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Potentia-Viridi Battery Energy Storage System

Updated Staff Assessment

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CALIFORNIA
ENERGY
COMMISSION
Gavin Newsom, Governor

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UPDATED STAFF ASSESSMENT

Potentia-Viridi Battery Energy Storage System

(24-OPT-04)

Lead Agency

California Energy Commission



April 2026

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Section 1

Introduction

1 Introduction

This Updated Staff Assessment, which includes the Final Environmental Impact Report (EIR), has been prepared following the 60-day public comment period on the Staff Assessment (including Draft EIR) (TN¹ 268314). Consistent with California Code of Regulations, Title 20, Division 2, Chapter 5, Article 4.1, Section 1879(b), this Updated Staff Assessment includes revisions made to the Staff Assessment in response to comments and recommendations received on the Staff Assessment that raised significant environmental issues, to correct typographical errors, or for clarity.

1.1 Contents of the Updated Staff Assessment

Section 2, Response to Comments. This section includes a list of all who submitted comments during the 60-day public comment period, and responses to comments raising significant environmental issues.

Section 3, Revisions to the Staff Assessment. This section includes the technical sections of the Staff Assessment where edits have been made to respond to comments received that raised significant environmental issues, to correct typographical errors, or to clarify. Deleted text is shown in ~~strikethrough~~ and new text is shown as **bold underline**. Page numbers within each technical section retain the numbering from the Staff Assessment.

In Staff Assessment **Section 10, Mandatory Opt-In Requirements**, CEC staff added Condition of Certification (COC) **CBA-1**, Community Benefits Agreement, which requires the project owner to provide progress reports on the implementation of the community benefits agreement with Tri-Valley Haven for Women (TN 269549), and any additional community benefits agreements. This addition does not introduce new environmental information into the Staff Assessment.

Section 4, Authors and Reviewers. This section lists the authors and reviewers for the Updated Staff Assessment.

Appendix A, Bracketed Comment Letters and Transcript. This appendix includes bracketed comment letters and the transcript (TN 269386) from the public meeting on the Staff Assessment held on March 2, 2026, that CEC staff responded to in **Section 2, Response to Comments**.

¹ TN refers to the transaction number for documents filed to the project docket. Documents can be assessed online at: <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=24-OPT-04>.

1.2 Conclusions of the Updated Staff Assessment

Careful review of public comments received on the Staff Assessment did not result in determinations of any new significant impacts. Any edits that were made were for clarification purposes and to correct minor errors.

Section 2

Response to Comments

2 Response to Comments

This section presents responses to the comments received during the 60-day public review period for the Staff Assessment (January 26, 2026, through March 27, 2026), and includes the disposition of significant environmental issues raised in the comments. Public Resources Code sections 21091(d) and 21092.5 and California Code of Regulations, title 14, section 15088, subdivisions (a) and (c) govern this Response to Comments section. A Notice of Availability of the Draft Environmental Impact Report (Draft EIR) was sent to the project's mailing list and posted to the project's docket. A Notice of Completion was filed with the Governor's Office of Land Use and Climate Innovation on January 26, 2025, that notified state agencies, including responsible and trustee agencies, of the completion of the Staff Assessment, including the Draft EIR. On March 2, 2026, CEC staff held a noticed public meeting to accept comments on the Staff Assessment, including the Draft EIR (TNs 268320, 268321 [Spanish language version]). CEC staff received two oral comments during the Staff Assessment public meeting, one of which requires a staff response. CEC staff received seven comment letters from agencies, the applicant, a non-governmental organization and the public.

Bracketed comment letters and the transcript for the March 2, 2026, Staff Assessment public meeting (TN 269386) can be found in **Appendix A, Bracketed Comment Letters and Transcript**. Brackets identify text staff responded to. **Table 2-1** presents a comment letter representing the transcript of oral comments made at the March 2, 2025, Staff Assessment public meeting (Comment Letter 1, Transcript) and a list of those who have submitted comment letters on the Staff Assessment during the public comment period.

Revisions have been made in the Updated Staff Assessment based on the comments received raising significant environmental issues or associated with clerical and other non-substantive clarifications. Revisions have also been made to correct typographical errors or for clarity. CEC staff responses to comments reference the location of the text in the Updated Staff Assessment that has been revised. **Section 3, Revisions to the Staff Assessment**, includes the technical sections that have been edited. Revised text is shown in ~~strikeout~~ for deletions of text, and **bold and underline** for new text. All revisions made to the Updated Staff Assessment clarify or amplify existing analysis and information or make other insignificant modifications. No significant new information has been added requiring the recirculation of the Draft Environmental Impact Report (within the Staff Assessment) as set forth in California Code of Regulations, title 14, section 15088.5.

TABLE 2-1 COMMENTS RECEIVED ON STAFF ASSESSMENT

ID	Date Received	TN	Commenter	Affiliation	Technical Area
1	3/2/2026	269386	Staff Assessment Meeting Transcript	N/A	Community Benefits
2	3/12/2026	269056	Alameda County	Agency	Land Use, Visual Resources
3	3/26/2026	269326	California Department of Fish and Wildlife	Agency	Biological Resources
4	3/27/2026	296344	Sierra Club	Organization	Biological Resources, Land Use, Worker Safety and Fire Protection
5	3/27/2026	269355	Levy Alameda LLC (Clearway Energy Group)	Applicant	Biological Resources, Hazards, Hazardous Materials/Waste and Wildfire, Land Use, Project Description, Visual Resources, Worker Safety and Fire Protection
6	3/27/2026	269356	Carol Silva	Public	Alternatives, Biological Resources, Compliance Conditions and Compliance Monitoring Plan, Introduction, Worker Safety and Fire Protection
7	3/27/2026	269357	Bernard M Cabanne	Public	Air Quality, Alternatives, Biological Resources, Climate Change and Greenhouse Gas Emissions, Compliance Conditions and Compliance Monitoring Plan, Geology, Paleontology, and Minerals, Hazardous Materials/Waste, and Wildfire, Land Use, Agriculture, and Forestry, Project Description, Public Health, Transportation, Water Resources, Worker Safety and Fire Protection
8	3/30/2026	269358	Kate Blumberg	Public	Air Quality, Biological Resources, Compliance Conditions and Compliance Monitoring Plan, Geology, Paleontology and Minerals, Water Resources, Worker Safety and Fire Protection

2.1 Staff Response to Comment Letters

Comment Letter 1 – Staff Assessment Meeting Transcript (TN 269386)

Refer to the bracketed transcript in **Appendix A, Bracketed Comment Letters and Transcript**.

Response to Commenter 1 Julia Zuckerman, applicant representative

1-1. The commenter, applicant's representative, provided a summary of Levy Alameda LLC, wholly owned by Clearway Energy Group (the applicant), including a summary of the project, provision of economic benefits and jobs, and proposed timing of construction and commercial operation. The comment expresses support for the proposed project. The comment does not address the adequacy of the analysis in the Staff Assessment; therefore, no response is warranted.

Response to Commenter 2 Rebecca Frank, public

1-2. The commenter inquired about the amount of and timing of distribution of funds to the two community organizations listed in the Staff Assessment. The applicant responded to the commenter's question with the following information: The applicant signed a community benefits agreement with Tri-Valley Haven for Women. This agreement continues for 15 years following operations. There is an initial contribution when the project's construction is complete and then an annual contribution thereafter. The total benefit package, including Tri-Valley Haven and other community groups, would be \$1.1 million over 20 years. Because the comment does not raise a substantive issue on the content or adequacy of the Staff Assessment, no changes are necessary.

Comment Letter 2 – Alameda County (TN 269056)

Refer to bracketed comment letters in **Appendix A, Bracketed Comment Letters and Transcript**.

Response to Comment Letter 2 (TN 269056)

2-1. Land Use, Visual Resources. The commenter states that CEC staff correctly identifies the project's conflicts with the County's Williamson Act regulations. No revisions are necessary.

The commenter acknowledges the CEC staff's conclusions regarding project-induced substantial visual impacts and project inconsistencies with Plans, Policies, and Regulations presented in Subsection 5.15.2.2, "Direct and Indirect Impacts," and **Table 5.15-2** Conformance with Applicable LORS, in **Section 5.15, Visual Resources**. No revisions are necessary.

2-2. Land Use. The commenter acknowledges the Staff Assessment's analysis of local Williamson Act regulations and discussion of County-adopted policies. The comment also acknowledges CEC staff's discussion of the project's conflict with the County's

10/10 Rule for Williamson Act properties, in addition to CEC staff's determination that the conflict is minor given that the site is not Prime Farmland. The commenter also noted County staff agreement that proposed Condition of Certification (COC) **LAND-2** remedies certain project inconsistencies with the County's Williamson Act program. As discussed later in this Response to Comment section (see Response to Comment 5-3), staff has revised COC **LAND-2** in the Updated Staff Assessment to provide applicant an option to either obtain from the County a partial cancellation of the Williamson Act contract to remove the project site from the contract or conserve agricultural land at an amount equivalent to the Grazing Land lost to project development, as set forth in COC **LAND-2**.

2-3. Visual Resources. This comment acknowledges, and concurs with, the CEC staff's conclusions presented Subsection 5.15.2.2, "Direct and Indirect Impacts," and **Table 5.15-2** Conformance with Applicable LORS, in **Section 5.15, Visual Resources**. No revisions are necessary.

2-4. Land Use. The commenter acknowledges the Staff Assessment's discussion of CEC staff's findings for an override of project LORS inconsistencies. There is no disagreement with CEC staff's conclusions; therefore, no revisions are necessary.

Comment Letter 3 – California Department of Fish and Wildlife (TN 269326)

Refer to bracketed comment letters in **Appendix A, Bracketed Comment Letters and Transcript**.

Response to Comment Letter 3 (TN 269326)

3-1. Biological Resources. The commenter requests clarification regarding how CEC staff calculated the total of 188.8 acres of compensatory mitigation for permanent and temporary impacts to habitat for Crotch's bumble bee (*Bombus crotchii*), California tiger salamander (*Ambystoma californiense*), western burrowing owl (*Athene cunicularia hypugaea*), and San Joaquin kit fox (*Vulpes macrotis mutica*) in the Staff Assessment.

CEC staff, in coordination with the California Department of Fish and Wildlife (CDFW), applied a 3:1 mitigation ratio to the 60.7 acres of permanent habitat impacts. This resulted in 182.1 acres of compensatory mitigation required to fully offset impacts to these species and meet the full mitigation standard, consistent with California Endangered Species Act (CESA) requirements. For the 6.7 acres of temporary impacts, CEC staff, in coordination with CDFW, determined that 1:1 mitigation ratio is appropriate as the affected habitat would be restored to pre-project conditions. CEC staff calculated the total of 188.8 acres of compensatory mitigation using the 182.1 acres of compensatory mitigation for permanent habitat impacts and the 6.7 acres of compensatory mitigation for temporary impacts. This clarification was inadvertently omitted from the Staff Assessment.

CEC staff has revised **Section 5.2, Biological Resources**, of the Updated Staff Assessment to include language to reflect that the total acres of compensatory mitigation includes the 1:1 compensatory mitigation requirement that would be applied for temporary impacts to these species.

3-2. Biological Resources. The commenter requests clarification regarding the relationship between compensatory mitigation for impacts to jurisdictional waters and mitigation for special-status wildlife habitat, whether any of the mitigation acreages overlap, whether riparian habitat is present on-site, and the basis for the 1:1 mitigation ratio applied to the streambed impacts.

Aquatic resource impacts would occur to 2,100 square feet (0.04 acre) of ephemeral streambed associated with the placement of riprap and the low-water crossing. The applicant's Lake and Streambed Alteration (LSA) notification identified additional jurisdictional waters and wetlands within the proposed 188.8-acre mitigation site. However, these features do not occur within the project footprint. These waters were described as habitat components for California tiger salamander and California red-legged frog (*Rana draytonii*) and were proposed to be preserved as part of the overall mitigation strategy for the site. The LSA notification, included as part of the CEC Opt-In application and subsequent responses to data requests, proposed to offset 0.04 acre of permanent fill with 0.12 acre of preserved waters at a 3:1 ratio for permanent impacts, nested within the larger 188.8-acre mitigation area. This mitigation area is also consistent with the area identified in the Central Valley Regional Water Quality Control Board (CVRWQCB) Clean Water Act Section 401 draft certification; however, the 401 draft certification addresses only waters under the CVRWQCB jurisdiction and does not establish or approve mitigation ratios for purposes of Fish and Game Code section 1600 et seq. The reference to the 401 draft certification is intended to show that the applicant proposed a consistent mitigation footprint across regulatory programs, not that the CVRWQCB agreed to or validated the LSA mitigation ratio. CEC staff, in coordination with CDFW, reviewed multiple iterations of the LSA notification that contained this nested mitigation proposal and reviewing staff did not request a higher mitigation ratio or object to the nesting approach because staff identified that the proposed mitigation site also support habitat for California tiger salamander and California red-legged frog. This reflects, in part, CDFW's consideration of California tiger salamander as a CESA-listed species, for which species-specific mitigation requirements were applied. Considerations for California red-legged frog were addressed separately by the USFWS and were subject to mitigation and habitat compensation requirements under the federal ESA.

The proposed mitigation site would provide both species-habitat and aquatic-resource functions, is large, high-quality, and ecologically intact, and, if approved, would be preserved in perpetuity under a conservation easement with an accompanying endowment. As a result, compensatory mitigation for permanent wildlife habitat impacts (182.1 acres), temporary impacts (6.7 acres), and aquatic resource impacts – including

the nested 0.12 acre of preserved waters and the 2,100 square feet of ephemeral streambed – are addressed within the same mitigation area.

The project area does not contain wetlands or riparian habitat, as stated on page 5.2-115 of the Staff Assessment. The reference to “riparian habitat” on page 5.2-120 of the Staff Assessment was inadvertent and has been corrected in the Updated Staff Assessment.

Based on additional coordination with CDFW, CEC staff has revised the mitigation ratio to reflect a 3:1 ratio for permanent impacts requiring compensatory mitigation for areas defined in the LSA notification, included as part of the application. In addition, the project owner has also committed to a 3:1 compensatory mitigation ratio for permanent impacts to jurisdictional waters with the CVRWQCB.

3-3. Biological Resources. The commenter notes that COC **BIO-9**, Item 2 (9.2) does not clearly specify the mitigation ratio for California Rare Plant Rank (CRPR) 1 and 2 species that are not state or federally listed and recommends clarification. The commenter also requests clarification regarding CESA compliance and potential take authorization for state-listed plant species.

Staff has corrected the typographical error that duplicated the reference to CRPR 1 and 2 ranked species and has clarified the applicable mitigation ratio; this change is reflected in the Updated Staff Assessment, **Section 5.2, Biological Resources**, subsection 5.2.1, Environmental Setting.

CEC staff acknowledges the commenter’s request for clarification regarding CESA compliance and potential take authorization for state-listed plant species. The project is not seeking CESA take authorization for any plant species as part of the CEC certification process. However, if take is unavoidable, COC **BIO-9** provides a clear framework for implementing compensatory mitigation consistent with CESA’s fully mitigated standard. In addition, CEC staff has revised the COC to strengthen the Verification requirements associated with compensatory mitigation if take of a special-status plant species is unavoidable.

3-4. Biological Resources. The commenter recommends revisions to COC **BIO-17** to explicitly state that take of golden eagle (*Aquila chrysaetos*) and their nests must be fully avoided and to clarify whether nesting surveys and buffers would be implemented and maintained during operations.

CEC staff has revised the Impacts subsection as related to golden eagle, in **Section 5.2, Biological Resources**, of the Updated Staff Assessment to reflect that the project owner did not seek take authorization for golden eagle, and no take of golden eagle or their nests would be authorized to occur under the proposed project. All active golden eagle nests would be required to be fully avoided, and no project activity would be authorized to occur in a manner that could result in disturbance to an active nest. To

further clarify, staff updated COC **BIO-17** by adding “To avoid impacts to golden eagle...”

Section 5.2, Biological Resources, of the Staff Assessment states, “**BIO-17** (Golden Eagle and Nest Protection Buffers), would also apply during operation, as needed.” Staff revised the statement in the Updated Staff Assessment to provide clarification.

3-5. Biological Resources. The commenter recommends revising MM **BIO-11** to require consultation with CDFW. MM **BIO-11** has been revised in the Updated Staff Assessment to include CDFW in the consultation and approval process. In addition, Subsection 5.2.6, “Recommended Mitigation Measures,” has been revised to identify that any modifications to PG&E standard construction measures are in bold underline or strike-through.

3-6. Biological Resources. The commenter notes that **Table 5.2-8** incorrectly includes CEC staff’s determination regarding compliance with the CESA within the section addressing the federal Endangered Species Act. CEC staff acknowledges the typographical error in **Table 5.2-8** and has revised the table in the Updated Staff Assessment to properly reference “ESA”.

3-7. Biological Resources. The commenter notes that CEQA requires information from environmental review documents to be incorporated into a database for future environmental determinations and the recommendation that special-status species and natural communities observed during project surveys be reported to the California Natural Diversity Database (CNDDB).

COC **BIO-2** (Designated Biologist Duties) already requires the project owner to maintain direct communication with the CEC Compliance Project Manager (CPM), CDFW, and United States Fish and Wildlife Service (USFWS), notify these agencies of dead or injured listed species, and report special-status species observations to the CNDDB. Because this requirement is already included, no revisions have been made to the Updated Staff Assessment.

3-8. The commenter highlights and refers to the requirement for CEQA environmental filing fees to be paid within five days if and when project is certified; no revisions are necessary.

Comment Letter 4 – Sierra Club (TN 269344)

Refer to bracketed comment letters in **Appendix A, Bracketed Comment Letters and Transcript**.

Response to Comment Letter 4 (TN 269344)

4-1 through 4-3. Land Use, Biological Resources. CEC staff acknowledges this comment in support of the project. As described in the Staff Assessment, the proposed project site consists of fallowed annual grasslands that have been previously disturbed and are

located adjacent to an existing electrical substation. These existing conditions are generally consistent with the Sierra Club's stated preference for siting renewable energy facilities on lands that have already been converted from their natural state and are near existing electrical infrastructure. COC **WORKER SAFETY-6** requires project adherence to the latest version of the National Fire Protection Association (NFPA) 855: Standard for the Installation of Stationary Energy Storage Systems, which requires UL 9540A testing.

CEC staff acknowledges the commenter's support. The Staff Assessment identifies potentially significant impacts to California red-legged frog and California tiger salamander and includes avoidance and minimization, and compensatory mitigation measures that provide the basis for take authorization and reduce these impacts to less than significant. The COCs meet CDFW's fully mitigated standard for California tiger salamander under CESA.

Comment Letter 5 – Levy Alameda LLC (Clearway Energy Group) [applicant] (TN 269355)

Refer to bracketed comment letters in **Appendix A, Bracketed Comment Letters and Transcript**.

Response to Comment Letter 5 (TN 269355)

5-1. Project Description. The commenter (project applicant) has proposed the addition of three design changes; 1) leach fields to replace the proposed wastewater holding tanks, 2) a 12-kV electrical distribution service, along with eight new power poles, to replace the backup emergency generators, and 3) an expanded construction laydown area. Following discussions between CEC staff and the applicant, the applicant has clarified that there is insufficient detail and supporting backup information available on the proposed changes currently; therefore, the three design changes were not analyzed by CEC staff and are not included in the Updated Staff Assessment. The proposed design changes may be pursued following a decision on certification of the project.

Section 9, Compliance Conditions and Compliance Monitoring Plan, of the Staff Assessment, outlines the process for a project owner to request changes to a certified project and the CEC's procedures for the review and approval of any changes. In particular, see Subsection 9.5, "Post-Certification Changes to the Energy Commission Decision."

5-2. Land Use. The applicant proposed changes to Condition of Certification **LAND-1** to provide a time limit for County review of the final plans to avoid delays. The CEC license applies to the project owner and does not establish mandatory response timelines for other agencies through its COCs. However, in response, in **Section 5.8, Land Use, Agriculture, and Forestry**, CEC staff has modified COC **LAND-1** to remove the requirement that the applicant provide County comments to the CPM. With the proposed modification, the project owner will be required to simultaneously submit the plans for review and comment to the County and to the CPM for approval.

5.3. Land Use. This comment states that COC **LAND-2** is inappropriate because it does not mitigate an environmental impact. As detailed in the Staff Assessment, COC **LAND-2** is not for mitigating an environmental impact but is necessary to resolve LORS non-compliance with regulations in Alameda County's "Uniform Rules and Procedures Governing Agricultural Preserves and Williamson Act Contracts" (pp. 5.8-16-5.8-21 of the Staff Assessment). The project does not fully meet the required "Findings for a Compatible Use Determination" for a project on Williamson Act contracted land (Section III.B.3 of the Uniform Rules and Procedures). However, the project's use may be deemed consistent with Alameda County's Uniform Rules and Procedures if the project qualifies for an "Exception to Compatible Use Determination Findings" (Section III.B.4 of the Uniform Rules and Procedures), which it does with implementation of COC **LAND-2**. Thus, implementation of COC **LAND-2** enables CEC staff to determine that the project is compatible with the uses allowed in Alameda County's Uniform Rules and Regulations (although it should be noted that the project is still inconsistent with the 10/10 Rule). County of Alameda staff supported the inclusion of COC **LAND-2** in their comments on the Staff Assessment by stating: *Staff appreciates the analysis provided on the County's Uniform Rules, and acknowledges that Condition of Certification (COC) Land-2 is being required to address a LORS nonconformance, and does provide mitigation for inconsistencies with the County's WA (Williamson Act) program.*

In the comment, the applicant also disagrees with staff's conclusion that COC **LAND-2** is necessary to resolve the LORS conflict, stating that because the project has been determined to be incompatible with the Williamson Act Contract, Government Code section 51238.1 (and Section III.B.3 of the Uniform Rules) do not apply. While CEC can issue a certification for the construction and operation of a project that is inconsistent with a Williamson Act contract under the authority set forth in Public Resources Code section 25545.1(b)(1), the exercise of this authority is an extraordinary measure, to be used in as limited a manner as possible. CEC first looks to resolve non-compliance when possible, often through conditions of certification. Because the non-compliance with Government Code section 51238.1 and Section III.B.3 of the Uniform Rules could be resolved through COC **LAND-2**, staff only found conflict with one of the Williamson Act Rules (10/10 Rule). However, if the applicant obtains partial cancellation of the Williamson Act contract from Alameda County, removing the project site from the contract, as recommended in the Staff Assessment and acknowledged by the applicant in their comment letter on the Staff Assessment, the LORS non-compliance would be addressed and implementation of COC **LAND-2** would not be required. Staff has revised COC **LAND-2** in **Section 5.8, Land Use, Agriculture, and Forestry**, of the Updated Staff Assessment to provide offer the applicant two options: (1) partial cancellation of the Williamson Act contract; or (2) conserve agricultural land at an amount equivalent to the grazing land lost to project development.

5-4. Biological Resources. CEC staff has reviewed the commenter's (project applicant) proposed revisions to COC **BIO-1**, Item 3, which would allow individuals who have served as a Designated Biologist (DB) for any species or have implemented any CDFW Incidental Take Permit (ITP) to qualify as a DB for this project. CEC staff acknowledges

the applicant's concern regarding the "very small number" number of ITPs issued for Crotch's bumble bee and burrowing owl and therefore would be "overly restrictive and potentially infeasible", based on the number of potential DBs that meet this qualification.

CEC staff considered the comment and COC **BIO-1** has been revised to clarify that DB qualifications must demonstrate species-specific knowledge and experience appropriate to the covered species and required monitoring and avoidance measures. The revision also clarifies that qualifying experience is not limited to implementation of a CDFW ITP.

During the compliance phase, all DBs are approved by the CEC CPM, in coordination with CDFW, on a project-by-project basis, and approval is dependent on the specific species present, applicable COCs, and required implementation of avoidance and minimization measures. Experience implementing ITPs for unrelated species does not ensure adequate species-specific expertise necessary to comply with this project's take authorization and associated avoidance and minimization measures.

5-5. Biological Resources. CEC staff has reviewed the applicant's proposed revisions to COC **BIO-2**, Item 2 (subparagraph #2), which would clarify that the DB duties are limited to biological resources. The COC **BIO-2** has been revised to make this clarification.

CEC staff also reviewed the applicant's proposed revisions to **BIO-2**, Item 6 (subparagraph #6), and agrees that the revisions improve clarity and ensure that the condition remains responsive to new information that may arise during project implementation. COC **BIO-2**, Item 6, has been updated to incorporate these changes.

5-6. Biological Resources. CEC staff acknowledges the applicant's proposed revision to COC **BIO-3**, which would establish a fixed timeline for the CEC CPM and CDFW review, as well as CPM approval, of Biological Monitors (BMs). CEC staff acknowledges the applicant's concern regarding potential construction delays if BM approvals are not timely; however, no revisions are necessary.

The CEC license applies to the project owner and does not establish mandatory response timelines for the CEC CPM or other agencies through its COCs. The CEC CPM retains discretion to review and approve BM qualifications on a project-specific basis. While coordination with CDFW may occur, such consultation is not required for approval, and the CPM may proceed with approval as necessary to support timely project implementation.

To further streamline review, staff has revised COC **BIO-1** to include a requirement that DB qualifications be submitted using the CDFW Biologist Resume (DFW 820) form or most recent standard template recommended by CDFW.

5-7. Biological Resources. The commenter states that COC **BIO-6** (Biological Resources Mitigation Implementation and Monitoring Plan) (BRMIMP) should be revised to clarify

that a final accounting of impacted acreage be included in a final version of the BRMIMP, as this information cannot be provided in the initial plan. CEC staff has revised this measure in **Section 5.2, Biological Resources**, to clarify that the final accounting and associated maps would be required to be submitted as an addendum to the BRMIMP.

5-8. Biological Resources. CEC staff acknowledges the applicant's proposed revisions to COC **BIO-7**, including modification of the required escape ramp slope from 3:1 to 2:1 (rise:run) and correction of the "protected:impacted" text, and clarification that the entrapment concern in Item 5 (subparagraph #5) applies specifically to vertical pipes and similar features; however, staff declines to modify COC **BIO-7** as proposed.

CEC staff acknowledges that a 3:1 slope may be difficult to implement in constrained construction areas. However, the 3:1 slope provides a more gradual incline that improves escape success for a broader range of wildlife species, including small mammals, reptiles, and amphibians. To ensure adequate protection for species covered under incidental take authorization, including the California tiger salamander, while still allowing flexibility where warranted and demonstrated to be protective of the species, staff has retained the requirement for the 3:1 slope. However, COC **BIO-7** has been revised to allow a 2:1 slope in specific, constrained locations where the DB provides a written request with justification demonstrating that the alternative 2:1 slope is both necessary and protective for the species present, subject to review and approval by the CPM on a case-by-case basis.

CEC staff has corrected the typographical error in the Updated Staff Assessment to correctly identify the "run:rise" text in COC **BIO-7**, Item 4.

The commenter states that COC **BIO-7**, Item 5 (subparagraph #5), should be revised to specify that the entrapment concern applies only to vertical pipes, tubes, ducting, or similar features. CEC staff acknowledges this comment and agrees that vertical, smooth-sided cavities pose a well-documented entrapment risk. However, COC **BIO-7** is intentionally written to address a broader range of potential entrapment hazards, including but not limited to vertical openings. Wildlife may become trapped in a variety of features during. Limiting this protective measure to only address "vertical openings" could unintentionally exclude other features that pose similar entrapment risks to amphibians, reptiles, small mammals, and cavity-using birds. Therefore, no revisions are necessary in response to this comment.

5-9. Biological Resources. The commenter proposed revision to COC **BIO-8**, Item 2, to clarify that the report requirements apply to annual monitoring reports not the initial six-month report. Staff acknowledges this proposed revision would clarify the reporting requirements and COC **BIO-8** has been revised as proposed by the applicant.

5-10. Biological Resources. The commenter proposed revisions to COC **BIO-9**, including: limiting pre-construction surveys to focused surveys for big tarplant

(*Blepharizonia plumosa*; CRPR 1B.1) based on the 2023 and 2024 protocol-level survey results, modifying compensatory mitigation language, and allowing the annual salvage-monitoring report to be combined with the annual restoration report. CEC staff does not agree with the applicant's proposed modification to limit pre-construction surveys to big tarplant.

CEC staff recognizes that protocol-level botanical surveys were conducted in 2023 and 2024 and that big tarplant was the only special-status plant species detected, at that time, within the project area. However, COC **BIO-9** would require pre-construction floristic surveys for all special-status plant species, not only big tarplant, for the following reasons:

- Special-status annual plant species may germinate or express differently in subsequent years due to rainfall variability, disturbance, or seedbank dynamics.
- The 2023 to 2024 survey results do not preclude the possibility that new occurrences could emerge in the project footprint or along the gen-tie alignment.
- Pre-construction surveys would be required because site conditions could change between 2024 and the beginning of construction. During this period vegetation recovery, soil exposure, disturbance from adjacent land use, or seedbank activation, etc., could occur.
- Recommended CDFW protocols for special-status plant surveys require that all areas subject to ground disturbance be surveyed using floristic methods. This means that every plant taxon within the project area must be identified to the taxonomic level necessary to determine its rarity and listing status. These requirements apply even if prior surveys have been conducted; any areas not previously surveyed, or where site conditions may have changed, must be surveyed accordingly.

CEC staff agrees with the applicant's comment that duplicative references to CRPR 1 and 2 species should be removed. CEC staff corrected this typographical error and clarified that CRPR 1 and 2 species are subject to the 2:1 mitigation ratio rather than the 3:1 ratio in **Section 5.2, Biological Resources**.

CEC staff also incorporated several clarifications to improve implementation of COC **BIO-9**. CEC staff added language describing how pre-construction floristic surveys should be conducted when site mobilization occurs before the blooming period for special-status plant species, including allowing the CPM to accept surveys from the prior blooming season when blooming occurs after the scheduled start of construction.

CEC staff agrees that consolidating the annual salvage-monitoring report, required under COC **BIO-9**, Item 8, with the annual restoration monitoring report, as required by COC **BIO-8**, Item 2, may improve efficiency and reduce duplicative reporting. The Staff Assessment has been revised to allow consolidation of these reports, provided that the combined report fully addresses all requirements of both conditions and that the

CPM retains discretion to require separate reports, if determined necessary to comply with the COCs. See **Section 5.2, Biological Resources**.

CEC staff also revised COC **BIO-9** to clarify monitoring expectations. In addition, the Verification section was updated to specify that if compensatory mitigation is required, the project owner must provide verification that acquisition, protection, and transfer of all required HM lands has occurred, and that any required conservation easements have been recorded, within 18 months of the start of site mobilization, even if a Security is provided. In addition, if a Security is used, it must be submitted at least 30 days prior to the start of site mobilization.

5-11. Biological Resources. The commenter states that COC **BIO-10** should be revised to reflect recent survey results and the lack of nearby occurrences and recommends modifications to COC **BIO-10**, including narrowing survey requirements based on 2023 and 2024 survey results, clarifying the distinction between mowing and vegetation removal, restructuring the pre-construction submittal section, and adding a mechanism for lifting overwintering buffers. However, CEC staff does not agree with the proposed modifications to COC **BIO-10**.

CEC staff acknowledges that focused habitat assessments in 2023 and 2024 did not detect Crotch's bumble bee and that no occurrences are recorded in the CNDDDB within 5 miles of the project site. However, the lack of detections during surveys does not demonstrate absence from the site. The project site contains suitable foraging habitat including flowering annual forbs and other nectar- and pollen- producing species documented during botanical surveys. Survey guidance included in CDFW's "Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species" (June 2023), recommends pre-construction surveys in all suitable habitat, regardless of prior-year results. Crotch's bumble bee is a CESA candidate species, and impact analyses should evaluate impacts based on current site conditions, not only historical surveys. For these reasons, staff declines to eliminate or reduce pre-construction survey requirements included in COC **BIO-10**.

CEC staff does not agree that routine mowing for vegetation management is categorically exempt from being considered "vegetation removal" for the purposes of triggering Crotch's bumble bee surveys. While routine mowing may not always constitute vegetation removal, the CPM must retain discretion to determine when mowing could affect overwintering queens, nest establishment, or floral resources essential to foraging. Therefore, COC **BIO-10** has been revised to clarify vegetation-management expectations, including requirements that vegetation removal be minimized, mower blades be set no lower than 4 inches unless otherwise approved by the CPM, and routine mowing be scheduled to avoid the blooming period to the greatest extent feasible.

The CPM must retain the ability to require updated surveys before resuming work if conditions change or if time lapses. The phrase "if initial disturbance not complete" has

been removed for clarity; however, the survey requirement remains unchanged. Updated surveys are still required before resuming work whenever the CPM determines that site conditions have changed or that survey results are no longer valid. This requirement ensures adequate protection for Crotch's bumble bee, a CESA candidate species, and supports compliance with requirements for incidental take authorization.

5-12. Biological Resources. The commenter states that COC **BIO-11** should be revised to improve clarity and implementation feasibility of California tiger salamander avoidance and minimization measures, including modifications to stored-materials requirements, escape-ramp slopes, relocation responsibilities, exclusion fencing, coverboard checks, among others. CEC staff acknowledges the applicant's intent to clarify implementation; however, only select revisions identified below were incorporated (see **Section 5.2, Biological Resources**). The remaining proposed modifications were not adopted because they would reduce protections for the species or limit CPM discretion.

1) Item 1d (Subparagraph 1(d)) Stored Materials: CEC staff has revised the language to allow the DB to determine, on a case-by-case basis using their professional judgment, when materials are not accessible; however, COC **BIO-7** retains a protective default requiring capping unless the DB determines otherwise.

2) Item 2c (Subparagraph 2(c)) Escape Ramp Slope: CEC staff does not agree with this revision. A 3:1 slope is more protective and increases escape success for California tiger salamander and other wildlife. However, staff recognizes that construction constrained areas may not always allow a 3:1 slope. This condition has been modified to retain the 3:1 slope requirement, but to allow 2:1 only when the DB provides a written site-specific justification for use of a 2:1 slope and requires CPM written approval before a 2:1 slope may be used. In addition, CEC staff incorporated a requirement that refuge opportunities, such as coverboards be provided along the outside perimeter of the temporary exclusion fences. This addition is intended to reduce the potential for wildlife entrapment and improve safe movement around fenced work areas.

3) Item 3 (Subparagraph 3) Relocations: CEC staff agrees to this formatting revision provided that relocation remains performed only by individuals with appropriate federal and state authorizations, and that the CPM retains approval authority.

4) Items 4 and 5 (Subparagraphs 4 and 5) Handling: CEC staff agrees with the addition of Biological Monitors, not only the DB, but has included clarification as to when the Biological Monitor is allowed to handle the species.

5) Item 7 (Subparagraph 7) Exclusion Fencing: CEC staff agrees and has revised Item 7 to clarify that exclusion fencing must be installed at the start of site mobilization, remain intact throughout construction, and may be removed upon CPM approval once all ground-disturbing activities have concluded.

6) Item 8 (Subparagraph 8) Coverboard Checks & Handling: CEC staff agrees that site conditions may make a fixed 8:00 a.m. deadline impractical. Staff has revised Item 9 to require coverboard checks at the start of the workday, prior to outside temperature reaching 70 degrees Fahrenheit, with CPM discretion to require earlier checks based on conditions. This provision allows the CPM to require earlier checks, including observations of desiccation or mortality by the DB or BM.

7) Item 10 (Subparagraph 10) Roads: CEC staff agrees that alternative designs may be appropriate in constrained areas; however, staff must retain the requirement that all road features allow California tiger salamander passage. Staff has modified the language in Item 10, to provide flexibility by allowing CPM-approved alternatives when the standard design is infeasible.

8) Item 12 (Subparagraph 12) Dry Season Work Restriction: CEC staff agrees that clarifying that humidity is measured during daytime hours improves readability. However, staff declines to adopt the proposed requirement to measure humidity at or after 8:00 a.m., as this could allow work to resume during periods of elevated humidity that pose increased risk to California tiger salamander. The existing condition requires humidity to fall below 75 percent based on actual on-site measurements under DB supervision, which ensures that work only resumes when biological risk has passed.

9) Subparagraph 14 Seasonal Work Window Extension: CEC staff agrees and has incorporated this clarification, consistent with standard California tiger salamander clearance protocols.

10) Subparagraph 15 Daily Work Window: CEC staff acknowledges the applicant's request to limit the daily work window to the period before exclusion fencing is installed. Staff declines to adopt this revision, even when the applicant has obtained take coverage, because CESA requires avoidance and minimization measures to be implemented to the maximum extent feasible prior to relying on take authorization. The daily work window is a core minimization measure based on documented California tiger salamander movement patterns and remains necessary throughout the migration/active season. Exclusionary fencing reduces but does not eliminate risk, and nighttime and dawn/dusk periods remain the highest-risk times for California tiger salamander movement.

5-13. Biological Resources. The commenter states that COC **BIO-12** should be revised to reflect the completed 2023 protocol-level habitat assessment and to improve clarity and implementation of California red-legged frog measures, including revisions to notification requirements, relocation protocols, stored materials, work timing, fencing, inspection flexibility, and reporting requirements.

CEC staff declines the majority of the requested revisions because they would reduce the rigor of measures necessary to avoid, minimize, and fully mitigate potential take of California red-legged frog. The existing requirements in COC **BIO-12** are consistent

with federal and state guidance, including the conservation measures identified in the U.S. Fish and Wildlife Service Biological Opinion, and are necessary to ensure adequate protection of the species during all phases of project activity.

The applicant proposes removing references to pitfall traps from the Temporary Exclusion Fence Plan due to their potential to increase incidental take. CEC staff acknowledges that pitfall traps require careful monitoring to avoid incidental capture, desiccation, or predation of non-target wildlife. However, because the number and condition of species that may be encountered during construction cannot be reliably predicted, staff has determined that it is appropriate to retain pitfall traps as a contingency tool. While installation of pitfall traps would not be required at the outset, retaining them as a measure ensures that, if construction personnel begin encountering dead or desiccated individuals and coverboards are not being used, the DB would have additional options available to prevent further impacts. Therefore, the proposed revisions were not incorporated, and pitfall traps were not removed from COC **BIO-12**.

The commenter also requested the option to combine the Temporary Exclusion Fence Plan with those required for other species. CEC staff revised the Updated Staff Assessment to clarify that a combined Temporary Exclusion Fence Plan would be acceptable, provided it maintains full species-specific protections and clearly distinguishes requirements for each species.

CEC staff has corrected the inadvertent reference to California tiger salamander in the exclusion-fence inspection language, in **Section 5.2, Biological Resources**.

5-14. Biological Resources. The commenter states that COC **BIO-13** should be revised to modify pre-construction survey timing to improve detection during favorable conditions and to clarify verification and reporting requirements, including extending the pre-construction survey window from 48 hours to one week, and revising verification language to allow full reporting within 60 days.

CEC staff acknowledges the applicant's intent to increase the likelihood of detecting western spadefoot (*Spea hammondi*) movement during rain or high-humidity events. However, staff declines to adopt the proposed modification to the survey timing because it would reduce the effectiveness of the measure and increase the risk of undetected individual western spadefoot being present when construction begins. The purpose of the pre-construction survey is to ensure real-time detection of individual western spadefoot immediately prior to ground disturbance. Extending the survey window to one week prior to start of site mobilization would allow conditions to change substantially between the time of the survey and the start of work. Western spadefoot can move into work areas overnight during rain or humidity spikes, and a one-week window prior to start of site mobilization would increase the likelihood that individuals could enter the site after the surveys have been completed.

The existing 48-hour requirement is based on coordination with CDFW and ensures that surveys results reflect current site conditions, which is essential for avoiding injury or mortality. In response to comments, CEC staff revised COC **BIO-13** to clarify that alternative survey timing may be approved by the CPM when site-specific conditions warrant an adjustment. CEC staff also acknowledges the comment regarding verification and reporting. Staff agrees that requiring a complete survey report after preliminary results improves clarity and supports compliance. CEC staff has also reviewed the commenter's request to extend the reporting timeframe in COC **BIO-13** to 60 days. CEC staff determined that the existing requirement for the project owner to submit the final survey report within 30 days of survey completion remains appropriate. The 30-day timeframe ensures that the CPM receives survey results in a timely manner that supports effective compliance oversight. Staff is therefore retaining the 30-day reporting requirement and has not revised COC **BIO-13** in response to this comment.

In addition, because western spadefoot has been petitioned for listing under CESA, with a decision is pending in early May 2026, CEC staff added clarifying language to ensure compliance with state law is designated as a candidate or listed during site mobilization and/or construction. The revised condition specifies that work must be suspended in the vicinity of any detected individual and that handling would not be authorized without coordination with the CPM and CDFW. In addition, if project activities have the potential to result in take, such activities shall not occur unless and until the project owner obtains incidental take authorization under CEC's in lieu permitting authority. This ensures that the project remains in compliance with CESA and that appropriate avoidance, minimization, and mitigation measures would be implemented.

5-15. Biological Resources. The commenter states that proposed revisions to COC **BIO-14** are necessary to improve survey feasibility and clarity, including extension of the pre-construction survey window for western pond turtles (*Actinemys marmorata*) from 48 hours to one week, addition of a survey protocol, clarification of nest-related handling restrictions, and revisions to the verification and reporting timelines.

CEC staff declines to adopt the proposed revisions to the survey timing because it would reduce the effectiveness of the measure and increase the risk of undetected western pond turtles being present when site mobilization and/or construction begins. A one-week survey window allows substantial time for conditions to change between the survey and the start of work. The existing 48-hour requirement ensures that survey results reflect current site conditions immediately prior to ground disturbance, which is essential for avoiding injury or mortality.

