

October 2022 | EIR Addendum

ADDENDUM TO ALAMEDA GRANT LINE SOLAR 1 EIR

SCH No. 2021100398

County of Alameda

Prepared for:

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1. Introduction

This document is an Addendum to the previously certified Environmental Impact Report (EIR), State Clearinghouse (SCH) No. 2021100398, for the Alameda Grant Line Solar 1 Project (Approved Project) in the County of Alameda (County). The Approved Project did not consider the potential for occurrence for two special-status species: Crotch's bumble bee and western bumble bee.

This addendum focuses on the addition of mitigation measures, designed to address impacts of the project on special-status species Crotch's bumble bee and western bumble bee. Specifically, this Addendum evaluates the potential impacts associated with the potential of the two special-status bumble bee occurrences.

A copy of this document and all supporting documentation may be reviewed or obtained at the County of Alameda's Community Development Department, 224 West Winton Avenue, Hayward, California 94544, Monday through Friday, 8:30 a.m. to 4:30 p.m., or electronically on the County's website: <http://www.acgov.org/cda/planning/landuseprojects/currentprojects.htm>.

INTRODUCTION

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2. Environmental Setting

2.1 PROJECT LOCATION

As shown on Figure 1, *Regional Location*, the project site is located in eastern Alameda County, at the San Joaquin County boundary, west of the City of Tracy. Alameda County is bordered by Contra Costa County to the north, San Joaquin County to the east, Santa Clara County to the south, and the City and County of San Francisco to the west. Regional access to Alameda County is provided via Interstate-80 (I-80), I-880, I-680, I-580 and I-205. Direct access to the project site is provided via the I-205 interchange at Mountain House Parkway.

As shown on Figure 2, *Local Vicinity*, and Figure 3, *Aerial Photograph*, the project site is located in a rural agricultural area at the intersection of West Grant Line Road and Great Valley Parkway, adjacent to the unincorporated community of Mountain House in San Joaquin County. The project site is bounded by orchard land to the north, vacant agricultural land to the south, and single-family housing to the east across Great Valley Parkway. The Delta Mendota Canal is located west of the project site. Local vehicular access to the project site is provided via Mountain House Parkway and West Grant Line Road.

2.2 EXISTING LAND USE

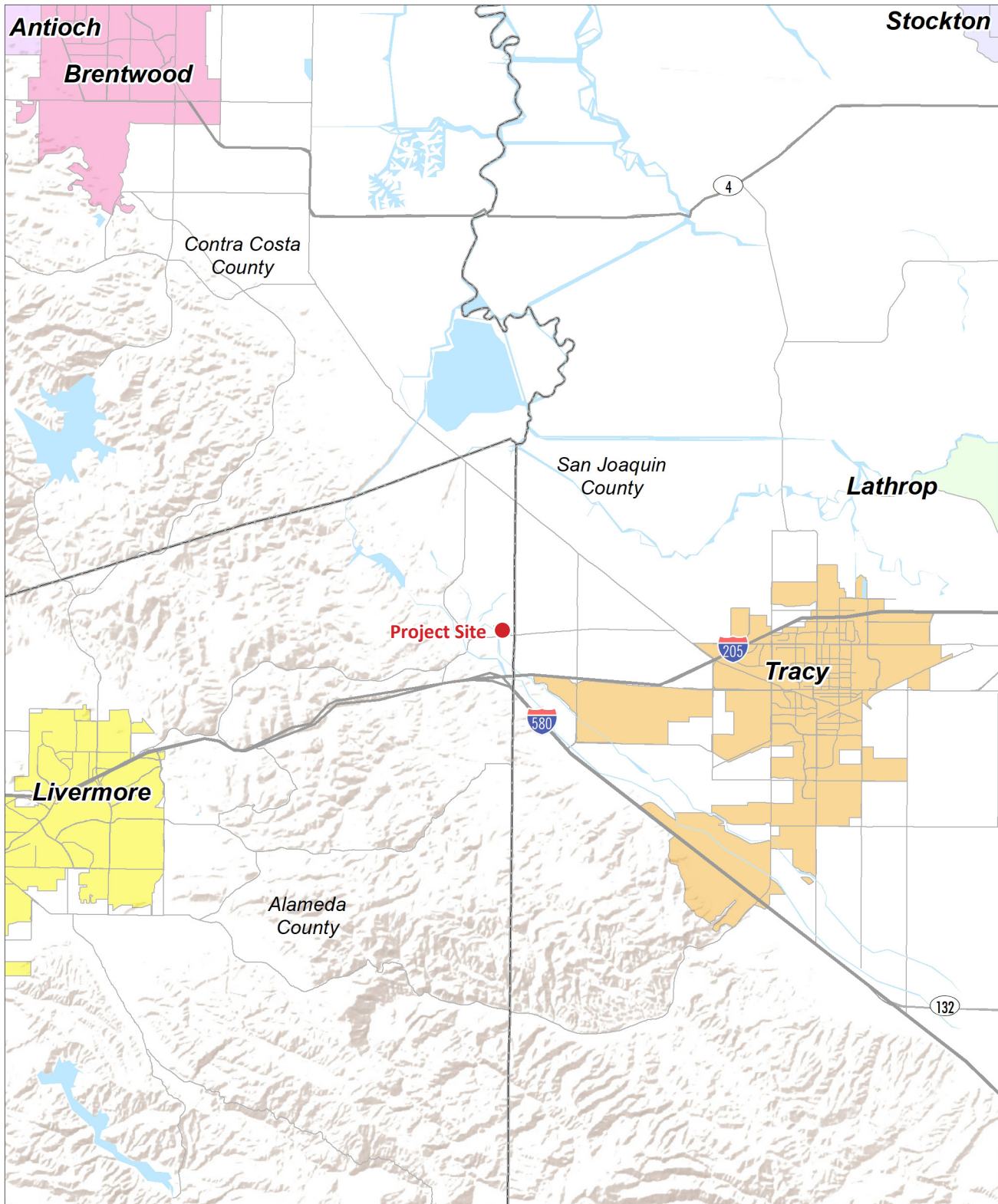
The 23.07-acre project site is assigned Assessor's Parcel Number (APN) 99B-7650-7-1. The project site is currently undeveloped.

2.2.1 GENERAL PLAN LAND USE DESIGNATION

The project site is located within the Alameda County East County Area Plan (ECAP), which was amended in 2000 by voter-approved Measure D. The ECAP Planning Area encompasses 418 square miles in eastern Alameda County. The ECAP includes policies that address physical development, in addition to social, environmental, and economic issues related to land use considerations, which are intended to preserve the rural, pastoral, character of the County lands, outside of the County's Urban Growth Boundary.

The ECAP land use designation on the project site is Large Parcel Agriculture. This designation permits, subject to the provisions of Measure D, agricultural uses, agricultural processing facilities (for example wineries, olive presses), limited agricultural support service uses (for example animal feed facilities, silos, stables, and feed stores), secondary residential units, visitor-serving commercial facilities (by way of illustration, tasting rooms, fruit stands, bed and breakfast inns), recreational uses, public and quasi-public uses, solid waste landfills and related waste management facilities, quarries, windfarms and related facilities, utility corridors, and similar uses compatible with agriculture.

