



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Inland Deserts Region  
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**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



September 30, 2024  
*Sent via email.*

Luis Valenzuela  
Planner II  
County of Imperial, Planning and Development Services Department  
801 Main Street  
El Centro, CA 92243

DOGWOOD GEOTHERMAL ENERGY PROJECT (PROJECT)  
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)  
SCH# 2024010510

Dear Mr. Valenzuela:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a DEIR from County of Imperial for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

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.

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**

**Proponents:** OrHeber 3, LLC; Heber Field Company, LLC; and Second Imperial Geothermal Company

**Objective:** The objective of the Project is to construct and operate various facilities for three Conditional Use Permits, listed below:

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<sup>1</sup> 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.

1. Dogwood Geothermal Energy Project: construct a 25 net megawatt (MW) geothermal plant, a cooling tower, one substation, two 20,000-gallon isopentane above-ground storage tanks, 7 MW solar photovoltaic facilities, and a medium voltage distribution cable. Primary Project objective is to operate the geothermal plant, parasitic solar facility, and associated ancillary and auxiliary facilities.
2. Heber 2 Solar Energy Project: construct a 15 MW solar facility. Primary Project objectives include the operation of the parasitic solar facility to provide supplemental/auxiliary energy to the existing Heber 2 geothermal plant. This energy would not enter the transmission grid.
3. Heber Field Company Geothermal Wells and Pipeline Project: construct three geothermal production and injection wells, and geothermal fluid pipeline. Primary Project objectives are the operation of the production and injection wells to handle geothermal fluid, and to transport geothermal fluid from the production wells to the power plants.

**Location:** The Project is located on approximately 125 acres of privately-owned lands in southern Imperial County, California. It is approximately 1 mile south of the City of Heber jurisdictional limit and approximately 0.5 mile west from the City of Calexico jurisdictional limit. The Project site is within 3 accessor parcel numbers (APN) 054-250-031, 059020-001, and 054-250-017. The proposed geothermal power plant is generally located north of Jasper Road and west of South Dogwood Road.

**Timeframe:** 35 months of construction, starting the first quarter of 2025.

## COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist City of Imperial 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.

### I. Environmental Setting 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 1:

##### DEIR Section 3.5, Page 3.5-5 and Appendix E Section 3.1, Page 3-1

**Issue:** One biological reconnaissance survey was conducted on February 21, 2023. The *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, March 2018) state that botanical field surveys need to be conducted when plants will be both evident and identifiable, with the appropriate timing (usually during flowering or fruiting) and number of visits to determine presence of special status species and floristic diversity.

**Specific impact:** The biological reconnaissance survey was only performed once at the end of the winter season (February 21, 2023). The DEIR determined that the five special-status species historically documented within five miles of the project area have a low potential for occurrence, but two of the species (Abrams' spurge and hairy stickleaf) do not have blooming periods in February. Adequate evaluation of

the Project's impacts to special-status species relies upon accurate baseline conditions, which botanical field surveys would identify. Also, neither the DEIR nor the *Biological Resources and Burrowing Owl Survey* (Catalyst Environmental Solutions, 2024) include measures to avoid, minimize, or mitigate impacts to any special-status plant species, should they be found on the project site during construction.

**Why impact would occur:** The single reconnaissance survey conducted on February 21, 2023, does not follow the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, March 2018), and thus may not provide adequate baseline conditions to identify and evaluate impacts to special-status species. If any special-status plant species are found on the project site during construction, no avoidance, minimization, or mitigation measures are provided in the DEIR to ensure that impacts are reduced to less than significant levels.

**Evidence impact would be significant:** Sensitive plant species are listed under CESA as threatened, or endangered, or proposed 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 Project Description and Related Impact Shortcoming)**

**To reduce impacts to less than significant:** 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 by qualified personnel. One botanical field survey may be insufficient to detect plants that are not evident and identifiable every year. CDFW recommends mitigation measure BIO-5 Pre-Construction Plant Surveys, listed in Attachment A, to be incorporated into the DEIR.

**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?**

**COMMENT 2:**

**Section 3.5.3, Page 3.5-19; and Appendix E, Section 3.3, Page 3-6**

**Issue:** The DEIR does not consider the broader movement of long-billed curlew and northern harrier when assessing Project impacts to these two species. Both species were observed within or directly adjacent to the Project site, but neither species' migratory movements were considered.

