



State of California – Natural Resources Agency
 DEPARTMENT OF FISH AND WILDLIFE
 Inland Deserts Region
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GAVIN NEWSOM, Governor
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Governor's Office of Planning & Research

October 16, 2023

November 21 2023

Jim Morrissey
 Contract Planner
 County of San Bernardino
 385 N Arrowhead Ave, First Floor
 San Bernardino, CA 92415

STATE CLEARINGHOUSE

SIENNA SOLAR AND STORAGE PROJECT (PROJECT)
 DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)
 SCH# 2022080518

Dear Mr. Morrissey:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a DEIR from the County of San Bernardino for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹ CDFW previously submitted comments in response to the circulated Draft EIR for the Stagecoach Solar Project (State Clearinghouse No. 2020100234) which contained information pertaining to the proposed Southern California Edison Calcite Substation, a connected project for the purposes of CEQA review.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: 99MT 8ME, LLC

Objective: The objective of the Project is to construct and operate a utility scale, solar photovoltaic (PV) electricity generation facility that would produce up to 525 megawatts (MW) of solar power and include up to 525 MW of energy storage capacity rate in a battery energy storage system (BESS) within an approximately 1,854-acre site. Primary Project activities include construction and operation of a PV solar facility, BESS, Project substation, operation and maintenance building(s), underground collection system, 230 kV on- and off-site generation-tie (gen-tie) line, and other associated facilities including access roads. The off-site gen-tie line would connect to the point of interconnection at the proposed SCE Calcite Substation.

Location: The Project is in the southwestern portion of the Mojave Desert and includes the Lucerne Dry Lake, in unincorporated San Bernardino County, and is predominately located east of State Route 247 (Barstow Road/SR 247), north of the unincorporated community of Lucerne Valley, with portions of the gen-tie alternative corridors that include possible connections along Haynes Road, Huff Road, and Northside Road to the east of Barstow Road.

Timeframe: 12 to 24 months of construction.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist County of San Bernardino in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document. Based on the Project's avoidance of significant impacts on biological resources with implementation of mitigation measures, including those CDFW recommends in Attachment A, CDFW concludes that an Environmental Impact Report is appropriate for the Project.

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I. Environmental Setting and Related Impact Shortcoming

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS?

COMMENT 1:

Section 3.5, Page 3.5-18-21

Issue: The Jurisdictional Delineation is based on literature review and a reconnaissance survey performed over the course of two days for the 1,854-acre project site and 39 miles of collector lines and gen-tie alternative routes. The survey examined for presence of defined channels with characteristic bed and bank features and indicators of water flow. The DEIR states no large tributaries directly entering the Lucerne Lake from adjacent areas, and only small, shallow ephemeral streams that originate in the Granite Mountains, Whitehorse Mountain, and near Peterman Hill to the northwest and north of the site drain towards the lakebed. CDFW disagrees with this assessment and believes additional areas subject to Fish and Game Code section 1602 may be present in the immediate project vicinity. The project Jurisdictional Delineation report relies on identification of Ordinary High Water Mark (OHWM) which is relevant for federal permitting purposes, but does not define the extent of areas subject to notification under Fish and Game code section 1602. A stream is more properly defined by the topographic elevations of land which confine flows to a particular course when the waters have risen to their highest extent. Additionally, portions of the project may occur on lakebed.

Specific impact: The Jurisdictional Delineation does not address the largest tributary entering the Project area from the southeast and the lakebed area itself. Per aerial imagery, parts of the Project lie within the lower portions of a large wash as it transitions to lakebed. The Jurisdictional Delineation as written could be a reasonable representation of the most recent flow in the alluvial fan/bajada to the east, however the delineation excludes the continuation of these channels onto the lakebed. The DEIR states, "the slope gradient nears zero in areas adjacent to the dry lakebed, any infrequent, low-volume, short duration water flows in these very small and shallow streams disperse, dissipate, and percolate into the mostly level ground before reaching the dry lake." The transitional area between the toe of the alluvial fan and unidentified wash to the lakebed can have features that can be subtle and difficult to see from the ground surface. Additionally, high winds in this area can obscure the indistinct alluvial features, composed of fine sands, by dulling the shapes of the features. While wind may reshape streambed sediments, stream channels are subject to notification even when small, shallow, and dispersed.