ENVIRONMENTAL SETTING



Source: ESRI, 2021.

Note: Unincorporated county areas are shown in white.

● Project Site — County Boundaries



Figure 1
Regional Location

ENVIRONMENTAL SETTING



Source: ESRI, 2021.

Project Boundary County Boundary

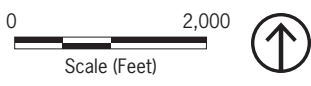
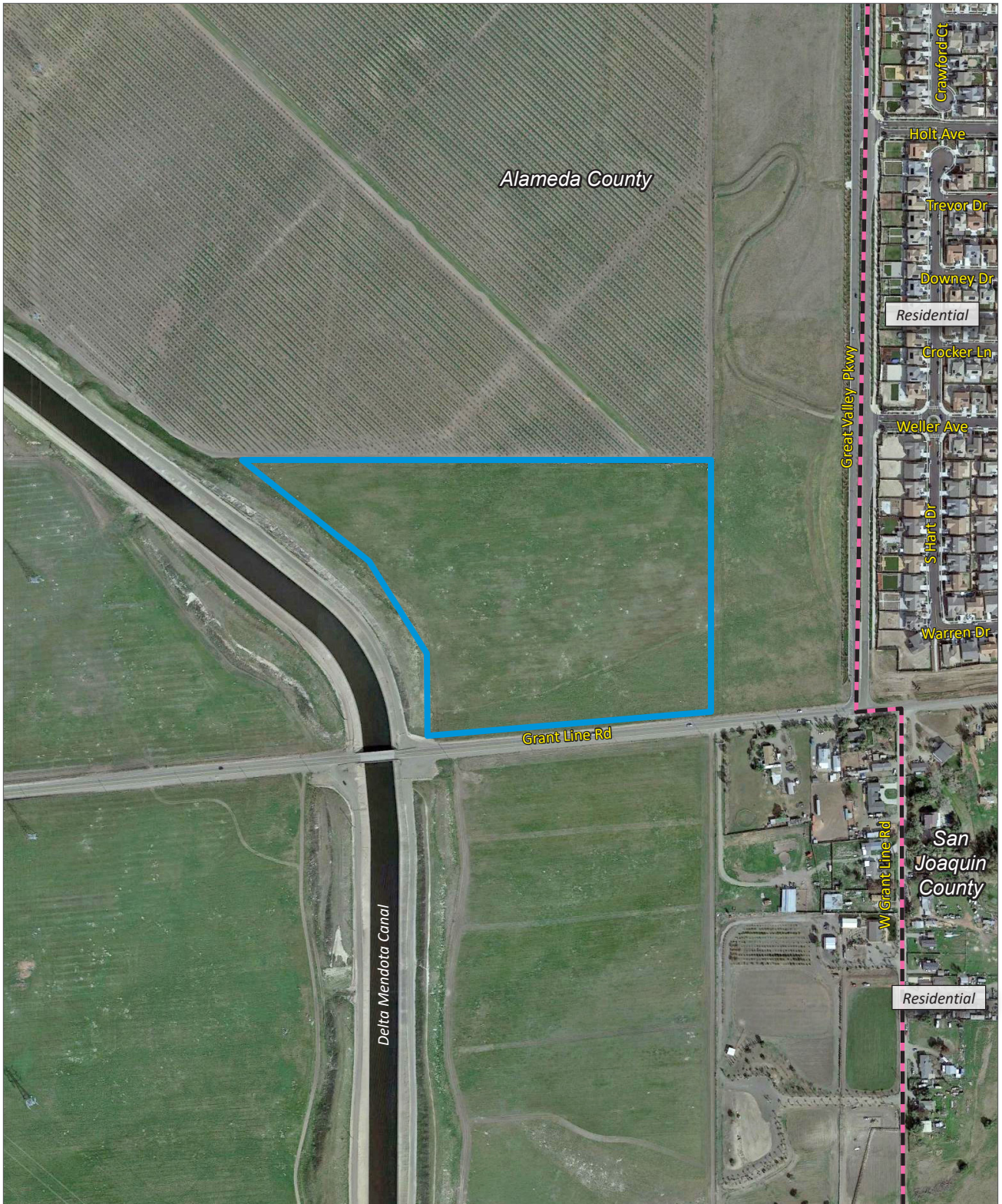


Figure 2
Local Vicinity

ENVIRONMENTAL SETTING



Source: Google Earth, 2021.

— Project Boundary - - - County Boundary

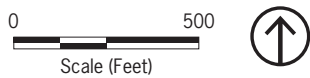


Figure 3
Aerial Photograph

ENVIRONMENTAL SETTING

2.2.2 ZONING DESIGNATION

The project site is zoned Agricultural (A) District. Per Alameda County Municipal Code (ACMC) Section 17.06.030, the uses permitted in the A zoning district include one-family dwelling or one-family mobile home; one secondary dwelling unit; crop, vine or tree farm, truck garden, plant nursery, greenhouse, apiary, aviary, hatchery, horticulture; raising or keeping of poultry, fowl, rabbits, sheep or goats or similar animals; grazing, breeding or training of horses or cattle; winery or olive oil mill; fish hatcheries; and public or private hiking trails. Per ACMC Section 17.06.040, conditional uses may also include privately owned wind-electric generators. The County Planning Commission made findings in 2008 pursuant to ACMC Sections 17.54.050 and 17.54.060 regarding district classifications of uses not listed within the Ordinance.¹ The Planning Commission made findings that a solar electric facility would not be contrary to the specific intent clauses or performance standards established for the A District and could be permitted under a conditional use permit (CUP). The County reiterated these findings to reconfirm the conditional permissibility of similar solar uses within the A District in 2011² and 2012.³

¹ County of Alameda Planning Commission, June 16, 2008, Meeting Minutes.

² County of Alameda East County Board of Zoning Adjustments, December 15, 2011, Resolution No. Z-11-72, PLN2011-00009.

³ County of Alameda Board of Supervisors, February 28, 2012, Planning Meeting, Summary Action Minutes.

ENVIRONMENTAL SETTING

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3. Project Description

3.1 PROJECT BACKGROUND

The Approved Project would construct install, operate, and maintain an approximately 2-megawatt alternating current solar photovoltaic facility known as the Alameda Grant Line Solar 1. The Approved Project was certified by the East County Board of Zoning Adjustments on September 8, 2022. On September 18, 2022, an appeal was filed by Friends of Livermore. The basis of the appeal was cited as the following:

- The project is not a permitted use under the applicable land use designation.
- The project is not a permitted use in the applicable zoning district.
- The project is not replacement infrastructure.
- The project is not new infrastructure needed to serve growth allowed by Measure D.
- The California Department of Fish and Wildlife (CDFW) requested a continuance of the CUP proceedings, but that continuance was not granted.
- Mitigation for impacts to special-status species is inadequate.

An appeal hearing before the Alameda County Board of Supervisors was held on October 13, 2022.