**Specific impact:** During field surveys, both the long-billed curlew and northern harrier were observed within or directly adjacent to the Project site and the DEIR acknowledges that the Project site is within the winter range for long-billed curlew and that the northern harrier moves broadly during winter and migration season. However, Appendix E contradicts the DEIR by stating that no special status species and no habitat that would support special status species were observed in the Project area, other than habitat for burrowing owls.

**Why impact would occur:** The migratory movements of both species may be adversely affected by Project construction and presence, but neither the DEIR nor Appendix E provides analysis or mitigation for this impact. Mitigation measure BIO-2 does not consider the impacts to habitat attributes or spatial habitat, including the loss of foraging habitat and increase in anthropogenic effects. Also, mitigation measure BIO-2 only considers impacts to birds found during nesting season and before construction; it does not consider impacts to birds during non-nesting or non-breeding season.

**Evidence impact would be significant:** While the long-billed curlew is not a current CDFW Species of Special Concern (SSC), it is a watch list species with a State rank of S2, signifying that the species was formerly an SSC and is imperiled with high risk of extirpation. The long-billed curlew's declining numbers are likely caused by agricultural practices and its breeding range has retracted significantly in the last 80 years (Zeiner et al., 1990).

The northern harrier is a current CDFW-designed Species of Special Concern (CNDDDB, July 2024). The primary threats to breeding northern harrier include the loss and degradation of nesting and foraging habitat, nest failure from human disturbance, and agricultural practices (Shuford, 2008).

The project proponent is responsible for complying with Fish and Game Code (FGC) sections (§) 3503, 3503.5, and 3513, which state the following: FGC § 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs or any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto; FGC § 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto; FGC § 3513 states that it is unlawful to take or possess any migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 United States Code § 703 et seq.).

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

**Mitigation Measure BIO-2:**

**To reduce impacts to less than significant:** CDFW recommends a qualified biologist survey the Project area not only for breeding and nesting birds, but also for other bird activity, such as foraging, and for behavior possibly caused by Project activities, such as agitation, stress, and/or nest abandonment.

**CDFW provides editorial suggestions for BIO-2 in Attachment A.**

**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 3:**

**Section 3.5.3, Page 3.5-18; Appendix E, Section 3.2, Page 3-2, and Appendix F, Section 3.2, Page 3-2**

**Issue:** There is a discrepancy between the DEIR, Appendix E, and Appendix F regarding the removal of arrow-weed thickets (*Pluchea sericea* Shrubland Alliance), which is recognized by CDFW as a sensitive natural community. No avoidance,

minimization, or mitigation measures are proposed for the potential impacts to arrow-weed thickets.

**Specific impact:** Appendix E states that “none of the arrow-weed thickets that occur within the survey area would be removed or disturbed by project activities with the exception of the thickets that would be spanned by the transmission line crossing of Beech Drain, Willoughby Road, Central Main Canal, and Dogwood Lateral 1.” However, both the DEIR and Appendix F directly contradict this analysis in numerous instances – the DEIR states, “none of the arrow-weed thickets that occur within the biological survey area (BSA) would be removed or disturbed by project activities” and Appendix F states, “The proposed transmission line connection would span Beech Drain, Central Main Canal, and Dogwood Lateral 1. A narrow band of arrow-weed thicket is present and would be spanned by the connection and would not be removed or disturbed by project activities.”

**Why impact would occur:** Since the DEIR states that none of the arrow-weed thickets within the BSA would be removed or disturbed, the DEIR concludes that the proposed Project would have a less than significant impact to the sensitive natural community and thus, no mitigation measures are required. CDFW is concerned, if Appendix E is accurate in the Project’s disturbance activities, then there are no avoidance, minimization, or mitigation measures in the DEIR to ensure that impacts are reduced to less than significant levels.

**Evidence impact would be significant:** Arrow-weed thickets are listed on the CDFW Vegetation Classification and Mapping Program’s (VegCAMP) Sensitive Natural Communities Only by Life Form list (CDFW, June 2023).

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

**Mitigation Measure BIO-6:**

**To reduce impacts to less than significant:** CDFW recommends the DEIR includes avoidance, minimization or mitigation measures to ensure the project impacts are reduced to a less than significant level.