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Additionally, the DEIR asserts that majority of the Project area is within dry lakebed, a feature subject to notification, and provides low-quality value for wildlife due to vegetation being primarily present in only the larger fractures. The DEIR also indicated that there are species identified are present in the area that likely use the project area for foraging and nesting habitat (golden eagle, prairie falcon, burrowing owl, etc.), therefore, these areas should not be identified as low value for the wildlife species, rather Project impacts may affect these species due to loss of a limited resource.

Why impact would occur: CDFW views streams as whole systems and looks for the banks that define the entire system, not just the OHWM where the low flow channel is observed. In arid environments streams can be very wide and shallow yet will still be generally confined to a course by subtle topography. The higher concentration of vegetation in the low flow channels, and the desiccation cracks of the lakebed are areas where water is more frequent or present for longer durations. As such, this vegetation is a beneficial resource and valuable for habitat for the fish and wildlife species of the area.

Evidence impact would be significant: Project activities may cause substantial diversion or obstruction of natural flow, or substantially change the bed, bank, and channels of streams in the Project area, that are not described or quantified in the DEIR or Jurisdictional Delineation. The biological components, hydrological components, and geological components that represent the whole stream system are not well defined in the DEIR, which can lead to difficulties in baseline identification and impact analysis for the Project impacts to fish and wildlife resources that rely on these areas.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact Shortcoming)

Mitigation Measure BIO-8:

To minimize significant impacts: CDFW recommends the Jurisdictional Delineation be re-evaluated per CDFW's comments to accurately reflect the acreage of impact the Project will have on areas subject to Fish and Game Code section 1602. Additionally, CDFW recommends the project minimize site grading, and mow vegetation during construction rather than remove it entirely. Minimal site grading will prevent conversion of the wide shallow distributed flow from desert floor to a concentrated discharge outfall, leaving larger areas devoid of upstream flow. Mowing would allow regrowth under the panels to preserve the value of the limited vegetation for wildlife. CDFW provides editorial comments to BIO-8 in Attachment A.

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

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COMMENT 2:

Section 3.5, Page 3.5-10

Issue: The DEIR and Appendix D1 mention low potential for foraging habitat for Western mastiff bat, a Species of Special Concern. However, no biological survey was performed to determine absence.

Specific impact: Loss of preferred foraging habitat may impede continued use of maternity colony roosting sites. Western mastiff bats are strong, fast fliers that can cover extensive open areas for foraging and have been heard feeding over agricultural field in southern California (Brown and Berry, 2004).

Why impact would occur: The species has been heard in open desert, at least 15 miles from the nearest possible roosting site (Vaughan, 1959). Appendix D1 identifies a historical record of the species within 0.6 miles of the Project area. Should foraging habitat for the species be impacted, loss of foraging habitat from the Project and other projects interconnecting to the proposed Calcite Substation could lead to impacts and/or cumulative impacts and impede the use of the maternity roost due to energetic costs to find new foraging areas.

Evidence impact would be significant: Impediment of a native wildlife nursery site may be considered significant under CEQA. Increased energy expenditure may result in mortality if energy loss is not compensated for by increased prey intake. If lactating females have increased energy expenditure, it may result in limited energy allocation towards dependent young and increase juvenile mortality (Chaverri and Kuntz, 2011).

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact Shortcoming)

Recommendation (Rec)-1:

To minimize significant impacts: CDFW recommends a qualified bat biologist with aural detection experience survey the Project area during maternity season. The distinctive audible echolocation signals of this species make aural detection the best survey method and can be used to determine foraging areas (Pierson and Rainey 1996). CDFW also recommends the use of long-term acoustic monitoring within the Project area during different times of year to determine the annual cycle of bat activity and species composition. Once the baseline is determined, CDFW recommends the County of San Bernardino determine impacts to the species. A recommended mitigation measure (REC-1) is provided to County of San Bernardino for loss of foraging habitat in Appendix A.

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II. Mitigation Measure or Alternative and Related Impact Shortcoming

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS?