CEC staff agrees that adding clearer survey-method expectations improves consistency. **Section 5.2, Biological Resources**, of the Updated Staff Assessment now references current CDFW guidance and acknowledges the USGS draft protocol posted on the CDFW website, while still allowing use of the most recent CDFW-approved methods.

CEC staff agrees with the clarification that turtles may only be moved when they are not nesting. Staff has revised this measure in **Section 5.2, Biological Resources**, of the Updated Staff Assessment to include this clarification.

CEC staff acknowledges the comment that a complete survey report should be submitted after surveys results are submitted to the CPM. This revision improves clarity and ensures timely, complete documentation to support monitoring and compliance. Staff has revised the verification for COC **BIO-14** in the Updated Staff Assessment to require that a complete survey report be submitted within 30 days of completion of surveys to be consistent with typical timeframes for survey report submittal to CEC CPM.

5-16. Biological Resources. The commenter states that COC **BIO-15** should be revised to improve survey feasibility and reporting clarity, including modifications to pre-construction survey timing and verification and reporting requirements. Staff acknowledges the applicant's proposed revisions to COC **BIO-15**, including extending the pre-construction survey window from 48 hours to one week and revising verification and reporting timelines.

CEC staff declines to adopt the proposed change to the survey timing because it would reduce the effectiveness of the measure and increase the risk of undetected Coast Horned Lizard (*Phrynosoma coronatum*) and San Joaquin coachwhip (*Masticophis flagellum ruddocki*) being present when construction begins. A one-week survey window allows substantial time for conditions to change between the survey and the start of work. The existing 48-hour requirement ensures that survey results reflect current site conditions immediately prior to ground disturbance, which is essential for avoiding injury or mortality.

CEC staff acknowledges the comment that a complete survey report should be submitted after surveys results are submitted to the CPM. This revision improves clarity and ensures timely, complete documentation to support monitoring and compliance. Staff has revised the verification for COC **BIO-15** in the Updated Staff Assessment to require that a complete survey report be submitted within 30 days of completion of surveys to be consistent with typical timeframes for survey report submittal to the CPM.

5-17. Biological Resources. The commenter states that COC **BIO-16** should be revised to include adjustments to the defined nesting season, removal of redundancies in survey schedules, clarification of survey areas, reorganization of Nesting Bird Management Plan (NBMP) content, and relocation of nest-deterrent requirements.

CEC staff acknowledges that species with dedicated COCs, such as golden eagle, western burrowing owl, Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), and California condor (*Gymnogyps californianus*), should be addressed exclusively under their respective conditions of certification (e.g., COCs **BIO-17** through **BIO-21**). Staff concurs that these species-specific COCs take precedence over

the general Nesting Bird Management Plan (NBMP), as these listed or otherwise protected species have specific requirements for survey methods, buffers, and reporting. Staff has revised **BIO-16**, Item 1, to incorporate this clarification.

CEC staff acknowledges that reorganizing NBMP content, including moving nest deterrent language into the NBMP section, may improve readability and consistency. However, CEC staff did not incorporate the change because renumbering would disrupt the structure of the COC without providing a meaningful improvement to the measure or its implementation.

5-18. Biological Resources. The commenter proposes revisions to COC **BIO-18**, including removing references to artificial burrow construction in Items 1 and 2 (subparagraphs #1 and #2), asserting this would constitute duplicative mitigation given the project's take permit and off-site compensatory mitigation, and noting that protocol-level surveys in 2024 and 2025 did not detect burrowing owls on or near the site. The commenter also recommends revising Item 6 (subparagraph #6) to clarify treatment of unoccupied "potential" burrows and allow buffer reductions if monitoring confirms no nesting, and revising #11 to clarify disturbance buffer requirements, limit applicability to active burrows, and exclude routine mowing activities.

CEC staff reviewed the applicant's requested revisions to COC **BIO-18** and determined no changes to the condition are required in response to this comment. The proposed revision would remove artificial burrow construction requirements, modify the treatment of potential burrows, reduce established avoidance buffers, and limit the circumstances under which a DB must be onsite. Collectively, these changes would weaken protections for burrowing owls and are not consistent with *CDFW's Staff Report on Burrowing Owl Mitigation* (2012) nor ensure adequate avoidance and minimization necessary for issuance of take authorization. The existing language provides necessary safeguards and appropriate CPM discretion to adjust buffer distances or monitoring requirements based on site-specific conditions.

In addition, the commenters assert that artificial burrow construction would constitute "double mitigation" because the project is pursuing take coverage and securing off-site compensatory mitigation. However, artificial burrow replacement is not compensatory mitigation; it is an avoidance and minimization measure required to address the direct loss of occupied or potentially occupied burrows during project activities. Therefore, no changes are required in response to this comment. However, CEC staff, in coordination with CDFW, has made clarifications to **BIO-18**, Item 2 regarding installation of artificial burrows.

5-19. Biological Resources. The commenter requested to revise COC **BIO-19** to clarify that surveys would only happen during construction, noting that while the associated buffers are tied to construction activities, the timing of surveys is implied but not explicitly stated. However, Swainson's hawk nesting surveys are required as part of **BIO-19**, prior to site mobilization and/or construction activities occurring during the

nesting season. In addition, while routine operations do not require surveys, any operational or maintenance activity that could result in disturbance to an active nest within the recommended buffer distances during the nesting season would be subject to the same survey and avoidance requirements. Therefore, staff declines to revise COC **BIO-19** to limit survey requirements to construction only, as surveys may also be required prior to construction during site mobilization and during certain operational or maintenance activities to ensure adequate avoidance and minimization.

5-20. Biological Resources. The commenter states that the white-tailed kite nesting season should be defined as January 20 to October 1 in COC **BIO-20** and recommends removal of baseline monitoring and certain buffer requirements. CEC staff agrees that adding specifying nesting season dates improves clarity and has revised COC **BIO-20** in the Updated Staff Assessment. CEC staff also agrees that adding "least" 0.25-mile to COC **BIO-20** would provide additional clarity and has incorporated this revision.

However, CEC staff does not agree with the commenter's proposed removal of baseline behavioral monitoring or the reduction of protective measures. White-tailed kite is a fully protected species under California law, and the requirements in COC **BIO-20**, including pre-construction surveys, behavioral baseline monitoring, and CPM-approved nest protection buffers, are necessary to ensure full avoidance and minimization of impacts. These measures are consistent with CDFW guidance and would ensure protection of this fully protected species during construction activities. Therefore, no further modifications to COC **BIO-20** are required in response to this comment.

5-21. Biological Resources. The commenter states that COC **BIO-21** should be revised to clarify that California condor overflights do not require work stoppage. CEC staff agrees that condors soaring above the height of project equipment and not landing within the project area are not expected to be affected by ground-level activities, and this clarification is consistent with how condor avoidance measures are implemented on similar projects in coordination with CDFW and USFWS. CEC staff has incorporated the commenter's proposed clarification into the Updated Staff Assessment. However, staff maintains the requirement that the Designated Biologist or Biological Monitor temporarily halt project activities when a direct disturbance risk exists. This requirement remains necessary to ensure adequate protection for this species. Therefore, no further modifications to COC **BIO-21** were made.

5-22. Biological Resources. The commenter proposed revisions to COC **BIO-23**, including extending the pre-construction survey window from 48 hours to 15 days prior to ground disturbance. Staff understands the applicant's intent to provide additional time for survey scheduling and implementation. However, staff declines to adopt the proposed revision because it would substantially reduce the effectiveness of the measure and increase the risk of undetected American badger activity within the work area. This condition already provides flexibility through CPM-approved alternate timing when site-specific conditions warrant. CEC staff determined no modifications to COC **BIO-23** are required in response to this comment.

5-23. Biological Resources. The commenters proposed revision to COC **BIO-25** to include a missing word. CEC staff has revised COC **BIO-25** and added "or" to subparagraph 4g.

5-24. Biological Resources. The commenter states that COC **BIO-26** should be revised to align compensatory mitigation requirements with the East Alameda County Conservation Strategy (EACCS), to reduce the required acreage to 182.1 acres, and to modify security requirements based on the purchase agreement for the proposed mitigation lands. The commenter's statements regarding species likelihood of occurrence, temporary impact restoration, and the desire to align the CEC compensatory mitigation with the requirements of the USFWS Biological Opinion.

CEC staff does not agree that the requested revisions are appropriate for COC **BIO-26**. The proposed compensatory mitigation acreage of 188.8 acres is sufficient to fully offset project impacts and meets the "fully mitigated" standard required under the California Endangered Species Act, as implemented by CDFW and the CEC through its in lieu permitting authority. While the applicant notes that some species have a low likelihood of occurrence or were not detected during surveys, the EACCS is designed to address landscape-level habitat functions and species movement, not solely on-site detections.

CEC staff declines to remove specificity from the condition or reduce the security requirement. The security amount in COC **BIO-26** is based on cost estimates sufficient for the CEC to complete land acquisition, enhancement, and long-term management if the project owner does not fulfill its obligations. While the applicant may provide a purchase and sale agreement as part of the cost estimate, the CEC must retain the ability to determine the final security amount to ensure that all mitigation obligations can be met. CEC staff determined no modifications to COC **BIO-26** are required in response to this comment.

5-25. Biological Resources. The applicant proposed revisions to COC **BIO-27** to better define post-fire monitoring triggers, monitoring design elements, decontamination measure and restoration requirements associated with Post-BESS Fire Monitoring and Management Plan (PBFMMP). CEC staff agree that post-fire monitoring must be informed by best available science, industry-standard analytical methods, and site-specific conditions. Staff also agrees that plume behavior, wind direction, stormwater controls, and runoff pathways are relevant considerations when designing a post-event sampling regime. For these reasons, COC **BIO-27** already requires the preparation of a project-specific Post-BESS Fire Monitoring and Management Plan (PBFMMP) that incorporates these elements.

CEC staff revised the COC to include a clear definition of a "BESS fire," require that all monitoring and impact-assessment elements be based on a project-specific plume analysis approved by the CPM, incorporate established or scientifically defensible toxicity thresholds, clarify post-fire monitoring requirements, decontamination,

restoration, and adaptive-management requirements, and extend CPM review timelines to ensure adequate evaluation prior to delivery of BESS components.

5-26. The applicant proposed edits to COCs **WORKER SAFETY-1, WORKER SAFETY-2, WORKER SAFETY-7, WORKER SAFETY-8, HAZ-6, HAZ-8, HAZ-9, HAZ-10, TRANS-1, TRANS-2, VIS-1, VIS-2, and VIS-3** to require when review and/or comment by Alameda County is proposed, if no comments are received from the County within ten (10) days of receipt of the relevant submission, it is presumed that the relevant plan under review is in compliance with relevant Alameda County regulations. CEC staff does not agree with the applicant's requested edits to COCs **WORKER SAFETY-1, WORKER SAFETY-2, WORKER SAFETY-7, WORKER SAFETY-8, HAZ-6, HAZ-8, HAZ-9, HAZ-10, TRANS-1, TRANS-2, VIS-1, VIS-2, and VIS-3**. The CEC license applies to the project owner and does not establish mandatory response timelines for other agencies through its COCs. Submittals required by COCs vary in complexity and needed time for review, and jurisdictions differ in their time needed for review. The applicant can submit required materials in accordance with the aforementioned COCs ahead of schedule if they are concerned about other jurisdictions' review times. CEC staff determined no revisions to **WORKER SAFETY-1, WORKER SAFETY-2, WORKER SAFETY-7, WORKER SAFETY-8, HAZ-6, HAZ-8, HAZ-9, HAZ-10, TRANS-1, TRANS-2, VIS-1, VIS-2, and VIS-3** are required in response to this comment.

Comment Letter 6 – Carol Silva (TN 269356)

Refer to bracketed comment letters in **Appendix A, Bracketed Comment Letters and Transcript**.

Response to Comment Letter 6 (TN 269356)

6-1. The commenter recommended strengthening the analysis for high winds, extreme heat, flooding and stormwater, and seismic risk. See Response to Comment 7-7d in response to high winds. In response to high heat, each BESS is equipped with a battery thermal management system that cools the modules via a cooling system (activated by the battery management system). The BESS is required to meet UL9540, which is the primary safety standard that certifies a BESS as an integrated whole, ensuring that all components (i.e., battery modules, power conversion system, battery management system, and thermal controls) operate safely together and contain thermal events (with UL 9540A used to assess fire propagation). For additional discussion, see the Methodology subsection in **Section 4.4, Worker Safety and Fire Protection**. Regarding seismic risk, see Response to Comment 8-5 below.

Water Resources

The commenter suggests that additional analysis is necessary for indirect and cumulative impacts, specifically regarding stormwater runoff and flooding during extreme storm events. CEC staff disagrees that additional analysis is required. As stated in Subsection 5.16.1 of **Section 5.16, Water Resources**, the applicant proposes to

control stormwater runoff within the project facility during substantial rain events using drainage ditches and low impact developments (LIDs) such as detention and bioretention basins. The majority of these basins would outfall to riprapped outlets along the project facility perimeter. The remaining two detention basins would flow from an outlet riser into a storm drain that would outfall to Patterson Run. Stormwater treatment and storage sizing would be designed to hold the anticipated runoff from a 100-year, 24-hour storm event in compliance with the 2016 Alameda County Hydrology and Hydraulics Manual. In the event stormwater basins reach capacity, stormwater would be discharged from the detention basins via storm drainpipes and sheet flow at rates no greater than pre-development conditions following natural drainage patterns.

Also noted in Subsection 5.16.1, according to the online MTC/ABAG Hazard Viewer Map (<https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8>), the project site is not within a FEMA Flood Hazard Zone for a 100-year or 500-year flood. CEC staff determined no modifications to the Staff Assessment are required in response to this comment.

6-2. The commenter suggested more transparency by including names of firefighting agencies, materials used for fire suppression, and making vendor specific information available to the public. According to the Alameda County Fire Department (ACFD), typical response time would be approximately 30 minutes depending upon time of day and traffic conditions, and South San Joaquin County Fire Authority (South County Fire) response could be slightly faster due to traffic conditions and distance (TN 268263). As detailed on page 4.4-29 in **Section 4.4, Worker Safety and Fire Protection**, “Industry standard is to allow a battery energy storage system (BESS) fire to burn out while stopping the spread to adjacent, with passive/active design features and/or water cooling of adjacent units.” CEC staff reviewed UL 9540A testing results for both battery options and summarized the results on pages 4.4-27 through 4.4-29 in **Section 4.4, Worker Safety and Fire Protection**. The future hazard mitigation analysis and associated emergency response plans are dependent upon final site design and battery vendor selection, and are required by relevant COCs. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

6-3. Biological Resources. See Response to Comment 7-20.

6-4. Biological Resources. See Response to Comment 7-21.

6-5. Biological Resources. See Response to Comment 7-22.

6-6. Alternatives. The commenter states that “[f]urther explanations were not provided for seeking another substation in California” to reduce the environmental impacts “and be safer for the public and for fauna and flora....” The project applicant filed an Interconnection Request with the California Independent System Operator (California ISO) in the Cluster 13 Interconnection Request window to interconnect the project with the existing PG&E Tesla Substation. The interconnection study process was completed,

and the applicant entered into a Large Generator Interconnection Agreement with the California ISO and PG&E on October 31, 2022. (See **Section 4.3, Transmission System Engineering**, of the Staff Assessment for further context and an analysis of the proposed project's effect on the transmission grid.) Any effort by CEC staff to evaluate a different substation for a point of interconnection would require a fully speculative analysis of an alternative that could not feasibly attain the project objectives, including the objective to interconnect the project at the Tesla Substation. (See also subsection 8.3 in the Alternatives section for a summary of CEQA requirements.) No revisions to **Section 8, Alternatives**, of the Staff Assessment are needed.

6-7. The commenter asks whether elected officials and the public from Tracy, Livermore and Mountain Horse were provided notice of the Staff Assessment. In accordance with CEQA guidelines, noticing requirements for an EIR include the CEC providing a Notice of Preparation for a 30-day review period to responsible and trustee agencies (Section 15082), a Notice of Availability (NOA) and Notice of Completion accompanying the EIR (Staff Assessment) for a 60-day comment period (Section 15087), as well as conducting two public meetings held at the Tracy Transit Center. The EIR was filed with the State of California Governor's Office of Land Use and Climate Innovation (formerly OPR State Clearinghouse) for distribution to responsible and trustee agencies, including the county clerk for the county in which the project is located (Alameda County). Staff also published the NOA in a newspaper of general circulation (both English and Spanish speaking) in Alameda County. In response to the commenter's suggestion that more should be done for monitoring and enforcement mechanisms, CEC staff notes the Staff Assessment contains approximately 133 unique COCs to enforce measures to mitigate potential environmental harm to less than significant, along with mitigation measures for components of the project outside the Opt-In jurisdiction. CEC staff determined that no additional modifications to the document are necessary.

Comment Letter 7 – Bernard M Cabbane (TN 269357)

Refer to bracketed comment letters in **Appendix A, Bracketed Comment Letters and Transcript**.

Response to Comment Letter 7 (TN 269357)

7-1. Biological Resources, Public Health. The commenter states that the project site is within a conservation planning area that supports sensitive and endangered species and requests additional analysis and strengthened mitigation. As detailed in **Section 5.2, Biological Resources**, the Staff Assessment includes a comprehensive evaluation of biological resources and environmental impacts, including species covered under regional conservation strategies and state and federal regulations. The analysis incorporates current survey data, applicable conservation plans, agency guidance, and project-specific avoidance, minimization, and compensatory mitigation measures.

Where potentially significant impacts were identified, the Staff Assessment includes enforceable conditions of certification that avoid, minimize, or fully mitigate those impacts. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-2. The commenter requests given the scale of the project that final vendor safety documentation should be made available to the public for review. The project applicant narrowed battery technology down to two manufacturers/models that could be used for the project (Tesla MP2XL and CSI SolBank 3.0). Impacts related to safety and fire protection were analyzed for both battery options in **Section 4.4, Worker Safety and Fire Protection**. See Response to Comment 6-2. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-3 and 7-4. The commenter raised questions about the level of information available supports conclusions regarding BESS failure rates. As discussed in Section 4.4.2, the excerpts quoted and the figure referenced by the commenter are directly from the Electric Power Research Institute (EPRI) 2024 White Paper titled Insights from EPRI's BESS Failure Incident Database, Analysis of Failure Root Cause. EPRI is an independent research organization that does not advocate for any specific company, sector, or technology. Failure rate and cause of failure are two different variables and EPRI has confidentially published the decrease in BESS failure over time as more BESS capacity is deployed. EPRI's data is worldwide and incidents outside of North America make it especially difficult to gather cause of failure data. See Response to Comment 6-2. Manufacturer specific data (UL 9540A test results) for both battery options were reviewed by CEC staff and summarized the results on pages 4.4-27 through 4.4-29 in **Section 4.4, Worker Safety and Fire Protection**. CEC staff determined no modifications to the Staff Assessment are necessary.

7-5. The commenter asks why the Moss Landing incident was not included in the Staff Assessment. The 2025 Moss Landing incident was briefly described due to differences in design and battery chemistry compared to the proposed project. (See Staff Assessment, **Section 4.4, Worker Safety and Fire Protection**, page 4.4-24.) The Moss Landing facility was an indoor BESS using a repurposed power plant building and NMC batteries. The proposed project is an outdoor containerized LFP BESS, which is considered an industry standard for safety since the Moss Landing incident in 2025. CEC staff provided other BESS failure history for incidents where publicly available information existed. The EPRI White Paper referenced in Response to Comment 7-3 is publicly available and was referenced in the Staff Assessment. As noted in the EPRI White Paper, those lessons learned are detailed in the White Paper and in reference 16 of the White Paper (Lessons Learned from Past Failures Around the World).

- In response to the commenter's question about the latest designs, the latest designs include compliance with the most recent applicable codes and standards (e.g., 2025 CFC, NFPA 855, and UL 9540A) especially in regard to deflagration venting, explosion control, water application for cooling, and gas detection. These key codes

and standards are detailed on pages 4.4-25 through 4.4-30 in **Section 4.4, Worker Safety and Fire Protection**. This includes siting facilities outside in containers rather than inside of a building or structure.

- In response to the commenter's question about the best practices, the best practices include outdoor containerized BESS facilities, letting a BESS unit burn out rather than trying to open or extinguish the unit, and maintaining training and coordination with first responders. Maintaining strict operation limits via a robust battery management system (BMS) can also deter thermal runaway.
- In response to the commenter's question about how and where these best practices have been utilized, these best practices and latest designs are ever evolving as the battery energy storage industry matures. CEC staff have conditioned many of these latest design recommendations and best practices for projects through the Opt-In Certification Program.
- In response to the commenters question about availability for the public to comment on whether best practices are sufficient to reduce impact to less than significant, the public is able to comment during the applicable CEQA and CEC commenting periods.

CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-6. See Response to Comment 7-5. As noted in **Section 4.4, Worker Safety and Fire Protection**, the cause of the incident is currently under investigation. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-7. a. See Response to Comment 6-2. As noted in **Section 4.4, Worker Safety and Fire Protection**, the project owner would provide two 30,000-gallon water tanks for emergency use that would be installed on the project site. Both the ACFD and South County Fire would be able to respond to a fire at the site within approximately 30 minutes and would use available water at their discretion, but BESS manufacturer recommendation is to allow the BESS unit to burn out.

b. COC **WORKER SAFETY-8** requires initial training for the ACFD and requires the establishment of an annual joint training program with the ACFD. Workers would receive extensive training and guidance through the various required operational plans/programs required by COC **WORKER SAFETY-2** (Emergency Action Plan, Fire Prevention Plan, and Fire Protection System Impairment Program).

c. See Response to Comment 6-2. No other materials have been identified by the ACFD or the battery manufacturers for battery fire suppression. Ultimately, fire response and suppression techniques are up to the ACFD (or South County Fire), but industry standard and battery manufacturer guidance recommend letting the BESS unit burn out while cooling adjacent containers with available water if necessary.

d. Project site design features and relevant plans required by COCs would prevent and reduce fire propagation during high winds. COC **WORKER SAFETY-1** requires a Construction Fire Prevention Plan and Construction Emergency Action Plan for fire prevention and response during construction activities. COC **WORKER SAFETY-2** requires operational plans to prevent and respond to potential fires at the site (Emergency Action Plan, Fire Prevention Plan, and Fire Protection System Impairment Program). COC **WORKER SAFETY-7** requires administrative and engineering controls to prevent or respond to a fire from the BESS. As noted under Site Design in **Section 4.4, Worker Safety and Fire Protection**, the project owner has designed the BESS to comply with the "Remote Outdoor Installation" definition, which is a minimum of 100-feet from lot lines, compared to the CFC minimum of 10 feet. This defensible space would help prevent fire propagation outside the project site. As noted under Water Supply in **Section 4.4, Worker Safety and Fire Protection**, two 30,000-gallon water tanks for emergency use would be installed on the project site. The water tanks would be on opposite sides of the project site (one in the southwest corner and one in the northeast corner) along internal access roads giving first responders options depending upon location and wind direction. COC **HAZ-10** requires that vegetation management be maintained through third party inspection and annual reporting, as described in **Section 5.7, Hazards, Hazardous Materials, and Wildfire**. COC **HAZ-10** ensures 100-foot setbacks from the property line for BESS enclosures, removal of all vegetation within the security fence perimeter and other required areas (power poles and lines), and 100-foot defensible space around all buildings. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-8 a. Transportation. COC **WORKER SAFETY-7** requires that batteries are shipped from the factory to the project site at a maximum of 30 percent state of charge (SOC) and requires that information is provided by the project owner to the CEC for verification. This measure would reduce the likelihood of a thermal runaway incident and reduce the energy of any fire if one occurred during transportation and is based on the Pipeline and Hazardous Materials Safety Administration (PHMSA) final rule for lithium-ion battery transportation via aircraft. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-8 b. In response to the commenter's question about emergency response and emergency action plans, the components of these required plans are detailed in **Section 5.7, Hazards, Hazardous Materials, and Wildfire** and in **Section 4.4, Worker Safety and Fire Protection**. COC **COM-12** also requires an Emergency Response Site Contingency Plan for reasonably foreseeable emergency events. In response to a potential shelter in place or evacuation, the ACFD would ultimately make that decision depending upon various factors including the type of emergency.

7-9. a. CalEEMod version 2022.1.1 is the most recent version of the model currently available. There is no 2024 or 2025 version of CalEEMod in existence. Because the Staff Assessment already utilized the most current, agency-approved software to estimate

emissions, the request to use a newer version cannot be accommodated, and no further modeling is required.

b. The Tri-Valley Air Quality Community Alliance (TVAQCA) was not contacted for this analysis because the Staff Assessment relies on official, regulatory ambient air quality monitoring data to establish baseline conditions. The data utilized in **Section 5.1, Air Quality**, of the Staff Assessment was sourced directly from the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB). To ensure geographical relevance, the Staff Assessment used the closest and most representative monitoring stations operated by the Bay Area Air District (BAAD), which is the regulatory agency responsible for monitoring local ambient air quality within the San Francisco Bay Area Air Basin. Specifically, data was drawn from the Livermore station for ozone, NO₂, and PM_{2.5}; the Concord station for PM₁₀ and SO₂; and the Pleasanton station for CO. Using standardized data from these primary regulatory bodies is the standard and legally defensible protocol for CEQA air quality assessments.

c. **Section 5.1, Air Quality**, of the Staff Assessment already incorporates the regulatory frameworks, attainment statuses, and regional monitoring data referenced in the comment. No additional analysis is required, as the existing document thoroughly establishes the baseline conditions and regulatory context.

- **Non-Attainment Status:** On page 5.1-4, the Staff Assessment explicitly acknowledges that the San Francisco Bay Area Air Basin (SFBAAB) is currently designated as a nonattainment area for federal and state ozone and PM_{2.5} standards, as well as state 24-hour and annual arithmetic mean PM₁₀ standards. This existing nonattainment status forms the basis for the air quality impact evaluation.
- **2017 Clean Air Plan:** The assessment directly evaluates the project against the 2017 Bay Area Clean Air Plan under CEQA checklist criterion "a" in **Section 5.1, Air Quality**. On page 5.1-17, the Staff Assessment notes that the 2017 plan includes control measures to reduce PM and incorporates the Spare the Air program. The project was determined to be consistent with the plan because it complies with applicable BAAD rules and implements Conditions of Certification (COCs) to control emissions.
- **Livermore Monitoring Data and Historical Exceedances:** As shown on page 5.1-4, the Staff Assessment utilizes ambient air quality data specifically from the Livermore monitoring station to represent local background conditions for ozone, NO₂, and PM_{2.5}. While the commenter provides historical data from 2018 through 2022, standard methodology for air dispersion modeling relies on the most recent, representative background data to establish a current baseline. For a conservative analysis, staff utilized background ambient air quality concentrations from 2022 to 2024 to represent the baseline condition.
- **Wildfires and Exceptional Events:** **Section 5.1, Air Quality** recognizes that the maximum concentration values in recent years (such as those in 2020 and 2021)

were undoubtedly affected by exceptional events, especially wildfires occurring between September and November. Even when accounting for these elevated regional background concentrations, the air dispersion modeling demonstrates that the project's individual mitigated construction and operational contributions to PM₁₀ and PM_{2.5} fall below the U.S. EPA Significant Impact Levels (SILs) at the nearest sensitive receptors. Therefore, the project's incremental contribution is not cumulatively considerable, and the existing analysis adequately addresses the region's air quality challenges.

7-10. **Section 5.1, Air Quality**, and **Section 5.10, Public Health**, of the Staff Assessment comprehensively evaluated impacts from NO_x and particulate matter emissions and associated health risks. In addition, the estimated maximum daily construction emissions for NO_x and PM are well below the BAAQMD significance thresholds. Furthermore, COC **AQ-SC5** mandates the use of Tier 4 Final off-road equipment, which would drastically reduce these exhaust emissions. No further analysis is required.

7-11. As shown on pages 5.1-18 and 5.1-21 in **Section 5.1, Air Quality**, of the Staff Assessment, the project's emissions will not exceed the applicable BAAQMD thresholds. The Staff Assessment conservatively used the maximum daily emissions for construction and operations, rather than long-term averages, to compare against BAAQMD's emission thresholds. For ambient air quality impacts analysis (like PM_{2.5} and PM₁₀), the Staff Assessment followed the regulatory requirements by applying the specific averaging periods (e.g., 24-hour or annual) defined by U.S. EPA and CARB ambient air quality standards. CEC staff determined no modifications to the Staff Assessment are required in response to this comment.

7-12. If the project is certified by the CEC, the conditions of certification are legally binding and enforceable conditions within the CEC's Opt-In certification, not mere "suggestions." For the project components outside the CEC's Opt-In certification, the recommended mitigation measures can and should be adopted by the agency with permitting authority over those components consistent with California Code of Regulations, title 14, section 15091(a)(2). Because BAAQMD CEQA Guidelines do not establish a numerical significance threshold for construction fugitive dust, they mandate a Best Management Practices (BMPs) approach for compliance. With the implementation of these required BMPs, **Section 5.1, Air Quality**, demonstrates the project's individual PM₁₀ and PM_{2.5} impacts would remain below U.S. EPA Significant Impact Levels (SILs), and thus would not be cumulatively considerable in the non-attainment basin. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-13. **Section 5.1, Air Quality**, shows that the project would not expose sensitive receptors (including residents and workers) to substantial pollutant concentrations, including fugitive dust, with mitigation incorporated. To protect health, the project would be required to implement rigorous daily dust control measures (COC **AQ-SC3**)

and a Dust Plume Response Requirement (COC **AQ-SC4**). An Air Quality Construction Mitigation Manager will actively monitor the site and is required to shut down dust-causing activities if mitigations are ineffective. For the project components outside the CEC's Opt-In certification, the recommended mitigation measure MM **AQ-1** also includes fugitive dust control measures. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-14. Toxic Air Contaminants (TACs) and their associated health risks during both construction and operation are addressed separately and comprehensively in **Section 5.10, Public Health**, of the Staff Assessment. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-15. The use of electric construction machinery is already explicitly incorporated into the project's mitigation framework. COC **AQ-SC5(h)** requires construction equipment to employ zero-emission or hybrid powertrains and electric motors when feasible.

7-16. The proposed mitigations are robust and highly enforceable. Idling restrictions are only a minor component; the primary reduction in diesel pollution relies on the strict requirement for Tier 4 Final engines. Enforcement is guaranteed through the mandate of a dedicated, on-site Air Quality Construction Mitigation Manager (AQCOMM), as required by COC **AQ-SC1**, who possesses the explicit authority to halt any or all construction activities if mitigations are not strictly followed.

7-17. Climate Change and GHG Emissions The commenter requests consideration of other existing air polluting factors in the area that cannot be reduced. The GHG analysis is a cumulative analysis and the emissions from the existing sources are included in the baseline emission inventories discussed in **Section 5.3, Climate Change and Greenhouse Gas Emissions**. In addition, this BESS project would have the overall beneficial effect of displacing GHG emissions from fossil-fueled power plants resulting in emission reductions amounting to several hundred thousand MTCO₂e annually according to the estimates in the section. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-18. Water Resources. The commenter requests additional analysis in several areas, including hydrology and water quality. CEC staff disagrees that additional analysis is required; however, staff provides the following information to clarify the record. Specifically, the commenter is concerned with how project drainage systems would perform in the case of multiple rain events citing the heavy rains of the winter of 2022/2023 as an example. The applicant's approach to stormwater design is discussed in Subsection 5.16.1 of **Section 5.16, Water Resources**, of the Staff Assessment. Stormwater treatment and storage sizing would be designed to withstand the anticipated runoff from a 100-year, 24-hour storm event in compliance with the 2016 Alameda County Hydrology and Hydraulics Manual. According to National Weather Service (NWS)/National Oceanic and Atmospheric Administration (NOAA), daily precipitation data from the nearest station at Stockton Airport from October 2022

through May 2023, the maximum amount of rainfall during a multiple day rain event was 2.45 inches for a rainstorm that lasted from January 14 through 16, 2023. Although this weather station is approximately 23 miles for the project site, the precipitation patterns are comparable as the 24-hour/100-year rainfall is 3.57 for the project site and 3.65 for the Stockton Airport. Based on the current proposed stormwater design, the volume of rainfall accumulation during a 24-hour/100year rainfall event accounting for total surface area including impervious surfaces, would be on average 15 percent of the designed retention basin storage volume. In the event stormwater detention basins reach capacity, stormwater would be discharged via storm drainpipes and sheet flow at rates no greater than pre-development condition

In addition, the commenter asked about possible hazardous materials that could be released into storm drains as a result of battery fire suppression. The amount of literature available regarding the sampling of run-off from fire-fighting activities during a BESS fire is limited. However, CEC staff offers the following data associated with the Moss Landing Power Plant BESS fire of January 16, 2025, as an example to address the commenter's question. During the BESS fire event, fire-suppression water was temporarily stored in a detention basin known as Pond 3 (Terraphase 2025a). As part of a Central Coast Regional Water Quality Control Board site cleanup program (OrderR3-2025-0031), the consultant (Terraphase Engineering Inc.) for the power plant owner Vistra Corporation, sampled the water that had accumulated in Pond 3 on May 20, 2025. Results of the Pond 3 sampling can be found on the State Water Resources Control Board (SWCBCB) Geotracker website (https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000023147) (Terraphase 2025b). Detected values exceeded secondary California Maximum Contaminant Levels (MCLs) for the metals zinc and iron. Tier 1 Environmental Screening Levels (ESLs) were exceeded for the metals boron, cobalt, copper, nickel; and the PFAS compounds Perfluorooctanoate (PFOA) and Perfluorooctane Sulfonic Acid (PFOS). Other metals and anions, as well as many dioxin/furans and Per/Polyfluoroalkyl Substances (PFAS) were not detected in analytical results. Also, none of the semi-volatile compounds were detected.

7-19. Hazards, Hazardous Materials, and Wildfire. The commenter requests a list of possible hazardous materials that could be released during a battery unit malfunction and/or thermal runaway incident. As indicated in **Section 5.7, Hazards, Hazardous Materials, and Wildfire**, BESS failure incidents leading to thermal runaway and fires can emit toxic gases such as hydrogen chloride, hydrogen fluoride, hydrogen cyanide, and benzene along with flammable/explosive gases including hydrogen, methane, propane, ethylene, and others.

As indicated in Response to Comment 6-2, industry standard is to allow BESS fires to burn out while stopping the spread to adjacent units with passive/active design features and/or water cooling of adjacent units. Current fire-fighting techniques would not use chemicals to suppress BESS battery fires. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-20. Biological Resources. 1. The commenter states that the project site contributes to regional wildlife movement, including for the San Joaquin kit fox, and that the Staff Assessment does not ensure mitigation will maintain local connectivity.

The Staff Assessment included an analysis based on staff's review of the California Essential Habitat Connectivity dataset, CDFW's Areas of Conservation Emphasis, and the EACCS, and staff determined that the project site itself is not within a regional wildlife movement corridor. These regional planning tools identify broad landscape-scale linkages through the Altamont Hills but do not map the project site as a regional linkage, corridor, or Essential Connectivity Area. In response to this concern, CEC staff revised the Wildlife Movement and Connectivity section of the Updated Staff Assessment to include clarifying language that explicitly states that, although the broader Altamont Hills landscape supports regional wildlife movement, regional conservation planning tools do not identify the project site itself as a regional wildlife movement corridor or Essential Connectivity Area. Staff also revised the Wildlife Corridors, Special Linkages, and Important Bird Areas" subsection to include a corresponding clarification to reinforce that none of the regional planning tools identify the project site as a regional linkage.

In addition, CEC staff concluded that the proposed 3:1 compensatory mitigation ratio, developed in coordination with CDFW and consistent with the EACCS standardized mitigation framework, would fully offset impacts to habitat for listed species for which the CEC would issue incidental take authorization. CEC staff proposed COCs would fully mitigate the impacts of the authorized take consistent with CESA requirements. Avoidance, minimization, and compensatory mitigation measures included in COCs **BIO-1** through **BIO-28** ensure that potential impacts to San Joaquin kit fox and other wildlife species are reduced to less than significant. No further revisions to the Staff Assessment were made.

2. Mitigation for impacts to biological resources, including impacts to state- and federally listed species, must comply with the federal Endangered Species Act (ESA), CESA, and the EACCS to reduce impacts to less than significant under CEQA. In coordination with CDFW and USFWS, staff determined that compensatory mitigation for this project must occur within the same Conservation Zone (CZ10) to ensure habitat type, landscape context, and ecological function are preserved as close to the impact area as practicable.

The regional conservation planning tools referenced above in Comment 7-20, Item 1, do not identify the project site as a regional wildlife movement corridor; therefore, a formal connectivity analysis or post-construction connectivity monitoring is not required to reduce impacts to less than significant. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-21. Biological Resources. The commenter states that the EIR emphasizes minimization rather than avoidance and recommends that the project avoid high-value habitat

features, such as dens and riparian areas, to the maximum extent feasible, and include species-specific management plans with seasonal restrictions and clear protocols. Staff disagrees and concludes that the Staff Assessment does not rely solely on minimization measures. The Staff Assessment includes avoidance, minimization, and compensatory mitigation measures, consistent with the ESA, CESA, and the EACCS.

Avoidance of high-value habitat features is already required in the recommended measures, where feasible. For example, COCs **BIO-9, BIO-11, BIO-22, BIO-23, and BIO-25** include pre-construction surveys to identify dens, burrows, and other sensitive features, establish no-disturbance buffers around active dens or occupied habitat, seasonal restrictions for species such as burrowing owl and Swainson's hawk, exclusion fencing, daily inspections, and escape ramps to avoid entrapment, and species-specific handling, relocation and monitoring protocols. These measures ensure that avoidance is implemented first, and minimization is applied only where avoidance is not feasible. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-22. Biological Resources. CEC staff acknowledges that the commenter states that mitigation should include multi-year monitoring and adaptive management if performance standards are not met. The project would include take coverage for state and federally listed species and would require acquisition of off-site compensatory mitigation lands consistent with the EACCS.

Long-term monitoring and adaptive management requirements would be incorporated into the conservation easement and long-term management plan that would govern the mitigation lands, as required by COC **BIO-26**. These instruments would require the land manager to monitor habitat conditions, implement adaptive management measures, and ensure that the mitigation lands continue to function as high-quality habitat in perpetuity. These requirements satisfy the need for multi-year monitoring associated with compensatory mitigation. No revisions to the Updated Staff Assessment were made.

7-23. Biological Resources. The commenter states that additional analysis is warranted for potential indirect and cumulative impacts, including habitat fragmentation, lighting, and disturbance. However, the Staff Assessment already includes this analysis and concludes that the project would not introduce new barriers to wildlife movement, would comply with lighting minimization requirements, and would not contribute substantially to cumulative disturbance. No revisions to the Staff Assessment were made.

7-24. Water Resources, Geology, Paleontology and Minerals, Air Quality. See Response to Comment 8-5.

7-25. See Response to Comment 6-2.

7-26. Compliance Conditions and Compliance Management Plan. See Response to Comment 7-12.

7-27. Alternatives. The commenter requests an analysis of “other viable BESS projects” and an adequate range of alternatives (at least three). CEQA requires consideration of alternatives that would feasibly attain most of the basic project objectives and does not specify how many alternatives are considered adequate. (See subsection 8.3 in the Alternatives section for a summary of CEQA requirements.) CEC staff’s analysis of project alternatives evaluated a full range of alternatives to the project, including other renewable electrical energy generating and several battery energy storage system (BESS) technologies. (See subsection 8.6.3 in **Section 8, Alternatives**, of the Staff Assessment). Detailed information was provided on the technical and operational characteristics and potential feasibility issues for each of the alternatives. CEC staff concluded that non-lithium BESS technologies are not yet feasible alternatives to the proposed project; current barriers and limitations include scalability, cost, and storage duration. Sodium-sulfur and lead-acid batteries were determined to be technically unsuitable for large, utility-scale power systems. An additional two lithium-ion sub-chemistries were evaluated and concluded to be unsuitable due to safety concerns and other technical issues. (CEC staff’s Alternatives analysis also evaluated fuel cell technologies, a 100 percent hydrogen-fueled power plant, alternative sites, and a reduced capacity alternative.) Staff knows of no other potentially feasible alternatives to the proposed project other than those evaluated in **Section 8, Alternatives**, and no revisions are needed.

7-28. Land Use. The comment states that Alameda County has lost many acres of agricultural land, including Grazing Land, and that the Staff Assessment should provide an analysis of past loss of agricultural land, including non-prime agricultural lands, and cumulative impacts from the project. CEC staff agrees that Grazing Land is an important land use. However, impacts to Grazing Land for environmental review purposes are not considered significant by State or local regulations; therefore, no modifications are necessary to the Updated Staff Assessment. According to the California Department of Conservation’s website, “For environmental review purposes under CEQA, the categories of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland constitute 'agricultural land' (Public Resources Code Section 21060.1).” CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-29. Land Use. This comment asks for an explanation of how the CEC Opt-In Program for BESS projects could further accelerate and exacerbate the loss of agricultural lands. This comment does not address the adequacy of the Staff Assessment and does not require a response. Nevertheless, while the CEC Opt-In Certification Program provides applicants another permitting pathway for review of proposed battery projects, that additional pathway in and of itself, does not accelerate or exacerbate the loss of agricultural lands. The CEC must provide a full environmental review of impacts to agriculture and mitigate impacts whenever possible, in accordance with CEQA. As

detailed in the Staff Assessment **Section 5.8, Land Use, Agriculture, and Forestry Resources**, CEC staff conducted a full environmental review and concluded that the project would have less than significant impacts with respect to land use, agriculture, and forestry.