**CDFW recommends mitigation measure BIO-6 Avoidance of Sensitive Natural Communities, listed in Attachment A, to be incorporated into the DEIR.**

**COMMENT 4:**

**Section 3.5, Page 3.5-6 to 3.5-7**

**Issue:** The DEIR does not mention the potential occurrence of California black rail (*Laterallus jamaicensis coturniculus*) despite the proximity of the Project site to the species’ yearlong range.

**Specific impact:** The Project site is within an approximate 10-mile radius to California black rail yearlong range that is west of the Project site (Zeiner, 1990). Arrow-weed (*Pluchea sericea*) is one of the wetland plant species that is commonly associated with black rail distribution and abundance in southern California (Conway and Sulzman, 2007).

**Why impact would occur:** The DEIR is unclear on if the arrow-weed thickets on the Project site will be removed (refer to Comment 3 above) and thus does not provide any avoidance measures for potential impacts, nor does it consider the California black rail’s potential use of arrow-weed thickets on the Project site. Without clarity on the fate of the arrow-weed thickets on the Project site, California black rail may be

significantly impacted from loss of potential foraging habitat, nest abandonment, and mortality.

**Evidence impact would be significant:** Consistent with CEQA Guidelines, Section 15380, the status of the California black rail as a threatened species under the California Endangered Species Act (Fish & G. Code, § 2050 *et seq.*) and as a Fully Protected species (Fish & G. Code § 3511) qualifies it as an endangered, rare, or threatened species under CEQA.

California black rail populations have been documented as declining in California in recent decades primarily as a result of habitat loss and degradation, particularly in southern California (Evens et al., 1991, Conway and Sulzman, 2007). Outside of the San Francisco Bay estuary, where the majority of the population occurs, the sub-species exists in smaller, disjunct sub-populations that may not be sustained without frequent immigration (Evens et al., 1991 and Richmond et al., 2008). Black rail populations and their required habitat features are vulnerable to both human-caused and natural stressors. California black rails require a dense cover of upland vegetation for protection from predators (Eddleman et al., 1994 and Evens and Thorne, 2015). Disturbance to nesting rails, such as humans intruding in the marsh, have been reported to cause rails to abandon nests or to try to defend nests, exposing eggs (Flores and Eddleman, 1993). Intrusion can alter habitat and cause mortality through crushing of rails that generally freeze in place and are hesitant to flush (Evens and Thorne, 2015).

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

##### **Mitigation Measure BIO-2:**

**To reduce impacts to less than significant:** CDFW recommends measures to fully avoid impacting California black rail during Project construction. CDFW recommends a qualified biologist survey the Project area not only for breeding and nesting birds, including California black rail, but also for other bird activity, such as foraging, and for behavior possibly caused by Project activities, such as agitation, stress, and/or nest abandonment.

**CDFW provides editorial suggestions for BIO-2 in Attachment A.**

## **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 5:**

#### **Section 3.5.3, Page 3.5-16; BIO-4; and Appendix E Section 3.4, Page 3-7**

**Issue:** No burrowing owl mitigation was proposed for either direct impacts or indirect impacts, including injury, mortality, possible nest failures, loss of young, loss of nesting and wintering habitat, loss of foraging and dispersal habitat, or anthropogenic effects. CDFW considers measure BIO-4 to be an avoidance and minimization measure instead of a mitigation measure. The DEIR also does not consider or provide an impacts analysis for future temporal anthropogenic effects to burrowing owls or the loss of habitat and its associated attributes.

**Specific impact:** The DEIR states that burrowing owls have a moderate potential to occur within the Project site, but BIO-4 only provides avoidance and minimization

measures for burrowing owls found on the Project site prior to construction. BIO-4 does not mitigate for the potential direct or indirect impacts that may occur as a result of the Project's construction.

Appendix E states that the Project site is suitable habitat for future burrowing owl inhabitation despite lack of current occupation but does not consider that the Project may alter future habitat in the area.

**Why impact would occur:** Mitigation measure BIO-4 only avoids and minimizes Project impacts for the burrows that are active and occupied at the time of pre-construction surveys. This lacks the temporal consideration of species occupancy and their use of the surrounding landscape for survival. 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).