COMMENT 3:

Section 3.5, Page 3.5-6 and BIO-1

Issue: Field reconnaissance surveys of the Sienna Project area were conducted on July 20, 21, and 22, 2021 and partly focused on documenting the potential to support special-status plant species and identifying special-status vegetation communities. Then, a 100% inventory of all botanical species was performed concurrent with other surveys within the Project area April 5th to May 12th, 2022. The *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, March 2018) state botanical field surveys need to be when plants will be both evident and identifiable, with the timing and number of visits considered to determine presence of special status species and floristic diversity. BIO-1 conditions a pre-construction rare plant survey to be performed prior to the start of construction and particularly focusing on areas that may support special status species.

Specific impact: A botanical field survey to identify all plants to the taxonomic level was only performed once, during drought conditions, and another survey was not performed after this year's precipitation. The baseline of species presence could have been more adequately quantified following the guidelines provided by CDFW following *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, March 2018), so that the incremental change in baseline to present species could be better assessed in the DEIR rather than relying on a pre-construction survey to identify species missed in the previous survey. Also, the proposed mitigation measure does not the condition when the survey shall be performed and focuses on Project areas that may have special status plants. Focused surveys limited to certain habitats and species "are not considered floristic in nature and are not adequate to identify all plants in a project area to the level necessary to determine if they are special status plants" (CDFW, March 2018).

Why impact would occur: Botanical field surveys should be conducted during times of year when plants are evident and identifiable (i.e. flowering or fruiting), which may warrant multiple surveys during the season to capture floristic diversity (CDFW, 2018). Habitats, such as desert plant communities that have annual and

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short-lived perennial plants as major floristic components may require yearly surveys to accurately document baseline conditions for purposes of impact assessment (CDFW, 2018). Also, the proposed mitigation measure does not condition the time of year the pre-construction survey shall take place, therefore it may be performed at an inadequate time of year due to a proposed construction schedule, resulting in impact to special status plants with no mitigation due to lack of identification prior to ground disturbing activities. Also, BIO-1 requires a Special-Status Plant Relocation Plan to be developed and implemented. The timing of mitigation strategies, such as seed collection, could be hindered by the timing associated with development of the plan and/or inappropriately timed surveys.

Evidence impact would be significant: Sensitive plant species are listed under the CESA as threatened, or endangered, or proposed or candidates for listing; designated as rare under the Native Plant Protection Act; or plants that otherwise meet the definition of rare, threatened, or endangered species under CEQA. Plants constituting California Rare Plant Ranks 1A, 1B, 2A, and 2B generally meet the criteria of a CESA-listed species and should be considered as an endangered, rare or threatened species for the purposes of CEQA analysis. Take of any CESA-listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). Fish and Game Code Sections 1900–1913 includes provisions that prohibit the take of endangered and rare plants from the wild and a salvage requirement for landowners.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure BIO-1:

To minimize significant impacts: CDFW recommends botanical field surveys following the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, March 2018) be conducted annually prior to the start of construction. One botanical field survey may be insufficient to detect plants that are not evident and identifiable every year. CDFW provides editorial suggestions to BIO-1 as provided in Attachment A that is recommended to be incorporated into the mitigation measure related to the survey methodology.

COMMENT 4:

Section 3.5, Page 3.5-29, BIO-2 and BIO-3

Issue: The DEIR states it is conservatively assuming desert tortoise could be present prior to construction in areas in which natural vegetation occurs. The DEIR acknowledges potential impacts would require a state incidental take permit (ITP),

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so BIO-2 and BIO-3 are proposed to avoid impacts to desert tortoise. However, the mitigation measures include requirements in which take of desert tortoise may occur without the issuance of a state ITP. BIO-2 states if a state listed species or other special status biological resources are identified onsite, then a Qualified Biologist may need to be approved by CDFW as an authorized biologist for handling listed species. BIO-3 mentions the development of a translocation plan, desert tortoise exclusionary fencing, and clearance surveys.

Specific impact: Desert tortoise is a CESA-listed species. Project activities have the potential to take desert tortoise. Handling and translocating desert tortoise without take authorization through a state issued ITP is take in the form of capture. Additionally, installation of desert tortoise exclusionary fencing then performance of a clearance survey (in which methodology assumes an ITP has been obtained) to determine if desert tortoise are located inside the fencing can result in take in the form of capture. Any desert tortoises that may not be identified during pre-construction surveys could be entombed or crushed by equipment, resulting in take in the form of mortality.