During the appeal hearing, the issue of the potential for occurrence of newly added special-status species was raised. In September 2022, the California Supreme Court had found that the California Fish and Game Commission can protect bumble bees under the California Endangered Species Act (CESA). Two species of bumble bee—Crotch’s bumble bee (*Bombus crotchii*) and western bumble bee (*Bombus occidentalis occidentalis*)—that historically occurred in the Alameda County area are now special-status species for the purposes of CEQA review. Consequently, this Addendum evaluates the impacts of the project on the two special-status bumble bees.

To address the concerns raised at the appeal hearing, the project biologist prepared a memorandum on the potential for occurrence of Crotch’s bumble bee and western bumble bee and the impacts of the project on these two special-status bumble bees (see Appendix A, *Assessment of Special-Status Bumblebees for the Alameda Grant Line Solar 1 Project*). The memorandum found that there is a low potential for occurrence of Crotch’s bumble bee on the project site. The western bumble bee has had no recent observations made within 10 miles of the project site in over 60 years; however, its potential for occurrence cannot be fully discounted, as there is some potentially suitable habitat on the site. Crotch’s

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bumble bees and western bumble bees have the potential to be impacted by the project if they are present on the site at the time of construction.⁴

3.2 PROPOSED MITIGATION MEASURES

Impact BIO-1 of the certified EIR states that, “Construction of the project could potentially kill, injure, or alter the behavior of special-status species on the site.” Mitigation Measures BIO-1.1 through BIO-1.15 addressed this impact through construction worker training, biological monitoring, and species-specific protocols for the identified special-species.

Project construction could impact Crotch’s bumble bees and/or western bumble bees if they are present on the site at the time of construction, by causing the injury or mortality of adults, eggs, and larvae, burrow collapse, nest abandonment, and reduced nest success. Permanent loss of colonies and suitable nesting habitat may result. The installation and operation of the solar panels may reduce native vegetation that may support suitable foraging habitat for Crotch’s bumble bees and/or western bumble bees nesting on or near the project site. The following mitigation measures are proposed to reduce the project’s potentially significant impacts on the special-status bumble bees to a less-than-significant level.

Mitigation Measure BIO-1.16: Within 1 year prior to vegetation removal and/or the initiation of construction, a qualified biologist familiar with Crotch’s and western bumble bee behavior and life history should conduct surveys to determine the presence/absence of the species. Surveys should be conducted during flying season when the species is most likely to be detected above ground, between approximately March 1 to September 1. A reference site should be visited to confirm bumble bee activity because flight periods likely vary geographically and with weather. Surveys should be conducted within the project site and accessible adjacent areas with suitable habitat. Survey results including negative findings should be submitted to the CDFW prior to project-related vegetation removal and/or ground-disturbing activities. At a minimum, a survey report should provide the following:

- a) A description and map of the survey area, focusing on areas that could provide suitable habitat for the two bumble bee species;
- b) Field survey conditions that should include the name(s) of qualified biologist(s) and their qualifications, date and time of the survey, survey duration, general weather conditions, survey goals, and species searched.
- c) Map(s) showing the location of nests/colonies; and,
- d) A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological conditions,

⁴ LSA, October 28, 2022, *Assessment of Special-Status Bumblebees for the Alameda Grant Line Solar 1 Project*.

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primarily impacted habitat, should include native plant composition (e.g., density, cover, and abundance) within the impacted habitat (e.g., species list separated by vegetation class, density, cover, and abundance of each species).

Mitigation Measure BIO-1.17: If a qualified biologist determines Crotch's and/or western bumble bees are present, and if "take" or adverse impacts to the bumble bees cannot be avoided either during project activities or over the life of the project, the CDFW will be consulted to determine if a CESA Section 2080 Incidental Take Permit is required.

Mitigation Measure BIO-1.18: If a qualified biologist determines Crotch's and/or western bumble bees are present, information on the species shall be included in the environmental education program described in Mitigation Measure BIO-1.1 of the EIR.

Mitigation Measure BIO-1.19: If a qualified biologist determines Crotch's and/or western bumble bees are present, the mitigation and management plan (MMP) for the conservation area, described in Mitigation Measure BIO-1.9 of the EIR, shall include a prescription for managing the area as habitat for bumble bees. The MMP will include a prescription for an appropriate seed mix and planting plan that targets bumble bee nectar plants, including native flowering plant species known to be visited by bumble bees and containing a mix of flowering plant species with continual floral availability through the flight season (early spring through late fall). The MMP will include success criteria for bumble bee habitat.

Mitigation Measure BIO-1.20: Rodenticides and pesticides will not be used anywhere on the project site during the life of the project.

PROJECT DESCRIPTION

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4. Environmental Analysis

4.1 ANALYSIS

California Environmental Quality Act (CEQA) Guidelines Section 15162 describes when subsequent environmental review is required once a project has been studied and approved, but when further discretionary actions are required. Below, in bold, the regulations are set out and the analysis of this project under each criteria follows.

- (a) **When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:**
- 1. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.**

The design, construction and operation of the project would not change from what was approved under the certified EIR. The project would still be required to implement the mitigation measures listed in the EIR to ensure any potentially significant impacts remain less than significant.

The memorandum on the Crotch's bumble bee and western bumble bee (Appendix A), found that Crotch's bumble bees have a low potential for occurrence and that although Western bumble bees have not been observed near the project site in a long time, there is potentially suitable habitat on the project site and therefore, the potential for occurrence of western bumble bee cannot be discounted. If either of the special-status bumble bees are present on the project site at the time of project construction, construction may cause injury or mortality of adults, eggs, and larvae, burrow collapse, nest abandonment, and reduced nest success. They may also suffer from permanent loss of colonies and suitable nesting habitat. Furthermore, installation and operation of the project's solar panels may reduce native vegetation that may support suitable foraging habitat for the bumble bees nesting on or near the project site.

Implementation of the additional mitigation measures proposed above under Section 3.2, *Proposed Mitigation Measures*, would ensure that the potential for significant impacts related to the project construction's potential to kill, injure, or alter the behavior of special-status species on the project site remains less than significant. Mitigation Measure BIO-1.16 requires a qualified biologist familiar with Crotch's bumble bee and western bumble bee behavior and life history to conduct surveys to determine

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the presence/absence of the special-status bumble bees within one year prior to project-related vegetation removal or initiation of construction. The surveys should be conducted during flying season (between approximately March 1 to September 1), and results are to be submitted to CDFW prior to vegetation removal and/or ground disturbing activities. The survey report should include, at a minimum, a description and map of the survey area, focusing on areas that could provide suitable habitat for the bumble bees; field survey conditions; maps showing the location of nests/colonies; and a description of physical and biological conditions where nests/colonies are found.

If the qualified biologist concludes the presence of Crotch's bumble bees and/or western bumble bees on the project site, Mitigation Measures BIO-1.17, BIO-1.18, and BIO-1.19, would also apply. Mitigation Measure BIO-1.17 requires consultation with CDFW to determine if a CESA Section 2080 Incidental Take Permit is required if "take" or adverse impacts to Crotch's bumble bees and/or western bumble bees cannot be avoided. Mitigation Measures BIO-1.18 and BIO-1.19 requires implementation of Mitigation Measures BIO-1.1 and BIO-1.9 in the certified EIR. Information on Crotch's bumble bee and/or western bumble bee shall be included in the environmental education program required under Mitigation Measure BIO-1.1 and a prescription for managing the area as habitat for the special-status bumble bees shall be included in the mitigation and management plan required under Mitigation Measure BIO-1.9.