7-30. CEC staff provided cumulative impacts discussion and analyses based on the list of existing and reasonably foreseeable projects, contained in Appendix A of the Staff Assessment. See discussion in responses to comments in this section; see Response to Comment 7-28 for Land Use, see Response to Comment 7-23 for Biological Resources, see Responses to Comments 7-12, 7-17, and 7-9c for Air Quality. Response to Comment 6-2 discusses safety (fire safety) issues not in terms of a cumulative safety analysis, but rather in terms of firefighting capability, response times, design features, and battery technology. Sub-section 4.4.2 (Impacts) of the **Section 4.4, Worker Safety and Fire Protection**, of the Staff Assessment contains a Cumulative Impacts analysis, considering the other nearby BESS projects, with staff concluding that the COCs are sufficient to mitigate impacts and the proposed project would not contribute cumulatively to worker safety and fire protection. CEC staff determined no modifications to Staff Assessment are required in response to this comment.

7-31. Please see Response to Comment 6-7 on overall distribution/notice for comment. To be added to the CEC's electronic mailing list to receive all future mailings for the proposed Potentia-Viridi project, please follow this link <https://www.energy.ca.gov/powerplant/battery-storage-system/potentia-viridi-battery-energy-storage-system>, and subscribe within the box located at the lower right-hand corner of the webpage.

Comment Letter 8 – Kate Blumberg (TN 269358)

Refer to bracketed comment letters in **Appendix A, Bracketed Comment Letters and Transcript**.

Response to Comment Letter 8 (TN 269358)

8-1. Biological Resources. See Response to Comment 7-20.

8-2. Biological Resources. See Response to Comment 7-21.

8-3. Biological Resources. See Response to Comment 7-22.

8-4. Biological Resources. See Response to Comment 7-23.

8-5. Water Resources. The commenter requests the staff analysis include additional evaluation of stormwater and flooding, resilience to extreme storm events, seismic risk, extreme heat and high winds, including dust emissions, fire behavior, and smoke dispersion. See Response to Comment 6-1 for CEC staff's response to storm resilience and high heat; Air Quality, See Response to Comment 7-12 for wind conditions and dust emissions.

For the request for additional evaluation of seismic risk, as detailed in Staff Assessment, **Section 5.6, Geology, Paleontology, and Minerals**, the applicant conducted a preliminary site-specific geotechnical investigation (preliminary geotechnical investigation; TN 262583). The preliminary geotechnical investigation used industry-standard procedures in the American Society of Civil Engineers (ASCE) publication 7-16: Minimum Design Loads and Associated Criteria for Buildings and Other Structures to calculate an anticipated maximum peak ground acceleration (PGA_M), and other seismic design criteria, for the project site.

The preliminary geotechnical investigation used the USGS Unified Hazard tool to calculate maximum credible earthquake magnitudes (MCE) on the two closest significant faults. The PGA_M was calculated from two simulations of MCE 7 earthquakes on the Greenville fault zone, about six miles from the project site. The PGA_M was also calculated from two simulations of MCE 6.3 earthquakes on the Great Valley thrust fault zone, about ten miles from the project site. In accordance with ASCE 7-16 methodology, the preliminary geotechnical investigation calculated a site-specific PGA_M of 0.794 units of gravity (g). Also in accordance with ASCE 7-16 methodology, the preliminary geotechnical investigation used the ASCE Hazard Tool to calculate additional seismic design parameters.

The preliminary geotechnical investigation recommended grading and facility design methods that would mitigate potential impacts from strong seismic ground shaking and associated earthquake-induced hazards, such as liquefaction and slope instability, to less than significant. During project construction, grading would include removing up to 30 vertical feet of unstable natural soils, rock formations, and alluvium. Grading would replace removed materials with a layer of engineered fill. The preliminary geotechnical investigation recommended constructing the substation and battery storage pads on mat foundations and constructing the gen-tie line towers on deep foundations.

COC **GEO-1** requires the preliminary geotechnical investigation's recommendations be refined and finalized once the project's final design is complete. COC **GEO-1** requires the project owner to design, grade, and construct the project in compliance with California Building Code. Specifically, Section 1803 requires the project owner complete a final geotechnical and geohazard report. As required by COC **GEO-1**, Section 1803 specifies that the final geotechnical and geohazard report evaluate the site-specific geologic conditions and recommend final design refinements to mitigate potential impacts from strong seismic ground shaking, and all other geologic hazards, to less than significant.

Facility Design COCs **CIVIL-1**, **GEN-1**, and **STRUC-1** contain additional requirements for constructing structures to withstand strong seismic ground shaking and other geologic hazards.

Compliance with COC **GEO-1**, and Facility Design COCs **CIVIL-1**, **GEN-1**, and **STRUC-1** (see **Section 4.1, Facility Design**) would ensure the design, grading, and

construction of project components within the CEC's Opt-In Certification mitigate potential impacts from strong seismic ground shaking that may occur during the life of the project to less than significant.

CEC staff determined no modifications to Staff Assessment are required in response to this comment.

8-6. See Response to Comment 6-2.

8-7. Compliance Conditions and Compliance Monitoring Plan. See Response to Comment 7-12.

2.2 References

Terraphase 2025a – Terraphase Engineering Inc. (Terraphase). Revised Work Plan for Pond 3 Characterization, Moss landing Power Plant, Moss landing, California. May 20, 2025. Available online at:
https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/5712936282/T10000023147.PDF

Terraphase 2025b – Terraphase Engineering Inc. (Terraphase). Pond 3 Sampling Report, Moss landing Power Plant, Moss landing, California. June 17, 2025. Available online at:
https://documents.geotracker.waterboards.ca.gov/esi/uploads/geo_report/5543472170/T10000023147.PDF

Section 3

Revised Technical Sections

4.2 Facility Reliability

4.2.1 Setting

Existing Conditions

The proposed Potentia-Viridi Battery Energy Storage System (project) is a 400 megawatt (MW) energy storage project capable of discharging electricity for up to eight hours at full capacity (AMLGMN 2024jj, Section 1.2 and AMLGMN 2024kk, Section 2). This battery energy storage system (BESS) would be installed on approximately 102 acres of undeveloped, retired agricultural lands in eastern Alameda County (AMLGMN 2024kk, Section 2). This analysis evaluates the proposed project to determine if the energy storage facility would be built in accordance with typical industry norms for reliable power generation.

Regulatory

Public Resources Code section 25520 requires that applications for certification contain facility reliability information and Public Resources Code section 25523(h) requires the written decision to contain a discussion on the electricity reliability benefits of the project. These two sections are made applicable to the evaluation of the project through Public Resources Code sections 25545.2 and 25545.8. This analysis addresses section 25520 regarding the facility's reliability, and **Section 4.3, Transmission System Engineering**, addresses section 25523(h) regarding the project's impacts on, and benefits to the reliability of the electricity network the project would serve.

4.2.2 Impacts

Energy storage systems must be able to operate for extended periods without shutting down for maintenance or repairs and must achieve an availability factor similar to the existing energy storage facilities in the California electricity grid system. To achieve this, this reliability analysis of the project's energy storage system encompasses the following benchmarks:

- equipment availability;
- facility maintainability and maintenance program; and
- facility reliability in relation to natural hazards.

The California Energy Commission (CEC) staff uses the above benchmarks as appropriate industry norms to evaluate the project's reliability and determine if its availability factor is achievable.

Equipment Availability

Equipment availability would be ensured based on several factors, including but not limited to component availability from the manufacturer, and site conditions, prior to

procurement, construction, and operation. In addition, the project must provide adequate maintenance and repair of the equipment and systems during operations. An operation and maintenance protocol would be implemented in accordance with the maintenance requirements prescribed by the BESS manufacturer.

Emergency Backup Power

Unlike conventional power-generating facilities that rely on backup generators, the project would not **significantly use** include any diesel, natural gas, or liquid petroleum-powered generators to support critical loads. ~~Instead, power for critical loads would be provided through a separate auxiliary power connection to the on-site project substation (AMLGMN 2024p, Section 1.3~~ **The project would include two backup emergency diesel generators that would only operate in the event of critical failures.**

Facility Maintainability and Maintenance Program

Equipment manufacturers provide maintenance recommendations for their products, and facility owners develop their facility's maintenance program based on those recommendations (AMLGMN 2024k, Section 3.5.3.3). Such a program would include preventive and corrective maintenance activities, such as the replacement of inverter modules, filters, and other electrical components. Moreover, the project would implement a Supervisory Control and Data Acquisition (SCADA) management system which monitors facility operation and provides communications and control of critical components (AMLGMN 2024o, Section 2.4). The SCADA would be used to monitor operations 24 hours per day, 365 days per year. This system would ensure the project's operational efficiency and reliability.

Facility Reliability in Relation to Natural Hazards

Natural forces can threaten the reliable operation of a facility. Seismic shaking (earthquakes) could present credible threats to the project's reliable operation.

Seismic Shaking

Seismic events affect many regions in California, including the site of the proposed project. The American Society of Civil Engineers' Hazard Tool identifies eastern Alameda County as being seismic design category D. This category corresponds to buildings and structures in areas that would experience severe and destructive ground shaking (AMLGMN 2024ccc, Section 3.4.1.3). The project site would be approximately 0.4 miles southwest of the potentially active Midway Fault. Several active faults are northeast of the project site, including the Greenville, Carnegie, Las Positas, Pleasanton, Calaveras, Warm Springs, and Hayward Faults. The closest active faults are the Greenville and Carnegie Faults, located about 6 miles northeast of the site; see **Section 5.6, Geology, Paleontology, and Minerals**. As mentioned above, some of these faults are considered active; however, the possibility of ground rupture along these faults at the site would be deemed low.

The project would be designed and constructed to meet the latest applicable engineering codes. Compliance with the latest seismic design requirements represents an upgrade in performance during seismic shaking, compared to older facilities, since these requirements have been continually upgraded and made more stringent. Because the project would be built to the latest seismic design requirements, it would be expected to perform better than the older existing energy storage facilities in similar seismically active or potentially active regions that are connected to California's electricity grid system.

CEC staff proposes conditions of certification (COCs) to ensure the project complies with these requirements; see COC **GEO-1** (geotechnical investigations and geohazards report) in **Section 5.6, Geology, Paleontology, and Minerals** and **Section 4.1, Facility Design** COCs **GEN-1** (Final on-site inspection of project construction), **GEN-5** (requiring registered engineers to oversee design and construction of the project), and **STRUC-1** through **STRUC-4** (requiring submittals to the CEC's delegate chief building official [DCBO] for approval). These COCs include standard engineering design requirements for mitigation of strong seismic shaking, liquefaction, and potential excessive settlement due to dynamic compaction. The CEC staff concludes that these COCs would adequately mitigate potentially significant impacts to project's functional reliability due to seismic shaking.

Landslides and Seiches

Landslides would not affect the project site. The project site is underlain by relatively stable soils, and while temporary grading may create steep slopes, the overall topography is relatively flat (AMLGMN 2024ccc, Section 3.4.3.3). The site is not near any large or enclosed bodies of water and, therefore, would not be affected by seiches (AMLGMN 2024ccc, Section 3.4.1.3.4). Therefore, landslides and seiches would have no impact on the functional reliability of the project. See **Section 5.6, Geology, Paleontology, and Minerals**, for further discussion.

Floodplains

Floodplains would not affect the project site. The project would not be within a FEMA-designated 100-year floodplain area. Consequently, the site of the proposed project is deemed to have a low risk of flooding, and construction and operation would not be subject to flood-related hazards (AMLGMN 2024z, Section 3.15.3.3).

While the project site has a low risk of flooding, it would be designed and built to provide adequate levels of flood resistance by complying with proposed COC **GEO-1** (obtaining a grading permit) in **Section 5.6, Geology, Paleontology, and Minerals**, COC **CIVIL-1** (delegate chief building official (DCBO) approval of the drainage, grading, erosion control, and storm water plans, alongside civil engineer-signed specifications and calculations) and COC **CIVIL-4** (DCBO approved grading plans for the erosion and sedimentation control work) in **Section 4.1, Facility Design**.

Therefore, there are no concerns regarding the project's functional reliability due to flooding.

Subsidence

The project is not in an area that has experienced land subsidence (a gradual lowering of surface elevation). Subsidence results primarily from over-pumping ground water over time. According to USGS data, there is no history of recent or historic subsidence at the project location (AMLGMN 2024ccc, Section 3.4.1.3.3). Consequently, the project site is deemed to have a low risk of subsidence, and the proposed project would not be subject to subsidence-related hazards.

While the project site has a low risk of subsidence, CEC staff has proposed COC **GEO-1** to ensure the project complies with the Alameda County General Plan, Safety Element for subsidence. See **Section 5.6, Geology, Paleontology, and Minerals**, for further discussion.

Therefore, there are no concerns regarding the project's functional reliability due to subsidence.

Comparison with Existing Facilities

The equivalent availability factor (availability factor) of a power plant or energy storage system is the amount of time the facility is able to produce electricity over a certain period, divided by the amount of time in the period in which the generation resource is available. The capacity factor is the percentage of time a power generation facility operates at maximum output over a given period.

BESS

The project's BESS does not produce electricity, but rather, stores electricity and returns the electricity in the future. The applicant has not provided a specific availability factor; however, the project is expected to operate seven days per week, 365 days per year, up to 8 hours per day, and the use of a SCADA system for real-time monitoring suggests a high availability, consistent with industry norms of 95 percent or higher for a BESS facility (AMLGMN 2024o, Section 2.4). This availability factor is higher than most other existing power plant facilities. According to the North American Electric Reliability Corporation (NERC), the average availability factor for all fossil-fueled, hydroelectric, pump storage, geothermal, and nuclear-fueled power plants in North America in 2024 was approximately 82 percent (NERC 2024).

The project's expected capacity factor, or percentage of time operating at maximum output, would be approximately 33 percent, or 8 hours per day (AMLGMN 2024kk, Section 2). This capacity factor is lower than traditional baseload combined-cycle power plant facilities, which average approximately 59 percent, but higher than peak-demand natural gas turbine power plant facilities, which average approximately 12 percent (EIA 2025). In comparison, the NREL 2024 Annual Technology Baseline estimates a capacity factor of approximately 17 percent for utility-scale four-hour battery energy storage

systems, based on the assumption of one full charge-discharge cycle per day, which equates to a capacity factor of approximately 33 percent for an eight-hour BESS (NREL 2024b).

4.2.3 Project Conformance with Applicable LORS

No federal, state, or local laws, ordinances, regulations, and standards (LORS) related to facility reliability apply to the project components within the CEC's Opt-In Certification.

4.2.4 Conclusions and Recommendations

CEC staff concludes that with the incorporation of COCs **CIVIL-1** through **CIVIL-4**, **GEN-1**, **GEN-5**, **STRUC-1** through **STRUC-4**, (see **Section 4.1, Facility Design**) and **GEO-1** (see **Section 5.6, Geology Paleontology and Minerals**). The proposed project would be built to operate in a manner consistent with industry norms for reliable operation and would be expected to demonstrate a high availability factor although a lower capacity factor compared to some other facilities within the state. No additional COCs are proposed for the project.

4.2.5 Proposed Conditions of Certification

There are no proposed COCs for the project for facility reliability.

4.2.6 Recommended Mitigation Measures

There are no recommended mitigation measures for facility reliability.

4.2.7 References

- AMLGMN 2024ccc – Allen Matkins Leck Gamble Mallory & Nats (TN 258252). Geological Hazards and Resources, dated August 1, 2024. Accessed online at:
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- AMLGMN 2024k – Allen Matkins Leck Gamble Mallory & Nats (TN 258012). Hazardous Materials Handling, dated July 26, 2024. Accessed online at:
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- AMLGMN 2024o – Allen Matkins Leck Gamble Mallory & Nats (TN 258016). Project Description, dated July 26, 2024. Accessed online at:
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- NREL 2024 – National Renewable Energy Laboratory (NREL). Annual Technology Baseline Utility-Scale Battery Storage. Accessed on December 12, 2025. Available online at: https://atb.nrel.gov/electricity/2024/utility-scale_battery_storage

5.2 Biological Resources

This section analyzes the project components within CEC's Opt-In Certification and project components outside of CEC's Opt-In Certification. The project components within CEC's Opt-In Certification include the construction and operation of the battery energy storage system (BESS), the power conversion system, medium voltage collection system, three operations and maintenance buildings constructed a minimum of 20 feet apart within the primary laydown yard, and a project substation/control building. The project components outside of CEC's Opt-In Certification include the construction and operation of the gen-tie line, transmission tower structure and expansion of a 500 kilo-volt (kV) breaker-and-a-half with a new circuit breaker, to be constructed and owned by Pacific Gas and Electric Company (PG&E). See **Section 2, Introduction**, for a complete description of the project components within the California Energy Commission's (CEC's) Opt-In certification and project components outside the CEC's Opt-In certification.

5.2.1 Environmental Setting

Existing Conditions

This section describes the environmental setting and baseline conditions for biological resources associated with the project. These conditions constitute the environmental baseline for purposes of analysis under the California Environmental Quality Act (CEQA), consistent with CEQA Guidelines section 15125(a), and reflect the existing physical environmental conditions at the time of the application submittal.

Vegetation communities within the approximately 70-acre BESS site and gen-tie alignment corridor (herein collectively defined as the project site) are described to characterize botanical resources and wildlife habitat values. In addition, this section identifies and describes the habitat types that may support special-status plant and wildlife species.

Regional Setting

The project is located within the northeastern portion of Alameda County, California. Regionally, the project is located near the base of the Altamont Pass near the San Joaquin Valley.

This region is characterized by a Mediterranean climate, which includes dry, hot summers and cool, wet winters. The region within which the proposed project occurs receives an average of about 12 inches of precipitation annually. Annual temperatures range from 38.3 degrees Fahrenheit (°F) to 92.6°F, with the coolest temperatures in January and warmest temperatures in July (WRCC 2025).

Vegetation in the project site is defined as wild oats and annual brome grassland. This vegetation community is characterized by an herbaceous layer dominated by non-native

grass species including wild oats (*Avena* spp.), bromes (*Bromus* spp.), and barleys (*Hordeum* spp.) (CNPS 2025).

The project site occurs within the Lower Old River Watershed (hydrologic unit code (HUC) 1804000030605) (DWR 2025). According to the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI), there are several freshwater ponds, freshwater wetlands, and riverine aquatic features in the vicinity of the project site (USFWS 2025f). These features are depicted in **Figure 5.2-1** (Dudek 2025dd).

Local Setting

The project site is located on privately owned lands approximately 2.5 miles west of the city of Tracy, and south of Interstate 580 (see **Figure 3-2** in **Section 3, Project Description**). The site is within the 7.5-minute Midway U.S. Geological Survey (USGS) topographic quadrangle. The project area can be broadly defined as all areas surrounding the project site that would not be subject to development but would include adjacent habitat outside the site boundaries. The project vicinity includes all areas within 10 miles of the proposed project site and beyond. Primary access to the project site occurs from a gravel access road on the northern boundary off Patterson Pass Road. The project site consists of fallowed annual grasslands with historical use as rangeland for cattle grazing. Grazing within the project footprint, including the PG&E Tesla Substation parcel, is currently suspended due to active construction of the adjacent Mulqueeney Ranch Wind Project. Normal grazing operations are projected to resume pending the completion of construction activities and necessary fencing is installed. A small overlap occurs with the Mulqueeney project's temporary laydown yard and substation site southeast of Patterson Pass Road; construction here commenced in April 2025 and is scheduled for completion in late 2026. A review of recent satellite imagery (Google Earth 2025) identified evidence of a recent fire in this southeastern area, which partially affected vegetation along Patterson Run creek.

Elevation in the project area increases from approximately 383 to 523 feet above mean sea level featuring a gentle slope surrounded by a relatively flat terrain. According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service, three soil types are present: Linne clay loam, 3 percent to 15 percent slopes (65.65 acres); Linne clay loam, 15 percent to 30 percent slopes, MLRA 15 (2.80 acres); and Rincon clay loam, 0 percent to 3 percent slopes (19.75 acres) (USDA 2025). The Linne series consists of moderately deep, well drained soils that formed in material from soft shale and sandstone. The Rincon series consists of deep, well drained soils that formed in alluvium from sedimentary rock. None of the three soil types mapped on site are included on the USDA list of hydric soils commonly associated with wetlands or other waters.

The Alameda County General Plan – East County Area Plan designates the project site primarily as Large Parcel Agriculture (LPA). This area is also within the Altamont Pass Wind Resource Area (APWRA) (Alameda 1994). Land uses in the immediate vicinity include undeveloped rural agricultural lands, multiple high-voltage transmission lines and electrical substations, rural roads and railroad lines.

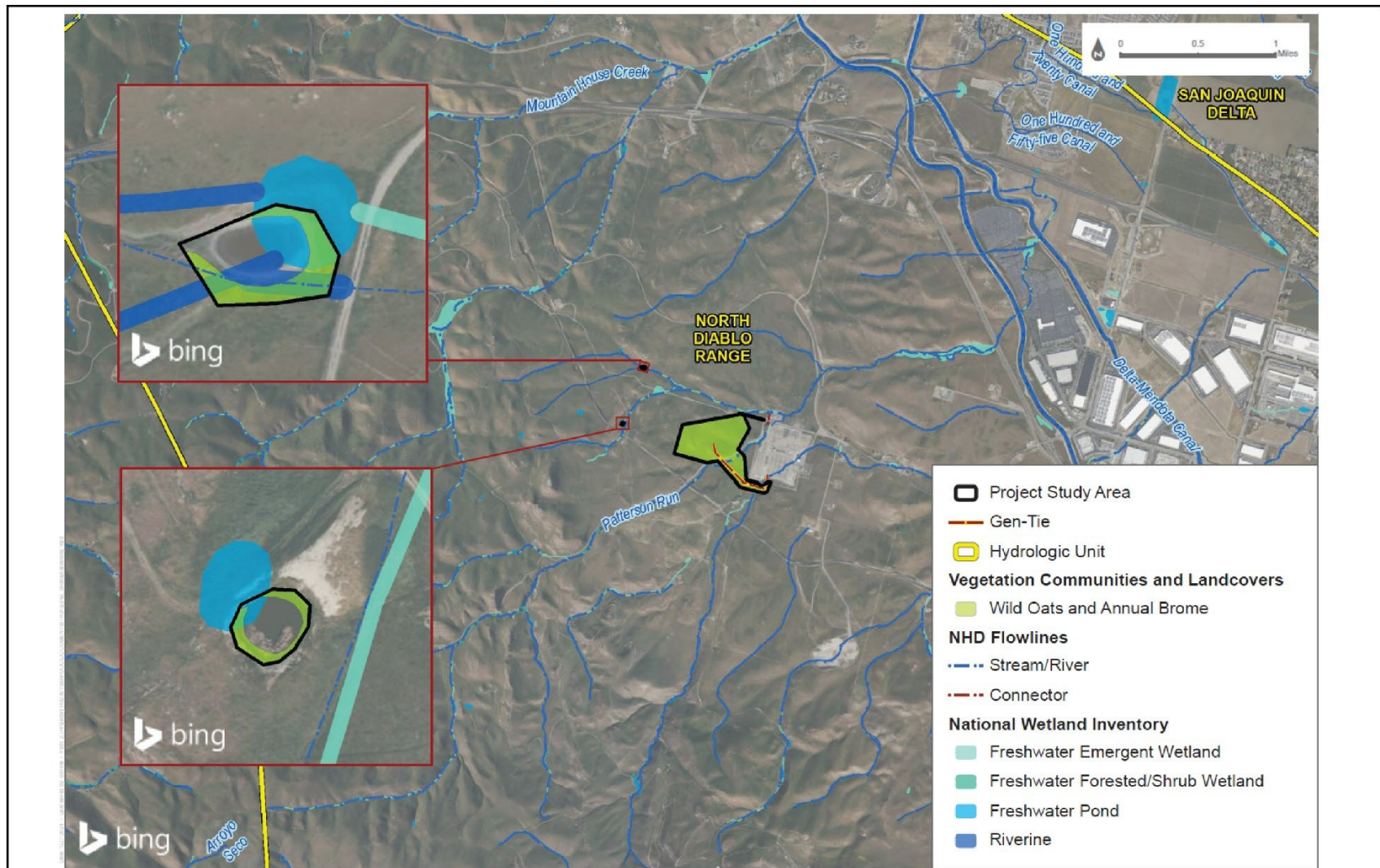


**Figure 5.2-1
Biological Setting**

Sources: Dudek 2025dd, Bing Maps 2024, Open Street Map 2019, USFWS 2019, USGS 2019

Vegetation Communities

This section describes the methods utilized by the applicant to identify and define the vegetation communities and habitats that occur within the project site. Generally, the project site is characterized as a transition zone between the Diablo Range foothills and the agricultural lands of the San Joaquin Valley. The area is dominated by annual grasslands and undeveloped lands.

Vegetation communities would typically be categorized to the alliance level, when applicable, consistent with A Manual of California Vegetation, 2nd Edition (MCV) (Sawyer et al. 2009) and updated in the current online edition (CNPS 2025). Descriptions of the vegetation communities identified by the applicant are presented below for the project and are mapped in both **Figure 5.2-2** below, as well as in the application as Figure 3 in Chapter 2.5 of the Temporary Impact Revegetation and Habitat Restoration Plan (Dudek 2025vv).

Wild Oats and Annual Brome Grassland (*Avena* spp. - *Bromus* spp.

Herbaceous Semi-Natural Alliance). Wild Oats and Annual Brome Grassland was the dominant vegetation community with a total of approximately 98.1 acres and is the only vegetation community mapped in the project site. This community is often referred to as California annual grassland, is characterized by an herbaceous layer dominated by non-native grass species including wild oats (*Avena* spp.), bromes (*Bromus* spp.), and barleys (*Hordeum* spp.). The herbaceous layer is less than 3.9 feet in height and cover is open to continuous.

Disturbed / Developed. The remaining 3.4 acres of the project site consists of developed and disturbed/barren ground, primarily altered by human activity. These areas include maintained dirt/gravel roads and similar sites, Patterson Pass Road, the railroad, and portions of the PG&E Tesla substation. These lack the potential to support native species.

Non-Native Invasive / Noxious Weeds

Non-native invasive or noxious weeds are plants that can directly or indirectly cause problems for natural resources, wildlife, agriculture, recreation, navigation, public health, or the environment. The California Department of Food and Agriculture (CDFA) and the California Invasive Plant Council (Cal-IPC) have rated invasive or noxious weeds in California based on the threat these species pose to the natural landscape (Cal-IPC 2025).

The applicant identified several non-native invasive plant species within the project site during surveys conducted in 2023 and 2024. **Table 5.2-1** provides a list of the non-native invasive species documented by the applicant.

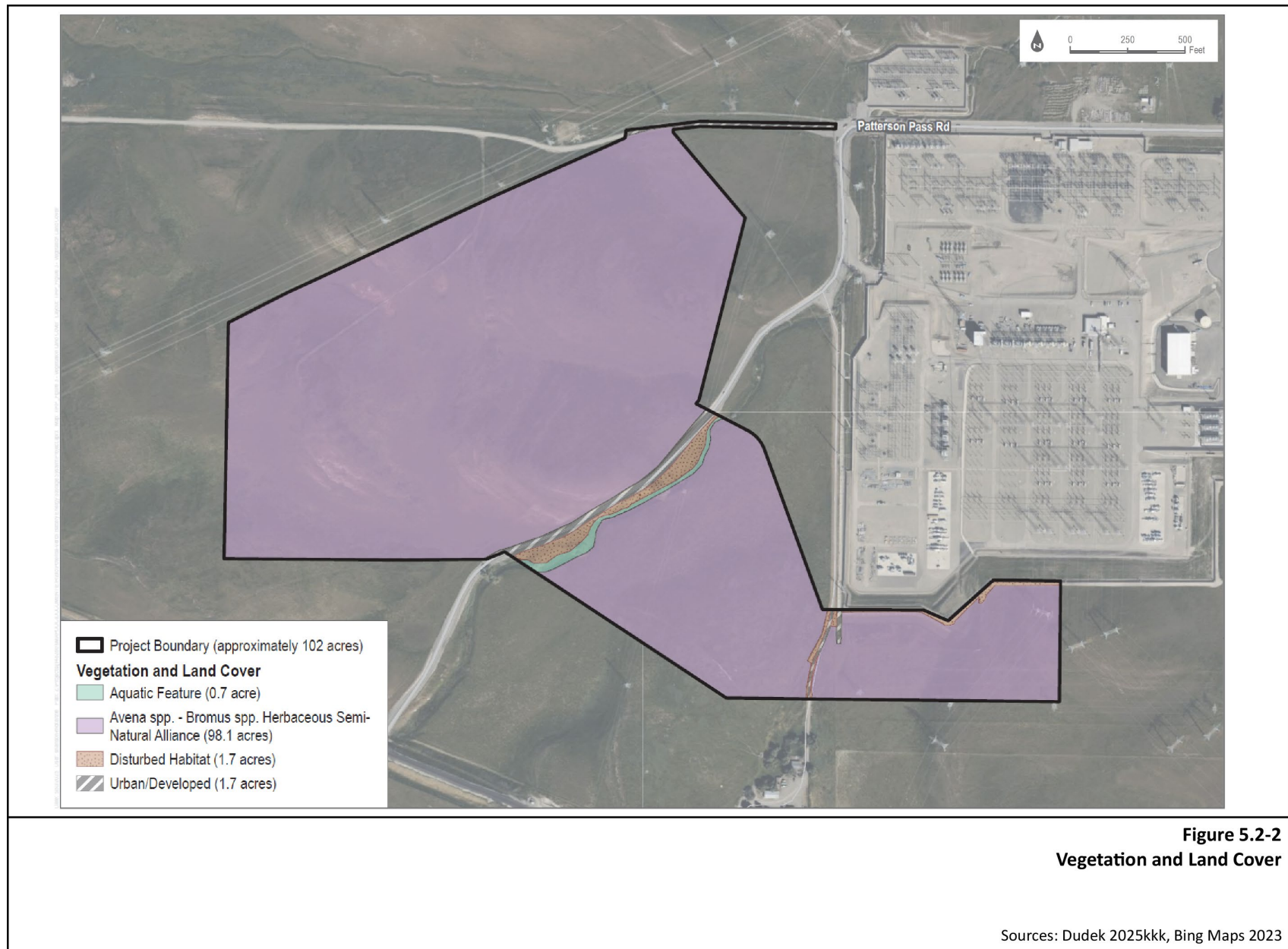


TABLE 5.2-1 NON-NATIVE INVASIVE WEEDS IDENTIFIED IN THE PROJECT SITE

Common Name <i>Scientific Name</i>	Rating		Comments
	CDFA ¹	Cal-IPC ²	
Italian thistle <i>Carduus pycnocephalus</i>	C*	Moderate	Winter annual forb native to the Mediterranean region. Widely distributed in disturbed open sites, roadsides, pastures, annual grasslands, and waste areas across California. It can facilitate fire spread and frequency by providing fuel in some habitats and creates monocultures that reduce native seedling recruitment and survival. It is a host species for the introduced weevil which also attacks native thistles.
Purple starthistle <i>Centaurea calcitrapa</i>	-*	Moderate	Grows as an annual, biennial or perennial in fields, roadsides, disturbed open sites, grasslands, overgrazed rangelands, and logged areas in the northern and central coast ranges of California. It is native to Europe. Highly competitive with other plants, often displacing desired vegetation.
Yellow starthistle <i>Centaurea solstitialis</i>	-*	High	Bushy winter annual from the Mediterranean region that has invaded over 12 million acres in California. Inhabits open hills, grasslands, open woodlands, fields, roadsides, and rangelands. It is considered one of the most serious rangeland weeds in the state.
Artichoke thistle; cardoon; wild artichoke <i>Cynara cardunculus</i>	-*	Moderate	Large perennial thistle from the Mediterranean region found below 500 m elevations throughout California, except in the Great Basin and Desert Regions. Prefers disturbed open sites, including grassland, chaparral, coastal scrub, and riparian areas. Closely related to cultivated artichokes, and the two species hybridize frequently.
Blessed milk thistle <i>Silybum marianum</i>	None	Limited	A winter annual or biennial with prickly leaves. Widely spread in California in overgrazed pastures and along fencelines and other disturbed areas. Produces tall, dense stands that outcompete native species.
Black mustard <i>Brassica nigra</i>	None	Moderate	A winter annual herb/forb. Like other mustards, black mustard grows profusely and produces allelopathic chemicals that prevent germination of native plants. The spread can increase the frequency of fires in chaparral and coastal sage scrub, changing these habitats to annual grassland.
Prickly Russian thistle <i>Salsola tragus</i>	C*	Limited	A large bushy summer annual. It can be found throughout California, including in agricultural areas, desert, roadsides and other disturbed areas. Russian-thistle can impede traffic, create fire hazards, and is a host of the beet leafhopper, an agricultural insect pest.
Redstem stork's bill <i>Erodium cicutarium</i>	None	Limited	An aggressive annual/biannual that is very widespread throughout California and is commonly found along roadsides, grasslands, fields, and semi-desert areas. It often carpets large areas, out competing native grasses and forbs.
Horehound <i>Marrubium vulgare</i>	None	Limited	A perennial shrub/forb/herb. This plant is found heavily populating disturbed places throughout California in grasslands, scrub, and riparian areas. It has mostly minor impact on native species.
Curly dock <i>Rumex crispus</i>	None	Limited	A perennial forb/herb found throughout California. It can grow in many habitats, including grassy places, waste ground, roadsides and nearby sand dunes but is primarily found in flood plains and in agricultural areas.

TABLE 5.2-1 NON-NATIVE INVASIVE WEEDS IDENTIFIED IN THE PROJECT SITE

Common Name <i>Scientific Name</i>	Rating		Comments
	CDFA ¹	Cal-IPC ²	
Wild oats <i>Avena fatua</i>	None	Moderate	A winter annual grass that is a common agricultural weed. It grows in most grassland sites within California, particularly in sandy/poor soils, often on the road verges. It is one of the annual grasses that was introduced as a forage species and has replaced the native perennial grasses.
Ripgut brome <i>Bromus diandrus</i>	None	Moderate	An annual grass found throughout California and other western states. Ripgut brome becomes very dry and flammable during the dry season, increasing wildfire frequency which leads to conversion of shrubland and woodland to grassland.
Red brome <i>Bromus madritensis ssp. rubens</i>	None	High	A cool-season annual grass found throughout California, especially in the southern part of the state. Red brome invades disturbed areas, roadsides, agricultural fields, rangelands, and forestry sites, in addition to native communities. Increases fire frequency and converts habitat to annual grassland.
Perennial rye grass <i>Festuca perennis</i>	None	Moderate	An annual or biennial grass found throughout California except in the Great Basin and deserts. Introduced to many areas for erosion control, pasture forage, and turf. In California and numerous other regions, it has expanded beyond roadsides, fields, orchards, and vineyards where it has been planted and become invasive, outcompeting native vegetation, especially in grasslands with fertile and/or clay soils.
Mouse barley <i>Hordeum murinum</i>	None	Moderate	An annual grass that is native to the Mediterranean. It is common throughout California in disturbed areas and can persist even with frequent mowing by growing nearly flat. It can outcompete native perennials by growing into bare areas and prohibiting their establishment, is salt tolerant, and may increase fire risk by adding fine fuels.
Annual rabbitsfoot grass <i>Polypogon monspeliensis</i>	None	Limited	A winter or summer annual grass. Widely distributed across California and typically restricted to moist areas where it can form dense stands and outcompete native vegetation.

¹ CDFA Ratings:

- A = A pest of known economic or environmental detriment and is either not known to be established in California or it is present in a limited distribution that allows for the possibility of eradication or successful containment.
 B = A pest of known economic or environmental detriment and, if present in California, it is of limited distribution.
 C = A pest of known economic or environmental detriment, if present in California, it is usually widespread.
 D = An organism known to be of little or no economic or environmental detriment, to have an extremely low likelihood of weediness, or is known to be a parasite or predator.
 Q = An organism or disorder suspected to be of economic or environmental detriment, but whose status is uncertain

² Cal-IPC Ratings:

- High = These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.
 Moderate = These species have substantial and apparent, but generally not severe, ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.
 Limited = These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

TABLE 5.2-1 NON-NATIVE INVASIVE WEEDS IDENTIFIED IN THE PROJECT SITE

Common Name <i>Scientific Name</i>	Rating		Comments
	CDFA ¹	Cal-IPC ²	
because of incomplete identification or inadequate information. * = An asterisk next to the rating indicates that a plant is included in the CCR Section 4500 list of California State Noxious Weeds.			Alert = An Alert is listed on species with High or Moderate impacts that have limited distribution in California, but may have the potential to spread much farther. Watch = These species have been assessed as posing a high risk of becoming invasive in the future in California.

Aquatic Resources

The applicant conducted a preliminary wetland assessment during reconnaissance surveys on August 2, 2023. A formal jurisdictional delineation, following both federal and state protocols and guidelines, was completed on January 18, 2024. The applicant visited wetlands to determine their seasonal status and hydroperiod concurrently with additional surveys conducted in March, May, and August 2023 and February 2024 (Dudek 2024).

Patterson Run is an ephemeral stream system that runs parallel to Patterson Pass Road within the project site. This channel flows in a northerly direction and eventually terminates approximately 2.3 miles northeast in agricultural land north of the Delta-Mendota Canal. This feature is depicted in **Figure 5.2-3** below (Dudek 2025III). Patterson Run is classified in the NWI as a freshwater emergent wetland. A second drainage shown on the National Hydrography Dataset is classified by the NWI as freshwater emergent wetland. However, there was no physical evidence of this second drainage within the project site during aerial imagery review or field surveys conducted by the applicant. Patterson Run had moderate flow during the March 2023 and February 2024 surveys but was dry during the May and August 2023 surveys. One swale-like area was surveyed along the proposed gen-tie alignment at the southwest corner of the PG&E substation. This feature exhibited cracked clay and sandy wash-type soils during the August 2023 survey, with patchy grassland habitat along the margins and herbaceous plants such as dove weed (*Croton setiger*), curly dock (*Rumex crispus*), and big tarplant (*Blepharizonia plumosa*). However, the applicant's survey determined that this feature did not contain hydric soils, vegetation, or hydrology and therefore is not considered a jurisdictional aquatic resource.

Patterson Run is considered waters of the United States and waters of the state and would be subject to federal regulations under Clean Water Act Sections 401 and 404 and to state regulation under the Porter-Cologne Water Quality Control Act. In addition, project impacts to Patterson Run would typically require a notification to the California Department of Fish and Wildlife (CDFW) pursuant to California Fish and Game Code section 1602 et seq., therefore these impacts would be subject to the California Energy Commission's (CEC's) in-lieu permitting authority.

The project is within the jurisdiction of the Central Valley Region of the Regional Water Quality Control Board (RWQCB) (Region 5) and the United States Army Corps of Engineers (USACE) San Francisco District.

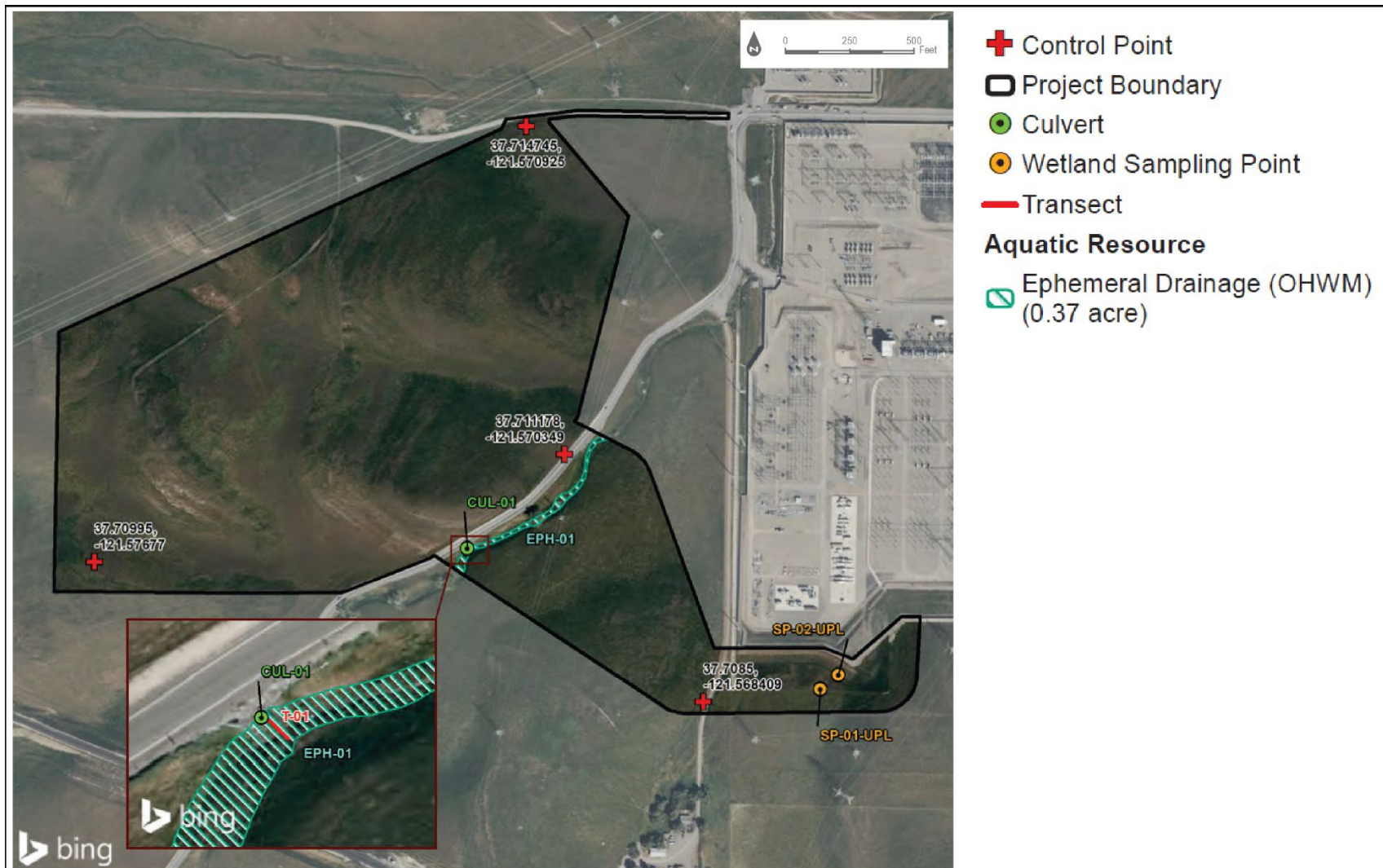


**Figure Figure 5.2-3
Aquatic Resources Delineation**

Sources: Dudek 2025III, Bing Maps (accessed 2024), Open Streets Map 2019

Critical Habitat and Special Habitat Designations

The federal Endangered Species Act (ESA) defines critical habitat as specific geographic areas that contain features essential to the conservation of an endangered or threatened species that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery. The USFWS and National Marine Fisheries Service (NMFS) publish proposals to designate critical habitat in the Federal Register, a daily publication of the federal government.