Why impact would occur: The proposed mitigation measure as written suggests actions that may only be performed with authorization through an ITP, but the ITP is not a requirement within the mitigation measure. Therefore, should desert tortoise be found within the Project site, the proposed mitigation measures cannot be performed should they be contained in a final certified environmental document without an ITP.

Evidence impact would be significant: Take (hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill) is prohibited unless authorized by state law (Fish and Game Code, §§ 2080 & 2085).

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure BIO-2 and BIO-3; Recommendation (REC)-2:

To reduce impacts to less than significant: CDFW agrees with performing a preconstruction protocol survey to verify desert tortoise has not entered the area between the time the last protocol level survey was conducted and the start of construction. CDFW recommends that the Project proponent seek appropriate authorization prior to Project implementation through an incidental take permit should desert tortoise be located during these surveys. Also, CDFW recommends modifying BIO-2 and BIO-3, as shown in Attachment A, to ensure take does not occur should the Project Proponent not obtain an incidental take permit. Additionally, CDFW recommends REC-1 be required by the County of San Bernardino in which the Project will require a raven management plan to minimize attraction of ravens to

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the Project area and the Project proponent contribute to a region-wide raven control plan to help address raven predation on the desert tortoise.

COMMENT 5:

Section 3.5, Page 3.5-30, BIO-6

Issue: Breeding surveys and non-breeding surveys were not performed for burrowing owl, and the species was identified as present during reconnaissance surveys when flushed. The DEIR identified burrowing owl on-site and states it is present and may occur for wintering or breeding throughout the Project Area. However, BIO-6 conditions a pre-construction survey to be performed to determine species presence of burrowing owl. Then, only passive relocation is required in the proposed mitigation measure with replacement of burrow sites.

Specific impact: BIO-6 does not address the presence and impact to the individuals already identified as present on site. Additionally, there was no impact analysis or mitigation required for the loss of nesting burrows, satellite burrows, foraging habitat, dispersal and migration habitat, wintering habitat, and habitat linkages, including habitat supporting prey and host burrowers and other essential habitat attributes.

Why impact would occur: Burrowing owls are dependent on burrows at all times of the year for survival and/or reproduction, evicting them from nesting, roosting, and satellite burrows may lead to indirect impacts or take. Loss of access to burrows will likely result in varying levels of increased stress on burrowing owls and could depress reproduction, increase predation, increase energetic costs, and introduce risks posed by having to find and compete for available burrows (CDFG, 2012). CDFW considers habitat to be occupied when at least one burrowing owl, or its sign at or near a burrow entrance, is observed within the last three years (CDFG, 2012). The mitigation measure only requires replacement of burrows identified to be occupied at the time of pre-construction surveys will be mitigated for. This lacks the temporal consideration of species occupancy and their use of the surrounding landscape for survival.

Evidence impact would be significant: Take, possession or destruction of individual burrowing owls, their nests and eggs is prohibited under Fish and Game Code sections 3503, 3503.5 and 3513. Eviction of burrowing owls is a potentially significant impact under CEQA and mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). As stated in the *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012), “the current scientific literature supports the conclusion that mitigation for permanent habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, dispersal, presence of burrows, burrow surrogates, presence of

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fossorial mammal dens, well drained soils, and abundant and available prey within close proximity to the burrow”.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Mitigation Measure or Alternative and Related Impact Shortcoming)

Mitigation Measure BIO-6:

To reduce impacts to less than significant: CDFW recommends County of San Bernardino perform surveys per the guidance of the *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012), assess the impact, and update the proposed mitigation measure to include avoidance, minimization, and mitigation for burrowing owls identified on-site, and these same measures be applied to any individuals found during take avoidance surveys as conditions by the proposed mitigation measure. CDFW recommends the guidance of mitigating impacts to burrowing owls in the *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012) be followed, including (a) permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and (b) sufficiently large acreage, and presence of fossorial mammals. CDFW provides editorial suggestions for BIO-6 in Appendix A.

III. Editorial Comments and/or Suggestions

For Section 3.5, Page 3.5-10, desert tortoise’s status should be updated as the species is currently listed under CESA as threatened and candidate endangered (See 2020 Cal. Reg. Notice Register, No. 44-Z, pp. 1445-1446 (October 30, 2020)).