Mitigation Measure 1.20 would be required regardless of the presence of Crotch's bumble bee and/or western bumble bee. Rodenticides and pesticides are not to be used anywhere on the project site during the life of the project. Mitigation Measure 1.20 would also benefit the other special-status species discussed in the EIR.

Therefore, the proposed mitigation measures would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects evaluated in the certified EIR.

- 2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.**

As discussed above, the addition of Mitigation Measures BIO-1.16 through BIO-1.20 would ensure that project impacts to the two special-status species, Crotch's bumble bee and western bumble bee, would remain less than significant. The memorandum prepared by the project biologist demonstrates that the implementation of the proposed mitigation measures would reduce the potential of significant impacts to the special-status bumble bees and there would be no new significant effects not discussed in the previously certified EIR.

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3. **New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time of the previous EIR was certified as complete shows any of the following:**

- (A) **The project will have one or more significant effects not discussed in the previous EIR.**

The certified EIR determined that the buildout of the Alameda Grant Line Solar 1 Project would not have any significant and unavoidable impacts. The design, construction and operation of the project would not change from what was approved under the EIR. Thus, the only new potential impacts relate to the potential occurrence of Crotch's bumble bee and western bumble bee. However, as noted above and in the memorandum prepared the project biologist, the implementation of Mitigation Measures BIO-1.16 through BIO-1.20 would reduce any potentially significant project impact on Crotch's bumble bees and/or western bumble bees to a less-than-significant level. Therefore, the addition of the proposed mitigation measures does not create substantially more severe significant effects than shown in the previously certified EIR.

- (B) **Significant effects previously examined will be substantially more severe than shown in the previously certified EIR.**

As noted above, there would be no revisions to the project. The design, construction and operation of the project would not change from what was approved under the certified EIR. No significant effects were found in the EIR, and mitigation measures included in the EIR will continue to apply to the project. And, as also discussed above, while there are potential impacts to the special-status bumble bees at the project site, such impacts would be alleviated with project site surveys conducted by a qualified biologist, and if necessary, consultation with CDFW and inclusion of the bumble bees in the environmental education program and the mitigation and management plan. As such, none of the significant effects previously examined will be substantially more severe than shown in the previously certified EIR.

- (C) **Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative.**

There are no mitigation measures or alternatives that were previously found to be infeasible and that are now feasible. All mitigation measures included in the certified EIR will continue to apply to the project.

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- (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The additional mitigation measures proposed would continue to address Impact BIO-1, which states that construction of the project could potentially kill, injure, or alter the behavior of special-status species on the project site. The proposed mitigation measures are consistent with the analysis in the certified EIR that implementation of mitigation measures would result in monitoring and protection of special-status wildlife species that may occur on-site, and impacts would be reduced to a less-than-significant level. The project will include the additional Mitigation Measures BIO-1.16 through BIO-1.20. There are no new significant impacts, and the applicant has agreed to the additional mitigation measures.

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5. Findings

As indicated in this Addendum, the impacts of the project do not represent a substantial change to the certified EIR, nor have any substantial changes occurred with respect to the circumstances under which the project is undertaken, that would require major revisions to the EIR. Analysis of the project shows that there are no new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

The addition of Mitigation Measure 1.16 through 1.20 discussed above would ensure that the project's impact on special-status Crotch's bumble bee and western bumble bee is reduced to a less-than-significant level. The additional mitigation measures are added to the project's Mitigation Monitoring and Reporting Program (see Appendix B, *Revised Mitigation Monitoring and Reporting Program*). The project would remain subject to all applicable previously required mitigation measures from the EIR.

Based on the record as a whole, there is no substantial evidence that the project would result in significant environmental impacts not previously studied in the EIR and, accordingly, the project changes would not result in any conditions identified in CEQA Guidelines, Section 15162. Thus, a subsequent EIR or Mitigated Negative Declaration is not required for the changes to the project and the County adopts this Addendum to the Alameda Grant Line Solar 1 EIR (SCH No. 2021100398) in accordance with CEQA Guidelines, Section 15164.

A P P E N D I X A

ASSESSMENT OF SPECIAL-STATUS
SPECIES BUMBLEBEES FOR THE
ALAMEDA GRANT LINE SOLAR 1
PROJECT

.....

MEMORANDUM

DATE: October 28, 2022

TO: Steve Noack, PlaceWorks

FROM: John Kunna, LSA

SUBJECT: Assessment of Special-Status Bumblebees for the Alameda Grant Line Solar 1 Project

BACKGROUND AND PURPOSE

LSA prepared a Biological Resources Assessment (BRA) for the Grant Line Solar 1 Project in unincorporated Alameda County in January 2022. The BRA assessed the potential for 15 special-status plant species and 27 special-status animal species to be impacted by the project and recommended measures that would reduce potential impacts to biological resources to a less than significant level.

In September 2022, the California Supreme Court found that the California Fish and Game Commission can protect bumblebees under the California Endangered Species Act (CESA). Two species of bumblebee—Crotch’s bumble bee (*Bombus crotchii*) and western bumble bee (*Bombus occidentalis occidentalis*)—that historically occurred in the Alameda County area are now special-status species for the purposes of CEQA review. This memorandum assesses the potential for these two species to occur on the project site and be impacted by the proposed project and forms the basis of an addendum to the Environmental Impact Report (EIR) (PlaceWorks 2022).

METHODS

LSA biologists referred to the results of reconnaissance-level field surveys conducted on May 13, May 18, and May 21, 2021. LSA reviewed available background information and literature, including the petition to list the species (The Xerces Society et al. 2018) and the California Department of Fish and Wildlife’s (CDFW) response (CDFW 2019) to the petition.

LSA queried the California Natural Diversity Data Base (CNDDDB) (CDFW 2022) for nearby occurrences of special-status bumblebees and also searched iNaturalist (2022) for recent nearby observations of bumble bees. In addition, LSA searched Bumble Bee Watch (2022) for observations of special-status bumble bee species observations made since 2002 in Alameda, Contra Costa, and San Joaquin Counties.

ASSESSMENT

Crotch's Bumble Bee (*Bombus crotchii*)

Life History and Habitat Requirements

The queens begin foraging for pollen and nectar after emerging from hibernation in the spring. They also search for nest sites. The flight period for Crotch's bumble bee queens in California is from late February to late October, peaking in late March to early April. There is a second, smaller peak in July. The flight period for workers and males in California is from March through October, peaking in July.

Like most bumble bees, the Crotch's bumble bee primarily nests underground. The size of Crotch's bumble bee colonies has not been well documented. Little is known about the overwintering sites of the Crotch's bumble bee, but queens likely overwinter in soft soil or under debris or thatch and leaf litter.

Queens most often visit the flowers of plants in the Leguminosae (Fabaceae) family, followed by plants in the Labiatae family. Workers most commonly visited the flowers of plants in the Leguminosae family, followed by plants in the Asdepiadaceae (milkweed) family, which is now treated as a subfamily in the family Apocynaceae. The males' most commonly visited plant family was the Asdepiadaceae family, followed by plants in the Leguminosae family. In total, Crotch's bumble bees have been observed visiting the flowers of at least 186 plant species in 15 plant families.