The project site overlaps with designated critical habitat for the California red-legged frog (*Rana draytonii*), which extends into northern and southwestern adjacent areas characterized by undeveloped and agricultural land uses. The USFWS identifies four Primary Constituent Elements (PCEs) essential for the species' life history. Specifically, PCEs 3 (upland habitat) and 4 (dispersal habitat) are located within the project site. PCEs 1 (aquatic breeding habitat) and 2 (aquatic non-breeding habitat) are found within a 1-mile dispersal radius of the project site.

Wildlife Corridors, Special Linkages, and Important Bird Areas

Movement and dispersal corridors that connect large blocks of habitat are essential to the long-term viability of plant and wildlife populations. The California Essential Habitat Connectivity Project (Connectivity Project) was commissioned by the California Department of Transportation (Caltrans) and CDFW to create a statewide assessment of essential habitat connectivity to be used for conservation and infrastructure planning (Spencer et al., 2010). One of its goals was to create the Essential Connectivity Map, which depicts large, relatively natural habitat blocks that support native biodiversity (Natural Landscape Blocks) and areas essential for ecological connectivity between them (Essential Connectivity Areas). These maps do not reflect the needs of particular species but are based on overall biological connectivity and ecological integrity.

The project site does not overlap with any California Essential Connectivity Areas but is considered part of the large contiguous Natural Landscape Block that extends from Alameda County south through the Diablo Range and Southern Coastal Ranges, terminating north of the Transverse Ranges (CDFW 2025b). The project site consists of primarily annual grasslands, which can provide opportunities for undisturbed localized wildlife movement. Regional connectivity is highly limited by Patterson Pass Road, I-580 and I-5 to the north and east, and the railroad south of the project site.

The East Alameda County Conservation Strategy (EACCS) indicates this area likely supports connectivity through the Altamont Hills for San Joaquin kit fox (*Vulpes macrotis mutica*) but connectivity across I-580 has been compromised by infrastructure development (EACCS 2010).

Although the broader Altamont Hills landscape supports regional wildlife movement, none of the regional planning tools identify the project itself as a regional wildlife movement corridor.

Important Bird Areas. The Audubon Society has identified Important Bird Areas (IBAs) throughout the western hemisphere that provide essential habitat for birds (Audubon 2025). Although IBAs are non-regulatory designations, they provide important contextual information in determining the types of birds that are occurring in regions within and around the IBA along with the way in which habitats within those regions are being utilized by avian species. These IBAs include sites for breeding, wintering, and migrating birds and can range from only a few acres to thousands of acres in size.

The Mount Hamilton IBA encompasses the eastern slopes of the Coast Range separating the east San Francisco Bay Area and the Central Valley. According to the Audubon Society, the patches of grassland within the IBA near Livermore and the eastern base, still support breeding populations of Northern harrier (*Circus hudsonius*), white-tailed kite (*Elanus leucurus*), burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lanius ludovicianus*), grasshopper sparrow (*Ammodramus savannarum*), tricolored blackbird (*Agelaius tricolor*) and in winter, good numbers of ferruginous hawk (*Buteo regalis*). About 20 pair of prairie falcon (*Falco mexicanus*) are believed to breed in the Diablo Range, mainly in the east, and a pair of bald eagles (*Haliaeetus leucocephalus*) breeds at Del Valle Reservoir just west of Mines Road in Alameda County approximately 10-miles south of the project site (APWRA 2014).

Protected Areas. To identify sensitive biological resources, a review of the California Protected Areas Database (CPAD) and the California Conservation Easement Database (CCED) was conducted. CPAD is a database comprising lands, ranging from national parks to small urban open spaces, owned and protected by more than 1,000 agencies and non-profits for conservation purposes (CPAD 2025). This review confirmed the presence of several protected areas or conservation easements within a 5-mile radius of the project site (CCED 2025). Descriptions of those areas within a 10-mile radius of the project site are provided below and are depicted in Figure 11 located in Appendix A of the Biological Resources Assessment Report (Dudek 2025ppq):

- Mendoza Ranch: The nearest protected area is the Contra Costa Water District's Mendoza Ranch (Unit ID 49792), located approximately 1-mile northwest of the project site.
- Haera Mitigation Bank: The nearest mapped conservation easement is the Wildlife Heritage Foundation Haera Mitigation Bank (CCED ID 2073), located adjacent to and north of the project site.
- Two Sisters Conservation Area: The second nearest conservation easement is the Two Sisters Conservation Area (CCED ID 12132) directly south of the project site.
- Data Basin – East Bay Botanical Priority Protection Areas: The project site is located within the East Bay Chapter Area, an area recognized for its unique ecological conditions and significant native plant populations. Due to pressures from economic growth, the East Bay Chapter of the California Native Plant Society (CNPS) developed the Botanical Priority Protection Areas Project (BPPA) to identify and protect key

botanical areas through intra-chapter collaboration. The project site is specifically included within the East Bay Botanical Priority Protection Area S (Data Basin 2025).

Sensitive Biological Resources

This section provides an overview of sensitive biological resources associated with the project site. It also provides methods utilized to determine the sensitive vegetation communities and special-status plants and wildlife species observed within or near the project site or with the potential to be present. The specific habitat requirements and the locations of known occurrences of each special-status species were the principal criteria used for inclusion in the lists of special-status species potentially occurring within or near the project site.

Literature Review. As part of developing the baseline conditions for biological resources within the project area, the applicant performed a comprehensive literature and database search. The focus of the review was to identify biological resources that could potentially occur within the project site and a 10-mile buffer. Sources utilized during this review included species records from wildlife studies completed at or near the project site, published literature, databases, coordination with CDFW and USFWS, and the professional judgement of biologists representing the applicant.

In addition to the applicants' review described above, CEC staff conducted an independent and thorough literature review that included an evaluation of applicant reports and documents, coordination with the applicable resources agencies, and an updated database assessment. The following list includes the resources considered in the review conducted by both the applicant and staff:

- 2024 Biological Technical Report for the Potentia-Viridi Battery Energy Storage System Project (Dudek 2024)
- Summary of Golden Eagle Surveys on Contra Costa Water District Lands, California (USGS 2023).
- Golden Eagle Population Surveys in the Vicinity of the Altamont Pass Wind Resource Area, California, Wiens and Kolar 2014-21 (USGS 2021).
- East Alameda County Conservation Strategy, October 2010 (EACCS 2010)
- USFWS Information for Planning and Conservation (IPaC) Program (USFWS 2025e)
- CDFW California Natural Diversity Database, Rarefind Version 5 (CDFW 2025a)
- California Native Plant Society Inventory of Rare and Endangered Plants of California (CNPS 2025b)
- California Wildlife Habitat Relationships Maps and Data (Data Basin 2025)
- Calflora Information on California plants web application (Calflora 2025)
- Soil Survey Geographic Database for California (USDA 2025)
- Manual of California Vegetation Online (Sawyer et al. 2009)

- CDFW Vegetation Maps and Data (CDFW 2025d)
- California Natural Community List (BIOS 2025t)
- CDFW Special Animals List, July 2025 (CDFW 2025c)
- eBird citizen-based observation network (eBird 2025)
- iNaturalist citizen-based observations (iNaturalist 2025)

The California Natural Diversity Database (CNDDDB) and CNPS databases were queried for nine U.S. Geological Survey (USGS) 7.5-minute quadrangles containing and immediately surrounding the site (Byron Hot Springs, Clifton Court Forebay, Union Island, Altamont, Midway, Tracy, Mendenhall Springs, Cedar Mountain and Lone Tree Creek) (Dudek 2024). CEC staff also conducted a preliminary site assessment using recent aerial imagery accessed via Google Earth (Google Earth 2024) to identify potential sensitive biological resources prior to conducting a field visit on December 4, 2024.

The applicant conducted a series of focused and protocol-level surveys for the proposed project. Each of these studies are referenced below and were included in the staff literature review. Survey information provided by the applicant was also considered by staff during the analysis of potential impacts to biological resources (Dudek 2024; Dudek 2025uu; Stantec 2025a; Stantec 2025b).

Reconnaissance Surveys. The applicant conducted a series of reconnaissance-level surveys for the battery energy storage system and gen-tie alignment to characterize existing conditions and assess potential impacts from development of the project. The initial survey, conducted on March 31, 2023, included both windshield and pedestrian surveys by qualified biologists. The surveyors identified existing vegetation communities and assessed the project site and vicinity for potential suitable habitat for special-status plant and wildlife species.

Follow-up pedestrian surveys were conducted by the applicant on August 2, 2023, and January 18, 2024. These surveys were conducted concurrently with focused surveys for rare plants and wildlife burrows and encompassed the project boundaries to document vegetation communities. A wetland assessment was also completed to determine if any potential jurisdictional waters were present on the site that would require further protocol jurisdictional delineations.

Sensitive Natural Communities

Sensitive natural communities have been previously defined by CDFW as “communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects”. CDFW uses the NatureServe conservation status ranking system to assess the rarity and vulnerability of natural communities (NatureServe 2025). Ranks range from S1 to S5, where “S” stands for State-level status. More recently, CDFW has stated that sensitive natural communities with state ranks of S1 (Critically Imperiled), S2 (Imperiled), or S3 (Vulnerable) should

be addressed in the environmental review process of CEQA and its equivalents (CDFW 2025e). Additionally, vegetation associations that do not have a state ranking are considered sensitive by CDFW.

The project site is primarily characterized as annual grasslands. No vegetation communities with state rank S1 through S3 or otherwise designated as high priority or potentially rare in the current list, are present on or adjacent to the project site. There is one sensitive community: Valley Sink Scrub (S1.1) documented in the CNDDDB as occurring within 2.5 miles of the project site. No sensitive natural communities were identified within or near the project site by the applicant. This finding was confirmed by CEC staff during a site visit on December 4, 2024.

Special-Status Plants

For the purposes of this staff assessment, special-status plants include:

- Listed, proposed for listing, or candidates for listing as threatened or endangered species (including designated or proposed critical habitat) under the federal ESA
- Listed, or candidates for listing as threatened or endangered under the California Endangered Species Act (CESA)
- Plants assigned a California Rare Plant Rank (CRPR) by the California Native Plant Society (CNPS), including CRPR 1A, 1B, 2, 3, and 4¹
- Plants listed as rare under the California Native Plant Protection Act
- Plants that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) section 15380 (b) and (d)

Rare Plant Survey and Vegetation Mapping. The applicant conducted protocol-level rare plant surveys on May 16 and August 2, 2023, and January 18, April 12, and June 17, 2024, to identify special-status rare plant species within the project site boundaries. The biologists surveyed the entire project site on foot in approximately 20-meter parallel transects to ensure comprehensive visual coverage. Rare plant surveys were conducted in accordance with the Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants (USFWS 2000), the Protocol for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018), and the CNPS Botanical Survey Guidelines (CNPS 2001). Rare plant occurrences were mapped using ArcGIS Field Maps (ESRI).

Survey Results and Potential to Occur. Several special-status plant species have been recorded within a 10-mile radius or within the nine quadrangles surrounding the project site during the literature review (Dudek 2024; **Table 5.2-2**). However, most of

¹ CRPR 3 or 4 species may or may not be considered under CEQA. If a CRPR 3 or 4 species is locally rare, or the population is at an extreme end of the species range, it would be considered for impacts under CEQA.

these species were considered not likely to occur based on a lack of suitable habitat within or adjacent to the project site, the project site occurring outside of the known geographic or elevation ranges, and/or an absence of known occurrences within 10 miles of the project site.

Several special-status plants were determined to have a moderate or high potential to occur. However, only one species, big tarplant (*Blepharizonia plumosa*) was observed during focused rare plant surveys (Dudek 2024). No other special status plants were observed during the 2023 or 2024 surveys. All surveys were conducted during the appropriate blooming period when target special-status plant species would be detectable. See **Figure 5.2-4** for locations of big tarplant detected during surveys.

Numerous additional special-status plant species that typically inhabit valley and foothill grasslands, often in alkaline or clay soils were determined to have at least some potential to occur within the project site (see **Table 5.2-2**). Three of these species are currently listed or proposed for listing under ESA or CESA: large-flowered fiddleneck (*Amsinckia grandiflora*), Palmate-bracted bird's-beak (*Chloropyron palmatum*), and Livermore tarplant (*Deinandra bacigalupii*). Several species identified during the literature review were determined to have no potential to occur based on the project site being located outside of known geographic or elevation ranges for these species, a lack of suitable habitat, the absence of recent records or documentation, coordination with the applicable resource agencies, and/or staff's professional judgement. Please refer to **Table 5.2-2** for a complete list of these species and the potential to occur within the project area. Plant species with no potential to occur are not discussed further in this document.

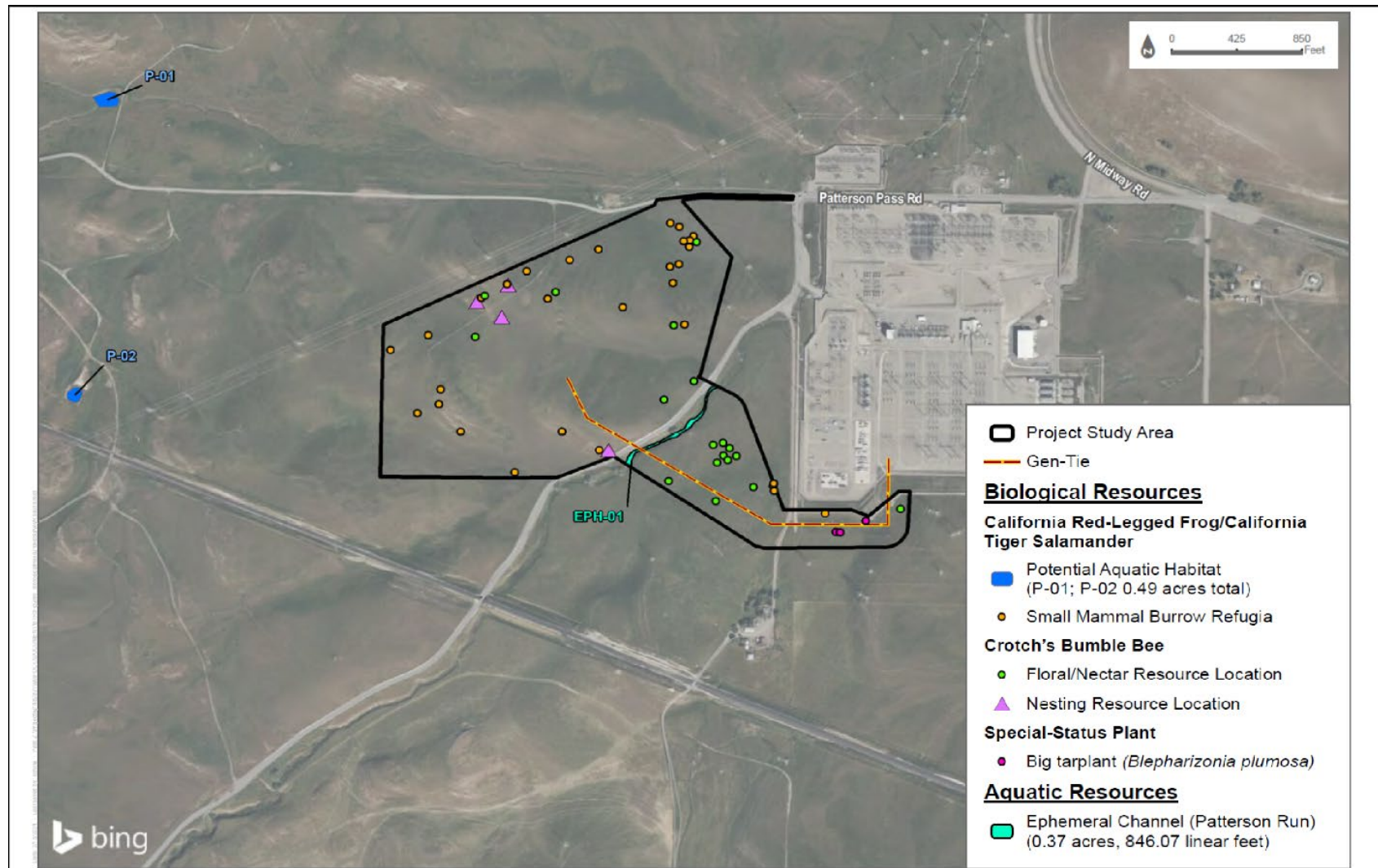


Figure 5.2-4
Biological Resources Survey Results

Sources: Dudek 2025III, Bing Maps 2022, Open Street Map 2019, USGS 2022

TABLE 5.2-2 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS PLANTS WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range, Habitat, and Blooming Period	Potential to Occur² and Comments
Sharsmith's onion (<i>Allium sharsmithiae</i>)	CNPS: 1B.3 Global Rank: G2 State Rank: S2	Known from the Mount Hamilton Range in chaparral and cismontane woodland on rocky serpentine, growing at elevations from 1310-3935 feet. Blooming period is from May-March.	Not Likely to Occur. Project site is outside of the known elevation range. Not observed during focused plant surveys. Nearest known occurrence is approximately 9 miles south of the project site.
Large-flowered fiddleneck (<i>Amsinckia grandiflora</i>)	Federal List: FE State List: SE CNPS: 1B.1 Global Rank: G1 State Rank: S1	Occurs within Cismontane woodland, and Valley and foothill grassland, growing at elevations from 885-1805 feet. Blooming period is March-May.	Not Likely to Occur. Project site is outside of the known elevation range. Not observed during focused plant surveys. Nearest known occurrence is approximately 4 miles south of the project site.
Contra Costa manzanita (<i>Arctostaphylos manzanita</i> ssp. <i>laevigata</i>)	CNPS: 1B.2 Global Rank: G5T2 State Rank: S2	Occurs in central California, primarily in the North Coast, the North Coast Range and SF Bay regions. It tends to grow in slopes and rocky places, at elevations from 0-4900 feet.	Not Likely to Occur. Project site is outside of the known elevation range. Not observed during focused plant surveys. Nearest known occurrence is approximately 12 miles northwest of the project site.
Alkali milk-vetch (<i>Astragalus tener</i> var. <i>tener</i>)	CNPS: 1B.2 Global Rank: G2T1 State Rank: S1	Occurs within Playas, Valley and foothill grassland (adobe clay), and Vernal pools, growing at elevations from 5-195 feet. Blooming period is March-June.	Moderate. Suitable valley and foothill grassland with clay soils are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 6 miles west of the project site. Species not observed during rare plant surveys.
Heartscale (<i>Atriplex cordulata</i> var. <i>cordulata</i>)	CNPS: 1B.2 Global Rank: G3T2 State Rank: S2	Occurs within Chenopod scrub, Meadows and seeps, and Valley and foothill grassland (sandy), growing at elevations from 0-785 feet. Blooming period is April-October.	Low. Valley and foothill grassland are present but generally lacks sandy soils. Not observed during focused plant surveys. Nearest known occurrence is approximately 6 miles northwest of the project site. Species not observed during rare plant surveys.
Brittlescale (<i>Atriplex depressa</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, and Vernal pools, growing at elevations from 5-1050 feet. Blooming period is April-October.	Moderate. Suitable valley and foothill grassland with clay soils are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 4 miles northwest of the project site. Species not observed during rare plant surveys.

TABLE 5.2-2 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS PLANTS WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range, Habitat, and Blooming Period	Potential to Occur² and Comments
Lesser saltscale (<i>Atriplex minuscula</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chenopod scrub, playas, and valley and foothill grassland, growing at elevations from 50-160 feet. Blooming period is May-October.	Low. Valley and foothill grassland are present but generally lacks sandy soils. Not observed during focused plant surveys. Nearest known occurrence is approximately 5 miles west of the project site. Species not observed during focused plant surveys.
Big-scale balsamroot (<i>Balsamorhiza macrolepis</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chaparral, Cismontane woodland, and Valley and foothill grassland, growing at elevations from 150-5100 feet. Blooming period is March-June.	Low. Valley and foothill grassland are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 6 miles away. Species not observed during rare plant surveys.
Big tarplant (<i>Blepharizonia plumosa</i>)	CNPS: 1B.1 Global Rank: G4 State Rank: S1S2	Occurs within Valley and foothill grassland, growing at elevations from 100-1655 feet. Blooming period is July- October.	Present. Three individuals were found during the August 2023 plant surveys near the southwest corner of the PG&E substation.
Mt. Diablo fairy-lantern (<i>Calochortus pulchellus</i>)	CNPS: 1B.1 Global Rank: G2 State Rank: S2	Occurs within Chaparral, Cismontane woodland, riparian woodland, and Valley and foothill grassland, growing at elevations from 100-2755 feet. Blooming period is April-June.	Not likely to Occur. Suitable valley and foothill grasslands are present; however, project site lacks wooded and brushy slope microhabitat. Not observed during focused plant surveys. Nearest known occurrence is approximately 9 miles away.
Lemmon's jewelflower (<i>Caulanthus lemmonii</i>)	CNPS: 1B.2 Global Rank: G3T2 State Rank: S3	Occurs within Pinyon and juniper woodland, and Valley and foothill grassland, growing at elevations from 260-5185 feet. Blooming period is February-May.	Moderate. Suitable valley and foothill grasslands are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 3.6 miles away.
Congdon's tarplant (<i>Centromadia parryi</i> ssp. <i>congdonii</i>)	CNPS: 1B.1 Global Rank: G3T2 State Rank: S2	Occurs within Valley and foothill grassland, growing at elevations from 0-755 feet. Blooming period is April-November.	Moderate. Suitable valley and foothill grasslands with clay soils are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 5 miles away.
Dwarf soaproot (<i>Chlorogalum pomeridianum</i> var. <i>minus</i>)	CNPS: 1B.2 Global Rank: G5T3 State Rank: S3	Occurs within Chaparral, growing at elevations from 1000- 3280 feet. Blooming period is May- August.	Not Likely to Occur. Project site is outside of the known elevation range.
Hispid salty bird's-beak (<i>Chloropyron molle</i> ssp. <i>hispidum</i>)	CNPS: 1B.1 Global Rank: G2T1 State Rank: S1	Occurs within Meadows and seeps, Playas, and Valley and foothill grassland, growing at elevations from 5-510 feet. Blooming period is June- September.	Not Likely to Occur. The project site lacks damp alkaline soils. Not observed during focused plant surveys. Nearest known occurrence is approximately 8 miles away.

TABLE 5.2-2 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS PLANTS WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range, Habitat, and Blooming Period	Potential to Occur² and Comments
Palmate-bracted bird's-beak (<i>Chloropyron palmatum</i>)	Federal List: FE State List: SE CNPS: 1B.1 Global Rank: G1 State Rank: S1	Occurs within Chenopod scrub, and Valley and foothill grassland, growing at elevations from 15-510 feet. Blooming period is May-October.	Low. Suitable valley and foothill grasslands are present; however, Pescadero soils are a minor component. Not observed during focused plant surveys. Nearest known occurrence is approximately 8 miles away.
Mt. Hamilton thistle (<i>Cirsium fontinales</i> var. <i>campylon</i>)	CNPS: 1B.2 Global Rank: G2T2 State Rank: S2	Occurs within Chaparral, Cismontane woodland, and Valley and foothill grassland, growing at elevations from 330-2920 feet. Blooming period is April-October.	Not Likely to Occur. No serpentine soils are present within the project site. Nearest known occurrence is approximately 11 miles away.
Livermore tarplant (<i>Deinandra bacigalupii</i>)	State List: SE CNPS: 1B.1 Global Rank: G1 State Rank: S1	Occurs within Meadows and seeps, growing at elevations from 490-605 feet. Blooming period is from June-October.	Not Likely to Occur. The project site lacks suitable meadow seep habitats. Not observed during focused plant surveys. Nearest known occurrence is approximately 7.8 miles away
Hospital Canyon larkspur (<i>Delphinium californicum</i> ssp. <i>interius</i>)	CNPS: 1B.2 Global Rank: G3T3 State Rank: S3	Occurs within Chaparral (openings), Cismontane woodland (mesic), and Coastal scrub, growing at elevations from 640-3595 feet. Blooming period is April-June.	Not Likely to Occur. Suitable chaparral, cismontane woodland, great basin scrub, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland does not occur within the project site. Outside of the known elevation range of this species. Nearest known occurrence is approximately 5.4 miles away.
Recurved larkspur (<i>Delphinium recurvatum</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chenopod scrub, Cismontane woodland, and Valley and foothill grassland, growing at elevations from 10-2590 feet. Blooming period is March-June.	Moderate. Suitable valley and foothill grasslands with alkaline soils are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 6 miles away.
Spiny-sealed button-celery (<i>Eryngium spinosepalum</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Valley and foothill grassland, and Vernal pools, growing at elevations from 260-3200 feet. Blooming period is from April-June.	Moderate. Suitable valley and foothill grasslands are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 7.5 miles away.
Diamond-petaled California poppy (<i>Eschscholzia rhombipetala</i>)	CNPS: 1B.1 Global Rank: G1 State Rank: S1	Occurs within Valley and foothill grassland (alkaline, and clay), growing at elevations from 0-3200 feet. Blooming period is March-April.	Moderate. Suitable valley and foothill grasslands with alkaline clay soils are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 3.6 miles away.

TABLE 5.2-2 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS PLANTS WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range, Habitat, and Blooming Period	Potential to Occur² and Comments
San Joaquin spearscale (<i>Extriplex joaquinana</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chenopod scrub, Meadows and seeps, Playas, and Valley and foothill grassland, growing at elevations from 5-2740 feet. Blooming period is April-October.	Moderate. Suitable valley and foothill grasslands with alkaline clay soils present. Not observed during focused plant surveys. Nearest known occurrence is approximately 3.6 miles away.
Talus fritillary (<i>Fritillaria falcata</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chaparral, Cismontane woodland, and Lower montane coniferous forest, growing at elevations from 985-5005 feet. Blooming period is from March-May.	Not Likely to Occur. Project site is outside of the known elevation range.
Diablo helianthella (<i>Helianthella castanea</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Broadleafed upland forest, Chaparral, Cismontane woodland, Coastal scrub, riparian woodland, and Valley and foothill grassland, growing at elevations from 195-4265 feet. Blooming period is March-June.	Not Likely to Occur. Valley and foothill grassland is present; however, no suitable forest, woodland, or chaparral habitats are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 10 miles away.
Brewer's western flax (<i>Hesperolinon breweri</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chaparral, Cismontane woodland, and Valley and foothill grassland, growing at elevations from 100-3100 feet. Blooming period is May-July.	Not Likely to Occur. Valley and foothill grassland is present; however, no suitable woodland or chaparral habitats and no serpentine soils are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 5 miles away.
Woolly rose-mallow (<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>)	CNPS: 1B.2 Global Rank: G5T3 State Rank: S3	Occurs within Marshes and swamps, growing at elevations from 0-395 feet. Blooming period is from June-September.	Not Likely to Occur. No suitable freshwater marshes or swamp habitat are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 7 miles away.
Loma Prieta hoita (<i>Hoita strobilina</i>)	CNPS: 1B.1 Global Rank: G2 State Rank: S2	Occurs within Chaparral, Cismontane woodland, and riparian woodland, growing at elevations from 100-2820 feet. Blooming period is from May-August or October.	Not Likely to Occur. No suitable chaparral or woodland habitats and no serpentine soils are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 10 miles away.
Legenere (<i>Legenere limosa</i>)	CNPS: 1B.1 Global Rank: G2 State Rank: S2	Occurs within Vernal pools, growing at elevations from 5-2885 feet. Blooming period is from April-June.	Not Likely to Occur. No vernal pools are present within the project site. Nearest known occurrence is approximately 14 miles away.

TABLE 5.2-2 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS PLANTS WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range, Habitat, and Blooming Period	Potential to Occur² and Comments
Mt. Hamilton coreopsis (<i>Leptosyne hamiltonii</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Cismontane woodland, growing at elevations from 1805-4265 feet. Blooming period is from March-May.	Not Likely to Occur. Project site is outside of the known elevation range.
Mason's lilaeopsis (<i>Lilaeopsis masonii</i>)	CNPS: 1B.1 Global Rank: G2 State Rank: S2	Occurs within Marshes and swamps (brackish, freshwater), and riparian scrub, growing at elevations from 0-35 feet. Blooming period is from April-November.	Not Likely to Occur. Project site is outside of the known elevation range.
Delta mudwort (<i>Limosella australis</i>)	CNPS: 2B.1 Global Rank: G5 State Rank: S2	Occurs within Marshes and swamps (brackish, freshwater), and riparian scrub, growing at elevations from 0-10 feet. Blooming period is from May-August.	Not Likely to Occur. Project site is outside of the known elevation range.
Showy golden madia (<i>Madia radiata</i>)	CNPS: 1B.1 Global Rank: G3 State Rank: S3	Occurs within Cismontane woodland, and Valley and foothill grassland, growing at elevations from 80-3985 feet. Blooming period is from March-May.	Moderate. Suitable valley and foothill grasslands with clay soils are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 5.7 miles away.
Hall's bush-mallow (<i>Malacothamnus hallii</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chaparral, and Coastal scrub, growing at elevations from 35-2495 feet. Blooming period is from April-October.	Not Likely to Occur. No suitable chaparral or coastal scrub habitats are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 16 miles away.
Shining navarretia (<i>Navarretia nigelliformis</i> ssp. <i>radians</i>)	CNPS: 1B.2 Global Rank: G4T2T3 State Rank: S2S3	Occurs within Cismontane woodland, Valley and foothill grassland, and Vernal pools, growing at elevations from 215-3280 feet. Blooming period is March-July.	Moderate. Suitable valley and foothill grasslands with clay soils are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 2.2 miles away.
Mt. Diablo phacelia (<i>Phacelia phacelioides</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chaparral, and Cismontane woodland, growing at elevations from 1640-4495 feet. Blooming period is from April-May.	Not Likely to Occur. Project site is outside of the known elevation range.
Hairless popcornflower (<i>Plagiobothrys glaber</i>)	CNPS: 1A Global Rank: GX State Rank: SX	Occurs within Marshes and swamps (coastal salt), and Meadows and seeps (alkaline), growing at elevations from 50-590 feet. Blooming period is from March-May.	Not Likely to Occur. No suitable coastal salt or alkaline meadow habitat are present. Not observed during focused plant surveys. Nearest known occurrence is approximately 7 miles away.
California alkali grass (<i>Puccinellia simplex</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chenopod scrub, Meadows and seeps, Valley and foothill grassland, and Vernal pools, growing at elevations	Low. Suitable valley and foothill grassland is present, but with limited mesic areas. Not observed during focused plant surveys. Nearest known occurrence is approximately 4 miles away.

TABLE 5.2-2 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS PLANTS WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range, Habitat, and Blooming Period	Potential to Occur² and Comments
		from 5-3050 feet. Blooming period is from March-May.	
Chaparral harebell (<i>Ravenella exigua</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Chaparral (rocky, and usually serpentine), growing at elevations from 900-4100 feet. Blooming period is from May-June.	Not Likely to Occur. Project site is outside of the known elevation range.
Chaparral ragwort (<i>Senecio aphanactis</i>)	CNPS: 1B.2 Global Rank: G3 State Rank: S2	Occurs within Chaparral, Cismontane woodland, and Coastal scrub, growing at elevations from 50-2625 feet. Blooming period is from January-May.	Not Likely to Occur. No suitable chaparral, woodland, or coastal scrub habitat is present. Not observed during focused plant surveys. Nearest known occurrence is approximately 4.6 miles away.
Long-styled sand-spurrey (<i>Spergularia macrotheca</i> var. <i>longistyla</i>)	CNPS: 1B.2 Global Rank: G5T2 State Rank: S2	Occurs within Marshes and swamps, and Meadows and seeps, growing at elevations from 0-835 feet. Blooming period is from February-May.	Not Likely to Occur. No suitable marsh or meadow habitat is present. Not observed during focused plant surveys. Nearest known occurrence is approximately 3 miles away.
Saline clover (<i>Trifolium hydrophilum</i>)	CNPS: 1B.2 Global Rank: G2 State Rank: S2	Occurs within Marshes and swamps, Valley and foothill grassland (mesic, alkaline), and Vernal pools, growing at elevations from 0-985 feet. Blooming period is from April-June.	Low. Suitable valley and foothill grassland is present, but with limited mesic areas. Not observed during focused plant surveys. Nearest known occurrence is approximately 8 miles away.
Caper-fruited tropidocarpum (<i>Tropidocarpum capparideum</i>)	CNPS: 1B.1 Global Rank: G1 State Rank: S1	Occurs within Valley and foothill grassland, growing at elevations from 5-1495 feet. Blooming period is from March-April.	High. Suitable valley and foothill grassland with alkaline soils are present. Not observed during focused plant surveys. Nearest documented historical occurrence is approximately .8 miles away. Nearest recent occurrence is approximately 3 miles away.

¹FEDERAL STATUS DESIGNATIONS

ESA (Federal Endangered Species Act):

FT = Federally threatened

FP-T = Federally proposed as threatened

FE = Federally endangered

S = Sensitive

STATE STATUS DESIGNATIONS

CESA (California Endangered Species Act):

ST = State threatened

SE = State endangered

²POTENTIAL TO OCCUR DEFINITIONS:

The definitions provided below are general parameters used to establish a baseline potential for each species to occur. These may be slightly altered due to survey results, professional experience, and/or coordination with the applicable resource agencies.

Present: Observed within or near project site during surveys.

High: Suitable habitat is present; project site is within known geographic and elevation ranges of species; and recent (within 10 years) record(s) located within 10 miles of project site.

TABLE 5.2-2 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS PLANTS WITHIN THE PROJECT AREA

Common Name <i>Scientific Name</i>	Status ¹	Range, Habitat, and Blooming Period	Potential to Occur ² and Comments
SC-E = State candidate for listing as endangered SC-T = State candidate for listing as threatened CNPS (California Native Plant Society – California Rare Plant Rank): 1B = Rare, threatened, or endangered in California and elsewhere 2B = Rare, threatened, or endangered in California but mostly common elsewhere 4 = Watch list (limited distribution) Threat Rank: 0.1 = Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat) 0.2 = Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat) 0.3 = Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known) NatureServe Global / State Ranks: (G/S) 1 = Critically imperiled; at very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors (G/S) 2 = Imperiled; at high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors (G/S) 3 = Vulnerable; at moderate risk of extinction or elimination due to fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors (G/S) 4 = Apparently secure; at fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of recent local declines, threats, or other factors (G/S) 5 = Secure; at very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats SNR = State not ranked			Moderate: Suitable habitat is present; project site is within known geographic and elevation ranges of species; and recent (within 10 years) record(s) located within 10 miles of project site OR typically suitable habitat is present; project site is within geographic and elevation ranges of species; and somewhat recent (within 20 years) record(s) located within 10 miles of project site. Low: Typically or occasionally suitable habitat is present; project site is outside of known geographic and/or elevation ranges; and recent (within 10 years) record(s) located within 10 miles of project site OR typically or occasionally suitable habitat is present; project site is within known geographic and elevation ranges; and recent (within 10 years) or somewhat recent (within 20 years) located within 10 miles of project site. Not likely to occur: Typically, or occasionally suitable habitat is not present and/or the project site is outside of the known geographic and/or elevation ranges of the species; no known records located within 10 miles of project site. Sources: Calflora 2025, CDFW 2025a, CDFW 2025c, CNPS 2025b, Dudek 2024, NatureServe 2025, USFWS 2025e

TABLE 5.2-2 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS PLANTS WITHIN THE PROJECT AREA

Common Name <i>Scientific Name</i>	Status¹	Range, Habitat, and Blooming Period	Potential to Occur² and Comments
T = Subspecies/varieties receive a "T" rank attached to the "G" rank. With subspecies/varieties, the "G" rank reflects the condition of the entire species, whereas the "T" rank reflects the global situation of just the subspecies or variety.			

Heartscale (*Atriplex cordulata* var. *cordulata*). Heartscale is not classified as special status under any state or federal law or agency, nor is it covered under the EACCS. An annual herb, this species occurs in chenopod scrub, meadows and seeps, valley and foothill grassland. It is endemic to the Central Valley, and it's found in the San Joaquin Valley, where it grows in areas of saline and alkaline soils. This species prefers elevations from sea level up to 1,835 feet. The blooming period extends from approximately April to October (CNPS 2025b). The nearest known occurrence is approximately 6 miles to the northwest of the project site. While there is suitable grassland habitat within the project site, this species was not observed during focused rare plant surveys conducted by the applicant during the appropriate blooming period. Therefore, there is a low potential for this species to be present.

Lesser saltscale (*Atriplex minuscula*). Lesser saltscale is not classified as special status under any state or federal law or agency, nor is it covered under the EACCS. An annual herb, this species occurs in chenopod scrub, playas, valley and foothill grassland. Prefers sandy, alkaline soils, and elevations of 50 to 655 feet. The blooming period typically extends from May to October (CNPS 2025b). The nearest known occurrence is approximately 5 miles west of the project site. While there is suitable grassland habitat present, the site generally lacks sandy soils. This species was not observed during focused rare plant surveys conducted by the applicant during the appropriate blooming period. Therefore, there is a low potential for this species to be present.

Big-scale balsamroot (*Balsamorhiza macrolepis*). Big-scale balsamroot is not classified as special status under any state or federal law or agency, nor is it covered under the EACCS. It is a perennial herb that is endemic to California. The species occurs in chaparral, cismontane woodland, and valley and foothill grassland habitats from 150 to 5,100 feet in elevation. The blooming period typically occurs from March to June (CNPS 2025b). The nearest known occurrence is approximately 6 miles to the northwest of the project site. While there is suitable grassland habitat present, the site generally lacks sandy, rocky and gravelly soils. This species was not observed during focused rare plant surveys conducted by the applicant during the appropriate blooming period. Therefore, there is a low potential for this species to be present.

Big tarplant (*Blepharizonia plumosa*). Big tarplant (CRPR List 1B.1, EACCS covered species) is an annual herb typically found in annual grasslands characterized by clay to clay-loam soils. It favors sloped topography and often colonizes areas that have recently burned, generally below 1,500 feet. Seedlings appear in early spring, but the plants do not begin to bloom until mid-summer. The blooming period, during which the plants produce many heads with white flowers, generally occurs between July to October (EACCS 2010).

Threats to this species include urbanization, disking, residential development, and encroachment by non-native plant species (EACCS 2010). Three individual plants were observed during the rare plant survey on August 2, 2023. These plants were detected

near the southwest corner of the PG&E Tesla substation in an area of sparse grassland that shows evidence of drainage patterns from the surrounding hills, including cracked soils, reduced grass cover and increased scrub species cover, and increased bare ground (Dudek 2024). EACCS Goal 23 aims to conserve focal plant species by prioritizing the avoidance and minimization of construction-related and post-project impacts (Objective 23.1). These efforts are supported by the protection of existing populations (Objective 23.2) and the enhancement of suitable habitats through management plans, seed banking, and reintroduction programs (Objective 23.3). Therefore, this species is known to be present within the project site.

Palmate-bracted bird's-beak (*Chloropyron palmatum*). Palmate-bracted bird's-beak federally and state listed as endangered under the ESA and CESA respectively. The species is also covered by the EACCS. It is a hemiparasitic annual herb that is endemic to California. The species occurs in Chenopod scrub and valley and foothill grassland habitats at elevations from 15 to 510 feet, where it is preferential to alkaline soils. The blooming period typically occurs from May to October (CNPS 2025b). The nearest known occurrence is approximately 8 miles west of the project site. While there is suitable grassland habitat present, Pescadero soils are a minor component and there is a lack of seasonally flooded flats with salty soils. This species was not observed during focused rare plant surveys conducted by the applicant during the appropriate blooming period. Therefore, there is a low potential for this species to be present.

California alkali grass (*Puccinellia simplex*). California alkali grass is not classified as special status under any state or federal law or agency, nor is it covered under the EACCS. It is an annual herb found within and outside of California. The species occurs within Chenopod scrub, meadow and seep, valley and foothill grassland, and vernal pool habitats from elevations 5 to 3,050 feet above sea level. The species prefers sinks, flats, lake margins, vernal mesic areas, and alkaline soils. The blooming period typically occurs from March to May (CNPS 2025b). The nearest known occurrence is approximately 4 miles to the northwest of the project site. While there is suitable grassland habitat present, there is a lack of suitable sandy or loose loamy soils with high moisture content. This species was not observed during focused rare plant surveys conducted by the applicant during the appropriate blooming period. Therefore, there is a low potential for this species to be present.