For Section 3.5, Page 3.5-19 states 39 ephemeral streams were mapped. Later in the text on Page 3.5-21, the draft says 33 ephemeral streams were mapped. Please provide clarification on how many streams are being identified.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be filled out and submitted online at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The

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types of information reported to CNDDDB can be found at the following link:
<https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR to assist County of San Bernardino in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Ashley Rosales, Senior Environmental Scientist (Specialist) at Ashley.Rosales@Wildlife.ca.gov.

Sincerely,

DocuSigned by:



Alisa Ellsworth

Environmental Program Manager

Attachments

Attachment A. Draft Mitigation Monitoring and Reporting Program and Draft Recommendations

ec: Office of Planning and Research, State Clearinghouse, Sacramento

REFERENCES

Brown, P.E. and Berry, R.D., 2004. Roost surveys and habitat requirements of rare southwestern bats: California leaf-nosed and Allen's lappet-browed bats, with observations on Townsend's big-eared and western mastiff bats. US Geological Survey, Species at Risk Report 99HQAG0046.

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California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline>)

California Department of Fish and Wildlife (CDFW). 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>)

Chaverri, G., & Kunz, T. H. 2011. Response of a specialist bat to the loss of a critical resource. *PloS one*, 6(12), e28821. <https://doi.org/10.1371/journal.pone.0028821>

Pierson, E. D. and W. E. Rainey. 1996. Distribution, habitat associations, status, and survey methodologies for three molossid bat species (*Eumops perotis*, *Nyctinomops femorosaccus*, *Nyctinomops macrotis*) and the vespertilionid (*Euderma maculatum*). Calif. Dept. of Fish and Game, Bird and Mammal Conservation Program Rep. 96-8, 46 pp.

Vaughan, T. A. 1959. Functional morphology of three bats: *Eumops*, *Myotis*, and *Macrotus*. Univ. Kansas Publ., Mus. Nat. Hist. 12: 1-153.



Attachment A

Draft Mitigation Monitoring and Reporting Program and Draft Recommendations

Draft Mitigation Monitoring and Reporting Program (MMRP)

CDFW provides the following language to be incorporated into the MMRP for the Project.

Biological Resources (BIO)		
Mitigation Measure (MM) Description	Implementation Schedule	Responsible Party
<p>MM-BIO-1: Pre-Construction Rare Plant Survey</p> <p>Prior to the start of construction, a Qualified Biologist¹ shall conduct a pre-construction rare plant botanical field survey within the Project site using the methodology described in <i>Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW, March 2018)</i>, particularly focusing on areas with suitable habitat to support special-status plant species. The survey shall be floristic in nature (i.e., identifying all plant species to the taxonomic level necessary to determine rarity), and shall be inclusive of, at a minimum, areas proposed for disturbance and indirectly impacted by the Project. The results of the survey shall be documented in a letter report that will be submitted to San Bernardino County. The survey shall be conducted annually until start of construction to ensure the floristic diversity is accurately captured and effective avoidance, minimization, and mitigation strategies are developed.</p> <p>If special-status plant species (i.e., endangered, threatened, or California Native Plant Society CRPR 1 and 2 species) are observed during the pre-construction rare plant survey(s) within the development area of the Sienna Project, the Sienna Project shall be designed to reduce impacts to these species through the establishment of buffers, to the extent feasible. Buffer distances will be determined by the Qualified Biologist, typically 50 feet or greater from an identified special-status plant species, unless the Qualified Biologist determines a reduced buffer would suffice to avoid impacts to the species.</p>	<p>Prior to the start of Project related activities</p>	<p>Project Proponent</p>

¹ Botanical field surveyors should possess the following qualifications: Knowledge of plant taxonomy and natural community ecology; Familiarity with plants of the region, including special status plants; Familiarity with natural communities of the region, including sensitive natural communities; Experience with the CNDDDB, BIOS, and Survey of California Vegetation Classification and Mapping Standards; Experience conducting floristic botanical field surveys as described in *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW, March 2018), or experience conducting such botanical field surveys under the direction of an experienced botanical field surveyor; Familiarity with federal, state, and local statutes and regulations related to plants and plant collecting; and Experience analyzing the impacts of projects on native plant species and sensitive natural communities.