Generally, for all bumble bee species, high-quality habitat has three major components: a diverse supply of flowers for nectar and pollen, nesting locations, and subterranean spaces for overwintering queens (Hatfield et al. 2012). In California, Crotch's bumble bee is found in grassland and scrub habitats.

Threats

The primary threats to the species are present or threatened modification or destruction of its habitat, overexploitation, competition from European honeybees, disease, and other natural events and human-related activities, including pesticide use, population dynamics and structure, and global climate change (The Xerces Society et al. 2018). Any disturbance of the ground (e.g., tilling, mowing, or grazing) can destroy bumble bee colonies or hibernating queens.

Occurrences in the Project Area

Prior to 1983, Crotch's bumble bee had been collected from several areas around the proposed project site, including Pleasanton in Alameda County, Tracy in San Joaquin County, and Mt. Diablo in Contra Costa County (Thorp et al. 1983).

The nearest CNDDDB occurrence (#19) is located approximately 7 miles east of the site in Tracy and is based on a collection made in May of 1959. The next-closest CNDDDB occurrence (#17) is located approximately 20 miles west of the site in Pleasanton and is based on a collection made in

September of 1932. Another occurrence (#15) is based on a collection made in May of 1951 in the Mt. Diablo State Park, approximately 21 miles northwest of the site.

The closest observation posted to iNaturalist was made on April 2, 2022, approximately 14 miles northwest of the site. The next-closest observation posted to iNaturalist was made on May 4, 2022, approximately 15 miles northwest of the site.

Bumble Bee Watch has two observations of Crotch's bumble bee: the first in Berkeley in 2015 and the second in Willard Park in 2021.

Potential to Occur

Crotch's bumble bee has been observed recently in the region. The project site contains ground squirrel burrows that could be used as nest sites or by overwintering queens. Several narrow leaf milkweed (*Asclepias fascicularis*) plants were also observed growing on the site. Milkweeds are a favored plant for Crotch's bumble bees.

The recently planted orchard to the north of the site likely reduced the availability of nearby nectar and pollen-producing plants used by bumblebees. The project site itself is dominated by nonnative annual grasses, which largely outcompete the native nectar and pollen-producing plants that Crotch's bumble bee could use. Therefore, the species has a low potential to occur on the project site.

Potential to be Impacted by the Project

Project construction could impact Crotch's bumble bee if they are present on site at the time of construction by causing the injury or mortality of adults, eggs, and larvae, burrow collapse, nest abandonment, and reduced nest success. Permanent loss of colonies and suitable nesting habitat may result. The installation and operation of the solar panels may reduce native vegetation that may support suitable foraging habitat for Crotch's bumble bee nesting on or near the project site. The project could lead to a decrease in the abundance of burrowing rodents on the site, which would reduce the number of nesting sites available for use by bumble bees.

Western Bumble Bee (*Bombus occidentalis*)

Life History and Habitat Requirements

The flight period for western bumble bee queens in California is from February to late November, peaking in June. There is a second, smaller peak in late September. The flight period for workers in California is from April through November, peaking in late July. The flight period for males is also from April through November, peaking in early August.

The species almost always nests underground, but Thorp et. al. (1983) report collecting one nest from within the cotton stuffing of an old comforter in the basement of a house in San Francisco.

Western bumble bee queens most often visited the flowers of plants in the Rhamnaceae family, followed by plants in the Leguminosae (Fabaceae) family, followed by plants in the Labiatae family.

Workers most commonly visited the flowers of plants in the Leguminosae family, followed by plants in the Compositae family. The males' most-commonly visited plant family was the Compositae family.

Threats

The primary threats to the species are present or threatened modification or destruction of its habitat, overexploitation, competition, disease, and other natural events and human-related activities, including pesticide use, population dynamics and structure, and global climate change (The Xerces Society et al. 2018).

Occurrences in the Project Area

Prior to 1983, the western bumble bee had been collected from several areas around the proposed project site, including Pleasanton in Alameda County, Corral Hollow in San Joaquin County, and Brentwood in Contra Costa County.

The nearest CNDDDB occurrence (#232) is located approximately 9 miles south of the site near Corral Hollow. Occurrence #232 is based on collections made in 1946 and 1951. The next-closest CNDDDB occurrence (#231) is located approximately 10 miles west of the site, outside of Livermore, and is based on a collection made in August of 1957.

The nearest observation of *Bombus occidentalis* that has been posted to iNaturalist is approximately 140 miles northwest of the site, near Sierraville, California.

A search of the Bumble Bee Watch database (Bumble Bee Watch 2022) for any observations of western bumble bee since 2002 in Alameda, Contra Costa, and San Joaquin Counties returned no observations. In California, western bumble bee populations are now largely restricted to high elevation sites in the Sierra Nevada (The Xerces Society 2012) and scattered observations along the California coast.

Potential to Occur

The western bumble bee appears to have been extirpated from the project area, with no recent observations made within 10 miles of the site in over 60 years. However, its potential presence cannot be fully discounted as there is some potentially suitable habitat on the site.

Potential Project Impacts

While the western bumble bee is not expected to occur on or near the site, similar to the Crotch's bumble project construction could impact western bumble bee if they are present on site at the time of construction by causing the injury or mortality of adults, eggs, and larvae, burrow collapse, nest abandonment, and reduced nest success.

CONCLUSION AND RECOMMENDATIONS

Implementation of the following measures would reduce potential impacts to the Crotch's bumble bee to a less than significant level:

1. Within 1 year prior to vegetation removal and/or the initiation of construction, a qualified biologist familiar with Crotch's and western bumble bee behavior and life history should conduct surveys to determine the presence/absence of the species. Surveys should be conducted during flying season when the species is most likely to be detected above ground, between approximately March 1 to September 1. A reference site should be visited to confirm bumble bee activity because flight periods likely vary geographically and with weather. Surveys should be conducted within the project site and accessible adjacent areas with suitable habitat. Survey results including negative findings should be submitted to the CDFW prior to project-related vegetation removal and/or ground-disturbing activities. At a minimum, a survey report should provide the following:
 - a. A description and map of the survey area, focusing on areas that could provide suitable habitat for the two bumble bee species.
 - b. Field survey conditions that should include the name(s) of qualified biologist(s) and their qualifications, date and time of the survey, survey duration, general weather conditions, survey goals, and species searched.
 - c. Map(s) showing the locations of nests/colonies.
 - d. A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological conditions, primarily impacted habitat, should include native plant composition (e.g., density, cover, and abundance) within the impacted habitat (e.g., species list separated by vegetation class, density, cover, and abundance of each species).
2. If a qualified biologist determines western and/or Crotch's bumble bees are present, and if "take" or adverse impacts to the bumble bees cannot be avoided either during project activities or over the life of the project, the CDFW will be consulted to determine if a CESA Section 2080 Incidental Take Permit is required.
3. If a qualified biologist determines western and/or Crotch's bumble bees are present, information on the species shall be included in the environmental education program described in Mitigation Measure BIO-1.1 of the EIR (PlaceWorks 2022).
4. If a qualified biologist determines western and/or Crotch's bumble bees are present, the mitigation and management plan (MMP) for the conservation area, described in Mitigation Measure BIO-1.9 of the EIR (PlaceWorks 2022), shall include a prescription for managing the area as habitat for bumble bees. The MMP will include a prescription for an appropriate seed mix and planting plan that targets bumble bee nectar plants, including native flowering plant

species known to be visited by bumblebees and containing a mix of flowering plant species with continual floral availability through the flight season (early spring through late fall). The MMP will include success criteria for bumble bee habitat.