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

Additionally, the California Fish and Game Commission has received a formal petition to list burrowing owls as threatened or endangered pursuant to CESA. This could potentially make take of this species under purview of CESA should the species become a candidate species later this year. This petition, which CDFW found contained sufficient scientific information to indicate the petition may be warranted, states that burrowing owls "face significant impacts from habitat loss caused by development of utility-scale solar" (Center for Biological Diversity et al., 2024).

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

#### **Mitigation Measure BIO-4:**

**To reduce impacts to less than significant:** CDFW recommends County of Imperial follow the guidance of mitigating impacts to burrowing owls in the *Staff Report on Burrowing Owl Mitigation* (CDFG, 2012), 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 a burrowing owl protection and mitigation plan, and editorial suggestions for BIO-4 in Attachment A.**

### **III. Editorial Comments and/or Suggestions**

A petition to list burrowing owls under the California Endangered Species Act (CESA) has been submitted to the California Fish and Game Commission. Since a determination has not yet been made on the petition, CDFW recommends that avoidance, minimization, and mitigation measures for burrowing owls consider both the potential for CESA listing and the retention of its current Species of Special Concern status. If the burrowing owl is listed as a candidate species under CESA, Project activities will need to either avoid impacts to the species, or the Project proponent obtain an incidental take permit from CDFW and the DEIR define mitigation that will bring the impact to a CESA-listed species to less than significant with mitigation incorporated.

### **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 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**

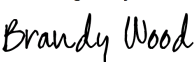
The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental 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 Imperial in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Lily Mu, Senior Environmental Scientist (Specialist) at (909) 544-2521 or [Lily.Mu@Wildlife.ca.gov](mailto:Lily.Mu@Wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
4D759253408941E...

Brandy Wood  
Environmental Project Manager



#### Attachments

Attachment A. Draft Mitigation, Monitoring, and Reporting Program

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

#### REFERENCES

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and Game, Sacramento, California.

**Attachment A  
 Draft Mitigation, Monitoring, and Reporting Program**

**Draft Mitigation, Monitoring, and Reporting Program (MMRP)**  
 CDFW provides the following language to be incorporated into the MMRP for the Project.

<b>Biological Resources (BIO)</b>		
<b>Mitigation Measure (MM) Description</b>	<b>Implementation Schedule</b>	<b>Responsible Party</b>
<p><b>BIO-2 Pre-Construction Nesting Bird Survey:</b></p> <p>If construction or other project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and March 15 through August 31 for the majority of migratory bird species), a preconstruction nesting-bird survey shall be conducted by a qualified avian biologist <b>prior to Project-related disturbance within and adjacent to the Project area. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nesting locations and nesting behavior (including but not limited to copulation, carrying food or nesting materials, nest building, agitation, aggressive interaction, feigning injury, or distraction displays)</b> <del>to ensure that active bird nests, including those for the northern harrier, long-billed curlew, and burrowing owl, will not be disturbed or destroyed.</del> In addition, any clearing of vegetation that may occur is required to take place outside of the breeding season. The survey shall be completed no more than 3 days prior to initial ground disturbance. The nesting bird survey shall include the project area and <b>all suitable areas, including trees, shrubs, bare ground, burrows, cavities, and structures</b> <del>adjacent areas where project activities have the potential to affect active nests, either directly or indirectly, due to construction activity or noise.</del> If an active nest is identified, the biologist shall establish an appropriately sized <b>no-work disturbance limit buffer zone</b> around the nest, <b>which will be based upon the biologist's best professional judgment, the birds' displayed behavior (agitation or stress), the nesting species, it's sensitivity to disturbance, nesting stage and expected types, and the intensity and duration of disturbance.</b> <del>using flagging or staking.</del> <b>The no-work buffer zone shall be clearly marked in a way that does not alert predators.</b> Construction activities shall not occur within any <b>no-work disturbance limit buffer zones</b> until the <b>young birds have successfully fledged and the nest is deemed inactive</b> by the qualified avian biologist.</p>	<p>Prior to the start of Project related activities</p>	<p>Project Proponent</p>
<p><b>BIO-4 Burrowing Owl Avoidance, and-Minimization, and Mitigation</b></p> <p><b>Burrowing owl 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</b></p>	<p>Prior to the start of Project related activities</p>	<p>Project Proponent</p>