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<p>If avoidance of special-status plant species is not feasible, a Special-Status Plant Relocation Plan shall be developed and implemented. The Special-Status Plant Relocation Plan shall address mitigation for special-status plants, including topsoil salvage to preserve seed bank and management of salvaged topsoil; seed collection, storage, possible nursery propagation, and planting; salvage and planting of bulbs as feasible; location of on-site receptor sites; land protection instruments for receptor areas; and funding mechanisms. The Special-Status Plant Relocation Plan shall include methods, monitoring, reporting, success criteria, adaptive management, and contingencies for achieving success.</p> <p>Should a CESA-listed species be identified on site, and an avoidance buffer will not prevent take of the species, the Project proponent shall obtain an incidental take permit from CDFW and mitigate at a minimum of 1:1 habitat replacement for the acreage of the impacted population and the number of individuals are replaced via habitat management land acquisition, species credit purchase, mitigation fee (if applicable), or restoration project as approved by CDFW.</p> <p>All special-status plant species identified on site shall be mapped onto a site-specific aerial photograph and topographic map and included on the construction, grading, fuel modification, and landscape plans.</p>		
<p>MM-BIO-2: Biological Monitoring.</p> <p>Prior to the issuance of grading or building permits, the Project proponent shall retain a Qualified Biologist, with experience and expertise in desert species to oversee compliance with protection measures for all listed and other special status species. If State or Federally listed species or other special status biological resources are identified on the Project area during protocol and/or preconstruction surveys, then the Qualified Biologist may need to be approved by USFWS and/or CDFW as an authorized biologist for handling listed species. The Qualified Biologist or other Qualified Biological Monitors shall be on the Project area during initial grading, ground disturbance and vegetation removal activities in natural scrub vegetation communities to monitor construction activity where</p>		

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<p>that activity could directly or indirectly impact special status biological resources. The Qualified Biologist shall have the authority to halt all activities that are in violation of the special-status species protection measures. Work shall proceed only after potential hazards to special-status species are removed and the species is no longer at risk. The Qualified Biologist shall have in her/his possession a copy of all the compliance measures while work is being conducted on the Project area.</p>		
<p>MM-BIO-3: Desert Tortoise.</p> <p>To avoid construction-level impacts to desert tortoise, not more than 45 days prior to ground-disturbing activities for the construction and/or decommissioning phase(s), qualified personnel shall perform a 100% coverage pre-construction clearance presence/absence protocol survey for desert tortoise in accordance with the U.S. Fish and Wildlife Service survey methodology. If desert tortoise are not documented during appropriate conditions and seasonally timed protocol desert tortoise surveys, no additional measures related to desert tortoise avoidance and minimization are recommended. If desert tortoise are documented inhabiting any portion of the Sienna Project area during presence/absence surveys, the following avoidance, minimization, and mitigation measures shall be implemented:</p> <ul style="list-style-type: none"> • Project proponent shall obtain appropriate federal and state incidental take authorization prior to start of Project activities; • Develop a plan for desert tortoise translocation and monitoring prior to Project construction. The plan shall provide the framework for implementing the following measures and other conditions of approval per the incidental take permit, or similar measures deemed sufficient and be approved during by agency review consultation (Note: any desert tortoise translocation plan must be reviewed and approved by CDFW and USFWS); • If a permanent tortoise-proof exclusion fence is 		