5. Rodenticides and pesticides will not be used anywhere on the project site during the life of the project.

REFERENCES

- Bumble Bee Watch. 2022. A collaborative website to track and conserve North America's bumble bees (Xerces Society, Wildlife Preservation Canada, York University, The Montreal Insectarium, The London Natural History Museum, and BeeSpotter). Website: <http://www.bumblebeewatch.org/app/#/bees/lists>, accessed October 24, 2022.
- California Department of Fish and Wildlife (CDFW). 2019. Evaluation of the Petition from The Xerces Society, Defenders of Wildlife, and The Center for Food Safety to List Four Species of Bumble Bees as Endangered Under the California Endangered Species Act. Report to the Fish and Game Commission. April 4, 2019.
- _____. 2022. California Natural Diversity Data Base. <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>, accessed October 20, 2022.
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- iNaturalist. 2022. Website: <https://www.inaturalist.org>, accessed October 21, 2022.
- PlaceWorks. 2022. Alameda Grant Line Solar 1 Final EIR for Alameda County. September.
- The Xerces Society for Invertebrate Conservation (The Xerces Society). 2012. Database of records from Bumble Bee Citizen Monitoring Project (2008-2012). Maintained by Rich Hatfield, Xerces Society. Unpublished, cited in CDFW 2019.
- The Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety. 2018. A Petition to the State of California Fish and Game Commission to List the Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act. October.
- Thorp, Robbin W., Donald S. Horning, Jr., and Lorry L. Dunning. 1983. Bumble Bees and Cuckoo Bumble Bees of California. *Bulletin of the California Insect Survey*, Volume 23. February.

FINDINGS

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A P P E N D I X B

REVISED MITIGATION
MONITORING AND REPORTING
PROGRAM



Alameda Grant Line Solar 1 Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared for the Alameda Grant Line Solar 1 project. The purpose of the MMRP is to ensure that the mitigation measures identified in the EIR for the proposed project are implemented. The MMRP includes the following information:

- The full text of the mitigation measures;
- The party responsible for implementing the mitigation measures;
- The timing for implementation of the mitigation measure;
- The agency responsible for monitoring the implementation; and
- The monitoring action and frequency.

Alameda County must adopt this MMRP, or an equally effective program, if it approves the proposed project with the mitigation measures that were adopted or made conditions of project approval.

MITIGATION MONITORING AND REPORTING PROGRAM

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
AIR QUALITY					
<p>Mitigation Measure AQ-2: The applicant shall require their construction contractor to comply with the following BAAQMD Best Management Practices for reducing construction emissions of PM10 and PM2.5:</p> <ul style="list-style-type: none"> ▪ Water all active construction areas at least twice daily or as often as needed to control dust emissions. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible. ▪ Apply water twice daily or as often as necessary to control dust or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. ▪ Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). ▪ Sweep public streets daily (with water sweepers using reclaimed water if possible) in the vicinity of the project site, or as often as needed, to keep streets free of visible soil material. ▪ Hydro-seed or apply non-toxic soil stabilizers to inactive construction areas. ▪ Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles (e.g., dirt, sand). ▪ Limit vehicle traffic speeds on unpaved roads to 15 mph. ▪ Replant vegetation in disturbed areas as quickly as possible. ▪ Install sandbags or other erosion control measures to prevent silt runoff from public roadways. 	Project applicant/ construction contractor	Prior to issuance of building permits authorizing grading or other construction activities and during construction	County Building Department	Review construction plans and specifications. Conduct site inspections	During scheduled construction site inspections
BIOLOGICAL RESOURCES					
<p>Mitigation Measure BIO-1.1: A qualified biologist will conduct an environmental education program for all persons employed or otherwise working on the project site before they perform any work. The program shall consist of a presentation from the biologist that includes a discussion of the biology and general behavior of special-status species on or near the site; information about the distribution and habitat needs of the species; sensitivity of the species to human activities; the status of the species pursuant to the Federal Endangered Species Act, the California Endangered Species Act, and the California Fish and Game Code including legal protection; recovery efforts; penalties for violations; and any project-specific protective measures described in this document or any subsequent documents or permits. Interpretation shall be provided for non-English speaking workers, and the</p>	Project applicant/ qualified biologist	Prior to construction activities	County Planning Department	Review forms stating employees attended the program and understood all the protection measures	Once, prior to construction activities

MITIGATION MONITORING AND REPORTING PROGRAM

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
same instruction shall be provided for any new workers before their performing work on the site. The biologist shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry on the site. Upon completion of the program, employees shall sign a form stating they attended the program and understand all the protection measures.					
Mitigation Measure BIO-1.2: A qualified biologist will be on the site daily to monitor initial grubbing/vegetation clearing, grading, and ground disturbing activities. The biologist will have the authority to stop work that may impact special-status species.	Project applicant/ qualified biologist	During construction activities	County Planning Department	Conduct site inspections	During scheduled construction site inspections
Mitigation Measure BIO-1.3: The Applicant shall include in the contract specifications a requirement to use tightly woven fiber of natural materials (e.g., coir rolls or mats) or similar material for erosion control. Plastic mono-filament netting (erosion control matting) or similar material shall be prohibited, to prevent the entrapment of wildlife.	Project applicant/ construction contractor	Prior to issuance of building permits authorizing grading or other construction activities and during construction	County Building Department	Review construction plans and specifications. Conduct site inspections	During scheduled construction site inspections
Mitigation Measure BIO-1.4: Surveys for California Tiger Salamander, California red-legged frog, San Joaquin coachwhip, California glossy snake, and Coast horned lizard shall be conducted by a qualified biologist within 24 hours prior to the initiation of any vegetation clearing or ground disturbing activities. All suitable habitat including refuge such as burrows, under rocks, duff, debris, etc., shall be thoroughly inspected. Any listed wildlife that are encountered will be allowed to leave the work area of their own volition.	Project applicant/ qualified biologist	Within 24 hours prior to the initiation of vegetation clearing or ground disturbing activities	County Planning Department	Review survey reports	Once, prior to construction activities
Mitigation Measure BIO-1.5: To avoid entrapment, injury, or mortality of listed species resulting from falling into steep-sided holes or trenches, all excavated holes or trenches deeper than 12 inches shall be covered at the end of each workday with plywood or similar materials. Larger excavation that cannot easily be covered shall be ramped at the end of the workday to allow trapped animals an escape method.	Project applicant/ construction contractor	During construction activities	County Planning Department	Conduct site inspections	During scheduled construction site inspections
Mitigation Measure BIO-1.6: Prior to initiating construction activities, a California Department of Fish and Wildlife (CDFW)-approved biologist shall conduct surveys for burrowing owl within 500 feet of the project site, where safely accessible. This measure incorporates avoidance and minimization guidelines from the CDFW 2012 Staff Report on Burrowing Owl Mitigation. The surveys will establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls. Surveys shall take place near sunrise or sunset in accordance with CDFW	Project applicant/ CDFW-approved biologist	No more than 30 days prior to construction activities	County Planning Department	Review survey reports	Once, prior to construction activities