Saline clover (*Trifolium hydrophilum*). Saline clover is not classified as special status under any state or federal law or agency, nor is it covered under the EACCS. It is an annual herb that is endemic to California. The species occurs within marshes and swamps, valley and foothill grassland, and vernal pools where it grows from sea level to 985 feet in elevation. The species prefers mesic habitats with alkaline soils. The blooming period typically occurs from April to June (CNPS 2025b). The nearest known occurrence is approximately 8 miles west of the project site. While there is suitable grassland habitat present, there is a lack of suitable mesic areas. This species was not observed during focused rare plant surveys conducted by the applicant during the

appropriate blooming period. Therefore, there is a low potential for this species to be present.

Special-Status Wildlife

For the purposes of this staff assessment, special-status wildlife species include:

- Listed, proposed for listing, or candidates for listing as threatened or endangered species (including designated or proposed critical habitat) under the federal ESA
- Listed, or candidates for listing as threatened or endangered under the CESA
- Bald and golden eagles protected under the Bald and Golden Eagle Protection Act
- Designated as Fully Protected (FP) by the CDFW
- Designated as a Species of Special Concern (SSC) by CDFW

Species identified by the U.S. Fish and Wildlife Service (USFWS) as Birds of Conservation Concern (BCC) do not, by that designation alone, qualify as special-status species under CEQA. However, if a BCC species also meets the definition of a special-status species, as defined above, it is considered a special-status species for purposes of CEQA analysis and is evaluated for potential impacts. These species are noted in **Table 5.2-4** below. In addition to the literature review and reconnaissance-level surveys described above, the applicant conducted several focused and protocol-level surveys for special-status wildlife species. **Table 5.2-3** summarizes the wildlife surveys that were conducted by the applicant.

TABLE 5.2-3 SUMMARY OF WILDLIFE SURVEYS CONDUCTED FOR THE PROJECT

Survey Focus	Survey Type	Dates
Crotch's Bumble Bee (<i>Bombus crotchii</i>)	Focused	May 16, 2023 August 2, 2023 January 18, 2024
California Red-Legged Frog (<i>Rana draytonii</i>) and California Tiger Salamander (<i>Ambystoma californiense</i>)	Protocol (Non-Breeding Season)	August 2, 2023
Burrowing Owl (<i>Athene cunicularia</i>)	Protocol (Breeding and Non-Breeding Season)	April 12, 2024 (breeding) May 3, 2024 (breeding) May 24, 2024 (breeding) June 17, 2024 (breeding) December 12, 2024 (non-breeding) January 4, 2025 (non-breeding) January 11, 2025 (non-breeding) January 31, 2025 (non-breeding)
Swainson's Hawk (<i>Buteo swainsoni</i>) and Golden Eagle (<i>Aquila chrysaetos</i>)	Protocol (Nesting and Non-Nesting Season)	December 12, 2024 (winter) March 20, 2025 (spring) March 27, 2025 (spring) April 3, 2025 (spring) April 11, 2025 (spring) April 17, 2025 (spring) April 28, 2025 (spring)

TABLE 5.2-3 SUMMARY OF WILDLIFE SURVEYS CONDUCTED FOR THE PROJECT

Survey Focus	Survey Type	Dates
Burrows (Burrowing Owl, San Joaquin Kit Fox, American Badger)	Focused	May 16, 2023 August 2, 2023 January 18, 2024 April 12, 2024

Crotch’s Bumble Bee Focused Surveys. Focused surveys for Crotch’s bumble bee (*Bombus crotchii*) habitat were conducted on May 16 and August 2, 2023, as well as January 18, 2024, to identify foraging and nesting habitat within the project site. Biologists surveyed the project site on foot in approximately 20-meter parallel transects to provide complete visual coverage within the project site and gen-tie alignment. Bumble bee habitat was identified following *CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* (CDFW 2023), which includes plant species that provide floral (nectar) resources and nesting substrates such as bare ground, rodent burrows, thatched grass, or rock piles. Potential bumble bee floral resources and nesting substrates were mapped using ArcGIS Field Maps (ESRI).

California Red-Legged Frog Habitat Assessment. A protocol-level habitat assessment for California red-legged frog was conducted on August 2, 2023, for suitable aquatic habitats identified within, and in the vicinity of the project site. Surveys were conducted to identify potential aquatic breeding sites within dispersal distance of the project site. Due to access restrictions not all aquatic habitats within 1-mile were able to be surveyed. Habitat assessments were conducted in accordance with the USFWS *Revised Guidance on Site Assessments and Field surveys for California Red-Legged Frog* (USFWS 2005). Aquatic features were mapped along top of bank using ArcGIS Field Maps (ESRI).

California Tiger Salamander Habitat Assessment. A protocol-level habitat assessment for California tiger salamander (*Ambystoma californiense*) was conducted concurrently with the California red-legged frog habitat assessment on August 2, 2023, for suitable aquatic habitats identified within, and in the vicinity of the project site. Surveys were conducted to identify potential aquatic breeding sites within dispersal distance of the project site. Due to access restrictions not all aquatic habitats within 1.24 miles were able to be surveyed. Habitat assessments were conducted in accordance with the USFWS *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* (USFWS 2003). Aquatic features were mapped along top of bank using ArcGIS Field Maps (ESRI).

Burrowing Owl. Protocol-level surveys for western burrowing owl were conducted on April 12, May 3, May 24, and June 17, 2024. Winter surveys were conducted on December 12, 2024, as well as January 4, 11, and 31, 2025. Surveys followed the recommended protocol outlined in the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Biologists walked transects no more than 20 meters apart, within the project site. Biologists documented any sight or sign of western burrowing owls.

Swainson's Hawk. Surveys for Swainson's hawk (*Buteo swainsoni*) were conducted on December 12, 2024, as well as March 20, 27, April 3, 11, 17, and 28, 2025. These surveys followed the recommended protocol outlined in *The Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (SHTA 2000).

Although the standard protocol specifies a 0.5-mile survey radius, the survey area was expanded to a 1-mile radius from the project site. This was due to a scarcity of appropriate nesting trees and to ensure a thorough assessment of the species' potential use of the wider project vicinity. A total of seven surveys were completed including an initial assessment to identify potential habitat and existing stick nests, followed by six targeted surveys to cover the critical courtship, incubation, and fledgling life stages of the hawk. Biologists primarily conducted surveys from vehicles on accessible roads, utilizing binoculars and a spotting scope for observations.

Golden Eagle. Surveys for golden eagles (*Aquila chrysaetos*) were conducted at the same time as the Swainson's hawk surveys described above. These surveys took place on December 12, 2024, as well as March 20, 27, April 3, 11, 17, and 28, 2025. The methodology followed the recommended ground-based survey protocols detailed in the *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* (Pagel et al 2010). The survey area extended to a 2-mile buffer, where the terrain allowed access.

The survey included an initial assessment to identify potential nesting habitat and the presence of suitable stick nests, as well as checking previously recorded territories within the buffer. Additional surveys covered the courtship, incubation, nestling, and fledgling stages of the breeding cycle. Biologists established vantage points overlooking the project site and used binoculars and a spotting scope to observe raptor activity. Vantage point observations were specifically made on December 12, 2024, March 20, 2025, and April 28, 2025, each lasting a minimum of 4 hours.

Burrow Surveys. Focused burrow surveys were conducted on May 16 and August 2, 2023, as well as January 18, 2024, to identify a variety of animal burrows within the project site. Additional surveys to assess burrow suitability for San Joaquin kit fox and American badger (*Taxidea taxus*) were conducted on April 12, 2024. The additional surveys followed the recommended *San Joaquin Kit Fox Survey Protocol for the Northern Range* (USFWS 1999). Biologists surveyed the project site boundaries including the gen-tie alignment. Burrows of all sizes were mapped using ArcGIS Field Maps (ESRI).

Survey Results and Potential to Occur. Surveys conducted by the applicant identified two special-status wildlife species present within or near the project site. These included California horned lark (*Eremophila alpestris actia*) and tricolored blackbird. CEC staff determined that 25 additional species have at least some potential to occur in or near the project site based on the presence of suitable habitat, proximity

to documented occurrences, and/or through coordination with CDFW (see **Table 5.2-4**). Several species identified during the literature review were determined to have no potential to occur based on the project site being located outside of known ranges for these species, a lack of suitable habitat, the absence of recent records or documentation, coordination with the applicable resource agencies, and/or staff's professional judgement. Please refer to **Table 5.2-4** for a complete list of these species and the potential to occur within the project area. Wildlife species with no potential to occur are not discussed further in this document. See **Figure 5.2-4** for locations of potential suitable habitat for Crotch's bumble bee, California red-legged frog, and California tiger salamander that were identified during surveys.

Federal- and State-Listed Wildlife. No federally listed species were observed within the project site during surveys conducted by the applicant. One state-listed species, tricolored blackbird, was observed foraging during surveys conducted by the applicant. Additional federal- and/or state-listed species were determined to have some potential to occur within or near the project site. These include California tiger salamander, California red-legged frog, western burrowing owl, San Joaquin kit fox, Crotch's bumble bee, monarch butterfly (*Danaus plexippus*), and Swainson's hawk.

Fully Protected Wildlife. Several species designated as fully protected under the California Fish and Game Code have the potential to occur within or near the project site. Golden eagles have a high potential to forage and a moderate potential to nest within the project area. This species is federally protected by the Bald and Golden Eagle Protection Act and is a state FP species under the California Fish and Game Code that is also covered under the EACCS. In addition, white-tailed kites have a moderate potential to nest and forage within the project area.

Other Special-Status Wildlife. Several special-status wildlife were determined to have a moderate or high potential to occur within the project site due to the presence of suitable habitat. Focused surveys (Dudek 2024) documented California horned lark, a CDFW Watch List (WL) species. Other species with a moderate or high potential to occur but not detected during surveys include American badger, San Joaquin coachwhip (*Masticophis flagellum ruddocki*), ferruginous hawk, northern harrier, Cooper's hawk, and prairie falcon. Species with a low to moderate potential to occur include coast horned lizard (*Phrynosoma blainvillii*).

TABLE 5.2-4 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS WILDLIFE WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range and Habitat	Potential to Occur² and Comments
INVERTEBRATES			
Crotch's bumble bee (<i>Bombus crotchii</i>)	State List: SC-E Global Rank: G2 State Rank: S2	Found between San Diego and Redding in a variety of habitats, including open grasslands, shrublands, chaparral, desert margins, and semi-urban settings; nests underground but nest characteristics not well documented; generalist forager with typical floral resources including plants in the Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, Boraginaceae families; overwinter in soft, disturbed soils or under leaf litter or other debris, but very little is known about hibernacula characteristics.	Moderate. Grassland habitat is present with scattered floral resources and nesting substrates. Nearest known occurrence is approximately 5 miles away.
Western bumble bee (<i>Bombus occidentalis</i>)	State List: SC-E Global Rank: G3 State Rank: S1	Forests, meadows, and coastal scrub.	Not Likely to Occur. This species is not expected to occur in the Bay Area. Known range in California is further north of project area.
Longhorn fairy shrimp (<i>Branchinecta longiantenna</i>)	Federal List: FE Global Rank: G2 State Rank: S2	Valley and foothill grassland, Vernal pool, Wetland.	Not Likely to Occur. Vernal pools do not occur within the project study area, including the areas within and outside of CEC's Opt-In Certification.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	Federal List: FT Global Rank: G3 State Rank: S3	Valley and foothill grassland, Vernal pool, Wetland.	Not Likely to Occur. Vernal pools do not occur within the project study area, including the areas within and outside of CEC's Opt-In Certification.
Midvalley fairy shrimp (<i>Branchinecta mesoallensis</i>)	Global Rank: G2 State Rank: S2S3	Vernal pool, Wetland.	Not Likely to Occur. Vernal pools do not occur within the project study area, including the areas within and outside of CEC's Opt-In Certification.
Monarch butterfly (<i>Danaus plexippus</i>)	Federal list: FP-T Global Rank: G4T12Q State Rank: S2	Overwinter in groves of trees scattered from Mendocino County south to Baja California; start to migrate inland in the spring feeding on flower nectar, mating and laying eggs on a variety of milkweed (<i>Asclepias</i> spp.) plants, the sole source of food for caterpillars.	Moderate. Suitable breeding habitat (milkweed) is scattered throughout the project study area; however, there are no concentrated populations of the host plant present; foraging habitat (nectar producing plants) are present throughout the project study area.

TABLE 5.2-4 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS WILDLIFE WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range and Habitat	Potential to Occur² and Comments
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	Federal List: FT Global Rank: G3T3 State Rank: S3	Riparian scrub.	Not Likely to Occur. No blue elderberry host plants are present in the project study area.
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	Federal List: FE	Vernal pool wetlands	Not Likely to Occur. Vernal pools do not occur within the project study area, including the areas within and outside of CEC's Opt-In Certification.
California linderiella (<i>Linderiella occidentalis</i>)	Global Rank: G2G3 State Rank: S2S3	Vernal pool	Not Likely to Occur. Vernal pools do not occur within the project study area, including the areas within and outside of CEC's Opt-In Certification.
REPTILES AND AMPHIBIANS			
California tiger salamander pop 1 (<i>Ambystoma californiense</i>)	Federal List: FT State List: ST Global Rank: G2G3T3 State Rank: S3 CDFW: WL	Cismontane woodland, Meadow and seep, riparian woodland, Valley and foothill grassland, Vernal pool, Wetland.	High. Suitable grassland habitat is present within the project study area and breeding habitat is available within dispersal distance.
Northern California legless lizard (<i>Anniella pulchra</i>)	Global Rank: G3 State Rank: S2S3 CDFW: SSC	Chaparral, Coastal dunes, Coastal scrub.	Not Likely to Occur. Grassland habitat is present; however, suitable sandy or loose loamy soils with high moisture content do not occur within or adjacent to the project area, including the areas within and outside of CEC's Opt-In Certification.
California glossy snake (<i>Arizona elegans occidentalis</i>)	Global Rank: G5T2 State Rank: S2 CDFW: SSC	Occurs throughout southern California in desert, interior coast ranges, chaparral, sagebrush, annual grasslands, valley-foothill hardwood, pine-juniper.	Not Likely to Occur. Grassland habitat is present; however, there are limited loose soils available.
Northwestern pond turtle (<i>Actinemys marmorata</i>)	Federal List: FP-T Global Rank: G2 State Rank: SNR CDFW: SSC	Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh and swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland.	Low. Patterson Run creek provides low-quality habitat.

TABLE 5.2-4 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS WILDLIFE WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range and Habitat	Potential to Occur² and Comments
Alameda whipsnake (<i>Masticophis lateralis euryxanthus</i>)	Federal List: FT State List: ST Global Rank: G4T2 State Rank: S2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland.	Not Likely to Occur. No suitable chaparral or scrub habitat is present.
San Joaquin coachwhip (<i>Masticophis flagellum ruddocki</i>)	Global Rank: G5T2T3 State Rank: S3 CDFW: SSC	Chenopod scrub, Valley and foothill grassland.	Moderate. Grassland habitat is present with small mammal burrows for refuge. Nearest known occurrence is approximately 0.4 miles away.
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	Global Rank: G4 State Rank: S4 CDFW: SSC	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon and juniper woodlands, riparian scrub, riparian woodland, Valley and foothill grassland.	Low to Moderate. Grassland habitat is present; however, there are limited open areas for sunning and limited loose soils available.
Foothill yellow-legged frog - central coast DPS (<i>Rana boylei</i> pop. 4)	Federal List: FT State List: SE Global Rank: G3T2 State Rank: S2	Aquatic, Chaparral, Cismontane woodland, Coastal scrub, Klamath/North coast flowing waters, Lower montane coniferous forest, Meadow and seep, riparian forest, riparian woodland, Sacramento/San Joaquin flowing waters.	Not Likely to Occur. No suitable rocky stream habitat is present. Nearest known occurrence is approximately 5 miles away.
California red-legged frog (<i>Rana draytonii</i>)	Federal List: FT Global Rank: G2G3 State Rank: S2S3 CDFW: SSC	Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater marsh, Marsh and swamp, riparian forest, riparian scrub, riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland.	High. Suitable grassland habitat with small mammal burrows are present. Aquatic breeding habitat is available within dispersal distance. Numerous occurrences within 5 miles of the project site.
Western spadefoot (<i>Spea hammondi</i>)	Federal List: FP-T Global Rank: G2G3 State Rank: S3S4 CDFW: SSC	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pool, Wetland – requires sandy/gravelly soils.	Low. Vernal pools for breeding and egg-laying do not occur within the project site. Nearest known occurrence is approximately 3.6 miles away.
BIRDS			
Cooper's hawk (<i>Accipiter cooperii</i>)	Global Rank: G5 State Rank: S4 CDFW: WL	Mostly a yearlong resident throughout most of the wooded portions of California; nesting and foraging usually occurs in dense stands of live oak, riparian deciduous, or other forest habitats near open water or riparian vegetation.	Low (nesting) and Moderate (foraging). Suitable open grassland areas are present for foraging. Nearest known occurrence reported within 1-mile of the project site.

TABLE 5.2-4 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS WILDLIFE WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range and Habitat	Potential to Occur² and Comments
Tricolored blackbird (<i>Agelaius tricolor</i>)	State List: ST Global Rank: G1G2 State Rank: S2 CDFW: SSC	Yearlong resident that makes extensive migrations and movements within their range in California; colonial breeding occurs near fresh water, preferably wetlands with tall cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs; often congregate in huge, mixed-species blackbird flocks that forage in grasslands and agricultural fields with low-growing vegetation during the winter.	Low (nesting) and Present (foraging). Species observed during January 2024 field survey. No suitable nesting habitat is present in the project study area. Abundant grassland habitat for foraging is present.
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	Global Rank: G5 State Rank: S3 CDFW: SSC	Occurs in California primarily as a summer resident from March to September; partly migratory with rare winter occurrences; prefer short to middle-height, moderately open grasslands with scattered shrubs.	Low. Abundant grassland habitat is present; however, the project study area lacks shrubs for perching.
Short-eared owl (<i>Asio flammeus</i>)	Federal: BCC Global Rank: G5 State Rank: S2 CDFW: SSC	Usually found in open areas with few trees such as annual and perennial grasslands, prairies, dunes, wetlands, and irrigated lands.	Low. Suitable grassland habitat is present for nesting and foraging. Nearest known occurrence is approximately 2.6 miles away documented from 1995.
Golden eagle (<i>Aquila chrysaetos</i>)	Federal: BCC Global Rank: G5 State Rank: S3 CDFW: FP	Yearlong resident and migrant throughout California except center of Central Valley; nests and winters in hilly, open, or semi-open areas including shrublands, grasslands, pastures, riparian areas, mountain canyons, and open desert, constructing nests in trees and cliffs in open areas; forages in open habitats including grasslands, shrublands and desert areas. Known to nest in trees and on transmission lines.	High (foraging) Moderate to High (nesting). Two golden eagle territories overlap the project study area. The Midway and Jess Ranch pairs. Transmission towers and trees within 1-mile provide potential nesting habitat. Grassland foraging habitat is present.
Burrowing owl (<i>Athene cunicularia</i>)	State List: SC-E Global Rank: G4 State Rank: S2	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley and foothill grassland.	High. Suitable grassland habitat with small mammal burrows is present. Numerous occurrences within 1-mile of the project site are documented.
Ferruginous hawk (<i>Buteo regalis</i>)	Global Rank: G4 State Rank: S3S4 CDFW: WL	Great Basin grassland, Great Basin scrub, Pinon and juniper woodlands, Valley and foothill grassland.	Moderate. Suitable open grassland is present for foraging. Nearest known occurrence is approximately 2.7 miles away.

TABLE 5.2-4 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS WILDLIFE WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range and Habitat	Potential to Occur² and Comments
Swainson's hawk (<i>Buteo swainsoni</i>)	State List: ST Global Rank: G5 State Rank: S4	Nests peripheral to riparian systems or in lone trees in agricultural fields or pastures and roadside trees when available and adjacent to suitable foraging habitat; forages in adjacent grasslands or suitable grain or alfalfa fields.	Low (nesting) and Moderate (foraging). Suitable open grassland is present for foraging. Nearest known occurrence is less than 1-mile of the project site.
Northern harrier (<i>Circus hudsonius</i>)	Global Rank: G5 State Rank: S3 CDFW: SSC	Yearlong resident within its breeding range in California; breed and forage in a variety of open (treeless) habitats that provide vegetative cover, including annual and perennial grasslands, weed fields, agricultural fields, sagebrush flats, and desert sinks, among others.	Moderate (nesting and foraging). Suitable open grassland is present within the project site. Nearest known occurrence is approximately 2.4 miles away.
White-tailed kite (<i>Elanus luecurus</i>)	Global Rank: G5 State Rank: S3S4 CDFW: FP	Cismontane woodland, Marsh and swamp, riparian woodland, Valley and foothill grassland, Wetland.	Moderate (nesting and foraging). Suitable open grassland is present within the project site but with limited individual trees nearby. Nearest known occurrence is approximately 3.7 miles away.
California horned lark (<i>Eremophila alpestris actia</i>)	Global Rank: G5T4Q State Rank: S4 CDFW: WL	Variety of open habitat where trees and large shrubs are present.	High. Suitable grassland for foraging and potential nesting habitat (ground nesting) is present for this species. Horned larks are known to be present in this area.
Prairie falcon (<i>Falco mexicanus</i>)	Global Rank: G5 State Rank: S4 CDFW: WL	Uncommon yearlong resident from southeastern deserts northwest throughout the Central Valley and along the inner Coast Ranges and Sierra Nevada; typically nests in a scrape on a sheltered ledge of a cliff overlooking large, open areas; forages in perennial grasslands, savannahs, rangelands, agricultural fields, and desert scrub.	Moderate to High. (foraging) Suitable foraging habitat is present. Nearest known historical occurrence is within 1-mile of the project site.
California condor (<i>Gymnogyps californianus</i>)	Federal List: FE Global Rank: G1 State Rank: S1 CDFW: FP	Reintroduced into southern California, Arizona, and Baja California; use vast expanses of varying habitats for nesting, roosting, and foraging; nests are located in caves and ledges of steep rocky terrain or in old growth conifers; forages in open grasslands, oak savanna foothills, and beaches adjacent to coastal mountains.	Low to Moderate. This species has been observed in Alameda County. Nearest known sighting was from 2024 approximately 8 miles to the southwest.

TABLE 5.2-4 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS WILDLIFE WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range and Habitat	Potential to Occur² and Comments
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Federal List: D State List: SE Global Rank: G5 State Rank: S3 CDFW: FP	Yearlong resident in northern California and scattered locations in central and southern Sierra Nevada Mountains and foothills, central coast range to inland southern California; uncommon to common winter migrant in southern California; nests in large, old-growth forests; requires large bodies of permanent water nearby for nesting and foraging.	Not Likely to Occur. No forested habitat or large water bodies are present within the project site or vicinity. Nearest known occurrence is approximately 11 miles away.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	Global Rank: G4 State Rank: S4 CDFW: SSC	Common yearlong resident in lowlands and foothills throughout California; prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches; nests on stable branches in densely foliated shrubs or trees.	Low. Open grassland habitat is present for foraging, but the project site has limited perches and lacks scattered shrubs or brush for nesting. Nearest known occurrence is approximately 4 miles away.
Song sparrow - "Modesto" population (<i>Melospiza melodia</i>) pop.1	Global Rank: G5 State Rank: S3 CDFW: SSC	Occurs in southern deserts, riparian wetlands, wet meadow habitats. Breeds in riparian thickets of willows, shrubs, coastal shrub.	Not Likely to Occur. No suitable riparian or marsh habitat is present. Nearest known occurrence is approximately 7 miles away.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	Federal List: FE State List: SE Global Rank: G5T2 State Rank: S3	Riparian habitat with dense shrubby vegetation along streams, rivers, and drainages.	Not Likely to Occur. No suitable riparian vegetation present within the project site. Nearest known occurrence is approximately 6 miles away.

MAMMALS

Pallid bat (<i>Antrozous pallidus</i>)	Global Rank: G4 State Rank S3 CDFW: SSC	Roosting sites can include caves, rock crevices, mines, hollow trees, buildings; favors rocky outcrops and desert habitats.	Low. Grassland habitat is present for foraging but there are limited trees within the project site for roosting.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	Global Rank: G4 State Rank: S2 CDFW: SSC	Found throughout California but details of distribution not well known; requires caves, mines, tunnels, buildings, or other human-made structures for roosting; forages by gleaning from brush or trees or feeds along habitat edges.	Not Likely to Occur. No suitable forest or riparian habitat for foraging, and no suitable structures or caves for roosting are present.
Western mastiff bat (<i>Eumops perotis californicus</i>)	Global Rank: G4G5T4 State Rank: S3S4 CDFW: SSC	Primarily roosts in crevices often composed of exfoliating slabs of granite, sandstone slabs, cliff faces, or large boulders; forages in dry desert washes, floodplains, chaparral, oak woodlands, pine forests, grasslands, and agricultural fields.	Not Likely to Occur. No suitable chaparral, scrub, or forest habitat for foraging, and no suitable cliffs for roosting are present within the project site. There are no known occurrences within 5 miles of the project site.

TABLE 5.2-4 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS WILDLIFE WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range and Habitat	Potential to Occur² and Comments
Hoary bat (<i>Lasiurus cinereus</i>)	Global Rank: G2G4 State Rank: S4	Broadleaved upland forest, Cismontane woodland, Lower montane coniferous forest, North coast coniferous forest.	Low. No suitable woodlands, forests or dense foliage occurs within the project site. Nearest known occurrence is approximately 10 miles away.
San Joaquin pocket mouse (<i>Perognathus inornatus</i>)	Global Rank: G3 State Rank: S2S3	Coastal scrub, Valley and foothill grassland. Hawbecker (1951) found that the San Joaquin pocket mouse occurred on shrubby ridge tops and hillsides. Grinnell (1933) characterized the habitat as being open, sandy areas with grass and forbs.	Low. Nearest known occurrence is approximately 2 miles away.
Riparian brush rabbit (<i>Sylvilagus bachmani riparius</i>)	Federal List: FE State List: SE Global Rank G4T1 State Rank: S2	Found only at Caswell Memorial State Park on the Stanislaus River, San Joaquin Co. (Zeiner et al. 1988-1990, updated May 2000).	Not Likely to Occur. The project site is outside of the known range for this species. Nearest known occurrence is approximately 11 miles away.
American badger (<i>Taxidea taxus</i>)	Global Rank: G5 State Rank: S3 CDFW: SSC	Uncommon permanent resident found throughout most of California except along northern coast; most abundant in drier open stages of most shrub, forest, and herbaceous habitats; require friable soils for burrowing.	High. Suitable dry open grassland is present with evidence of friable soils and burrowing activity near Patterson Pass Road. The nearest known occurrence is less than 1-mile away.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	Federal List: FE State List: ST Global Rank: G4T2 State Rank: S3	Chenopod scrub, Valley and foothill grassland.	High. Suitable open grassland is present with evidence of friable soils and burrowing activity near Patterson Pass Road. Nearest known occurrence is approximately .3 miles away.
FISH			
Green sturgeon – southern DPS (<i>Acipenser medirostris</i>) pop. 1	Federal List: FT Global Rank: G2T1 State Rank: S1 CDFW: SSC	Aquatic, Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters.	Not Likely to Occur. No suitable aquatic habitat is present.
Delta smelt (<i>Hypomesus transpacificus</i>)	Federal List: FT State List: SE Global Rank: G1 State Rank: S1	Endemic to upper San Francisco Estuary, including the Sacramento-San Joaquin Delta. Favors open, cool, brackish waters such as Suisun Bay, the lower Sacramento and San Joaquin Rivers, and sloughs.	Not Likely to Occur. No suitable aquatic habitat is present.

TABLE 5.2-4 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS WILDLIFE WITHIN THE PROJECT AREA

Common Name Scientific Name	Status¹	Range and Habitat	Potential to Occur² and Comments
Steelhead – Central Valley DPS (<i>Oncorhynchus mykiss irideus</i>) pop. 11	Federal List: FT Global Rank: G5T2Q State Rank: S2 CDFW: SSC	Historically throughout Sacramento and San Joaquin river systems, including Alameda County tributaries like Alameda Creek. Utilizes cool, clear streams with gravelly riffles and deep pools for spawning and rearing.	Not Likely to Occur. No suitable aquatic habitat is present.
Longfin smelt - San Francisco Bay-Delta DPS (<i>Spirinchus thaleichthys</i>) pop. 2	Federal List: FE State List: FT Global Rank: G5TNRQ State Rank: S1	San Francisco Bay Estuary, including Alameda County waters such as South Bay for spawning and rearing. Utilize various habitats from sloughs to deep channels.	Not Likely to Occur. No suitable aquatic habitat is present.
Eulachon (<i>Thaleichthys pacificus</i>)	Federal List: FT Global Rank: G4 State Rank: S1 CDFW: SSC	Historically ranged to Northern California and spawned in coastal rivers. Extirpated from San Francisco Bay/Alameda County region.	Not Likely to Occur. No suitable aquatic habitat is present.

¹FEDERAL STATUS DESIGNATIONS

ESA (Federal Endangered Species Act):

FT = Federally threatened

FP-T = Federally proposed as threatened

FE = Federally endangered

USFWS (U.S. Fish and Wildlife Service):

BGEPA = Bald and Golden Eagle Protection Act

BCC = Bird of Conservation Concern

STATE STATUS DESIGNATIONS

CESA (California Endangered Species Act):

ST = State threatened

SE = State endangered

SC-E = State candidate for listing as endangered

SC-T = State candidate for listing as threatened

CDFW (California Department of Fish and Wildlife)

FP = Fully Protected species

SSC = Species of Special Concern

Title 14 = Title 14 species

WL = Watch List species

NatureServe Global / State Ranks:

(G/S) 1 = Critically imperiled; at very high risk of extinction or elimination due to very restricted range, very few populations or occurrences, very steep declines, very severe threats, or other factors

²POTENTIAL TO OCCUR DEFINITIONS:

The definitions provided below are general parameters used to establish a baseline potential for each species to occur. These may be slightly altered due to survey results, professional experience, and/or coordination with the applicable resource agencies.

Present: Observed within or near project site during surveys.

High: Suitable habitat is present; project site is within known geographic and elevation ranges of species; and recent (within 10 years) record(s) located within 10 miles of project site

Moderate: Suitable habitat is present; project site is within known geographic and elevation ranges of species; and recent (within 10 years) record(s) located within 10 miles of project site OR typically suitable habitat is present; project site is within geographic and elevation ranges of species; and somewhat recent (within 20 years) record(s) located within 10 miles of project site

Low: Typically or occasionally suitable habitat is present; project site is outside of known geographic and/or elevation ranges; and recent (within 10 years) record(s) located within 10 miles of project site OR typically or occasionally suitable habitat is present; project site is within known geographic and elevation ranges; and recent (within 10 years) or somewhat recent (within 20 years) located within 10 miles of project site

Not likely to occur: Typical or occasionally suitable habitat is not present and/or the project site is outside of the known geographic

TABLE 5.2-4 KNOWN AND POTENTIAL OCCURRENCE OF SPECIAL-STATUS WILDLIFE WITHIN THE PROJECT AREA

Common Name <i>Scientific Name</i>	Status ¹	Range and Habitat	Potential to Occur ² and Comments
(G/S) 2 = Imperiled; at high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors (G/S) 3 = Vulnerable; at moderate risk of extinction or elimination due to fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors (G/S) 4 = Apparently secure; at fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of recent local declines, threats, or other factors (G/S) 5 = Secure; at very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats SNR = State not ranked T = Subspecies/varieties receive a "T" rank attached to the "G" rank. With subspecies/varieties, the "G" rank reflects the condition of the entire species, whereas the "T" rank reflects the global situation of just the subspecies or variety.			and/or elevation ranges of the species; no known records located within 10 miles of project site. Sources: CDFW 2025a, Dudek 2024, NatureServe 2025, eBird 2025, iNaturalist 2025, USFWS 2025e

Special-Status Invertebrates

Crotch's bumble bee (*Bombus crotchii*). Crotch's bumble bee does not have federal listing status but is currently designated as a candidate species under the CESA. As a candidate species, it receives the same protection as if it were listed as threatened or endangered until the California Fish and Game Commission makes a final determination on its status.

Once widespread in California's Central Valley, this species is now absent from much of its historic range. There has been a decline of 67.51 percent (based on EOO, persistence, and relative abundance) over the past decade (Xerces 2025). Ongoing threats to the species include habitat conversion, pesticide use, disease from managed bees, and other factors such as invasive species. Due to factors such as habitat loss, extensive agricultural activities, and use of pesticides in the Central Valley, this species now appears to be absent from most of its historic range (Xerces 2025).

Crotch's bumble bee inhabits diverse environments, including grasslands, shrublands, chaparral, desert margins, and semi-urban areas. As generalists, they utilize a wide range of plants for nectar, including *Antirrhinum*, *Asclepias*, *Chaenactis*, *Clarkia*, *Dendromecon*, *Eschscholzia*, *Eriogonum*, *Lupinus*, *Medicago*, *Phacelia*, *Salvia* (Williams et al 2014). This species nests in underground abandoned rodent nests, tufts of grass, old bird nests, rock piles, or cavities of dead trees.

The nearest documented occurrence is approximately 5 miles to the south and dates from a 2023 sighting. Focused habitat assessment surveys revealed scattered floral resources, including lupines (*Lupinus* spp.), narrowleaf milkweed (*Asclepias fascicularis*), and purple owl's-clover (*Castilleja exserta*). Potential nesting substrates, such as bare cracked soil, small rocky areas, and small rodent burrows, were also observed. No bumble bee species were detected during field surveys. Therefore, there is a moderate potential for the species to occur within and adjacent to the project site.

Monarch butterfly (*Danaus plexippus*). The monarch butterfly was proposed for listing as threatened under the federal ESA and is not covered under the EACCS. Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. Originally native to North America, the monarch butterfly has dispersed to other parts of the world and non-migratory populations are found from islands in the Pacific Ocean to the western edge of Europe (Xerces 2016). North American migratory monarch butterflies are divided into eastern and western populations with the Rocky Mountains generally separating the two.

The North American western population is generally found west of the Rocky Mountains and can migrate annually up to 300 to 1,000 miles (500 to 1,600 kilometers) (Xerces 2016). There are also non-migratory monarchs that remain year-round at the southern end of their breeding range in parts of Florida, the Gulf Coast, and California. The primary threats affecting the health of North American migratory monarch butterfly populations include the loss and degradation of breeding, migratory, and overwintering

habitat from past conversion of grasslands and shrublands to agriculture and urban development, exposure to herbicides and insecticides, and effects of climate change (Xerces 2016).

Each fall, monarch butterflies go into diapause, a suspended state of reproduction, and begin their long migration to overwintering sites which consist of hundreds of tree groves along the California coast down into northern Baja California. Flowering plants and milkweed plants are essential components in monarch butterfly habitat. Adult monarchs require the nectar from a variety of flowering plants while foraging during breeding and migration. Eggs are deposited on milkweed plants which are the sole resource that caterpillars consume. In early spring, surviving individuals break diapause and mate at the overwintering sites before dispersing northward through the breeding grounds. These individuals then die, leaving their offspring to repeat the cycle. Several generations later, the last adults produced in late summer/fall begin the southward overwintering migration.

The project site is outside the monarch's known overwintering range and does not contain suitable overwintering habitat (i.e. tree groves). Focused surveys in 2023 and 2024 confirmed the presence of milkweed (a required host plant for larvae). No monarch butterflies were observed during field surveys. However, iNaturalist records confirm the species is present in the general region (iNaturalist 2025). The project site does offer potential foraging resources. Therefore, the monarch butterfly has a moderate potential to occur as an infrequent migrant and forager within and adjacent to the project site, but this species is not expected to overwinter or breed.

Special-Status Fish

The project site does not support suitable habitat for special-status fish, and none are expected to occur.

Special-Status Amphibians

California tiger salamander (*Ambystoma californiense*). The central California distinct population segment (DPS) of California tiger salamander, a federally and state threatened species, is covered under the EACCS. This species is endemic to central California, inhabiting vernal pool complexes in specific coastal and Central Valley counties, from Colusa south to Kern, and the coast ranges south to the Temblor Range. Their habitat has two key components: vernal pools and seasonal ponds for spawning, and adjacent upland areas featuring burrow complexes for shelter and refuge during dry summers and periods of inactivity. While rain pools used for spawning are the most obvious and best-known habitat for the species, the presence of ground squirrel and Botta's pocket gopher burrows in grasslands and sparse oak woodlands is far more important for the survival of individuals and colonies.

California tiger salamanders spend 80 to 90 percent of their year in these mammal burrows, which protect them from desiccation during the hot, dry season. They emerge on autumn and winter rainy nights to migrate to rain-filled spawning pools. Females lay

eggs singly or in small clusters on submerged plants. After spawning, adults quickly return to their burrows. Larvae develop in the pools, feeding on aquatic invertebrates, and metamorphose in late spring before the pools evaporate. Adults primarily eat terrestrial invertebrates and small vertebrates (NatureServe 2008).

This species is found in annual grassland, valley-foothill hardwood, and riparian habitats, breeding in vernal pools, ephemeral pools, stock ponds, and (infrequently) along streams and human-made water bodies if predatory fish are absent. The nearest documented occurrence is approximately 1.4 miles southwest, with numerous other records within five miles of the site (BIOS 2025k). The project site also occurs within the EACCS Conservation Zone 10 or designated as "CTS North" and is a high priority for the EACCS for protecting a substantial portion of potential breeding ponds within this area. The project site provides suitable upland refuge and dispersal habitat, consisting of grasslands and small mammal burrows.

Three aquatic features were assessed for habitat suitability for California tiger salamander: Patterson Run, a seasonal stream paralleling Patterson Pass Road, and two stock ponds (Pond 1 and Pond 2) located approximately 0.3 miles northwest of the project site. Of these aquatic features, the two ponds were determined to provide high-quality breeding habitat for California tiger salamander. Patterson Run lacked large pools suitable for breeding. Not all aquatic habitats within 1.24 miles were able to be surveyed due to access restrictions.

No California tiger salamanders were observed during field surveys or the habitat assessment, but this species is extremely difficult to detect without focused surveys. The grasslands within the project site and surrounding areas provide suitable upland refuge and migration habitat for this species. Therefore, California tiger salamander has a moderate potential to occur within and adjacent to the project site.

California red-legged frog (*Rana draytonii*). The California red-legged frog is a state Species of Special Concern, a federal threatened species, and is covered under the EACCS. The California red-legged frog historically ranged from Marin County southward to northern Baja California. It is locally abundant in portions of the San Francisco Bay area and along the Central Coast.

This species uses a variety of areas, including aquatic, riparian and upland habitats. They prefer aquatic habitats with little or no flow, the presence of surface water to at least early June, surface water depths to at least 2.3 feet, and the presence of fairly sturdy underwater supports such as cattails (*Typha* spp.). The largest densities of this species are typically associated with dense stands of overhanging willows and an intermixed fringe of sturdy emergent vegetation. The California red-legged frog typically breeds from January to July, with peak breeding occurring in February and March. Softball-sized egg masses are attached to subsurface vegetation, and hatched tadpoles require 11 to 20 weeks to metamorphose. Metamorphosis typically occurs from July to September.

The California red-legged frog uses both riparian and upland habitats for foraging, shelter, cover, and non-dispersal movement. Upland refugia may be natural, such as the species under boulders or rocks and organic debris (e.g. downed trees or logs), or human-made, such as certain industrial debris and agricultural features (e.g., drains, watering troughs, abandoned sheds, or stacks of hay or other vegetation); the California red-legged frog would also use small mammal burrows and moist leaf litter as refugia. Adults are predominantly nocturnal, while juveniles can be active at any time of day. Riparian habitat degradation, urbanization, predation by bullfrogs, and historic market harvesting have all reportedly contributed to the decline of the species.

Suitable upland refuge and dispersal habitat are present along with abundant grassland containing small mammal burrows. The nearest known occurrence is approximately 0.3 miles west of the project site, with numerous others within five miles. The project site also occurs within the EACCS Conservation Zone 10, designated as "CRLF South", and considered a high priority for protecting a substantial portion of potential breeding ponds within this area by the EACCS.

Three aquatic features were assessed for California red-legged frog habitat suitability: Patterson Run, a seasonal stream paralleling Patterson Pass Road, and two stock ponds (Pond 1 and Pond 2) located approximately 0.3 miles west of the project site. Of these, only Pond 2 was determined to offer high-quality breeding habitat, characterized by deep, perennial water, significant emergent vegetation (bulrush and alkali bulrush), and surrounding grazed grassland. Patterson Run was unsuitable due to absence of large pools and Pond 1 lacked adequate emergent or marginal vegetation. No California red-legged frogs were observed during field surveys or the habitat assessment. The entire project site is considered potential upland dispersal and foraging habitat for the species. Therefore, there is a high potential for California red-legged frog to occur within and/or adjacent to the project site.

Western spadefoot (*Spea hammondi*). The western spadefoot is proposed threatened under the **federal** ESA, is **petitioned for listing as threatened under CESA, remains** a state Species of Special Concern, and is not covered under the EACCS. **If western spadefoot becomes a candidate for listing under CESA it would receive the same protection as if it were listed as threatened or endangered until the California Fish and Game Commission makes a final determination on its status.**

The species occurs primarily in grasslands throughout California's Central Valley and adjacent foothills, extending into the Coast Ranges from Point Conception south to the Mexican border (Jennings and Hayes 1994). It is generally common where present and occupies elevations from near sea level to about 1,363 meters (Jennings and Hayes 1994). Optimal habitats are grasslands with shallow, temporary pools formed by heavy winter rains, though populations may also occur in valley-foothill hardwood woodlands and occasionally in orchards or vineyards (Stebbins 1972). These pools are essential for breeding, as egg masses are attached to submerged vegetation or rocks within them

(Stebbins 1951). Rainfall plays a critical role in creating and maintaining these breeding sites, and most surface activity by adults coincides with rainy nights or periods of high humidity (Ruibal et al. 1969; Shoemaker et al. 1969).