**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.**

Take avoidance (pre-construction) surveys for burrowing owl shall be completed **during the breeding and non-breeding seasons and within 14 days prior to the start of ground disturbance and 24 hours** prior to project construction. Surveys shall be conducted **by qualified biologists**, as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). ~~If burrowing owl is not detected, construction may proceed.~~

- If burrowing owl is identified during the non-breeding season (September 1 through January 31), a ~~minimum~~ **50-meter to 100-meter no-work buffer between active burrows and construction activities** shall be established by the **qualified biologist** ~~biological monitor for low level disturbance~~. However, the minimum buffer shall be increased depending on the level of construction disturbance **and construction activity** (e.g., medium or high). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. ~~The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.~~
- If burrowing owl is identified during the breeding season (February 1 through August 31), then a **100-meter to 250-meter no-work** ~~an appropriate~~ buffer will be established by the **qualified biologist** ~~biological monitor~~ in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012). **A qualified biologist shall monitor the burrowing owls for any sign of distress and adjust the buffers as necessary to ensure no take occurs.** Construction **and disturbance activities** within the buffer will be avoided until a qualified biologist determines that ~~burrowing owl is no longer present~~ **the burrow is inactive** or until young have fledged. ~~The buffer distance may be reduced in consultation with CDFW if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.~~

**If active burrows are present within the Project footprint and avoidance is infeasible, the following mitigation measures shall be implemented. If approved by CDFW through the Burrowing Owl Protection and Mitigation Plan (described below), passive relocation methods are to be used by the qualified biologist to exclude the owls out of the impact zone. Passive relocation shall only be done in the non-breeding season, where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent**

<p>survival, in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG, 2012) and a CDFW-approved Burrowing Owl Protection and Mitigation Plan. This includes covering or excavating all burrows and installing one-way doors into occupied burrows. This will allow any animals inside to leave the burrow but will exclude any animals from re-entering the burrow. If burrowing owls exhibit sign of stress in attempting to re-enter the burrow, the one-way-door shall be removed to prevent take of the individual. A period of at least 1 week is required after the relocation effort to allow the birds to leave the impacted area before construction of the area can begin. Only burrows that will be directly impacted by the Project shall be excavated and filled in to prevent their reuse. Off-site “replacement burrow site(s)” must consist of a minimum of two suitable, unoccupied burrows for every burrowing owl or pair to be passively relocated. As the Project construction schedule and details are finalized, a qualified biologist shall prepare a Burrowing Owl Protection and Mitigation Plan that will detail the approved, site-specific methodology proposed to avoid, minimize and mitigate impacts on this species. Passive relocation, destruction of burrows, construction of artificial burrows, and mitigation shall only be completed upon prior approval by and in coordination with CDFW. The Burrowing Owl Protection and Mitigation Plan shall include success criteria, remedial measures, active monitoring, and an annual report to CDFW, and shall be funded by the Project applicant. For the purposes of this mitigation measure, a “qualified biologist” is a biologist who meets the requirements set forth in CDFW’s 2012 Staff Report on Burrowing Owl Mitigation and approved by CDFW.</p>		
<p><b>BIO-5 Pre-Construction Plant Surveys:</b></p> <p>Prior to the start of construction, a qualified biologist<sup>1</sup> shall conduct a botanical field survey following 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>. 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 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 and CDFW. 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 are observed during the pre-construction rare plant survey(s) within the development area of the Project, the Project shall be designed to reduce impacts to these species through the establishment of buffers, to the extent feasible.</p>	<p>Prior to the start of Project related activities</p>	<p>Project Proponent</p>

<sup>1</sup> 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.

<p><b>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.</b></p> <p><b>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.</b></p> <p><b>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.</b></p>		
<p><b>BIO-6 Avoidance of Sensitive Natural Communities:</b></p> <p><b>To the greatest extent practicable, Project plans shall avoid impacts to arrow-weed thickets. If arrow-weed thickets cannot be avoided, the Project applicant shall provide compensatory mitigation for direct impacts consisting of habitat acquisition at a minimum of a 3:1 ratio. Habitat acquisition sites shall be biologically equal or superior to existing conditions and must be conserved and managed in perpetuity.</b></p>	<p>Prior to the start of Project related activities</p>	<p>Project Proponent</p>