MITIGATION MONITORING AND REPORTING PROGRAM

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
<p>survey guidelines. All burrows or burrowing owls shall be identified and mapped. Surveys shall take place no more than 30 days prior to construction. During the breeding season (February 1–August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1–January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted.</p>					
<p>Mitigation Measure BIO-1.7: If burrowing owls are found during the breeding season (February 1–August 31), the project proponent shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a no disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the nest is inactive. During the nonbreeding season (September 1–January 31), the project proponent shall avoid the owls and the burrows they are using. Avoidance shall include the establishment of a buffer zone.</p>	Project applicant/ construction contractor, qualified biologist	During construction activities	County Planning Department	Conduct site inspections	During scheduled construction site inspections
<p>Mitigation Measure BIO-1.8: If occupied burrows for nonbreeding burrowing owls are not avoided, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within an appropriate buffer zone as recommended by the biologist in coordination with the California Department of Fish and Wildlife (CDFW) by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows shall be excavated using hand tools and refilled to prevent reoccupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.</p>	Project applicant/ construction contractor, CDFW-approved biologist	48 hours prior to excavation and 1 week of daily monitoring	County Planning Department	Review survey reports	As needed, if occupied burrows cannot be avoided
<p>Mitigation Measure BIO-1.9a: To mitigate for the alteration of burrowing owl habitat, approximately 11.6 acres on the southern, western, and northern edges of the site will be protected under a conservation easement or deed restriction for the duration of the project. This land is contiguous with the levee and open space associated with the Mendota Canal. A mitigation and management plan (MMP) with success criteria to ensure the site is maintained as burrowing owl habitat, and to facilitate its continued use by burrowing owls, will be developed for this area and approved by the Alameda County Planning Director in coordination with California</p>	Project applicant/ construction contractor	Prior to construction activities	County Planning Department, CDFW	MMP review and approval	Once, prior to construction activities

MITIGATION MONITORING AND REPORTING PROGRAM

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
Department of Fish and Wildlife (CDFW). The MMP shall include measures to rehabilitate any habitat temporarily disturbed by construction activities.					
Mitigation Measure BIO-1.9b: No later than 6 months following the operational period of the project, the project site will be restored to as near as possible to its original condition. The MMP described in Mitigation Measure BIO-1.9a will include a post-project restoration plan to facilitate the future suitability of the site for burrowing owl.	Project applicant/ construction contractor	No later than 6 months following operation	County Planning Department	Conduct site inspection	Once, during first 6 months of operation
Mitigation Measure BIO-1.10: The mitigation and management plan (MMP) described in Mitigation Measure BIO-1.9 for the approximately 11.6-acre conservation area shall include a prescription for managing the area as habitat for Swainson’s hawk. The MMP will include success criteria for Swainson’s hawk habitat.	Project applicant/ construction contractor	Prior to construction activities	County Planning Department	MMP review and approval	Once, prior to construction activities
Mitigation Measure BIO-1.11: Pre-construction surveys shall be conducted for the American badger no more than 14 days prior to the initiation of ground-disturbing activities. Surveys shall be conducted by a qualified wildlife biologist with experience and knowledge in identifying badger burrows and include walking parallel transects looking for badger burrows and signs of badgers. Any badger dens identified shall be flagged and mapped.	Project applicant/ construction contractor, qualified biologist	No more than 14 days prior to ground-disturbing activities	County Planning Department	Review survey reports	Once, prior to construction activities
Mitigation Measure BIO-1.12: In the event active badger dens are identified, a no-work buffer of 200 feet shall be established around the den and associated occupied areas. If avoidance is not feasible, a biologist shall determine if the burrow is being used as an active maternity den through utilization of remote cameras. If young are determined to be present, the burrow shall be avoided until the young have vacated the burrow as determined by a qualified biologist. If the burrow is determined not to be an active maternity den and young are not present, in coordination with the California Department of Fish and Wildlife (CDFW), a one-way eviction door shall be installed between September 1 and January 1 to passively relocate the badger and to avoid impacts during the breeding season. If the badger digs back into the burrow, CDFW staff may allow the use of live traps to relocate badgers to suitable habitat from the area of project impact.	Project applicant/ construction contractor, qualified biologist	Prior to construction activities	County Planning Department, CDFW	Review survey reports	Once, prior to construction activities and as needed, if the badger digs back into the burrow
Mitigation Measure BIO-1.13: The mitigation and management plan (MMP) described in Measure BIO-1.9 for the 11.6-acre conservation area shall include prescription of an appropriate seed mix and planting plan targeted for the monarch butterfly, including milkweed and native flowering plant species known to be visited by monarch butterflies and containing a mix of flowering plant species with	Project applicant/ construction contractor	Prior to construction activities	County Planning Department	MMP review and approval	Once, prior to construction activities

MITIGATION MONITORING AND REPORTING PROGRAM

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
continual floral availability through the entire breeding season for monarch butterfly (early spring to fall). The MMP will include success criteria for monarch butterfly.					
Mitigation Measure BIO-1.14: A qualified biologist will conduct a minimum of two pre-construction surveys conducted within 30 days during appropriate activity periods (i.e., March through September) and conditions prior to the start of ground disturbing activities to look for milkweed host plants and signs of monarch breeding activity (larvae or chrysalides). Appropriate conditions for conducting the survey include surveying when temperatures are above 60 degrees Fahrenheit (15.5 degrees Celsius) and not during wet conditions (e.g., foggy, raining, or drizzling). The survey should be conducted at least 2 hours after sunrise and 3 hours before sunset and should occur at least 1 hour after rain subsides. Preferably, the survey should be conducted during sunny days with low wind speeds (less than 8 miles per hour) but surveying during partially cloudy days or overcast conditions are permissible if the surveyors can still see their own shadow.	Project applicant/ construction contractor, qualified biologist	30 days prior to construction activities	County Planning Department	Review survey reports	Once, prior to construction activities
Mitigation Measure BIO-1.15: If monarch butterflies are observed within the project site, a plan to protect monarch butterflies shall be developed and implemented in consultation with the United States Fish and Wildlife Service. The plan shall include, but not be limited to, the following measures: <ul style="list-style-type: none"> ▪ Specifications for construction timing and sequencing requirements; ▪ Establishment of appropriate no-disturbance buffers for milkweed and construction monitoring by a qualified biologist to ensure compliance if milkweed is identified; ▪ Restrictions associated with construction practices, equipment, or materials that may harm monarch butterflies (e.g., avoidance of pesticides/herbicides, best management practices to minimize the spread of invasive plant species); and Provisions to avoid monarch butterflies if observed away from a milkweed plant during project activity (e.g., ceasing of project activities until the animal has left the active work area on its own volition).	Project applicant/ construction contractor, qualified biologist	Prior to and during construction activities	County Planning Department	Plan review and approval	Once, prior to construction activities
Mitigation Measure BIO-1.16: Within 1 year prior to vegetation removal and/or the initiation of construction, a qualified biologist familiar with Crotch's and western bumble bee behavior and life history should conduct surveys to determine the presence/absence of the species. Surveys should be conducted during flying season when the species is most likely to be detected above ground, between approximately March 1 to September 1. A reference site should be visited to confirm bumble bee activity because flight periods likely vary geographically and with weather. Surveys should be conducted within the project site and accessible	Project applicant/ qualified biologist	Within one year prior to the initiation of vegetation clearing or ground disturbing activities	County Planning Department	Review survey reports	Once, prior to construction activities