For most of the year, western spadefoots remain underground in self-constructed burrows up to 0.9 meters deep, or in mammal burrows, where moist soil provides water through skin absorption during dry periods (Stebbins 1972; Ruibal et al. 1969). Recently metamorphosed juveniles seek cover near pond margins in drying mud cracks or beneath surface objects such as boards or decomposing cow dung (Weintraub 1980). Breeding occurs from late winter through March, with females laying numerous small clusters of eggs, often exceeding 500 in a season, that hatch within two weeks (Stebbins 1951). Tadpoles develop rapidly in temporary pools, feeding on plankton, algae, and even other amphibian larvae, before transforming and dispersing in late spring (Bragg 1964).

No western spadefoot were observed during field surveys. Vernal pools and ponds for breeding and egg-laying do not occur within the project site. The nearest known occurrence is approximately 3.6 miles to the southwest of the project site. Therefore, there is a low potential for western spadefoot to occur within the project site.

Special-Status Reptiles

Western pond turtle (*Actinemys marmorata*). The western pond turtle is a federally proposed threatened species and a state Species of Special Concern. It is closely tied to aquatic environments across California, west of the Sierra-Cascade crest, and is absent from most desert regions except along the Mojave River (Jennings and Hayes 1994). It thrives in permanent or nearly permanent water bodies such as ponds, lakes, slow-moving streams, irrigation ditches, and pools along intermittent streams, from sea level up to 4,690 feet (Jennings and Hayes 1994). These habitats must provide basking sites such as logs, rocks, mats of floating vegetation, or open mud banks where turtles regulate body temperature and escape quickly to underwater retreats when threatened (Stebbins 1972; Nussbaum et al. 1983). In colder climates, they typically hibernate in bottom mud, while in warmer areas, they may remain active year-round (Bury 1970, 1972).

The species' reproductive needs further shape habitat uses. Females often travel overland, sometimes more than 300 feet, to locate suitable nesting sites with soil at least 10 cm deep and high humidity for egg development (Storer 1930; Nussbaum et al. 1983). Hatchlings are highly vulnerable to desiccation, making consistent moisture critical for survival (Jennings and Hayes 1994). Nests occur in varied substrates, from sandy banks near streams to upland fields (Storer 1930; Nussbaum et al. 1983). Eggs are laid from March to August, with incubation lasting 73–80 days under optimal conditions (Ernst and Barbour 1972; Feldman 1982). While home ranges are generally small, occasional movements occur in response to drying water sources (Bury 1970, 1972).

San Joaquin coachwhip (*Masticophis flagellum ruddocki*). The San Joaquin coachwhip is a state Species of Special Concern and is not covered under the EACCS. This subspecies is endemic to California and its range extends from Arbuckle in the Sacramento Valley in Colusa County southward to the Grapevine in the Kern County portion of the San Joaquin Valley and westward into the inner South Coast Ranges, and an isolated population occurs in the Sutter Buttes. It is found at elevations from 66 feet to around 2,953 feet (CDFW 2000).

San Joaquin coachwhip occurs in open, dry, treeless areas, including grassland and saltbush scrub, taking refuge in rodent burrows, under shaded vegetation, and under surface objects (CalHerps 2025). It is found in a variety of other habitats, including desert, chaparral, and pasture (CDFW 2000). San Joaquin coachwhip likely mate in May and lays eggs in early summer. Predators of this species include roadrunners and birds of prey (CDFW 2000). This species eats small mammals including bats, nestling and adult birds, bird eggs, lizards, snakes, amphibians, and carrion. Hatchlings and juveniles will eat large invertebrates (CalHerps 2025).

The project site hosts extensive grassland habitat and numerous small mammal burrows that provide suitable refuge for San Joaquin coachwhip. The nearest known historical occurrence, recorded in 1996, is approximately 0.4 miles northeast of the project site. This species was not observed during field surveys. Therefore, San Joaquin coachwhip has a moderate potential to occur within the project site.

Coast horned lizard (*Phrynosoma blainvillii*). The coast horned lizard is designated as a state Species of Special Concern and is not covered under the EACCS. This species is found along the Pacific coast from Baja California to the Bay Area, and inland to the Sierra foothills. Stebbins (2003) concluded that coast horned lizard is nearly always the only horned lizard where it occurs, which typically includes more upland areas of sage scrub, woodland and chaparral habitats.

Coast horned lizards typically display courtship behavior between April and May and females lay one clutch of 6 to 20 eggs in early summer. Eggs are laid underground in a nest dug out by the female over several days (Pianka and Parker 1975). Hatchlings begin to appear in late July to early August. Like other horned lizards, these species are specialist predators of native ant species, particularly harvester ants (*Pogonomyrmex* spp. and *Messor* spp.).

Habitat degradation, caused by conversion to agriculture, urban, and suburban uses, continues to be the biggest threat to coast horned lizards. Fragmentation of habitat due to this development had been accompanied by the introduction of non-native ants, displacing native prey resources, and an increased density of medium sized predators including raccoons, cats, and skunks that thrive in altered landscapes.

The project site hosts extensive grassland habitat; however, there are limited open areas for sunning and limited loose sandy soils available. The nearest known historical occurrence, recorded in 1992, is approximately 1.9 miles to the southeast of the project

site. This species was not observed during field surveys. Therefore, there is a low to moderate potential for coast horned lizard to be present in the project site.

Special-Status Birds

Cooper's hawk (*Accipiter cooperii*). The Cooper's hawk is a state Watchlist species and is not covered under the EACCS. The species is a common, year-round resident throughout Alameda County. This species favors areas with dense stands of trees, including live oak, riparian and mixed forests or woodlands, often near water.

Suitable open grassland areas are present in the project area for foraging; however, the project site provides only low-quality nesting habitat. The nearest known occurrence is approximately 1-mile away. This species was not observed during surveys. Therefore, there is a low potential for Cooper's hawk to nest and a moderate potential for the species to forage within and adjacent to the project site.

Tricolored blackbird (*Agelaius tricolor*). Tricolored blackbird (nesting colony) is a state threatened listed species and is covered under the EACCS. Tricolored blackbird nests colonially near freshwater, often in emergent wetlands or cattail or tule, but will also nest in dense, thorny vegetation such as Himalayan blackberry (*Rubus armenicus*) or thistles such as *Cirsium* spp. or *Silybum* spp. The species is known to forage in grasslands, woodlands, and in agricultural areas.

This species was observed during the field survey on January 18, 2024, foraging in the grassland within the gen-tie buffer area. The project site occurs within the EACCS Conservation Zone 10, or designated as "Altamont Hills", and identified as a priority area for the protection of large areas of open grassland (EACCS 2010).

Although tricolored blackbirds were observed foraging on the project site, it is unlikely this species would form a nesting colony as there is no suitable nesting habitat present. An area of low-quality wetland habitat is present at a stock pond approximately 0.5 miles west of the project site, however, it is likely too small to sustain a nesting colony (approximately 0.21 acre). Therefore, it is assumed that tricolored blackbirds are not likely to breed in the project site but are present as foraging individuals within and adjacent to the project site.

Grasshopper sparrow (*Ammodramus savannarum*). The grasshopper sparrow is a state Species of Special Concern and is not covered under the EACCS. It is a small, secretive songbird of open grasslands, breeding across much of North America from southern Canada to the central and eastern United States, with disjunct populations extending south to parts of Mexico and Central America (Vickery 1996). In California, it is an uncommon and local summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada Crest, from Mendocino and Trinity Counties south to San Diego County (Dobkin et al. 2008). It occupies dry, dense grasslands with a mix of grasses and forbs and scattered shrubs for singing perches.

The species is partly migratory with most individuals departing by September, and winter status in California poorly understood, though it appears to occur rarely and irregularly, mostly along the southern coastal slope (Grinnell and Miller 1944; Unitt 2004). Occurrences in the Mojave Desert are extremely rare and limited to migration periods, as suitable grassland habitat is largely absent (Dobkin et al. 2008). Nests are constructed on the ground in a slight depression, concealed at the base of overhanging grasses or forbs. Although there is open grassland present the project site lacks suitable shrubs for perching. Therefore, there is a low potential for this species to occur.

Short-eared owl (*Asio flammeus*). The short-eared owl is a state Species of Special Concern and is not covered under the EACCS. This species is a medium-sized owl that grows to a height of 16 inches (41 centimeters) (Wiggins et al. 2020). As its name suggests, it has very short ears that are difficult to distinguish atop its rounded head. Males and females have similar plumage with patches of brown and buff occurring mostly on the back side while the underside is colored more lightly, being mostly white.

Short-eared owls are usually silent but will sometimes exhibit a variety of barks, hisses, and squeals within breeding territories. The overall range of short-eared owl generally spans the entire United States while breeding occurs in areas of northern California across to central Missouri and then up to the Great Lakes area and all areas north. All areas in the United States south of the breeding range are within the wintering or non-breeding range of short-eared owl. Breeding typically occurs between March and July and nesting birds require open country that supports concentrations of microtine rodents (i.e., voles) and herbaceous cover sufficient to conceal their ground nests from predators (Holt and Leasure 1993). Suitable breeding habitats include salt- and freshwater marshes, irrigated alfalfa or grain fields, and ungrazed grasslands and pastures. Influxes of birds from northern breeding grounds occur between late October and early March (Fisler 1960; Garrett and Dunn 1981).

In the winter, this species can be most often found in open grasslands, stubble fields, small meadows, coastal dunes, and shrubby areas where there is a higher abundance of prey resources. Short-eared owls are primarily crepuscular hunters meaning they typically hunt during the twilight hours of dawn and dusk (Holt and Leasure 1993). Their diet is greatly weighted towards small mammals, and in California, the species is particularly attuned to the three-to-four year cycle of the California vole (*Microtus californicus*) (Krebs 1966). However, short-eared owls will resort to other prey when vole numbers are diminished (Fisler 1960). Current threats to short-eared owls include habitat loss and degradation, aggravated to an unknown extent by grazing, invasive exotic weeds, water management, and disease. Although there is suitable grassland habitat present for nesting and foraging, the project site is at the edge of the known current breeding range in California. The nearest historical occurrence was from 1995 approximately 2.6 miles to the south of the project site. Therefore, there is a low potential for this species to occur.

Golden eagle (*Aquila chrysaetos*). The golden eagle is considered a special-status species in California. It is protected by the federal MBTA and the Bald and Golden Eagle Protection Act. This species is also protected by California Fish and Game Code and is a Fully Protected species by the State of California. It is considered a Species of Special Concern by CDFW and is covered under the EACCS. Within California, the golden eagle is a year-round resident generally inhabiting mountainous and hilly terrain throughout open areas. The primary existing threats to golden eagle survival throughout its range include loss or alteration of both foraging and nesting habitat. Human disturbance of nesting birds and fatalities caused by contact with infrastructure (e.g. power facilities, buildings, fences, wind turbines) also pose threats to this species. Alameda County supports a relatively large population of nesting golden eagles and are heavily researched within the region (EACCS 2010, USGS 2021, USGS 2023). The golden eagle is a covered focal species under the EACCS, which has the goal of maintaining the nesting golden eagle population in the study area at a level that allows for long-term viability without human intervention.

Golden eagle habitat in central California consists mainly of open grasslands and oak savanna interspersed with oak and shrub woodlands. The eagles in this area nest predominantly in large, mature oak (*Quercus* spp.) and eucalyptus (*Eucalyptus* spp.) trees (Peeters and Peeters 2005), utilizing nearby open areas for foraging mostly on ground squirrels (Hunt et al. 2017). California breeding populations are largely sedentary, occupying and defending territories year-round. Evidence collected to date suggests that relatively few northern migrants winter in California (Goodrich and Smith 2008; McIntyre et al. 2008), probably due in part to high densities of year-round residents in many areas of the state (Hunt 2002). Even in areas where established breeders are primarily sedentary, young birds may wander extensively (Kochert et al. 2020). Golden eagles exhibit high breeding site fidelity throughout their range. Data on natal dispersal distances are sparse, but USFWS (USFWS 2016) established a radius of 109 miles as the scale required for inferring local population effects based on natal dispersal distances. Evidence collected to date also suggests that migratory eagles, at least adults, tend to show high winter site fidelity as well.

Based on historical studies within the region, this area has some of the densest populations of eagles known and very high golden eagle use (USGS 2021). Local populations are supplemented by winter visitors, although territorial nesting pairs remain in and defend their territory year-round (Hunt et al. 2017). The Diablo Range is generally characterized as having a relatively high density of territorial breeding pairs with approximately 280 breeding pairs present (USGS 2014). The population size within the Altamont Pass Wind Resource Area (APWRA) is stable with about 330 individuals; however, genetic and isotopic data indicate that a large portion of golden eagles killed by wind turbines within the APWRA come from far outside the region. This suggests that the apparent population stability is due to sustained immigration of eagles from elsewhere in North America, and mortality from wind turbines in addition to other sources of mortality (e.g., lead poisoning, electrocution, and drought) have created an ecological sink in the APWRA (Katzner et al. 2016). The project site occurs within the

EACCS Conservation Zone 10 or designated as “Altamont Hills” and is a priority for the EACCS for protecting large areas of open grassland (EACCS 2010).

Golden eagles are known to construct nests in previously used sites or new locations in the region. Courtship in this region begins December 15 and breeding season ends August 31. Ongoing eagle surveys in the APWRA, which overlap with the project site, provide well detailed data for this species. There are two known nests and territories documented within 2 miles of the project site, the “Midway Pair” and the “Jess Ranch Pair”. The Midway Pair has been documented approximately 1-mile south of the project site; and the Jess Ranch Pair approximately 0.6 miles north of the project site. The Midway Pair utilizes a nest in riparian vegetation along Patterson Run and Patterson Pass Road and have been observed consistently returning to the nest year after year (USGS 2023). The applicant’s biologists documented the Midway Pair’s stick nest during preliminary eagle surveys in January 2025, and observed the pair perched adjacent to the nest on April 28, 2025. The Jess Ranch Pair was observed beginning construction on a nest in a transmission tower in 2022, but the nest was blown down and failed the same year. The pair did not return to the nest site in 2023, and no nest was observed during the January or April 2025 follow-up surveys (Dudek 2025iii).

In addition, the proposed mitigation site adjacent to the proposed project has documented that golden eagles are viewed nearly every year during the winter and early spring season foraging on California ground squirrels and black tailed hares, and other wildlife prey; however, no nesting habitat occurs on the proposed mitigation site (Dudek 2025ppq). The abundance of ground squirrels in the Altamont area and the project area combined with the grazing practices makes the Altamont and the project site high quality foraging habitat. In drought years, the grasses and ground squirrel populations can be reduced; however, the extensive amount of studies in the region support the opinion that the project site provides high-quality year-round foraging. Transmission towers and trees within 1-mile of the project site provide potential nesting habitat. The only trees within the project site capable of supporting golden eagle nests are found in the low-lying area along Patterson Run; these trees are relatively short and do not provide ideal nesting habitat. No golden eagles were observed within the project site during surveys. Therefore, golden eagles have a high potential to forage and a moderate to high potential to nest within and adjacent to the project site.

Western burrowing owl (*Athene cunicularia*). The western burrowing owl is currently designated as a candidate species under the CESA and is covered under the EACCS. As a candidate species, it receives the same protection as if it were listed as threatened or endangered until the California Fish and Game Commission makes a final determination on its status. It is also protected under the federal MBTA and California Fish and Game Code.

The burrowing owl is a covered focal species under the EACCS, which has the goal of increasing the burrowing owl nesting population (number of nesting pairs) and number of nesting locations in the conservation area. The project area is located within the

EACCS Conservation Zone (CZ) 10, which has been identified as an important nesting area for burrowing owls. Unfortunately, due to the presence of wind power facilities, there are limited mitigation opportunities for this species within CZ10 (EACCS 2010).

EACCS Goal 19 seeks to protect burrowing owls by avoiding direct impacts to individuals and nests (Objective 19.1), minimizing loss of breeding and non-breeding habitat (Objective 19.2), and protecting and monitoring nest sites and associated foraging habitat (Objective 19.3) through implementation of avoidance measures identified in Tables 3-2 and 3-3 of the EACCS (EACCS 2010).

Under Objective 19.3, Conservation Actions BUOW-1 through BUOW-5 of the EACCS provide for acquisition and protection of occupied and historically used burrowing owl nesting habitats, mitigation of nesting habitat loss within 0.5 mile of known nests, and implementation of coordinated monitoring and survey programs. Under Objective 19.4, Conservation Actions BUOW-6 through BUOW-8 focus on enhancing suitable habitat on public and private lands through conservation easements, compatible agricultural and grazing practices, incentive-based ground squirrel management using IPM principles, and reduced use of rodenticides to support long-term burrowing owl conservation.

Burrowing owls are year-round residents throughout much of California occurring in open, dry grassland, and desert habitats and in forb and open shrub stages of pinyon juniper and ponderosa pine habitats. Breeding season is March to August but can begin as early as February and extend into December. Burrowing owls are unique among the North American owls in that they nest and roost in abandoned burrows, especially those created by California ground squirrels, kit fox, and other wildlife. Burrowing owls have a strong fidelity for previously occupied nesting and wintering habitats and often return to burrows used in previous years, especially if they were successful at reproducing there in previous years (Gervais et al. 2008). Threats to burrowing owl include habitat loss, predation, roadkill, reduced burrow availability due to rodent control, and pesticides. Suitable habitat is present throughout the project area.

There are three historical documented occurrences of burrowing owl within or adjacent to the project site, with numerous other additional records within a 10-mile radius. Focused, protocol-level burrow surveys were conducted within the project site to identify animal burrows, specifically targeting the burrowing owl. No western burrowing owls or their sign were observed during any field surveys. Although there is abundant grassland habitat within the project site it is only considered moderately suitable for burrowing owls. This is due to the lack the extensive ground squirrel burrows and short, sparse vegetation that the species prefers. Most burrows found during surveys were small and unsuitable for occupation. Superior quality habitat, characterized by grazed, low vegetation with active ground squirrel colonies, was observed nearby in the surrounding areas. Therefore, western burrowing owls are assumed to be present and could occur during breeding and non-breeding seasons within and adjacent to the project site.

Ferruginous hawk (*Buteo regalis*). Ferruginous hawks are classified as a state Watch List species and are not covered under the EACCS. Ferruginous hawks are open-country birds that breed in grasslands, sagebrush, saltbush-greasewood shrublands, and edges of pinyon-juniper forests at low to moderate elevations. Breeding habitat includes features such as cliffs, outcrops, and tree groves for nesting. They spend winter in grasslands or deserts with abundant rabbits, pocket gophers, or prairie dogs but also in agricultural country, including over plowed fields and utilize lone trees, fence posts, powerline poles, and rocky outcrops to perch and wait for prey. This species is a winter resident in California from August to early March.

Suitable open grassland is present for foraging. The nearest known CNDDDB occurrence is approximately 2.7 miles from the project site. However, iNaturalist reports a 2023 sighting within 0.4 miles to the southwest of the project site. No ferruginous hawks were observed during surveys. Therefore, ferruginous hawk is not expected to nest or breed within or adjacent to the project site, but the species has a moderate potential to forage and occur during migration periods and as a winter resident.

Swainson's hawk (*Buteo swainsoni*). Swainson's hawk are listed as a threatened species under the CESA and are not covered under the EACCS. The species requires large areas of open landscape for foraging such as grasslands and agricultural lands that provide low-growing vegetation for hunting and high rodent prey populations such as ground squirrels, gophers, mice, voles, and rabbits. They will also eat bats, snakes, lizards, and birds. This species typically nests in large solitary tree or in a small grove of trees such as valley oak (*Quercus lobata*), cottonwood (*Populus fremontii*), walnut (*Juglans hindsii*), and willow (*Salix* spp.), and occasionally in non-native trees, such as eucalyptus (*Eucalyptus* spp.). These nests are found within riparian woodlands, along roadsides, trees along field borders, isolated trees, small groves, and on the edges of remnant oak woodlands. Currently, the most significant threat to the remaining Swainson's hawk population in California is habitat loss due to residential and commercial development (CDFW 2016).

The project site provides low potential for Swainson's hawk nesting due to a lack of suitable nesting trees; however, it offers a moderate potential for foraging within open grassland habitat. Potential nesting habitat, primarily in mature trees within developed areas, is present within 0.5 miles of the project site.

Although the nearest CNDDDB documented occurrence is approximately 3.7 miles away, recent data found in eBird has identified sightings in the vicinity. Numerous eBird sightings over the past five years document active use of the area east and northeast of the PG&E Tesla Substation, along Midway and Patterson Pass Roads. This includes a reported sighting of an individual perched in a cottonwood tree along Patterson Run within the project site. The most recent eBird reported sighting in 2025 was within 1.2 miles to the southwest of the project site (eBird 2025). Therefore, Swainson's hawks are not expected to nest within or adjacent to the project site but have a moderate potential to forage or occur during seasonal migration periods.

White-tailed kite (*Elanus leucurus*). White-tailed kite is a state Fully Protected species that is not covered under the EACCS. This species is common in savannas, open woodlands, marshes, grasslands, partially cleared lands, and cultivated fields. This species is a yearlong resident in coastal and valley lowlands, especially in agricultural areas. Nests near tops of oak, willow, or other tree stands that are located near open foraging areas.

Suitable open grassland is present with a few scattered cottonwood trees (*Populus* sp.) suitable for nesting. The nearest documented occurrence is approximately 3.7 miles south of the project site. No white-tailed kites were observed during surveys. Therefore, there is a moderate potential for this species to nest and forage within and adjacent to the project site.

California condor (*Gymnogyps californianus*). California condor is federally and state listed as endangered under the ESA and CESA, respectively. It is also a state Fully Protected species and is not covered under the EACCS. By 1987, the entire California condor population consisted of 27 individuals, and all were housed in two captive breeding facilities in southern California. As of December 2024, the total population consists of 566 birds with 214 being captive and 369 being wild (CDFW 2025). Reintroduced populations are currently centered around central California (the Big Sur area and Pinnacles National Park), southern California, northern Arizona, southern Utah, and Baja, Mexico.

This species uses vast expanses of varying habitats for nesting, roosting, and foraging. Nests typically occur in caves or on ledges of cliff faces or on broken tops of old growth conifers in mountains up to 6,000 feet (1,828 meters) in elevation (Polite 1990). Due to their large size, high perches are preferred for easier take-offs during flight. California condors face many ongoing threats in the wild, including habitat loss, oil and gas drilling, shooting, and collisions with power lines. They are constantly contracting lead poisoning from bullet-killed carcasses that are scavenged and must be regularly recaptured for monitoring and treatment.

Loggerhead shrike (*Lanius ludovicianus*). Loggerhead shrikes are a state Species of Special Concern and are not covered under the EACCS. The species breeds widely throughout the United States except portions of the northwest, northeast, and at higher elevations. This species is present year-round throughout most of its California range. Loggerhead shrikes are common during winter in foothills and lowlands throughout California. Shrikes occur rarely in heavily urbanized areas but are often found in open cropland and sometimes use edges of denser habitat (Granholm 1990).

Nests are placed in shrubs or trees at variable heights above ground, generally between 3 to 6 feet. Tall structures, including vegetation, fences, or power lines, are required for hunting perches as well as cache sites for impaling, manipulating, or storing prey. The diet varies seasonally and includes arthropods, reptiles, amphibians, small rodents, and birds (Craig 1978; Yosef 1996). Although there is suitable grassland habitat present for

foraging, the project site has limited perches and lacks scattered shrubs or brush for nesting. The nearest historical occurrence was from 2015 approximately 3.9 miles to the west of the project site. Therefore, there is a low potential for this species to occur.

Special-Status Mammals

Pallid bat (*Antrozous pallidus*). The pallid bat is a state Species of Special Concern and is not covered under the EACCS. It is a large, pale-colored bat that occurs in arid and semi-arid regions of western North America, from British Columbia and central Mexico west to California and east to Texas. It is most common in desert basins and foothills with rocky outcrops and sparse vegetation (Hermanson and O'Shea 1983). In California, pallid bats are widespread in low-elevation deserts, grasslands, and oak woodlands, occurring from the Mojave and Colorado Deserts north through the Central Valley and into foothill habitats. This species is generally non-migratory and active year-round in mild climates, though some individuals may enter short periods of torpor during cold weather.

They primarily feed on large ground-dwelling arthropods, such as crickets, beetles, and scorpions, which they capture by landing and gleaning from the substrate. Pallid bats were detected during acoustic surveys conducted for the Alameda-Tesla property approximately 4 miles to the southwest of the project site. Suitable grassland habitat is present for foraging; however, the project site has limited trees or structures for roosting. In addition, a recent wildfire damaged the trees within the project site. Therefore, there is a low potential for this species to occur.

Hoary bat (*Lasiurus cinereus*). The hoary bat is not classified as special status under any state or federal law or agency, nor is it covered under the EACCS. It is the most widespread North American bat and may be found throughout California. This solitary species winters along the coast and in southern California, breeding inland and north of the winter range. During migration, individuals may occur far outside their normal range, including the Channel Islands and Farallon Islands (Brown 1980; Tenaza 1966). Habitats suitable for bearing young include woodlands and forests with medium to large trees and dense foliage, and the species has been recorded from sea level to 13,200 feet (Harris 1990). Hoary bats prefer open habitats or habitat mosaics that provide access to trees for cover and open areas or edges for feeding.

Roosting typically occurs in dense foliage of medium to large trees, in sites hidden from above with few branches below and low-reflectivity ground cover. Females and young tend to roost higher in trees. Foraging occurs in open areas, and the species feeds primarily on moths, though other flying insects are also taken (Harris 1990). Breeding occurs while roosting in trees, with females bearing young from mid-May through early July. Seasonal movements include long-distance migrations between summer and winter ranges, with spring migration occurring February through May and fall migration from September through November (Harris 1990).

Suitable grassland habitat is present for foraging; however, the project site has limited trees and lacks dense foliage for roosting. In addition, a recent wildfire damaged the trees within the project site. Therefore, there is a low potential for this species to occur.

San Joaquin pocket mouse (*Perognathus inornatus*). San Joaquin pocket mouse is not classified as special status under any state or federal law or agency, nor is it covered under the EACCS. Occurs in California's Central Valley, including the San Joaquin and Salinas valleys. This species favors arid grasslands and shrublands with fine soils. Habitat loss from development has reduced its range, with subspecies listed as Sensitive by CDFW, indicating concern in areas like Alameda County where suitable habitat remains.

San Joaquin pocket mouse is a nocturnal rodent that eats seeds and insects, stores food in burrows, and needs undeveloped areas with sandy or fine soils for nesting. No San Joaquin pocket mice were observed during field surveys. The nearest known historical occurrence from 1992 is approximately 2 miles to the northeast of the project site. Therefore, there is a low potential for this species to occur.

American badger (*Taxidea taxus*). The American badger, a state Species of Special Concern and covered under the EACCS, were once widespread throughout open grassland habitats of California. This species is now an uncommon permanent resident with a wide distribution across California, except from the North Coast area. American badgers inhabit burrows and often predate and forage on other small mammal burrows as evidenced by claw marks along the edges of existing burrows. This species is most abundant in the drier open stages of most shrub, forest, and herbaceous habitats with friable soils. It prefers habitats such as cropland, desert, grassland, savanna, and shrubland/chaparral. This species is generally associated with treeless regions, prairies, parklands, and cold desert areas (CDFW 2025f). American badger feed mainly on various species of small mammals and capture some of its prey above ground foraging on birds, eggs, reptiles, invertebrates, and carrion.

The nearest documented occurrences are approximately 0.2 miles north and south, with multiple other records within 10 miles of the project site. There is suitable dry open grassland present with evidence of friable soils and burrowing activity near Patterson Pass Road. No badgers or their sign were observed during focused burrow surveys. Based on the presence of suitable habitat and documented inactive burrows, American badger have a high potential to occur within and adjacent to the project site and are assumed to be present.

San Joaquin kit fox (*Vulpes macrotis mutica*). The San Joaquin kit fox is federally endangered and state-threatened species and covered under the EACCS. The species is found in the deserts and grasslands of the San Joaquin Valley. It inhabits alkali sink, valley grasslands, and woodlands with minimal shrubs and grasses, primarily in the southern and western valley, foothills, and areas like the Carrizo Plain, as well as the Panoche Valley and Cuyama Valley in San Luis Obispo County. Within the San Joaquin

Valley its range extends from southern Kern County north to Contra Costa, Alameda, and San Joaquin counties on the western side of the valley and to the La Grange area of Stanislaus County on the eastern side of the valley. Historically widespread, its range has significantly declined since 1930 (USFWS 2008).

The kit fox is a nocturnal, opportunistic hunter, primarily feeding on kangaroo rats but will also prey on white-footed mice, pocket mice, ground squirrels, rabbits, ground-nesting birds, and during certain times of the year, they will also eat insects. It rests in dens during the day to escape the heat and their dens also provide shelter and cover from predators. Kit foxes either dig their own dens, use those constructed by other animals, or use human-made structures such as culverts, abandoned pipelines, or banks in sumps or roadbeds.

There are numerous CNDDDB occurrences for San Joaquin kit fox within 10 miles of the project site. The nearest recorded occurrence is approximately 0.3 miles southwest of the project site. The project site falls within the EACCS Conservation Zone 10 for San Joaquin kit fox or "San Joaquin kit fox East." The EACCS indicates that this area likely supports connectivity through the Altamont Hills for kit fox; however, connectivity across I-580 has been compromised by existing infrastructure development (EACCS 2010).

Habitat within the project site consists of moderate quality annual grassland suitable for San Joaquin kit fox. No San Joaquin kit fox were observed during field surveys. Several large burrow tailings were observed during burrow surveys on the eastern side of the project site along Patterson Pass Road, with evidence of highly suitable soils for burrowing. Therefore, San Joaquin kit fox has a high potential to occur within the project area and could be present during any time of year.

Regulatory

Federal

Endangered Species Act (16 U.S.C. § 1531 et seq., and 50 C.F.R., part 17.1, et seq.). The federal Endangered Species Act (ESA) designates and provides for protection of threatened and endangered plant and animal species, and their critical habitat. Its purpose is to protect and recover imperiled species and the ecosystems on which they depend. It is administered by the USFWS and the National Marine Fisheries Service. The USFWS is responsible for terrestrial and freshwater organisms while National Marine Fisheries Service is responsible for marine wildlife. Species may be listed as endangered or threatened. All species of plants and animals, except pest insects, are eligible for listing. Species are defined to include subspecies, varieties, and for vertebrates, distinct population segments. The ESA protects endangered and threatened species and their habitats by prohibiting the "take" of listed animals and the interstate or international trade in listed plants and animals, including their parts and products, except under a federal permit. "Take" is broadly defined in the ESA to include "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to

engage in any such conduct” (16 U.S.C., § 1532 [19]). Take can also include significant habitat modification or degradation that directly results in death or injury to a listed wildlife species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 C.F.R., § 17.3). Take of federally listed species as defined in the ESA is prohibited without incidental take authorization, which may be obtained through Section 7 consultation (between federal agencies) or a Section 10 Habitat Conservation Plan. The administering agencies are the USFWS, National Oceanic Atmospheric Administration (NOAA), and NMFS.

Bald and Golden Eagle Protection Act (16 U.S.C., §§ 668–668c). The Bald and Golden Eagle Protection Act (BGEPA), prohibits the “taking” of bald and golden eagles, including their parts, nests, or eggs. “Take” is defined as to “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb” any bald or golden eagle, whether “alive or dead...unless authorized by permit” (16 U.S.C., § 668(a)). The USFWS has authority and responsibility for enforcing the BGEPA.

Migratory Bird Treaty Act (16 U.S.C., §§ 703–711). The Migratory Bird Treaty Act (MBTA) makes it illegal to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, any migratory bird or other parts, nests, or eggs of such a bird except under the terms of a valid federal permit. The USFWS has authority and responsibility for enforcing the MBTA.

Noxious Weed Act of 1974 (7 U.S.C. §§ 2801 et seq.). The Noxious Weed Act established a national framework for controlling and eradicating non-native plant species deemed harmful to agriculture, ecosystems, and public health. It authorizes the Secretary of Agriculture to regulate the movement of noxious weeds, enforce quarantines, and implement integrated management systems for federally managed lands.

Executive Order 13112. Executive Order 13112, issued in February 1999, established the National Invasive Species Council and directed federal agencies to prevent the introduction and spread of invasive species as part of federal actions. It requires agencies to identify, control, and monitor invasive species, and to avoid actions likely to cause or promote their spread, while coordinating efforts across departments and with stakeholders.

Clean Water Act Sections 401 and 404 (33 U.S.C., §§ 1251–1376). The Clean Water Act requires the permitting and monitoring of all discharges to surface water bodies. Section 404 (33 U.S.C. § 1344) requires a permit from the USACE for a discharge from dredged or fill materials into a water of the United States, including wetlands. Section 401 (33 U.S.C. § 1341) requires a permit from the RWQCB for the discharge of pollutants. By federal law, every applicant for a federal permit or license for an activity that may result in a discharge into a California water body, including wetlands, must request state certification that the proposed activity would not violate state and federal water quality standards.

State

California Endangered Species Act (Fish and G. Code, §§ 2050–2098). The California Endangered Species Act (CESA) of 1984 states that all native species of plants, invertebrates, fish, amphibians, reptiles, birds, and mammals, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected and preserved. CESA prohibits the take of any species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species. The CDFW may authorize the take of any such species if certain conditions are met. These criteria are listed in Title 14 of the California Code of Regulations, Section 783.4, subdivisions (a) and (b). For purposes of CESA, “take” means to hunt, pursue, catch, capture, or kill (California Fish and G. Code § 86). For projects under the exclusive jurisdiction of the CEC, incidental take authorization may be granted through the CEC’s certification instead of (“in lieu of”) a take permit issued by CDFW.

Fully Protected Species (Fish and G. Code, §§ 2081.15, 3511, 4700, 5050, and 5515). These sections designate certain species as fully protected and prohibit the take of such species or their habitat unless for scientific purposes (see also Cal. Code Regs., tit. 14, § 670.7). The incidental take of fully protected species may also be authorized in an approved natural community conservation plan (California Fish and Game Code, § 2835) or by state legislation related to some renewable energy projects.

Senate Bill No. 147, effective as of July 10, 2023, amends California Fish and Game Code Sections 3511, 4700, 5050, and 5515 and adds Section 2081.15. This legislation allows CDFW to issue incidental take permits for fully protected species under specific and limited circumstances, including photovoltaic (PV) solar projects and related infrastructure. Under the Warren-Alquist Act, the CEC has in-lieu permitting authority to issue the incidental take authorization if project activities would impact state-listed species.

California Migratory Bird Protection Act (Fish and G. Code, § 3513). The California Migratory Bird Treaty Act (CMBTA) permanently prohibits the taking or possession of migratory birds, their nests, or eggs. It applies to all species listed under the federal Migratory Bird Treaty Act as of January 2, 2025, as well as any species added to the federal list after that date. A violation of this section of the California Fish and Game Code constitutes a crime.

Bird, Nest, and Eggs Protection. The following California Fish and Game Code sections designate protections for birds and/or their nests or eggs. The administering agency is CDFW.

- Section 3503: Makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.

- Section 3503.5: Makes it unlawful to take, possess, or destroy any birds in the order Falconiformes and Strigiformes or to take, possess, or destroy the nest or eggs of any such bird.
- Section 3800: All birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds, are nongame birds. Makes it unlawful to take any nongame bird except as provided in this code or in accordance with regulations of the commission or, when relating to mining operations, a mitigation plan approved by the department.

Furbearing and Mammal Protection. Regulations are in place protecting furbearing mammals as follows:

- California Fish and Game Code Section 251.1 prohibits the harassment of any furbearing mammal. Harass is defined as an intentional act that disrupts animals' normal behavior patterns, which includes, but is not limited to, breeding, feeding, or sheltering.
- California Code of Regulations, Title 14, Section 460 states that fisher, marten, river otter, desert kit fox, and red fox may not be taken at any time.

Native Plant Protection Act (Fish and G. Code, §§ 1900–1913). The Native Plant Protection Act (NPPA) was enacted in 1977 and directed the California Fish and Game Commission to carry out the Legislature's intent to "preserve, protect, and enhance rare and endangered plant in the State." The NPPA gave the Commission the Power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take. The NPPA thus includes measures to preserve, protect, and enhance rare and endangered native plants.

The CESA has largely superseded the NPPA for all plants designated as endangered by the NPPA. The NPPA nevertheless provides limitations on take of rare and endangered species as follows: "no person will import into this state, or take, possess, or sell within this state" any rare or endangered native plant except in compliance with provisions of the CESA. Individual landowners are required to notify CDFW at least 10 days in advance of changing land uses to allow CDFW to salvage any rare or endangered native plant material.

California Lake and Streambed Alteration Notification/Agreement (Fish and G. Code, §§ 1602 et seq.). These sections stipulate that an entity shall not substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Under the Warren Alquist Act, the CEC has in-lieu permitting authority to issue the Lake and Streambed Alteration Agreement if project activities would result in impacts to CDFW jurisdictional streambeds and riparian habitats.

Porter-Cologne Water Quality Control Act (California Water Code Division 7).

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over all surface water and groundwater in California, including wetlands, headwaters, and riparian areas.

Local

The following local laws, ordinances, and regulations apply to projects that occur within the County of Alameda and ~~East Alameda County Conservation Strategy~~ **EACCS**.

East Alameda County Conservation Strategy. The County of Alameda (County) developed the ~~East Alameda County Conservation Strategy (EACCS)~~ to provide a framework for natural resource conservation and to streamline the environmental permitting process within the eastern portion of the county (EACCS 2010). The EACCS is not a formal Habitat Conservation Plan (HCP) in that it does not require local agencies to conserve species and habitat prior to approving projects that impact listed species and/or their habitat; however, it does have a corresponding programmatic incidental take permit from USFWS. The EACCS is intended to streamline state and local permitting by providing guidance on avoidance, minimization, and mitigation for project-level impacts on selected focal special-status species and sensitive habitats.

Individual projects may need to implement different or more avoidance, minimization, and mitigation measures than what is outlined in the strategy if the species is not covered by the programmatic incidental take permit. To avoid this potential inconsistency, USFWS and CDFW participated in the development of the EACCS with the intent that it serve as the blueprint for all mitigation and conservation in the region. Both agencies continue to reference the EACCS when reviewing project-level impacts on focal species and their habitat.

The EACCS includes standardized mitigation ratios for each of the focal species that can be used by local jurisdictions and resource agencies as guidance to determine appropriate mitigation to offset project impacts on focal species habitat. These ratios are based on an evaluation of the habitat quality within a Study Area and scored using Focal Species- Impact/Mitigation Score Sheets for each of the focal species assumed present or potentially present. Mitigation ratios are then calculated based on application of the same scoring sheet to the proposed mitigation site. Project specific mitigation ratios may vary depending on the quality and location of the habitat being lost and the quality and location of proposed mitigation.

The EACCS includes avoidance and minimization measures (AMMs) for all focal species covered by the EACCS. These include general AMMs applicable to all focal species, as well as species- or taxon-specific AMMs.

Alameda County General Plan. The Alameda County General Plan provides guidelines for development within Alameda county. The project area is located within the East County Area Plan (ECAP) (Alameda County 1994). The administering agency is

the Alameda County Community Development Agency Planning Department (County). General Plan policies that are relevant to the project are as follows:

Policy 123. Where site-specific impacts on biological resources resulting from proposed land use outside the Urban Growth Boundary are identified, the County shall encourage that mitigation is complementary to the goals and objectives of the ECAP. To that end, the County shall recommend that mitigation efforts occur in areas designated as “Resource Management” or on land adjacent to or otherwise contiguous with these lands to establish a continuous open space system in East County and to provide for long term protection of biological resources.

Policy 125. The County shall encourage preservation of areas known to support special status species.

Policy 126. The County shall encourage no net loss of riparian and seasonal wetlands.

Alameda County Code of Ordinances. The Alameda County Code of Ordinances includes regulations governing the protection and management of watercourses within the County (Alameda County 2025). Chapter 13.12 (Watercourse Protection) establishes permitting requirements for activities that could alter or impact watercourses. A permit from the Director of Public Works is required for actions such as discharging into or connecting pipes or channels to a watercourse, modifying natural flow, conducting development within a watercourse setback, depositing or removing materials within a watercourse or its banks, constructing or altering structures in a watercourse, or placing loose or unconsolidated materials that could divert flows or be transported by stormwater.

Cumulative

Under CEQA, cumulative impacts are defined as past, present, and reasonably foreseeable future projects that, when viewed in connection with the proposed project, cause its effects on biological resources to be potentially significant. The proposed project is in Alameda County. This analysis considers biological resources within the Central Valley and San Joaquin Valley region, focusing on sensitive species, habitat connectivity, and ecosystem sustainability.

The geographic scope of this cumulative impact analysis includes portions of San Joaquin and Alameda Counties, including the cities of Tracy and Mountain House that provide habitat for special-status species, including Swainson’s hawk, golden eagle, burrowing owl, San Joaquin kit fox, American badger, California tiger salamander, California red-legged frog, and golden eagle among others. See **Appendix A, Table A-1**, for the existing, approved, pending, and proposed projects that could combine with the proposed project to result in cumulatively considerable impacts.

5.2.2 Environmental Impacts

BIOLOGICAL RESOURCES	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

Environmental checklist established by Cal. Code Regs., tit. 14, Div. 6, Ch. 3, Appendix. G, biological resources.

5.2.2.1 Methodology and Thresholds of Significance

In addition to the above environmental checklist, CEC staff used the following methodology and thresholds of significance to evaluate the project.