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<p>Practicable, or required by an obtained incidental take permit, a fence shall be installed around all construction areas prior to the initiation of ground disturbing activities, in coordination with a Qualified Biologist. The fence shall be constructed per U.S. Fish and Wildlife specificaitons, (or as conditioned per the incidental take permit, if obtained) of 0.5-inch mesh hardware cloth and extend 18-24 inches above ground and 6-12 inches below ground. Where burial of the fence is not possible, the lower 12-14 14 inches shall be folded outward against the ground and fastened to the ground so as to prevent desert tortoise entry. The fence shall be supported sufficiently to maintain its integrity, be checked at least monthly daily during construction and until the end of the subsequent desert tortoise active season, then at least monthly during operations, and repaired and maintained when necessary by the Project proponent to ensure its integrity. Provisions shall be made for closing off the fence at the point of vehicle entry. Raven perching deterrents should be installed as part of the fence construction.</p> <ul style="list-style-type: none"> ○ After fence installation, an authorized biologist shall conduct a preconstruction clearance survey in accordance with the U.S. Fish and Wildlife Service survey methodology for desert tortoise within the construction site. The authorized biologist shall have the appropriate education and experience to accomplish biological monitoring and mitigation tasks and is approved by the CDFW and the USFWS through an incidental take permit. Two surveys without finding any tortoises or new tortoise sign shall occur prior to declaring the site clear of tortoises. All burrows that could provide shelter for a desert tortoise shall be hand-excavated prior to ground-disturbing activities. ○ An authorized biologist shall remain on-site until all vegetation is cleared and, at a minimum, conduct site and fence inspections daily on a regular basis throughout construction and the subsequent desert tortoise active season, in order to ensure Project compliance with mitigation measures. ○ A biologist shall remain on-call on site throughout fencing and grading activities to monitor Project activities in the 		
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<p>event a desert tortoise wanders onto the Project area.</p> <ul style="list-style-type: none"> ○ Compensatory mitigation in the form of a conservation easement or purchase of mitigation bank credits to compensate for the loss of occupied desert tortoise habitat at a minimum ratio of 1:1, with habitat of equal or greater value. 		
<p>BIO-6: Burrowing Owl.</p> <p>Burrowing owl currently identified on site shall be mitigated per the guidance of the Staff Report on Burrowing Owl Mitigation (CDFG, 2012) such that (a) permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are replaced with permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and (b) sufficiently large acreage, and presence of fossorial mammals.</p> <p>To avoid construction-level impacts to unidentified burrowing owl on-site, breeding season and non-breeding surveys shall be performed following the guidance of the Staff Report on Burrowing Owl Mitigation (CDFG, 2012), and not more than 30 days prior to Project disturbance activities, qualified personnel shall perform a pre-construction clearance take avoidance survey for burrowing owl in accordance with CDFW guidelines. If the species is present on-site and/or within 500 feet of the site, the biologist shall prepare and submit a passive relocation plan to the CDFW for review/approval and shall implement the approved plan to allow commencement of disturbance activities on site. The impact to the individual shall also be mitigated as described above.</p> <p>If burrowing owls are detected on-site or within 500 meters of Project activities during the take avoidance survey, a no-work buffer shall be established, restricting all ground-disturbing activities, such as vegetation clearance or grading, from occurring within the buffer. Typical avoidance buffer distances for burrowing owl range from 100 meters (330 feet) to 250 meters (825 feet) depending on Project activity type and the associated noise and vibration disturbance, line of sight and</p>		

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local topography, during the breeding season (February 1 to August 31). During the non-breeding (winter) season (September 1 to January 31), typical avoidance buffers range from 50 meters (165 feet) to 100 meters (330 feet) from the burrow. ~~Depending on the level of disturbance, a smaller buffer may be established in consultation with CDFW.~~ **A Qualified Biologist shall monitor the burrowing owls for any sign of distress and adjust the buffers as necessary to ensure no take occurs.**

If burrowing owl burrow avoidance is infeasible during the non breeding season or during the breeding season (February 1 through August 31), where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent survival, a Qualified Biologist shall implement a **the passive relocation plan approved by CDFW** program. At a minimum, the program shall include the following performance standards:

- Excavation shall require hand tools. Sections of flexible plastic pipe or burlap bag shall be inserted into the tunnels during excavation to maintain an escape route for any animals inside the burrow. One-way doors shall be installed at the entrance to the active burrow and other potentially active burrows within 160 feet of the active burrow and monitored for at least 48 hours after installation. ~~If burrows will not be directly impacted by the Project, one-way doors shall be installed to prevent use and shall be removed after ground-disturbing activities have concluded in the area.~~ Only burrows that will be directly impacted by the Project shall be excavated and filled.
- Detailed methods and guidance for passive relocation of burrowing owls to off-site “replacement burrow site(s)” consisting of a minimum of two suitable, unoccupied burrows for every burrowing owl or pair to be passively relocated.
- Monitoring and management of the replacement burrow site(s) and a reporting plan. The objective shall be to manage the replacement burrow sites for the benefit of burrowing owls (e.g., minimizing weed cover), with the specific goals of maintaining the functionality of the