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TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
<p>adjacent areas with suitable habitat. Survey results including negative findings should be submitted to the CDFW prior to project-related vegetation removal and/or ground-disturbing activities. At a minimum, a survey report should provide the following:</p> <ul style="list-style-type: none"> a) A description and map of the survey area, focusing on areas that could provide suitable habitat for the two bumble bee species; b) Field survey conditions that should include the name(s) of qualified biologist(s) and their qualifications, date and time of the survey, survey duration, general weather conditions, survey goals, and species searched. c) Map(s) showing the location of nests/colonies; and, d) A description of physical (e.g., soil, moisture, slope) and biological (e.g., plant composition) conditions where each nest/colony is found. A sufficient description of biological conditions, primarily impacted habitat, should include native plant composition (e.g., density, cover, and abundance) within the impacted habitat (e.g., species list separated by vegetation class, density, cover, and abundance of each species). 					
<p>Mitigation Measure BIO-1.17: If a qualified biologist determines Crotch’s and/or western bumble bees are present, and if “take” or adverse impacts to the bumble bees cannot be avoided either during project activities or over the life of the project, the CDFW will be consulted to determine if a CESA Section 2080 Incidental Take Permit is required.</p>	Project applicant/ qualified biologist	Prior to construction activities	County Planning Department, CDFW	Consultation with CDFW	Once, prior to construction activities
<p>Mitigation Measure BIO-1.18: If a qualified biologist determines Crotch’s and/or western bumble bees are present, information on the species shall be included in the environmental education program described in Mitigation Measure BIO-1.1 of the EIR.</p>	Project applicant/ qualified biologist	Prior to construction activities	County Planning Department	Review forms stating employees attended the program and understood all the protection measures	Once, prior to construction activities
<p>Mitigation Measure BIO-1.19: If a qualified biologist determines Crotch’s and/or western bumble bees are present, the mitigation and management plan (MMP) for the conservation area, described in Mitigation Measure BIO-1.9 of the EIR, shall include a prescription for managing the area as habitat for bumble bees. The MMP will include a prescription for an appropriate seed mix and planting plan that targets bumble bee nectar plants, including native flowering plant species known to be visited by bumble bees and containing a mix of flowering plant species with</p>	Project applicant/ construction contractor	Prior to construction activities	County Planning Department	MMP review and approval	Once, prior to construction activities

MITIGATION MONITORING AND REPORTING PROGRAM

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
continual floral availability through the flight season (early spring through late fall). The MMP will include success criteria for bumble bee habitat.					
Mitigation Measure BIO-1.20: Rodenticides and pesticides will not be used anywhere on the project site during the life of the project.	Project applicant	During both construction and operation activities	County Planning Department	Conduct site inspection	During both construction and operation activities
CULTURAL RESOURCES					
Mitigation Measure CULT (b): If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist shall be consulted to assess the significance of the find according to CEQA Guidelines Section 15064.5. If any find is determined to be significant, representatives from the County and the archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards. In considering any suggested mitigation proposed by the consulting archaeologist to mitigate impacts to historical resources or unique archaeological resources, the County shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, proposed project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) would be instituted. Work may proceed on other parts of the subject property outside the 50-foot area while mitigation for historical resources or unique archaeological resources is being carried out.	Project applicant/ construction contractor, qualified archaeologist	During construction activities	County Planning Department	Determine appropriate avoidance measures or mitigation	As needed, if resources are unearthed
Mitigation Measure CULT (c): Procedures of conduct following the discovery of human remains have been mandated by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98 and the California Code of Regulations Section 15064.5(e) (CEQA). According to the provisions in CEQA, if human remains are encountered at the site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The Alameda County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours, who will, in turn, notify the person the NAHC identifies as the Most Likely Descendant (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not	Project applicant/ construction contractor	During construction activities	County Coroner	Verification of remains and appropriate reinterment on site	As needed, if remains are unearthed

MITIGATION MONITORING AND REPORTING PROGRAM

TABLE 1 MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD’s recommendations, the owner or the descendent may request mediation by the NAHC.					
GEOLOGY AND SOILS					
<p>Mitigation Measure GEO (f): The construction contractor shall incorporate the following in all grading, demolition, and construction plans:</p> <ul style="list-style-type: none"> In the event that fossils or fossil-bearing deposits are discovered during grading, demolition, or building, excavations within 50 feet of the find shall be temporarily halted or diverted. The contractor shall notify the Alameda County Building Department and a County-approved qualified paleontologist to examine the discovery. The paleontologist shall document the discovery as needed, in accordance with Society of Vertebrate Paleontology standards (Society of Vertebrate Paleontology 1995), evaluate the potential resource, and assess the significance of the finding under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. <p>If the project applicant determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the proposed project based on the qualities that make the resource important. The excavation plan shall be submitted to the County for review and approval prior to implementation.</p>	Project applicant/ construction contractor, qualified paleontologist	Prior to issuance of building permits authorizing grading or other construction activities and during construction	County Building Department	Review construction plans and specifications. Excavation plan review and approval	As needed, if fossils are unearthed
TRIBAL CULTURAL RESOURCES					
<p>Mitigation Measure TCR-1.1: Implement Mitigation Measure CULT (b): If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist shall be consulted to assess the significance of the find according to CEQA Guidelines Section 15064.5. If any find is determined to be significant, representatives from the County and the archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards. In considering any suggested mitigation proposed by the consulting archaeologist to</p>	Project applicant/ construction contractor, qualified archaeologist	During construction activities	County Planning Department	Determine appropriate avoidance measures or mitigation	As needed, if resources are unearthed

MITIGATION MONITORING AND REPORTING PROGRAM

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Mitigation Measure	Party Responsible for Implementation	Implementation Timing	Agency Responsible for Monitoring	Monitoring Action	Monitoring Frequency
mitigate impacts to historical resources or unique archaeological resources, the County shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, proposed project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) would be instituted. Work may proceed on other parts of the subject property outside the 50-foot area while mitigation for historical resources or unique archaeological resources is being carried out.					
Mitigation Measure TCR-1.2: Implement Mitigation Measure CULT (c): Procedures of conduct following the discovery of human remains have been mandated by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98 and the California Code of Regulations Section 15064.5(e) (CEQA). According to the provisions in CEQA, if human remains are encountered at the site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The Alameda County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours, who will, in turn, notify the person the NAHC identifies as the Most Likely Descendant (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.	Project applicant/ construction contractor	During construction activities	County Coroner	Verification of remains and appropriate reinterment on site	As needed, if remains are unearthed