Methodology

Impacts to biological resources were assessed through consideration of effects on the landscape, habitat, community, and species level for the proposed project and alternatives. Impacts refer to any project related activity including initial ground disturbance, vegetation removal, construction, road improvements, operation, and any

other long-term operations activities that would be implemented to support the operation of the proposed project.

Appendix G of the California Environmental Quality Act (CEQA) Guidelines provides a set of topical guidance questions for an agency to consider when determining whether the project has any significant impacts. For biological resources, the questions are listed in the table above.

Thresholds of Significance

A significant impact is defined in the CEQA Guidelines as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (Cal. Code Regs. tit. 14, § 15382). An impact to biological resources would be considered by CEC staff to be significant (before considering offsetting mitigation measures) if the construction or operation of the project would result in one or more of the following:

- The potential for reduction, loss, or degradation of habitat for threatened, endangered, or special status species;
- The potential for loss or “take” of any federal or state listed plant or animal species; fully protected species; special status wildlife species, the loss of more than 10 percent of a known population or locally significant occurrence of a CRPR 1B or 2B species, or species protected under the federal or state MBTA or other regulations;
- A net loss or permanent change in the extent of functional value of any habitat or biotic community considered biologically, scientifically, recreationally, or economically significant by federal, state, or local policies, statutes, and regulations;
- Adverse effect on federally protected wetlands as defined in Section 404 of the Clean Water Act;
- Alteration or destruction of habitat that precludes reestablishment of native populations of plants and animals;
- Impairment of movement, migration, or dispersal of resident and migratory fish and wildlife species; or
- Substantial loss of habitat or population decline of any native fish, wildlife or plant species, or overall reduction in biological diversity.

Direct and Indirect Impacts. The CEQA Guidelines define direct impacts as those impacts that result from the project and occur at the same time and place as project activities. Some examples of direct impacts could include the removal of vegetation or habitat; disruption to natural behavior from increased human presence and/or noise, lighting; mortality or injury from crushing, trampling, or entrapment; and exposure to fugitive dust, herbicides, or other hazardous materials.

Indirect impacts are caused by the project but can occur later in time or farther removed in distance and are still reasonably foreseeable and related to the operation of

the project. Indirect impacts can include the potential for spread of invasive plant species imported onto the site by construction equipment, changes to soil or hydrology that adversely affects native species over time, avian collision with gen-tie lines, disruption of prey base, or increased predation through alterations of the physical landscape from project features. Indirect impacts may also include fragmentation of habitat, edge effects, increased traffic, and human disturbance. Long-term indirect effects may also occur from the operation of the proposed project.

Operational impacts include direct and indirect impacts that occur during the life of project operation. Generally, these impacts occur during maintenance activities and are like those that occur during construction but occur at substantially lower levels and of less duration. In addition to routine activities during operation of the project, it is possible that the BESS system could be subject to thermal runaway and result in a battery fire and is discussed further below under **Thermal Runaway and BESS Fires**.

Permanent and Temporary Impacts. Direct or indirect impacts on biological resources could be permanent or temporary in nature. Impacts that result in the irreversible alteration or elimination of biological resources are classified by CEC staff as permanent. However, any impact which would have that has reversible effects on biological resources could be viewed as short-term and temporary if they occur the affected area can be fully restored within one year for less than a year and if recovery is expected without long-term effects. If the impact lasts greater than one year it may be considered a long-term temporary impact or a permanent impact Impacts that cannot be fully restored within one year may be considered semi-permanent or permanent, depending on the extent and type of disturbance and the feasibility of full habitat recovery within two years.

Impact analyses typically characterize effects to vegetation and wildlife habitat as either temporary or permanent. Permanent impacts are generally associated with land use conversion or disturbances that would preclude most natural wildlife habitat function throughout the life of a project or longer. These include the construction and operation of permanent project components such as project facilities, associated infrastructure, and any permanent new or widened access routes. Habitat impacts that persist for the duration of the project or beyond are considered permanent for the purposes of this analysis. Permanent and long-term habitat loss, as defined by CEC staff, includes impacts also include areas where habitat cannot feasibly be restored to pre-project conditions within two years that take more than five years to recover.

Temporary impacts are generally associated with construction disturbance that allow for a return to more natural conditions following project completion. These impacts may be actively revegetated or enhanced and are typically expected to return to natural conditions within approximately five one years. Disturbances that require more than one year but can be fully restored within two years are considered semi-permanent impacts. Disturbances that cannot be restored within two years are considered permanent. However, temporary impacts to habitats that persist for

~~more than five years are considered long-term but not necessarily permanent, depending on the extent of disturbance and the feasibility of full habitat recovery.~~

~~Temporary impacts to habitat that persist for more than five years are considered long-term but not necessarily permanent, depending on the extent of disturbance and the feasibility of full habitat recovery.~~ The construction and operation of the project would result in permanent impacts within the project footprint and associated components, including the location of project facilities and ~~along~~ any permanent new or widened access routes. In addition, the project may result in long-term impacts to within habitat in areas disturbed by temporary construction activities, particularly where habitat recovery is constrained by slow natural recovery rates, soil degradation, habitat fragmentation, and or changes in species composition.

Mitigation Strategy

This CEQA analysis evaluates biological impacts resulting from all aspects of the project. Whenever impacts are identified from development of the site and related facilities, CEC staff has recommended conditions of certification (COCs), to reduce impacts from the proposed project to less than significant levels. Each of the proposed COCs have been developed by staff to ensure that impacts to sensitive biological resources are minimized or avoided to the extent feasible and impacts are reduced to less than significant. Where appropriate, the applicant's proposed mitigation measures were incorporated into the COCs proposed below.

To facilitate effective implementation of Assembly Bill 205 (AB 205), the CEC and CDFW entered into a Memorandum of Understanding (MOU) in 2022. Under this agreement, CEC serves as the in-lieu permitting authority, ensuring compliance with environmental regulations while expediting project approvals, including for CDFW administered permits such as incidental take permits (ITPs) and Lake and Streambed Alteration (LSA) agreements.

This MOU establishes a coordination plan designed to ensure timely and effective consultation between the two agencies regarding potential impacts of energy projects on fish, wildlife, and plant resources, as well as their habitats. As part of this process, CEC serves as the in-lieu permitting authority, ensuring compliance with environmental regulations while expediting project approvals. The MOU ensures CDFW's expertise is integrated into project review, particularly for Fish and Game Code authorizations such as incidental take authorization. These recommendations are incorporated into the CEC's certificate as enforceable COCs, which ensure that approved projects meet environmental protection requirements. In addition, CEC staff incorporated CDFW staff's recommendations into mitigation measures for the project components outside of CEC's Opt-In Certification, as needed.

Additional impacts are associated with project components outside of CEC's Opt-In Certification, including the approximately 1,300-foot segment of the gen-tie line, transmission tower structures and related lines and conductors, a substation bay dead-

end transmission structure and expansion of a 500 kV breaker-and-a-half, to be constructed and owned by PG&E. Project component outside of CEC's Opt-In Certification would be permitted by the California Public Utilities Commission (CPUC) and may require mitigation to be less than significant. The mitigation measures recommended below would be enforced by the CPUC as mitigation measures (MMs). CEC staff has proposed modifications to the standard PG&E Construction Measures and/or proposed additional measures, as needed to reduce impacts to less than significant and/or avoid take of listed species. These measures have been incorporated into this analysis and have been numbered but otherwise retain their original language, unless noted in strikethrough or bold and underline. Where appropriate, CEC staff has added these as recommended Mitigation Measures (MMs) to avoid, minimize, or reduce impacts from construction and operation of these components outside of the CEC's Opt-In certification of the project.

5.2.2.2 Direct and Indirect Impacts

This section analyzes the potential for direct and indirect impacts to biological resources from the construction and operation of the proposed project and provides mitigation, as necessary, to reduce the severity of potentially adverse impacts. For fully protected species the mitigation is intended to fully mitigate the projects direct and indirect effects to that species. If a significant impact is identified, appropriate mitigation to reduce impacts to below significance is then developed. Within this section, whenever a significant impact is identified appropriate mitigation measures and associated proposed COC(s) immediately follow, including supporting rationale for the effectiveness of the measures. The complete mitigation recommendations are found in the subsection entitled Proposed Conditions of Certification (COCs).

- a. 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Special-Status Plants

Construction

Less Than Significant with Mitigation Incorporated. Based on the analysis below, the proposed project would not substantially adversely affect any special-status plant species, either directly or through habitat modification and the impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-9**, **BIO-27**, **WATER-1**, **WATER-2**, **WATER-4**, **AQ-SC3**, **AQ-SC4** and recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-7**, **MM BIO-8**, and **MM BIO-13**.

Project Components Within CEC's Opt-In Certification

State or federally listed plants were not detected during focused botanical surveys for the proposed project. Direct impacts to special-status plants, should they occur, would include the removal or destruction of seedbanks, and exposure to increased erosion and sedimentation, excessive fugitive dust, and hazardous materials. Direct and indirect impacts to plants would be considered significant without mitigation if project activities result in the loss of a substantial portion of a known occurrence of a CRPR List 1B or 2 species.

To protect sensitive plants, the applicant proposed measures that requires pre-construction surveys for rare plants conducted by a qualified biologist during the appropriate blooming periods, avoiding plants when possible, and conducting salvage if plants would be impacted. CEC staff reviewed the applicant's proposed mitigation and incorporated the applicant's measures, as appropriate, into staff's proposed COC **BIO-9** (Special-Status Plant Avoidance Measures). This measure also requires compensatory mitigation if complete avoidance cannot be achieved.

The implementation of COCs **BIO-1** through **BIO-7** would require the presence of qualified biologists and monitors during all construction activities to minimize potential impacts on special-status plants. These requirements include mandatory environmental training for all construction personnel, the preparation of a Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP), and the identification of general construction impact avoidance and minimization measures to ensure the protection of special-status plants. To offset potential impacts to special-status plants, COC **BIO-8** (Vegetation Restoration and Enhancement Plan) has been developed in coordination with CDFW and would require the project owner to develop and implement a Vegetation Restoration and Enhancement Plan (Restoration Plan) to restore 6.7 acres of habitat subject to temporary impacts. Additionally, **BIO-27** (Post BESS Fire Monitoring and Management Plan) is required to address and minimize potential impacts to special-status plants resulting from thermal runaway events. These COCs include, but are not limited to, pre-construction floristic surveys within all project disturbance areas and a 100-foot buffer, the establishment of protective buffers, and requires compensatory land acquisition should impacts occur above identified thresholds. These measures also include requirements for biological monitoring during **site mobilization and/or** construction, worker training to provide information on special-status plants occurring in the project area, general construction Best Management Practices (BMPs) to avoid sensitive biological resources, habitat restoration, and conditions to minimize the introduction and spread of non-native invasive species.

Impacts from offsite erosion and sedimentation would be reduced through the implementation of staff's proposed COC **WATER-1** (Stormwater Pollution Prevention Plan) which would ensure that development of the site does not result in substantial stormwater runoff from the project area during **site mobilization and/or** construction. Additionally, CEC staff proposed **WATER-2** would require the preparation

of a Drainage, Erosion, and Sedimentation Control Plan (DESCP) to monitor and manage both onsite and offsite stormwater events during construction, operation, maintenance, and decommissioning. In addition, implementation of **WATER-4** (Compliance with Clean Water Act Sections 401 and 404) would ensure compliance with Sections 401 and 404 of the Clean Water Act. See **Section 5.16, Water Resources**, for additional information related stormwater measures.

Impacts from fugitive dust would be mitigated by implementation of **AQ-SC3**, which include watering roads and or stabilizing them with soil binders. Dust suppressants would be durable non-toxic soil stabilizers, and many other activity specific control measures would be applied to reduce fugitive dust and to ensure activities do not create visible dust emissions during construction. **AQ-SC4** would require a qualified dust monitor during dust producing activities and require remedial measures if fugitive dust exceeds authorized limits. See **Section 5.1, Air Quality**, for additional information related to dust control.

Implementation of CEC staff's proposed COCs **BIO-1** through **BIO-9, BIO-27, WATER-1, WATER-2, WATER-4, AQ-SC3, AQ-SC4** would avoid or reduce these impacts to special-status plants and the impacts would be less than significant.

Project Components Outside CEC's Opt-In Certification

Focused botanical surveys conducted in 2023 confirmed the presence of one special-status plant, big tarplant near the PG&E Tesla substation. Project construction could result in permanent or temporary impacts to three individual plants due to direct harm or habitat loss. No other sensitive plants were detected in the project area.

Impacts to special-status plants, should they occur, would include the removal or destruction of individuals, loss of habitat, destruction or disturbance of seedbanks, and exposure to increased erosion and sedimentation, excessive fugitive dust, and hazardous materials. Direct and indirect impacts to plants would be considered significant without mitigation if project activities result in the loss of a substantial portion of a known occurrence of a CRPR List 1B or 2 species. The big tarplant is a covered focal species under the EACCS, which has the objective of protecting existing populations and maintaining its associated habitat.

CZ 10 is particularly significant because it contains five of the six recorded CNDDDB occurrences for this species in the area. Consequently, the conservation priorities for this zone are centered on safeguarding these known populations and proactively surveying suitable habitats for previously undocumented occurrences.

Table 3-2 and 3-3, in the EACCS list specific avoidance and minimization measures to reduce effects on focal species. CEC staff incorporated these measures into staff's recommended mitigation measures to reduce potential impacts to big tarplant. These measures include identification and flagging of the extant population for complete avoidance during **site mobilization and/or** construction of the gen-tie line, and

supplemental measures if complete avoidance is not feasible. Standard PG&E Construction Measures include **MM BIO-1** (Annual Training) which requires all employees and contractors to receive annual training, **MM BIO-2** (Standard Construction Practices), which include measures to minimize impacts from construction on wildlife, vegetation and water resources. **MM BIO-5** (Best Management Practices), which minimizes erosion, habitat degradation, and controlling potential pollutants and sediment runoff. The standard PG&E Construction Measures, **MM BIO-2** and **MM BIO-5**, included vernal pools and wetlands; however, since there are no vernal pools or wetlands present within the project site, CEC staff modified this measure to include only jurisdictional waters. The standard PG&E Construction Measures did not specifically address big tarplant. Therefore, staff developed **MM BIO-7** (General Impact Avoidance and Minimization Measures), which includes measures to prevent the spread of invasive species and regulates how herbicides are applied, and **MM BIO-8** (Special-Status Plants) which requires pre-construction surveys by a qualified biologist during the appropriate blooming period. The standard PG&E Construction Measures identified a 20-foot buffer from special-status plants; however, CEC staff modified this measure and increased the buffer to 50 feet. However, if a smaller buffer is necessary based on site-specific constraints then the qualified biologist, in coordination with CDFW, would develop and implement site-specific protection measures, such as monitoring, to avoid impacts to special-status plants. In addition, to supplement the PG&E Standard Construction Measures, CEC staff recommended **MM BIO-13** (Biological Monitor During Construction) which requires a biological monitor to be present during ground disturbing activities.

Implementation of the CEC staff's recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-7, MM BIO-8, and MM BIO-13** would avoid or reduce these impacts to big tarplant to less than significant.

Operation

Less Than Significant with Mitigation Incorporated. Based on the analysis below, operation of the project would not cause substantial adverse effects on any special-status plant and the and the impact would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1 through BIO-9, BIO-27, WATER-1, WATER-2, AQ-SC3, AQ-SC4** and recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-7, MM BIO-8, and MM BIO-13**.

Project Components Within CEC's Opt-In Certification

Sensitive plants were not detected in the project site. Direct and indirect impacts to sensitive plants are not expected to occur during operational activities. Should sensitive plants be detected impacts would be similar in type but greatly reduced in magnitude compared to those discussed for construction.

Implementation of staff's proposed COCs **BIO-1** through **BIO-9, BIO-27, WATER-1, WATER-2, WATER-4, AQ-SC3, AQ-SC4** would avoid or reduce these impacts to special-status plants and the impacts would be less than significant.

Project Components Outside CEC's Opt-In Certification

Impacts to big tarplant from during operation would be similar in type as discussed for construction. Operation activities would likely include routine onsite maintenance. Implementation of the same measures identified for construction would reduce impacts to special-status plants to less than significant.

Implementation of the CEC staff's recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-7, MM BIO-8, and MM BIO-13** would avoid or reduce these impacts to big tarplant to less than significant.

Common Wildlife, Including Nesting Birds

Construction

Less Than Significant. Impacts to common wildlife are not generally considered a significant impact under CEQA. However, many common bird species, including nesting migratory birds, are protected under the federal Migratory Bird Treaty Act and the California Fish and Game Code. Based on the analysis below, the proposed project would not likely result in significant impacts on common wildlife. Implementation of CEC staff's proposed COCs **BIO-1** through **BIO-9, and BIO-16, AQ-SC3, AQ-SC4, HAZ-1, WORKER SAFETY-1**, and recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-12, and MM BIO-13** would further avoid or minimize potential impacts from the project.

Project Components Within CEC's Opt-In Certification

The project site provides habitat for nesting birds protected by the Migratory Bird Treaty Act and California Fish and Game Code. Red-tailed hawk (*Buteo jamaicensis*), common raven (*Corvus corax*), and American kestrel (*Falco sparverius*), and other bird species were observed foraging on site and in the project area. While no nests were observed during surveys, there are a few suitable trees along Patterson Pass Road, transmission towers for large raptors and ravens, and grassland for ground-nesting species such as western meadowlark (*Sturnella neglecta*).

Direct and indirect impacts to these and other common wildlife species depend on many factors that include but are not limited to the species use of the site (i.e., size of their home range); behavioral factors that result in wildlife seeking refuge rather than dispersing (i.e., site fidelity, cryptic behavior); a species dispersal ability and ecological characteristics (e.g., fossorial, highly motile versus slow moving); ecological characteristics (i.e., fossorial, aerial dispersal, highly mobile); and the ability of the species to evade or disperse from the construction activity. Project level effects on wildlife are further influenced by factors such as the seasonal use of the site. For

example, some species including small mammals and many reptiles are year-round residents with small or restricted home ranges while other species including some birds may be periodic visitors or have large or overlapping home ranges. Other species such as large raptors limit their activity on the site to foraging. Likewise, many species of birds may be semi-permanent dwellers or seasonal residents (i.e., migratory birds) that are present either as breeding pairs or overfly the area.

Direct impacts to wildlife could include mortality from trampling or crushing; increased noise levels due to heavy equipment use; light impacts from construction during low-light periods; increased vehicular and human presence along existing access roads; displacement due to habitat modifications, including vegetation removal, alterations of existing soil conditions; vibration and fugitive dust; and increased erosion and sediment transport. Wildlife could also become entombed in burrows or be subject to increased risk of predation when flushed from cover by equipment or construction workers. Fires that occur because of construction activities can quickly spread in arid regions.

Noise from clearing, grading and construction activities could also affect wildlife in adjacent habitats by interfering with breeding or foraging activities and movement patterns, causing animals to temporarily avoid areas adjacent to the construction zone. See **Section 5.9, Noise and Vibration**, which provides additional information on construction and operational noise levels. Nocturnal wildlife would be affected less by construction than diurnal species since construction would occur primarily during daylight hours. However, construction may also occur during dusk and dawn when many species are highly active. More mobile species such as birds and larger mammals would likely disperse into adjacent habitat areas during land clearing, grading and construction. However, smaller animals would be less able to disperse. During **site mobilization and/or** construction it is likely that many of these species, especially fossorial or slow-moving species, would be subject to displacement, injury, or mortality. Because the site would be surrounded by temporary exclusion fencing, some small animals would be trapped within the fence line.

Indirect impacts to wildlife include the disruption of the native seed bank that supports foraging plants, the spread of invasive plant species that alter prey items, alterations in light regimes and the creation of overhead structures, or changes to soil or hydrology that adversely affect native species overtime. Indirect impacts may also include increased traffic and human disturbance and the disruption of prey base or increased predation through alterations of the physical landscape from project features (i.e., fencing, transmission lines) that provide perch sites or shelter for predators.

Construction related effects to common wildlife are typically not considered significant under CEQA. However, CEC staff conclude that the duration of construction (i.e., over a period of 18 months); the variety of wildlife present at the project area; and the use of temporary exclusion fencing, which would prevent some species from dispersing, would result in significant effects to common wildlife without implementation of mitigation

measures. All native birds, including common and special-status species, are protected under the federal MBTA and California Fish and Game Code.

Foraging birds, including special-status species, are known to occur in the project area and were detected during surveys, including tricolored blackbird and California horned lark. These and other special-status species may use the project site for foraging or during winter migration, along with many other species of common wildlife. See **Table 5.2-2**, for a complete list of species with the potential to forage in the project site and vicinity, including along Patterson Run Creek, and surrounding areas.

During **site mobilization and/or** construction the project site would be fenced with temporary exclusion fencing to prevent species from entering the work area. Prior to fence installation the Designated Biologist (DB) shall conduct pre-construction surveys for special status species. Except for birds, this barrier would exclude or entrap wildlife at the project area. Therefore, during **site mobilization and/or** construction, terrestrial wildlife trapped within the perimeter fence would have limited dispersal ability. This would subject any trapped wildlife to repeated disturbance from construction and the use of roads to support maintenance activities. While many species of wildlife can tolerate human disturbance to some degree; implementation of the proposed project would result in an ongoing loss of wildlife from vehicle traffic, nest failure, and alteration of foraging habitat.

The applicant has recommended general impact avoidance and minimization measures to reduce construction related impacts to common and sensitive wildlife. CEC staff has reviewed these measures and incorporated them into staff's proposed COCs, as appropriate, and enhanced them as necessary to reduce effects on common wildlife. These COCs include **BIO-1** (DB Selection), **BIO-2** (DB Duties), **BIO-3** (Biological Monitor Selection), **BIO-4** (DB and Biological Monitor Authority), **BIO-5** (Worker Environmental Awareness Program [WEAP]), **BIO-6** (Biological Resources Mitigation Implementation and Monitoring Plan), **BIO-7** (General Impact and Avoidance Measures), **BIO-8** (Vegetation Restoration and Enhancement Plan), **BIO-9** (Special-Status Plant Avoidance Measures), **BIO-16** (Nesting Birds and Bird Buffers), **AQ-SC3**, **AQ-SC4**, **HAZ-1** (Spill Containment), and **WORKER SAFETY-1**. These COCs are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

Implementation of CEC staff's proposed COCs **BIO-1** through **BIO-9**, **BIO-16**, **AQ-SC3**, **AQ-SC4**, **HAZ-1**, and **WORKER SAFETY-1** would avoid or reduce these impacts to common and sensitive wildlife, and the impacts would be less than significant.

Project Components Outside CEC's Opt-In Certification

The project site provides habitat for common wildlife, including nesting birds. This area would remain unfenced, and species would have the ability to disperse freely.

Direct impacts to wildlife could include mortality from trampling or crushing; increased noise levels due to heavy equipment use; light impacts from construction during low-light periods; increased vehicular and human presence along existing access roads; displacement due to habitat modifications, including vegetation removal, alterations of existing soil conditions; vibration and fugitive dust; and increased erosion and sediment transport. Wildlife could also become entombed in burrows or be subject to increased risk of predation when flushed from cover by equipment or construction workers. Fires that occur because of construction activities can quickly spread in arid regions.

Indirect impacts to wildlife include the disruption of the native seed bank that supports foraging plants, the spread of invasive plant species that alter prey items or changes to soil or hydrology that adversely affect native species overtime. Indirect impacts may also include increased traffic and human disturbance and the disruption of prey base or increased predation through alterations of the physical landscape from project features that provide perch sites or shelter for predators.

The applicant has recommended general impact avoidance and minimization measures to reduce construction related impacts to common and sensitive wildlife. CEC staff has reviewed these measures and incorporated them into staff's recommended mitigation measures and enhanced them as necessary to reduce effects on common wildlife. **MM BIO-12** (Nesting Bird Surveys Prior to Construction and Bird Buffers), which requires pre-construction surveys for nesting birds and implementing non-disturbance buffers if nests are present, and **MM BIO-13** (Biological Monitor During Construction). In addition, as part of the standard PG&E Construction Measures, PG&E would implement the following measures to minimize direct and indirect impacts on common and sensitive wildlife, including nesting birds. These include **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). These measures are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

Implementation of the CEC staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-12**, and **MM BIO-13** would avoid or reduce these impacts to common and sensitive wildlife to less than significant.

Special-Status Wildlife

The proposed project has the potential to result in significant adverse impacts to several special-status wildlife species. These impacts could occur both directly (e.g.

mortality during construction) and indirectly through the permanent or temporary modification of suitable habitat within the project area.

The project site provides potential habitat for a variety of protected species. Observations during field surveys confirmed the presence of tricolored blackbirds and California horned lark actively foraging in the area. A comprehensive list of all special-status wildlife with the potential to occur is presented in **Table 5.2-3**. The following sections detail the specific impacts identified for these species.

Special Status Invertebrates

No threatened, endangered, candidate, proposed for listing, or other special-status invertebrates were observed in the project area during biological surveys conducted by the applicant (Dudek 2024). This included Crotch's bumble bee and monarch butterfly.

Crotch's Bumble Bee

Construction

Less Than Significant with Mitigation Incorporated. Based on the analysis below, the proposed project would not substantially affect Crotch's bumble bee, either directly or through habitat modifications, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-10**, **BIO-26**, **BIO-27**, **AQ-SC3**, **AQ-SC4** and **MM BIO-1**, **MM BIO-2**, **MM BIO-13**, and **MM BIO-15**.

Project Components Within CEC's Opt-In Certification

Crotch's bumble bee is a candidate for listing under CESA. Crotch's bumble bee has a wide geographic and elevational distribution and utilizes a variety of habitats throughout its current range, which continues to provide a relatively large amount of remaining intact habitat. No observations of Crotch's bumble bee were made during reconnaissance surveys or during focused surveys. However, the absence of recent survey detections within the project area does not mean absence of the species from the project site.

Direct impacts to Crotch's bumble bee, if present, could include the loss or modification of foraging and nesting habitat, disturbance or destruction of occupied nests, and impacts on individuals and/or nesting sites from exposure to human disturbance, collision with vehicles, ground vibration, fugitive dust, and other hazardous materials. Indirect impacts could include the loss or degradation of habitat from invasive plants and noxious weeds, or loss of food resources (native flowering plants) through pesticide use. If this species occurs in the project area or on site, any loss or disturbance to individuals or nesting colonies would be considered a significant impact absent mitigation.

The applicant has requested take authorization for Crotch's bumble bee which, as a candidate for listing under CESA, is afforded the same protections as a threatened or

endangered species under CESA. CEC staff incorporated incidental take permit conditions, consistent with applicable laws, ordinances, regulations, and standards (LORS), as part of the take authorization under the CEC's in-lieu permitting authority for the Crotch's bumble bee. CEC staff, in coordination with CDFW, have developed the following mitigation metric that is proposed to reduce impacts from the proposed project to less than significant levels and comport with CDFW requirements to meet the fully mitigate standard required by CESA:

- Mitigation Ratio: 3:1 ratio for permanent and **1:1** temporary impacts that result in the loss of ecological value and remove habitat from the project site.
- Impact Calculation: The project includes 60.7 acres of permanent impacts and 6.7 acres of temporary impacts. **The 60.7 acres of permanent impacts would be mitigated at a the proposed 3:1 ratio (182.1 acres), and the 6.7 acres of temporary impacts would be mitigated at a 1:1 ratio. At the proposed ratios,** a total of 188.8 acres of mitigation lands (or equivalent mitigation bank credits) would be required to offset these impacts.

These measures have been incorporated into CEC staff's proposed COCs **BIO-10**, (Crotch's Bumble Bee Impact Avoidance, Minimization, and Take Mitigation Measures), and **BIO-27** (Habitat Management Land Acquisition and Restoration for Crotch's Bumble Bee, Western Burrowing Owl, California Tiger Salamander and San Joaquin Kit Fox) which requires pre-construction surveys, preparation of a Crotch's Bumble Bee Mortality Reduction and Relocation Plan, monitoring during construction, and compensatory mitigation, among other measures to minimize harm to the bumble bee. CEC staff recommended the implementation of COCs **BIO-1** (DB Selection), **BIO-2** (DB Duties), **BIO-3** (Biological Monitor Selection), **BIO-4** (DB and Biological Monitor Authority), **BIO-5** (Worker Environmental Awareness Program [WEAP]), **BIO-6** (Biological Resources Mitigation Implementation and Monitoring Plan), **BIO-7** (General Impact and Avoidance Measures), **BIO-8** (Vegetation Restoration and Enhancement Plan), **BIO-9** (Special-Status Plant Avoidance Measures), and **BIO-27** (Post BESS Fire Monitoring and Management Plan). Use of herbicide and pesticide is limited by COC **BIO-7** (General Impact Avoidance and Minimization Measures). In addition, impacts from fugitive dust would be mitigated by implementation of COC **AQ-SC3**, which include watering roads and or stabilizing them with soil binders. Dust suppressants would be durable non-toxic soil stabilizers, and many other activity specific control measures would be applied to reduce fugitive dust and to ensure activities do not create visible dust emissions during construction. COC **AQ-SC4** would require a qualified dust monitor during dust producing activities and require remedial measures if fugitive dust exceeds authorized limits.

To avoid and minimize impacts, staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-10**, **BIO-26**, **BIO-27**, **AQ-SC3**, and **AQ-SC4**.

Implementation of the CEC staff's proposed COCs **BIO-1** through **BIO-10**, **BIO-26**, **BIO-27**, **AQ-SC3**, and **AQ-SC4** impacts to Crotch's bumble bee and their habitat would be reduced and full mitigation under CESA would be provided. CEC staff concluded that this mitigation approach mitigates for impacts to habitat for this species and impacts would be less than significant.

Project Components Outside of CEC's Opt-In Certification

No observations of Crotch's bumble bee were made during reconnaissance surveys or during focused surveys. However, the absence of recent survey detections within the project area does not mean absence of the species. Floral and nectar resources are present within the project site although nesting resources were not identified during focused surveys.

Direct impacts to Crotch's bumble bee, if present, could include the loss or modification of foraging and nesting habitat, disturbance or destruction of occupied nests, and impacts on individuals and/or nesting sites from exposure to human disturbance, ground vibration, fugitive dust, and other hazardous materials. Indirect impacts could include the loss or degradation of habitat from invasive plants and noxious weeds. If this species occurs in the project area or on site, any loss or disturbance to individuals or nesting colonies would be considered a significant impact absent mitigation.

As part of the standard PG&E Construction Measures, PG&E would implement **MM BIO-1** (Annual Training), and **MM BIO-2** (Standard Construction Practices). The standard PG&E Construction Measures did not specifically address Crotch's bumble bee so CEC staff recommended the implementation of the following Mitigation Measures **MM BIO-13** (Biological Monitor During Construction), and **MM BIO-15** (Crotch's Bumble Bee) which would require a qualified biologist conduct pre-construction surveys and daily monitoring for Crotch's bumble bee in all project areas, following CDFW non-invasive protocols. If bees or nests are detected, the qualified biologist shall coordinate with CDFW to implement avoidance measures to avoid take or seek take coverage.

Implementation of the CEC staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, and **MM BIO-13**, and **MM BIO-15** would avoid or reduce these impacts to Crotch's bumble bee to less than significant.

Operation

Less Than Significant. Based on the analysis below, the operations associated with the proposed project would not substantially adversely affect Crotch's bumble bee, either directly or through habitat modification, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-10**, **BIO-26**, **BIO-27**, **AQ-SC3**, and **AQ-SC4** and **MM BIO-1**, **MM BIO-2**, and **MM BIO-13**, and **MM BIO-15**.

Project Components within CEC's Opt-In Certification

Operational impacts are expected to result in minimal impacts, largely because the project site would be a developed facility lacking suitable habitat within its boundaries. To maintain this minimal impact, any necessary maintenance or facility augmentation should follow all required avoidance and minimization measures. Therefore, CEC staff recommended implementation of COCs **BIO-1** through **BIO-10**, **BIO-26**, **BIO-27**, **AQ-SC3**, and **AQ-SC4** to prevent impacts to the species.

Project Components Outside CEC's Opt-In Certification

Operational impacts would be limited to onsite maintenance on an as needed basis. If operational or maintenance activities have the potential to impact floristic resources, staff recommended a qualified biologist conduct pre-activity surveys to determine if Crotch's bumble bee is present. If individuals or nests are found, the qualified biologist shall coordinate with PG&E and CDFW to develop a plan to avoid incidental take. CEC staff recommends implementation of **MM BIO-1**, **MM BIO-2**, **MM BIO-13**, and **MM BIO-15**.

Jeopardy Analysis

According to the Xerces Society, Crotch's bumble bee has disappeared from much of its historical range in central and southern California, particularly within the Central Valley due to urban sprawl and agricultural expansion. The species has faced an estimated 67 percent decline in overall abundance and persistence. While ongoing surveys are still evaluating extant populations, the proposed project would permanently impact 60.7 acres and temporarily impact 6.7 acres of suitable grassland nesting and foraging habitat. However, because no individuals were detected during 2023 and 2024 biological field surveys, the project is not expected to jeopardize the species' continued existence.

Monarch Butterfly

Construction

Less Than Significant with Mitigation Incorporated. Based on the analysis below, the proposed project would not substantially affect monarch butterfly, either directly or through habitat modifications, and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1** through **BIO-9**, **BIO-28**, **AQ-SC3**, **AQ-SC4** and **MM BIO-1**, **MM BIO-2**, **MM BIO-8**, and **MM BIO-18**.

Project Components Within CEC's Opt-In Certification

The project site is outside the monarch's known overwintering range and does not contain suitable overwintering habitat (i.e. tree groves). Focused surveys in 2023 and 2024 confirmed the presence of milkweed that could support potential larvae sites. According to iNaturalist, records confirm the species is present in the general region (iNaturalist 2025). The project site offers potential foraging resources. Therefore, the

monarch has a moderate potential to be an infrequent migrant and forager due to available nectar resources.

During Section 7 consultation with USFWS, USACE did not request to conference on monarch butterfly. CEC staff have proposed the implementation of the following COCs **BIO-1** (DB Selection), **BIO-2** (DB Duties), **BIO-3** (Biological Monitor Selection), **BIO-4** (DB and Biological Monitor Authority), **BIO-5** (Worker Environmental Awareness Program [WEAP]), **BIO-6** (Biological Resources Mitigation Implementation and Monitoring Plan), **BIO-7** (General Impact and Avoidance Measures), **BIO-8** (Vegetation Restoration and Enhancement Plan), **BIO-9** (Special-Status Plant Avoidance Measures), **BIO-28** (Monarch Butterfly Avoidance and Minimization Measures). In addition, impacts from fugitive dust would be mitigated by implementation of COC **AQ-SC3**, which include watering roads and or stabilizing them with soil binders. Dust suppressants would be durable non-toxic soil stabilizers, and many other activity specific control measures would be applied to reduce fugitive dust and to ensure activities do not create visible dust emissions during construction. COC **AQ-SC4** would require a qualified dust monitor during dust producing activities and require remedial measures if fugitive dust exceeds authorized limits.

To avoid and minimize impacts, CEC staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-9**, **BIO-28**, **AQ-SC3**, and **AQ-SC4**.

Implementation of the CEC staff's proposed COCs **BIO-1** through **BIO-9**, **BIO-28**, **AQ-SC3**, and **AQ-SC4** would ensure impacts to monarch butterflies and their host plant would be reduced to less than significant.

Project Components Outside CEC's Opt-In Certification

The project site is outside the monarch's known overwintering range and does not contain suitable overwintering habitat (i.e. tree groves). Focused surveys in 2023 and 2024 confirmed the presence of milkweed that could support potential larvae sites. According to iNaturalist, records confirm the species is present in the general region (iNaturalist 2025). The project site offers potential foraging resources. Therefore, the monarch has a moderate potential to be an infrequent migrant and forager due to available nectar resources.

As part of the standard PG&E Construction Measures, PG&E would implement **MM BIO-1** (Annual Training), and **MM BIO-2** (Standard Construction Practices). The PG&E Standard Construction Measures did not specifically address monarch butterfly so CEC staff recommended the implementation of the following Mitigation Measures: **MM BIO-8** (Special-Status Plants) and **MM BIO-18** (Monarch Butterfly), which requires a qualified biologist to conduct pre-construction surveys prior to the initiation of site mobilization and/or construction related vegetation trimming or removal. The qualified biologist shall survey all areas of potentially suitable habitat for monarch larval host plants.

Implementation of staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-8**, and **MM BIO-18** would ensure impacts to monarch butterfly and their host plant would be reduced to less than significant.

Operation

Less Than Significant with Mitigation Incorporated. Based on the analysis below, the operations associated with the proposed project would not substantially adversely affect monarch butterfly, either directly or through habitat modification, and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1** through **BIO-9**, **BIO-28**, **AQ-SC3**, **AQ-SC4**, and **MM BIO-1**, **MM BIO-2**, **MM BIO-3**, and **MM BIO-18**.

Project Components Within CEC's Opt-In Certification

Operational impacts are expected to result in no impact, largely because the project site will be a developed facility lacking suitable habitat within its boundaries.

Project Components Outside CEC's Opt-In Certification

The project site is outside the monarch's known overwintering range and does not contain suitable overwintering habitat (i.e. tree groves). Focused surveys in 2023 and 2024 confirmed the presence of milkweed that could support potential larvae sites. According to iNaturalist, records confirm the species is present in the general region (iNaturalist 2025). The project site offers potential foraging resources. Therefore, the monarch has a moderate potential to be an infrequent migrant and forager due to available nectar resources. Operational activities that would impact floral/nectar resources could potentially impact the species.

To avoid and minimize impacts, CEC staff recommended mitigation measures **MM BIO-1** (Annual Training) **MM BIO-2** (Standard Construction Practices), **MM BIO-3** (Special-Status Plants), and **MM BIO-18** (Monarch Butterfly).

Implementation of staff's recommended **MM BIO-1**, **MM BIO-2**, **MM BIO-3**, and **MM BIO-18** would ensure impacts to monarch butterfly and their host plant would be reduced to less than significant.

Special Status Amphibians

California Tiger Salamander

Construction

Less Than Significant with Mitigation Incorporated. Based on the analysis below, the proposed project would not substantially affect California tiger salamander, either directly or through habitat modifications, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-11**,

BIO-26, BIO-28, and recommended MM BIO-1, MM BIO-2, MM BIO-3, and MM BIO-6.

Project Components Within CEC's Opt-In Certification

California tiger salamander requires vernal pools or other seasonal water sources for breeding and spends the majority of its time in subterranean burrows. This species has a moderate potential to occur within the project area.

The project area occurs within the EACCS CZ10, designated as "CTS North" and is a high priority for the EACCS for protecting a substantial portion of potential breeding ponds within this area. Two ponds within 0.3 miles of the project area provide high-quality breeding habitat for the tiger salamander. No California tiger salamanders were observed during field surveys, but this species is extremely difficult to detect without focused surveys. Grassland with small mammal burrows within the project site and surrounding areas provide suitable upland refuge and dispersal habitat. The proposed project is not located within designated critical habitat for the California tiger salamander.

Direct impacts could include injury or death as a result of individuals being crushed or buried by project vehicles, equipment, or displaced soil. Indirect impacts could include introduction or spread of invasive plant species, habitat degradation from fugitive dust, or trash subsidies which attract predators such as ravens, coyotes, or feral dogs to construction work areas.

The Army Corps of Engineers initiated formal Section 7 consultation with the USFWS (SPK-2024-00486) regarding potential project effects on the federally threatened Central California Distinct Population Segment of the California tiger salamander and other identified species. The USFWS determined that the proposed project is suitable to be appended to the existing May 31, 2012 *Programmatic Biological Opinion for the Corps Permitted Projects Utilizing the East Alameda County Conservation Strategy that May Affect Federally Listed Species in East Alameda County, California* (Service 2012). This Programmatic Biological Opinion (PBO) outlines required avoidance and minimization measures, including the compensatory mitigation measures. In addition, the applicant has requested take authorization for California tiger salamander which is afforded protections under CESA.

CEC staff reviewed the EACCS score sheets submitted by the project owner. Due to identified errors, the score sheet tallies were deemed unsuitable for determining the project specific mitigation ratios. Staff coordinated with the CDFW to determine an appropriate mitigation strategy. The determination was made to adhere to a 3:1 compensatory mitigation ratio, which ensures consistent and robust mitigation that appropriately accounts for temporal loss and potential risk of failure. It also reflects the USFWS required mitigation as outlined in the PBO and follows the EACCS Standardized Mitigation Ratios for California Tiger Salamander Table 3-8 (EACCS 2010) for impacts

located outside of critical habitat but inside the CTS North Mitigation area, south of I-580.

The required compensatory mitigation acreage differs based on jurisdictional requirements. As detailed in **Table 5.2-5**, CDFW requires mitigation for both permanent and temporary impacts, resulting in a total obligation of 188.8 acres under CESA. In contrast, USFWS requires compensatory mitigation for permanent impacts only, totaling 182.1 acres.

TABLE 5.2-5 IMPACTS AND MITIGATION FOR CALIFORNIA TIGER SALAMANDER

Resource	Habitat Impact	Mitigation Ratio	Permanent Direct Impact	Temporary Direct Impact	USFWS Mitigation (acres)	CDFW Mitigation (acres)
CTS	Grassland	3:1	60.7	6.7 (restored)	182.1 (Perm)	188.8 (Perm & Temp)

To satisfy this requirement, the applicant proposed providing compensatory mitigation by purchasing and ensuring the long-term conservation of a “turn-key” mitigation property within the same Conservation Zone (CZ10) as the project site, specifically preserving upland and dispersal habitat. The long-term conservation plan, including a conservation easement, an endowment, a long-term management plan, and a mitigation agreement, would be submitted for approval by the Compliance Project Manager (CPM), in coordination with CDFW and USFWS. The applicant has initiated this process, and all necessary steps to acquire the approved mitigation property must be completed prior to any ground disturbance. Overall, the USFWS conservation measures have been incorporated into CEC staff’s proposed COCs. In addition, conservation measures included in the PBO would be incorporated into the BRIMIMP and implemented.