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<p>burrows for a minimum of 2 years.</p> <ul style="list-style-type: none"> • Temperature constraints 		
<p>BIO-8: Avoidance and Minimization.</p> <p>Jurisdictional features (ephemeral drainages) identified in the delineation shall be avoided where possible. If all waters of the U.S and waters of the State can be avoided, no further mitigation is recommended. Any activities that would result in impacts to waters of the U.S. and/or waters of the State will be required to receive issuance of regulatory permits from USACE, CDFW and/or RWQCB. If regulatory permits are required, the Project applicant shall submit a copy of issued regulatory permits to the San Bernardino County Land Use Services Department, Planning Division, prior to issuance of a grading permit. If the Project will directly impact waters of U.S. for waters of the State, the following measures shall be implemented to reduce impacts to less than significant:</p> <ul style="list-style-type: none"> • Any material/spoils generated from Project activities shall be located away from jurisdictional areas or special-status habitat and protected from storm water run-off using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate. • Materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage from contaminating the ground and generally at least 50 feet from the top of bank. • Any spillage of material will be stopped if it can be done safely. The contaminated area will be cleaned, and any contaminated materials properly disposed. For all spills, the Project foreman or designated environmental representative will be notified. • Compensatory mitigation to offset permanent impacts to waters of the State. Mitigation shall occur at a minimum ratio of 1:1 through the establishment of a conservation easement, restoration of existing habitat and/or payment of inleu fees. A Compensatory Mitigation and Restoration Plan is recommended for inclusion with agency permit applications that are proposing onsite restoration and shall include the following components: • A description of the purpose and goals of the mitigation Project including the improvement of specific physical, chemical, and/or biological functions at the mitigation 		

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<p>site.</p> <ul style="list-style-type: none">• A description of the plant community type(s) and amount(s) that will be provided by the mitigation and how the mitigation method will achieve the mitigation Project goals. A description of the mitigation site, including a site plan of the location and rationale for site selection. A plant palette and methods of salvaging, propagating, and planting the site to be restored.• Methods of soil preparation.• Best Management Practices (BMPs) that will be utilized to avoid erosion and excessive runoff before plant establishment.• Maintenance and monitoring necessary to ensure that the restored plant communities meet the success criteria.• Schedule for restoration activities including weed abatement, propagating and planting, soil preparation, irrigation, erosion control, qualitative and quantitative monitoring, and reporting to the County. Identification of measurable performance standards for each objective to evaluate the success of the compensatory mitigation.• Identification of contingency and adaptive management measures to address unforeseen changes in site conditions or other components of the mitigation Project. <p>If off-site mitigation is proposed, the following measure would apply:</p> <ul style="list-style-type: none">• Identification of an appropriate mitigation bank and the purchase of credits commensurate with the type of impacts associated with the Project or compensatory mitigation in the form of a conservation easement at a minimum of 1:1.		
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Draft Recommendations

CDFW recommends the following language to be incorporated into the EIR for the Project.

Biological Resources (BIO)		
Recommendation (REC) Description	Implementation Schedule	Responsible Party
<p>REC-1: Bat Foraging Habitat.</p> <p>Permanent impacts to occupied and adjacent bat foraging habitat shall be offset by equal acreage of replacement habitat suitable to the species and within the colony's foraging range. The habitat shall be protected in perpetuity under a conservation easement with a non-wasting endowment to provide for the long-term management of the mitigation lands.</p>	<p>Prior to the start of Project activities</p>	<p>Permittee</p>
<p>REC-2 Raven Management.</p> <p>The Project Proponent shall prepare a Raven Management Plan to minimize the potential to attract common ravens to the site and submit it to CDFW for review and approval. In addition, the Project Proponent shall provide funds to the Renewable Energy Action Team (REAT) account established with the National Fish and Wildlife Foundation (NFWF) to contribute to a region-wide raven control plan to help address raven predation on the desert tortoise. This contribution shall be used to address raven predation on a regional basis and shall be calculated as a one-time payment of \$105 per acre of project disturbance. Based on this calculation the Project Proponent shall provide a one-time payment to the REAT account established with NFWF's Raven Management Plan fund. A minimum of 30 days prior to the start of Project activities these funds shall be provided to NFWF using appropriate deposit document provided by CDFW and proof of paying this fee shall be provided to CDFW within 24 hours after the funds have been provided to NFWF.</p>	<p>Prior to the start of Project activities</p>	<p>Permittee</p>