimization

The project shall implement an advanced technology terrain-following solar tracker system (such as the Nextracker NX Horizon-XTR-0.75 10-inch tracker system, Nevados All Terrain Tracker system, or other system resulting in a similar reduction) that reduces grading under the solar field, consisting of solar power arrays identified as East Array and South Arrays 1, 2 and 3. Quarterly construction monitoring reports shall be provided to the California Energy Commission during the construction period for the project. The quarterly construction monitoring reports shall quantify and document all remaining permanent and temporary grading acreage from project construction with the terrain-following tracker system. All temporary grading impact areas shall be revegetated onsite as described in the project-specific Temporary Disturbance Revegetation Plan (APM BIO-7 and MM BIO-21). All permanent grading impact areas shall be mitigated at the required compensatory mitigation standards of the resource agencies (APM BIO-36, MM BIO-12, MM BIO-24).

MM BIO-8 Fence Design and Site Permeability

Permanent site fencing installed around the project— including perimeter security fencing desert tortoise exclusionary fencing—should be designed to direct wildlife toward the wildlife undercrossing to provide safe passage under the freeway and shall be regularly inspected and maintained for the life of the project. Alternate designs may also be constructed with prior written approval from the CEC, CDFW, and USFWS. Regardless, the project shall ensure that any such fence meets existing specifications that have been developed to preclude accidental entanglement of desert bighorn sheep, deer, and other animals.

Fencing should be sufficient to prevent desert bighorn sheep passage (e.g., 2m-2.5m tall chain-link) – should be installed at the corridor entrances between (a) the East Array and South Array 1, (b) South Array 1 and South Array 2, and (c) South Array 2 and South Array 3 on the east side (Figure 2, Project Design). Additionally, the project shall extend a line of project fencing to the north to connect with the wildlife exclusion fencing associated with the I-15 overcrossing structure (Figure 13; Dudek 2024). Approximately 1,640 linear feet of this can be accomplished within the existing project boundary, but the additional approximately 300 linear feet will need to be coordinated with BLM and possibly Caltrans. The project will secure the necessary encroachment permits or other mechanism to continue fencing between the project boundary and the wildlife exclusion fencing associated with the I-15 overcrossing structure. Care should be taken when connecting the fences to make sure that they are physically connected or directly abut one another such that wildlife can't pass through or get stuck between them. The ultimate fencing plans should be reviewed by the CEC for final approval prior to site disturbance activities.

MM BIO-11 Desert Tortoise Protection

Desert Tortoise Fencing along I-15

If required by the CEC, to avoid increases in vehicle-related mortality from disruption of local movement patterns along the existing ephemeral wash systems, desert tortoise-proof fencing shall be installed along the existing freeway ROW fencing on both sides of I-15 for the entire east-west dimension of the project area. The tortoise fencing shall be designed to direct tortoises to existing undercrossing to



provide safe passage under the freeway and shall be regularly inspected and maintained for the life of the project.

MM BIO-14 Desert Tortoise Compensatory Mitigation

To fully mitigate for habitat loss and potential take of desert tortoise, the project owner shall provide compensatory mitigation consistent with federal requirements, adjusted to reflect the final project footprint. The acreage for mitigation of desert tortoise habitat will be at a 1:1 ratio. For the purposes of this condition, the project footprint means all lands disturbed in the construction and operation of the project, including all project linears, as well as undeveloped areas inside the project's boundaries that will no longer provide viable long-term habitat for the desert tortoise. To satisfy this condition, the project owner shall acquire, protect, and transfer 1 acre of desert tortoise habitat for every acre of habitat within the final project footprint, and provide associated funding for the acquired lands, as specified below. In lieu of acquiring land itself, the project owner may satisfy the requirements of this condition by depositing funds into the Renewable Energy Action Team (REAT) Account established with the National Fish and Wildlife Foundation (NFWF), as provided below in Section 3.i. of this measure. If compensation lands are acquired in fee title or in easement, the requirements for acquisition, initial improvement, and long-term management of compensation lands include all of the following, subject to modification by the terms of incidental take authorizations issued by USFWS and CEC

MM BIO-21 Burrowing Owl Protection Measures.

To fully mitigate for habitat loss and potential take of burrowing owl, the project owner shall provide compensatory mitigation consistent with CDFW requirements, adjusted to reflect the final project footprint. The acreage for mitigation of burrowing owl habitat will be at a 1:1 ratio. For the purposes of this condition, the project footprint means all lands disturbed in the construction and operation of the project, including all project linears, as well as undeveloped areas inside the project's boundaries that will no longer provide viable long-term habitat for burrowing owl...

MM BIO-28 Vegetation Best Management Practices

Revegetation of Temporarily Disturbed Areas

The applicant shall prepare and implement a Temporary Disturbance Revegetation Plan to restore all areas subject to temporary disturbance to pre-project grade and conditions. The plan shall be submitted to the BLM and CEC for review and approval at least 30 days prior to the start of ground-disturbing activities. Temporarily disturbed areas within the project area include, but are not limited to, all proposed locations for linear facilities, temporary access roads, berms, areas surrounding the drainage diffusers, construction work temporary lay-down areas not converted to part of the solar field, and construction equipment staging areas. The Temporary Disturbance Revegetation Plan shall include a description of topsoil salvage and seeding techniques and a monitoring and reporting plan, and plan to achieve the following performance standards by the end of monitoring year 2:

- a) At least 80 percent of the species observed within the temporarily disturbed areas shall be native
- b) species that naturally occur in desert scrub habitats; and
- c) Relative cover and density of plant species within the temporarily disturbed areas shall equal at least 60 percent relative to pre-disturbance conditions.



APM BIO-36

Compensatory habitat mitigation shall be provided at a 1:1 ratio for impacts to suitable desert tortoise habitat during construction. A Habitat Compensation Plan shall be prepared to the approval of CEC, CDFW, USFWS, and BLM.