CEC staff incorporated CESA incidental take permit conditions, consistent with applicable LORS, as part of the take authorization under the CEC’s in-lieu permitting authority for the California tiger salamander in coordination with CDFW. These measures have been incorporated into staff’s proposed COC **BIO-11**, (California Tiger Salamander Impact Avoidance, Minimization, and Take Mitigation Measures), which requires pre-construction surveys, daily inspections, and installation of temporary exclusion fencing. Construction activities are limited to seasonal and daily work windows to avoid peak movement periods. This measure also requires that all excavations be secured or equipped with escape ramps to prevent entrapment. In addition, a specialized salvage and relocation plan would ensure the safe handling of any individuals discovered within the project site. CEC staff also recommended the implementation of COC **BIO-8** which requires habitat restoration, COC **BIO-25** which would require compliance with Lake and Streambed equivalency conditions, and COC **BIO-26** which requires compensatory mitigation, among other measures to minimize harm to the tiger salamander. In addition, impacts from fugitive dust would be mitigated by implementation of COC **AQ-SC3**, which include watering roads and or stabilizing them with soil binders. Dust suppressants would be durable non-toxic soil stabilizers, and many other activity specific control measures would be applied to

reduce fugitive dust and to ensure activities do not create visible dust emissions during construction. COC **AQ-SC4** would require a qualified dust monitor during dust producing activities and require remedial measures if fugitive dust exceeds authorized limits.

To avoid and minimize impacts, CEC staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**, **BIO-11**, **BIO-8**, **BIO-26**, **AQ-SC3**, and **AQ-SC4**. With implementation of staff's proposed COCs impacts to California tiger salamander, and their habitat would be reduced and full mitigation under CESA would be provided. CEC staff concluded that this mitigation approach mitigates for impacts to habitat for this species and impacts would be less than significant.

Project Components Outside CEC's Opt-In Certification

As part of the standard PG&E Construction Measures, PG&E would implement the following measures to avoid direct and indirect impacts to California tiger salamander: **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), **MM BIO-3** (California Tiger Salamander), which would limit work off established roadways, and **MM BIO-6** (California Tiger Salamander Specific Conditions) which would require pre-construction surveys conducted by a qualified biologist, temporal restrictions and the installation of exclusionary fencing. In addition, CEC staff recommended the implementation of **MM BIO-13** (Biological Monitor During Construction) to reduce potential impacts to California tiger salamander.

Implementation of staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-3**, and **MM BIO-6** would ensure impacts to California tiger salamander would be reduced to less than significant.

Jeopardy Analysis

CEC staff analyzed potential impacts associated with the construction of the project. Project activities would result in 60.7 acres of permanent impacts and 6.7 acres of temporary impacts to California tiger salamander upland and dispersal habitat associated with the grassland vegetation community. Because the impacts are limited to a small portion of the species' overall range, the project avoids the most critical threat to the species' life cycle. Therefore, the project will not jeopardize the continued existence of the species.

As part of formal consultation and appending the 2012 PBO, the USFWS conducted a detailed jeopardy analysis of the potential impacts associated with the construction of the project (Dudek 2025000). The jeopardy analysis included consideration of the capability of the species to survive and reproduce, as well as any adverse impacts of the taking on those abilities in light of known population trends, known threats to the species, and reasonably foreseeable impacts on the species from other related projects and activities.

USFWS determined that due to available dispersal, and underground refugia habitat within the action area, known occurrences within 0.25-mile from the project site, and the site being within the salamander's 1.3-mile dispersal distance from known populations, USFWS determined it is likely that California tiger salamanders occur within the action area. Implementation of the project has the potential to take California tiger salamanders and their habitat. However, while the project may result in incidental take of California tiger salamander impacts would be fully mitigated through compliance with staff's proposed COCs and permit conditions. The project owner would be required to implement numerous measures to avoid, minimize, and reduce adverse effects to California tiger salamander and their habitat as part of the project. The USFWS determined that the level of anticipated take is not likely to result in jeopardy of the species. The USFWS conclusion found that project impacts when added to the environmental baseline and considered alongside other cumulative effects would not rise to a level that precludes the species recovery or reduces the likelihood of survival (USFWS 2025d).

Operation

Less Than Significant with Mitigation Incorporated. Based on the analysis below, the operations associated with the proposed project would not substantially adversely affect California tiger salamander, either directly or through habitat modification, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-9**, **BIO-11**, **BIO-25** through **BIO-27**.

Project Components Within CEC's Opt-In Certification

Direct and indirect impacts associated with operation activities would be substantially reduced relative to initial construction activities and operational impacts are expected to result in minimal impacts, largely because the project site will be a developed facility lacking suitable habitat within its boundaries. To maintain this minimal impact, any necessary maintenance or facility augmentation would comply with all required avoidance and minimization measures to prevent impacts to the species including CEC staff proposed COCs **BIO-1** through **BIO-7**, **BIO-11**, and **BIO-25** through **BIO-27**.

Project Components Outside CEC's Opt-In Certification

Operational impacts are expected to result in minimal impacts. To maintain this minimal impact, any necessary maintenance or facility augmentation will comply with all required avoidance and minimization measures to reduce potential impacts to the species including **MM BIO-1**, **MM BIO-2**, **MM BIO-3** and **MM BIO-6**.

California Red-Legged Frog

Construction

Less Than Significant with Mitigation. Based on the analysis below, the proposed project would not substantially affect California red-legged frog, either directly or through habitat modifications, and impacts would be less than significant with the

implementation of staff's proposed COCs **BIO-1** through **BIO-8**, **BIO-12**, and **BIO-25** through **BIO-27**, and **MM BIO-1**, **MM BIO-2**, **MM BIO-13**, and **MM BIO-14**.

Project Components Within CEC's Opt-In Certification

California red-legged frogs require vernal pools, cattle ponds, stream pools, or other water sources for breeding and spends the majority of its time in subterranean burrows. This species has a moderate potential to occur within the project area.

The project area occurs within the EACCS CZ10, designated as "CRLF South" and is a high priority for the EACCS for protecting a substantial portion of potential breeding ponds within this area. Three aquatic features were assessed for habitat suitability for the frog: Patterson Run, a seasonal stream paralleling Patterson Pass Road, and two stock ponds approximately 0.3 miles northwest (Pond 1) and west (Pond 2) of the project site. Of these aquatic features, only Pond 2, consisting of a large, deep stock pond with perennial water and a large quantity of emergent vegetation surrounded by grazed grassland, was determined to provide high-quality breeding habitat for the frog. The stretch of Patterson Run within the survey area lacked large pools suitable for breeding, and Pond 1 lacked suitable emergent or marginal vegetation. No frogs were observed during field surveys or the habitat assessment.

The project would result in 60.7 acres of permanent loss of habitat for California red-legged frogs. Direct impacts could include mortality or injury from ground disturbing activities, construction equipment, grading, or other construction activities, and permanent loss of potential upland and dispersal habitat within the project footprint. California red-legged frogs are known to use burrows for refuge, which may be crushed by the weight of construction equipment, building supplies, or grading on the surface, even if the burrow is of sufficient depth to avoid direct excavation. Impacts also could occur due to disturbance caused by increased human activity and impacts to water quality from construction activities. Indirect impacts could include introduction or spread of invasive plant species, habitat degradation from fugitive dust, or trash subsidies which attract predators such as ravens, coyotes, or feral dogs to construction work areas. In addition, the proposed project could reduce the ability of California red-legged frog to return to nearby breeding sites.

CEC staff reviewed the EACCS score sheets submitted by the project owner. Due to identified errors, the score sheet tallies were deemed unsuitable for determining the project specific mitigation ratios. The determination was made to adhere to a 3:1 compensatory mitigation ratio, which ensures consistent and robust mitigation that appropriately accounts for temporal loss and potential risk of failure. It also reflects the USFWS required mitigation as outlined in the PBO. This approach also follows the EACCS Standardized Mitigation Ratios for California Red-Legged Frog, Table 3-7 (EACCS 2010) for impacts located inside critical habitat and inside the same California red-legged frog mitigation area.

The Army Corps of Engineers initiated formal Section 7 consultation with the USFWS (SPK-2024-00486) regarding potential project effects on the federally threatened California red-legged frog and other identified species. The USFWS determined that the proposed project is suitable to be appended to the existing May 31, 2012 *Programmatic Biological Opinion for the Corps Permitted Projects Utilizing the East Alameda County Conservation Strategy that May Affect Federally Listed Species in East Alameda County, California* (Service 2012). The PBO outlines required avoidance and minimization measures, including the mitigation ratios detailed in **Table 5.2-6**.

TABLE 5.2-6 IMPACTS AND MITIGATION FOR CALIFORNIA RED-LEGGED FROG

Resource	Habitat Impact	Mitigation Ratio	Permanent Direct Impact	Temporary Direct Impact	Mitigation (acres)
CRLF	Grassland	3:1	60.7	6.7 (restored)	182.1

To satisfy this requirement, the applicant proposed providing compensatory mitigation by purchasing and ensuring the long-term conservation of a “turn-key” mitigation property within the same Conservation Zone (CZ10) as the project site, specifically preserving upland and dispersal habitat. The long-term conservation plan, including a conservation easement, an endowment, a long-term management plan, and a mitigation agreement, would be submitted for approval by the CPM, in coordination with the USFWS. The project owner has initiated this process, and all necessary steps to acquire the approved mitigation property must be completed prior to any ground disturbance. Overall, the USFWS conservation measures have been incorporated into CEC staff’s proposed COCs. In addition, the conservation measures included in the PBO would be incorporated into the BRIMIMP and implemented.

These measures have been incorporated into staff’s proposed COC **BIO-12**, (California Red-Legged Frog Mitigation Measures), which requires pre-construction surveys and protective measures for California red-legged frog, including daily inspections, placement of covers or escape ramps on all excavations that could lead to entrapment, daylight hour work restrictions, monitoring during **site mobilization and/or** construction and the installation of temporary exclusion fencing. In the event California red-legged frogs are encountered within the project site the project owner would develop a California red-legged frog relocation plan. The project owner shall also adhere to the PBO conservation measures, including compensatory mitigation as required by USFWS (Dudek 2025000).

As part of the appending the proposed action to the 2012 PBO, the USFWS conducted a detailed jeopardy analysis of the potential impacts associated with the construction of the project. The jeopardy analysis included consideration of the capability of the species to survive and reproduce, as well as any adverse impacts of the taking on those abilities in light of known population trends, known threats to the species, and reasonably foreseeable impacts on the species from other related projects and activities. The USFWS determined that the level of anticipated take is not likely to result in jeopardy of the species (USFWS 2025d).

To avoid and minimize impacts to California red-legged frogs, CEC staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**. The project owner would implement the following COCs developed in coordination with CDFW, and **BIO-8** (Vegetation Restoration and Enhancement Plan) which requires the preparation of a Restoration Plan to return the project site to pre-project conditions. In addition, CEC staff proposed **BIO-26** (Habitat Management Land Acquisition), **BIO-25** which requires compliance with Lake and Streambed equivalency conditions, and **BIO-27** (Post BESS Fire Monitoring and Management Plan). In addition, impacts from fugitive dust would be mitigated by implementation of COC **AQ-SC3**, which include watering roads and or stabilizing them with soil binders. Dust suppressants would be durable non-toxic soil stabilizers, and many other activity specific control measures would be applied to reduce fugitive dust and to ensure activities do not create visible dust emissions during construction. COC **AQ-SC4** would require a qualified dust monitor during dust producing activities and require remedial measures if fugitive dust exceeds authorized limits.

With implementation of CEC staff's proposed COCs **BIO-1** through **BIO-8**, **BIO-12**, **BIO-25**, **BIO-26**, **BIO-27**, **AQ-SC3**, and **AQ-SC4** impacts to California red-legged frog and their habitat would be reduced and would fully satisfy USFWS and EACCS mitigation. CEC staff concluded that this mitigation approach mitigates for impacts to habitat for this species and impacts would be less than significant.

Project Components Outside CEC's Opt-In Certification

As part of the standard PG&E Construction Measures, PG&E would implement the following measures to avoid direct and indirect impacts to California red-legged frog: **MM BIO-1** (Annual Training), and **MM BIO-2** (Standard Construction Practices). In addition, staff recommended the implementation of **MM BIO-13** (Biological Monitor During Construction) and **MM BIO-14** (California Red-Legged Frog) which requires pre-construction surveys by a qualified biologist prior to ground disturbing activities, work restrictions, and installation of exclusionary fencing to avoid potential impacts to California red-legged frog.

Implementation of CEC staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-13**, and **MM BIO-14** would ensure impacts to California red-legged frog would be reduced to less than significant.

Jeopardy Analysis

As part of the appending the proposed action to the 2012 PBO, the USFWS conducted a detailed jeopardy analysis of the potential impacts associated with the construction of the project (Dudek 2025000). The jeopardy analysis included consideration of the capability of the species to survive and reproduce, as well as any adverse impacts of the taking on those abilities in light of known population trends, known threats to the species, and reasonably foreseeable impacts on the species from other related projects and activities.

USFWS determined that the entire project site is potential upland dispersal and foraging habitat for California red-legged frog. Therefore, due to availability of suitable upland and non-breeding aquatic habitat at the project site, and known occurrences within the project vicinity, the USFWS determined that it is likely that California red-legged frogs occur within the project site. Implementation of the project has the potential to take California red-legged frogs and their habitat. However, while the project may result in incidental take of California red-legged frog, impacts would be fully mitigated through compliance with CEC staff's proposed COCs and permit conditions. The project owner would be required to implement numerous measures to avoid, minimize, and reduce adverse effects to California red-legged frogs and their habitat as part of the project. The USFWS determined that the level of anticipated take is not likely to result in jeopardy of the species. The USFWS conclusion found that project impacts when added to the environmental baseline and considered alongside other cumulative effects would not rise to a level that precludes the species recovery or reduces the likelihood of survival (USFWS 2025d).

Operation

Less Than Significant with Mitigation. Based on the analysis below, the operations associated with the proposed project would not substantially adversely affect California red-legged frog, either directly or through habitat modification, and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1** through **BIO-9**, **BIO-12**, **BIO-25**, **BIO-26**, **BIO-28**, **AQ-SC3**, **AQ-SC4**, and **MM BIO-1**, **MM BIO-2**, **MM BIO-13**, and **MM BIO-14**.

Project Components Within CEC's Opt-In Certification

Operational impacts are expected to result in minimal impacts, largely because the project site will be a developed facility lacking suitable habitat within its boundaries. To maintain this minimal impact, any necessary maintenance or facility augmentation would comply with all required avoidance and minimization measures to prevent impacts to the species including CEC staff proposed COCs **BIO-1** through **BIO-7**, **BIO-12**, and **BIO-25**, **BIO-26**, **BIO-27**, **AQ-SC3**, and **AQ-SC4**.

Project Components Outside CEC's Opt-In Certification

Operational impacts are expected to result in minimal impacts. To maintain this minimal impact, any necessary maintenance or facility augmentation would comply with all required avoidance and minimization measures to reduce potential impacts to the species including **MM BIO-1**, **MM BIO-2**, **MM BIO-13**, and **MM BIO-14**.

California Red-Legged Frog Critical Habitat Unit ALA-2

The entire project site is located within the 153,624-acre California red-legged frog Critical Habitat Unit ALA-2. The site provides upland habitat (primary constituent elements (PCE) 3) and dispersal habitat (PCE 4). While crucial aquatic breeding habitat (PCE 1) and non-breeding habitat (PCE 2) are not within the project footprint, they are present within the species' 1-mile dispersal distance of the project site.

Construction activities will permanently remove 60.7 acres of PCE 3 and 4 habitats. Impacts on these PCEs will be minimized or avoided through conservation measures defined in the USFWS formal consultation which appended the project to the 2012 PBO, including habitat restoration. The USFWS concluded that the loss of critical habitat would not be significant when compared to the entire unit, and the critical habitat unit overall would remain functional with all of the PCEs. The analysis determined that when project-related effects were added to the environmental baseline and considered with all potential cumulative effects, the critical habitat would still maintain its conservation function for the species. This conclusion was based on the proposed mitigation measures outlined in the PBO and CEC staff proposed COCs would effectively minimize adverse effects on the PCEs of the critical habitat. In addition, USFWS determined that the effects on the California red-legged frog critical habitat are minimal and localized in comparison to the total designated area. Ultimately, the effects are not expected to diminish the value of the critical habitat or prevent it from sustaining its role in the conservation of the California red-legged frog (USFWS 2025d).

To avoid and minimize impacts, staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**. The project owner would implement the following COCs, **BIO-8** (Vegetation Restoration and Enhancement Plan) which requires the preparation of a Vegetation Restoration Plan to return the project site to pre-project conditions, **BIO-12** (California red-legged frog) which requires avoidance and minimization measures for California red-legged frogs, and **BIO-26** Habitat Management Land Acquisition).

With implementation of staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-8**, **BIO-12**, and **BIO-26** impacts to California red-legged frogs and their critical habitat would be reduced to less than significant and would fully satisfy USFWS and EACCS mitigation. CEC staff concluded that this mitigation approach mitigates for impacts to California red-legged frog.

Western spadefoot (*Spea hammondi*)

Construction

Less Than Significant with Mitigation Incorporated. Based on the analysis below, the proposed project would not substantially affect western spadefoot, either directly or through habitat modifications, and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-13**, and **MM BIO-1**, **MM BIO-2**, **MM BIO-13**, and **MM BIO-16**.

Project Components Within CEC's Opt-In Certification

While the project site does not contain suitable aquatic habitat for western spadefoot, there are suitable ponds within 0.3 miles of the project site. Ground disturbing activities (i.e. excavation, grading, and stockpiling of soil) associated with construction, access roads, culvert replacement, low water crossing installation within suitable habitat could result in the runoff of sediment, gasoline, oil, or other contaminants into suitable

aquatic nonbreeding and dispersal habitat, which could cause illness or mortality to western spadefoot or their food resources.

Western spadefoot in active work areas could be killed or injured by being crushed by equipment, entrapped in open trenches or other project facilities, or entombed in burrows that are covered or filled. They could be run over by vehicles traveling in the project area or to the project area on Patterson Pass Road during **site mobilization and/or** construction activities. The potential for such injury or mortality would increase at night and during periods of wet weather or high humidity.

Although the potential for western spadefoot to be present within the project site is low, CEC staff proposed implementation of general mitigation measures to avoid and minimize impacts, including COCs **BIO-1** through **BIO-7**. The project owner would also implement **BIO-13** (Western Spadefoot) which was developed in coordination with CDFW, and which requires a DB to conduct pre-construction surveys within 48 hours if construction activities occur between February 1 through March 30.

With implementation of staff's proposed COCs **BIO-1** through **BIO-7**, and **BIO-13**, impacts to western spadefoot and their habitat would be reduced to less than significant.

Project Components Outside CEC's Opt-In Certification

While the project site does not contain suitable aquatic habitat for western spadefoot, there are suitable ponds within 0.3 miles of the project site. Ground disturbing activities (i.e. excavation, grading, and stockpiling of soil) associated with construction, access roads, culvert replacement, low water crossing installation within suitable habitat could result in the runoff of sediment, gasoline, oil, or other contaminants into suitable aquatic nonbreeding and dispersal habitat, which could cause illness or mortality to western spadefoot or their food resources.

Western spadefoot in active work areas could be killed or injured by being crushed by equipment, entrapped in open trenches or other project facilities, or entombed in burrows that are covered or filled. They could be run over by vehicles traveling in the project area or to the project area on Patterson Pass Road during **site mobilization and/or** construction activities. The potential for such injury or mortality would increase at night and during periods of wet weather or high humidity.

As part of the standard PG&E Construction Measures, PG&E would implement **MM BIO-1** (Annual Training), and **MM BIO-2** (Standard Construction Practices) to avoid direct and indirect impacts to western spadefoot.

Although the potential for western spadefoot to be present within the project site is low, the applicant has recommended general impact avoidance and minimization measures to reduce construction related impacts to common and sensitive wildlife. CEC staff has reviewed these measures and incorporated them into staff's proposed

mitigation measures and enhanced them as necessary to reduce effects on common wildlife, including western spadefoot. These include **MM BIO-13** (Biological Monitor During Construction), and **MM BIO-16** (Western Spadefoot). All MMs are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require pre-construction surveys, require inspection for wildlife under vehicles; reducing or controlling fugitive and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of CEC staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-13**, and **MM BIO-16** impacts to western spadefoot and their habitat would be reduced to less than significant.

Special Status Reptiles

Northwestern Pond Turtle (*Actinemys marmorata*)

Construction

Less Than Significant with Mitigation Incorporated. Based on the analysis below, the proposed project would not substantially affect northwestern pond turtle either directly or through habitat modifications, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7**, and **BIO-14**, **HAZ-1**, **AQ-SC3**, **AQ-SC4**, and recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-4**, **MM BIO-5**, **MM BIO-7**, and **MM BIO-13**.

Project Components Within CEC's Opt-In Certification

The project site provides low-quality suitable upland habitat for northwestern pond turtles. The site lacks permanent water sources and provides little basking sites within Patterson Run which is an ephemeral stream. Aquatic habitat is present within 0.3 miles from the project site in the form of stock ponds. Ground disturbing activities (i.e. excavation and grading) that occur within the project site could result in injury or mortality if northwestern pond turtles were present. Individuals could be run over by vehicles or equipment during **site mobilization and/or** construction or be entrapped in pits or trenches if these features are left open overnight. Construction activities would also permanently or temporarily disturb potential habitat. To avoid and minimize impacts, CEC staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**. The project owner would also be required to implement **BIO-14**, developed in coordination with CDFW to require pre-construction surveys for northwestern pond turtles within 48 hours before starting work, and if individuals are found, measures to relocate in coordination with the CPM and CDFW. In addition, hazardous waste spill containment would be mitigated by implementation of **HAZ-1**, impacts from fugitive dust would be mitigated by implementation of **AQ-SC3**, which include watering roads and or stabilizing them with soil binders. Dust suppressants would be durable non-toxic soil stabilizers, and many other activity specific control measures would be applied to reduce fugitive dust and to ensure activities do not

create visible dust emissions during construction. **AQ-SC4** would require a qualified dust monitor during dust producing activities and require remedial measures if fugitive dust exceeds authorized limits.

With implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-14**, and **HAZ-1**, **AQ-SC3**, and **AQ-SC4** impacts to northwestern pond turtles would be reduced to less than significant.

Project Components Outside CEC's Opt-In Certification

The project site provides low-quality suitable upland habitat for northwestern pond turtles. The site lacks permanent water sources. Aquatic habitat is present within 0.3 miles from the project site in the form of stock ponds. Ground disturbing activities (i.e. excavation and grading) that occur within the project site could result in injury or mortality if northwestern pond turtles were present. Individuals could be run over by vehicles or equipment during **site mobilization and/or** construction or be entrapped in pits or trenches if these features are left open overnight. Construction activities would also permanently or temporarily disturb potential habitat.

As part of the standard PG&E Construction Measures, CEC staff recommends that PG&E implement **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). In addition, CEC staff recommended the implementation of **MM BIO-7** (General Impact Avoidance and Minimization Measures), and **MM BIO-13** (Biological Monitoring During Construction) to avoid impacts to northwestern pond turtle.

With implementation of CEC staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-4**, **MM BIO-5**, **MM BIO-7**, and **MM BIO-13** impacts to northwestern pond turtle and their habitat would be reduced to less than significant.

San Joaquin coachwhip (*Masticophis flagellum ruddocki*)

Construction

Less Than Significant with Mitigation. Based on the analysis below, the proposed project would not substantially affect San Joaquin coachwhip, either directly or through habitat modifications, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7**, and **BIO-15**, **HAZ-1**, **AQ-SC3**, **AQ-SC4**, and recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-13**, and **MM BIO-17**.

Project Components Within CEC's Opt-In Certification

Annual grassland with sparse tree cover within the project site could provide suitable habitat for San Joaquin coachwhip. Ground disturbing activities (i.e., excavation, grading, and stockpiling of soil) that occur within the project site could result in injury or mortality of San Joaquin coachwhip if the species is present. Individuals could be run over by vehicles or equipment during **site mobilization and/or** construction or be

entrapped in pits or trenches if these features are left open overnight. Individuals seeking shade or refuge under vehicles or equipment could be crushed when vehicles or equipment are moved. Construction activities would also permanently and temporarily disturb potential habitat. To avoid and minimize impacts, CEC staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**. The project owner would implement the following COCs that were developed in coordination with CDFW, including **BIO-8** (Vegetation Restoration and Enhancement Plan) which requires the preparation of a Vegetation Restoration and Enhancement Plan to return the project site to pre-project conditions, **BIO-15** (Coast Horned Lizard and San Joaquin Coachwhip) which requires avoidance and minimization measures for San Joaquin Coachwhip, including pre-construction surveys and **BIO-26** (Habitat Management Land Acquisition). In addition, hazardous waste spill containment would be mitigated by implementation of **HAZ-1**, impacts from fugitive dust would be mitigated by implementation of COC **AQ-SC3**, which include watering roads and or stabilizing them with soil binders. Dust suppressants would be durable non-toxic soil stabilizers, and many other activity specific control measures would be applied to reduce fugitive dust and to ensure activities do not create visible dust emissions during construction. COC **AQ-SC4** would require a qualified dust monitor during dust producing activities and require remedial measures if fugitive dust exceeds authorized limits.

With implementation of staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-8**, **BIO-15**, and **BIO-26**, **HAZ-1**, **AQ-SC3**, and **AQ-SC4** impacts to San Joaquin coachwhip would be reduced to less than significant.

Project Components Outside CEC's Opt-In Certification

Annual grassland within the project site could provide suitable habitat for San Joaquin coachwhip; however, there are limited open areas for sunning and limited loose sandy soils available. Ground disturbing activities (i.e., excavation, grading, and stockpiling of soil) that occur within the project site could result in injury or mortality of San Joaquin coachwhip if the species is present. Individuals could be run over by vehicles or equipment during **site mobilization and/or** construction or be entrapped in pits or trenches if these features are left open overnight. Individuals seeking shade or refuge under vehicles or equipment could be crushed when vehicles or equipment are moved. Construction activities would also permanently and temporarily disturb potential habitat.

To avoid impacts, as part of the standard PG&E Construction Measures, PG&E would implement **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). The applicant also recommended general impact avoidance and minimization measures to reduce construction related impacts to sensitive wildlife. CEC staff reviewed these measures and incorporated them into CEC staff's proposed mitigation measures and enhanced them as necessary to reduce effects on San Joaquin coachwhip. These include **MM BIO-13** (Biological Monitor During Construction), and **MM BIO-17** (Coast Horned Lizard and San Joaquin Coachwhip). These MMs are designed to educate workers of the

presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require pre-construction surveys, require inspection for wildlife under vehicles; reducing or controlling fugitive and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of staff's recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-13, and MM BIO-17** impacts to San Joaquin coachwhip and their habitat would be reduced to less than significant.

Coast horned lizard (*Phrynosoma blainvillii*)

Construction

Less Than Significant with Mitigation Incorporated. Based on the analysis below, the proposed project would not substantially affect coast horned lizard, either directly or through habitat modifications, and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1 through BIO-7, BIO-8, BIO-15, BIO-26, HAZ-1, AQ-SC3, AQ-SC4, and MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-13, and MM BIO-17.**

Project Components Within CEC's Opt-In Certification

Annual grassland within the project site could provide suitable habitat for coast horned lizards; however, there are limited open areas for sunning and limited loose sandy soils available. Ground disturbing activities (i.e., excavation, grading, and stockpiling of soil) that occur within the project site could result in injury or mortality of coast horned lizard if the species is present. Individuals could be run over by vehicles or equipment during **site mobilization and/or** construction or be entrapped in pits or trenches if these features are left open overnight. Individuals seeking shade or refuge under vehicles or equipment could be crushed when vehicles or equipment are moved. Construction activities would also permanently and temporarily disturb potential habitat. To avoid and minimize impacts, CEC staff proposed implementation of general mitigation measures, including COCs **BIO-1 through BIO-7**. The project owner would implement the following COCs, **BIO-8** (Vegetation Restoration and Enhancement Plan) which requires the preparation of a Vegetation Restoration Plan to return the project site to pre-project conditions, **BIO-15** (Coast Horned Lizard and San Joaquin Coachwhip) which requires avoidance and minimization measures for coast horned lizard, including pre-construction surveys and **BIO-26** (Habitat Management Land Acquisition). In addition, hazardous waste spill containment would be mitigated by implementation of **HAZ-1**, impacts from fugitive dust would be mitigated by implementation of COC **AQ-SC3**, which include watering roads and or stabilizing them with soil binders. Dust suppressants would be durable non-toxic soil stabilizers, and many other activity specific control measures would be applied to reduce fugitive dust and to ensure activities do not create visible dust emissions during construction. COC **AQ-SC4** would

require a qualified dust monitor during dust producing activities and require remedial measures if fugitive dust exceeds authorized limits.

With implementation of staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-8**, **BIO-15**, and **BIO-26**, **HAZ-1**, **AQ-SC3**, and **AQ-SC4** impacts to coast horned lizards would be reduced to less than significant.

Project Components Outside CEC's Opt-In Certification

Annual grassland within the project site could provide suitable habitat for coast horned lizards; however, there are limited open areas for sunning and limited loose sandy soils available. Ground disturbing activities (i.e., excavation, grading, and stockpiling of soil) that occur within the project site could result in injury or mortality of coast horned lizard if the species is present. Individuals could be run over by vehicles or equipment during **site mobilization and/or** construction or be entrapped in pits or trenches if these features are left open overnight. Individuals seeking shade or refuge under vehicles or equipment could be crushed when vehicles or equipment are moved. Construction activities would also permanently and temporarily disturb potential habitat.

To avoid and minimize impacts, as part of the standard PG&E Construction Measures, CEC staff recommends that PG&E implement **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). The applicant also recommended general impact avoidance and minimization measures to reduce construction related impacts to sensitive wildlife. CEC staff reviewed these measures and incorporated them into staff's proposed mitigation measures and enhanced them as necessary to reduce effects on coast horned lizard. These include **MM BIO-13** (Biological Monitor During Construction), and **MM BIO-17** (Coast Horned Lizard and San Joaquin Coachwhip). These MMs are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require pre-construction surveys, require inspection for wildlife under vehicles; reducing or controlling fugitive and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-13**, and **MM BIO-17** impacts to coast horned lizard and their habitat would be reduced to less than significant.

White-Tailed Kite and Swainson's Hawk

Construction

Less Than Significant with Mitigation Incorporated. Based on the analysis below, the proposed project would not substantially affect white-tailed kite and Swainson's hawk, either directly or through habitat modifications, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7**, and **BIO-16** through **BIO-21**, **BIO-26**, **HAZ-1**, **AQ-SC3**, **AQ-SC4**, and

recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-10, MM BIO-12, and MM BIO-13.**

Project Components Within CEC's Opt-In Certification

Suitable nesting habitat is limited to the few trees within the Patterson Run creek corridor. Due to a recent fire southeast of Patterson Pass Road, satellite imagery indicates fire damage to these trees along Patterson Run. Although not typical nesting sites, Swainson's hawk and white-tailed kites could also nest on electrical transmission towers located throughout the project area. Nonnative annual grassland throughout the project site could provide abundant prey for raptors.

Direct impacts to these species include construction-related mortality, degradation of foraging habitat, disturbance due to increased levels of human presence, noise, vibration, fugitive dust, habitat loss or fragmentation. Indirect impacts include temporary or permanent displacement, and disruption of movement. It is assumed that most mobile animals, both special-status and common, would likely move away from any temporary disturbance. However, species that are less able or inclined to disperse (such as nesting birds and raptors) may remain near the site and experience temporary adverse impacts. Impacts to nesting birds and including special-status species are discussed in the subsections below.

Large aerial foragers, such as golden eagles and other raptors, may have reduced foraging opportunities on the project site during **site mobilization and/or** construction and operation of the facility. The loss of foraging habitat for listed species would typically be considered a significant impact, absent mitigation, directly through the removal of vegetation that could support food and prey species, and indirectly due to the long-term alteration of available habitat. Foraging habitat on the project site, however, is moderately suitable. Implementation of the proposed project would result in 60.7 acres of permanent impacts and 6.7 acres of temporary impacts to potential foraging habitat for a variety of resident and migratory birds.

To avoid and minimize impacts, CEC staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**. Furthermore, staff proposed the following species-specific conditions, which also incorporate mitigation measures proposed by the applicant, as appropriate. These include COCs **BIO-16** through **BIO-21** (Nesting birds and bird buffers, Swainson's hawk surveys and avoidance, golden eagle and nest protection buffer, white-tailed kite nesting preconstruction surveys and nest protection buffer, and California condor) which would require the project owner prepare a Nesting Bird Management Plan, avoid project activities during the nesting bird season and identifies preconstruction survey requirements. In addition, they outline specific monitoring and buffers in the event nesting birds are present. CEC staff proposed COC **BIO-26** (Habitat Management Land Acquisition), which requires the project owner to restore temporarily disturbed areas to pre-project conditions and provide compensatory mitigation for permanent impacts to foraging and/or nesting habitat at a 3:1 ratio. These COCs are designed to educate workers of the presence and

sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds. In addition, COCs **HAZ-1**, **AQ-SC3**, and **AQ-SC4** include requirements for hazardous materials spill containment, reducing or controlling fugitive dust, and requiring the presence of a dust monitor.

Implementation of staff's proposed COCs **BIO-1** through **BIO-7**, and **BIO-16** through **BIO-21**, **BIO-26**, **HAZ-1**, **AQ-SC3**, and **AQ-SC4**. would avoid or reduce impacts to white-tailed kites and Swainson's hawk to less than significant.

Project Components Outside CEC's Opt-In Certification

Although not typical nesting sites, white-tailed kites and Swainson's hawk could nest on electrical transmission towers located throughout the project area. Nonnative annual grassland throughout the project site could provide abundant prey for raptors. Construction would impact foraging opportunities for these species.

Direct impacts to these species include construction-related mortality, degradation of foraging habitat, disturbance due to increased levels of human presence, noise, vibration, fugitive dust, habitat loss or fragmentation. Indirect impacts include temporary or permanent displacement, and disruption of movement. It is assumed that most mobile animals, both special-status and common, would likely move away from any temporary disturbance.

The loss of foraging habitat for listed species would typically be considered a significant impact, absent mitigation, directly through the removal of vegetation that could support food and prey species, and indirectly due to the long-term alteration of available habitat. Foraging habitat on the project site, however, is moderately suitable.

Approximately 1.9 acres of the gen-tie line would be permanently impacted by the installation of transmission and interconnecting facilities and 6.7 acres of temporary impacts to potential foraging habitat for a variety of resident and migratory birds, including white-tailed kites and Swainson's hawk.

To avoid and minimize impacts, as part of the standard PG&E Construction Measures, CEC staff recommends that PG&E implement **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). In addition, the applicant has recommended general impact avoidance and minimization measures to reduce construction related impacts. CEC staff have reviewed these measures and incorporated them into staff's proposed Mitigation Measures (**MM**) and enhanced them as necessary to reduce effects on white-tailed kites and Swainson's hawk. These include **MM BIO-10** (Swainson's Hawk), **MM BIO-12** (Nesting Bird Surveys Prior to Construction and Bird Buffers), and **MM BIO-13** (Biological Monitor During Construction). These **MMs** are designed to educate workers of the presence and

sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require pre-construction surveys, require inspection for wildlife under vehicles; reducing or controlling fugitive and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of staff's recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-10, MM BIO-12, and MM BIO-13** impacts to white-tailed kites and Swainson's hawk and their habitat would be reduced to less than significant.

Operation

Less Than Significant with Mitigation. Based on the analysis below, the proposed project would not substantially affect white-tailed kites and Swainson's hawk, either directly or through habitat modifications, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7**, and **BIO-16** through **BIO-21, BIO-26, HAZ-1, AQ-SC3, AQ-SC4** and **MM** recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-10, MM BIO-12, and MM BIO-13**.

Project Components Within CEC's Opt-In Certification

Direct and indirect impacts associated with operational activities would be substantially reduced relative to initial construction activities; however, while the amount of foraging habitat would decrease due to development of the BESS facility, white-tailed kites and/or Swainson's hawk could choose to nest on nearby transmission lines. Operational activities would include inspection of the facilities and other routine activities. During these events it is possible that direct impacts to nesting birds could result if activities occurred within close proximity to nesting birds. Operational noise at the project site is expected to be low and human presence limited.

To avoid and minimize impacts, staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**. In addition, staff proposed COC **BIO-8** (Vegetation Restoration and Enhancement Plan), **BIO-16** (Nesting Birds and Bird Buffers), **BIO-19** (Swainson's hawk Surveys and Avoidance), **BIO-20** (White-Tailed Kite Nesting Preconstruction Surveys and Nest Protection Buffers), and **BIO-26** (Habitat Management Land Acquisition) which provides mitigation for impacts to foraging habitat shall be implemented.

With implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7, BIO-8, BIO-16, BIO-19, BIO-20, and BIO-26** impacts to white-tailed kites and Swainson's hawk and their habitat would be reduced to less than significant.

Project Components Outside CEC's Opt-In Certification

Direct and indirect impacts associated with operation activities would be substantially reduced relative to initial construction activities. The project site provides moderate quality foraging habitat for white-tailed kites and Swainson's hawks and would continue to provide foraging habitat opportunities after temporarily impacted areas are revegetated.

The applicant has recommended general impact avoidance and minimization measures to reduce construction related impacts to common and sensitive wildlife. CEC staff has reviewed these measures and incorporated them into staff's proposed mitigation measures and enhanced them as necessary to reduce effects on common wildlife. To avoid and minimize impacts, as part of the standard PG&E Construction Measures, staff recommends that PG&E implement **MM BIO-1** (Annual Training), and **MM BIO-2** (Standard Construction Practices). PG&E Construction Measures did not include measures to avoid white-tailed kites and Swainson's hawks therefore, staff recommended the implementation of **MM BIO-10** (Swainson's Hawk), **MM BIO-12** (Nesting Bird Surveys Prior to Construction and Bird Buffers), and **MM BIO-13** (Biological Monitor During Construction). These measures are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of CEC staff's recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-10, MM BIO-12, and MM BIO-13** impacts to white-tailed kites and Swainson's hawk and their habitat would be reduced to less than significant.

Golden Eagle

Construction

Less Than Significant with Mitigation. Based on the analysis below, the proposed project would not substantially affect golden eagle, either directly or through habitat modifications, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1 through BIO-7, BIO-16, BIO-17, BIO-26**, and recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-10, MM BIO-12, and MM BIO-13**.

Project Components Within CEC's Opt-In Certification

Direct impacts to golden eagle include the loss or degradation of foraging habitat resulting from vegetation clearing or ground disturbance, and removal of vegetation, including mowing. Transmission towers and trees within 1-mile of the project area could provide nesting habitat. **The project owner did not seek take authorization for golden eagle, and no take of golden eagle or their nests would be authorized**

to occur under the proposed project. All active golden eagle nests would be required to be fully avoided, and no project activity would be authorized to occur in a manner that could result in disturbance to an active nest.

The project owner proposed a 0.5 mile no disturbance buffer; however, to comply with the BGEPA, CEC staff, in coordination with USFWS, determined a 1-mile nest protection buffer shall be implemented through the breeding season starting on December 15. If there are no eggs or young as of April 15, the buffer could be safely removed. If eggs and young are present, the buffer shall be maintained until August 31 (USFWS 2025b). Biological monitors shall not be substituted for disturbance buffers and staff recommended that the project owner coordinate with the USFWS Migratory Bird Program to determine the best approach to golden eagle monitoring prior to commencing construction related activities. This approach would avoid inadvertent disturbance by duplicative monitoring efforts in the area.

To avoid and minimize impacts, staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**, and would implement **BIO-16** which requires the preparation of a Nesting Bird Management Plan and **BIO-17** which includes golden eagle protection measures, including pre-construction surveys within 30 days of the commencement of activities. In addition, these measures require no-disturbance buffers ranging from 150 feet for passerines, 500 feet for raptors, and 1 mile for golden eagles. Additionally, **BIO-8** requires the restoration of temporary impacts and **BIO-26** requires a 3:1 mitigation ratio for permanent impacts to foraging and/or nesting habitat.

Implementation of CEC staff's proposed COCs **BIO-1** through **BIO-8**, **BIO-16**, **BIO-17**, and **BIO-26** would avoid or reduce impacts to foraging golden eagle to less than significant.

Project Components Outside CEC's Opt-In Certification

Direct impacts to golden eagle include the loss or degradation of foraging habitat resulting from vegetation clearing or ground disturbance, and removal of vegetation, including mowing. Transmission towers and trees within 1-mile of the project area could provide nesting habitat; another potential direct impact to golden eagle is nest abandonment caused by project activities.

The project owner proposed a 0.5 mile no disturbance buffer; however, to comply with the BGEPA, CEC staff, in coordination with USFWS, determined a 1-mile nest protection buffer shall be implemented through the breeding season starting on December 15. If there are no eggs or young as of April 15, the buffer could be safely removed. If eggs and young are present, the buffer shall be maintained until August 31 (USFWS 2025b). Biological monitors shall not be substituted for disturbance buffers and staff recommended that the project owner coordinate with the USFWS Migratory Bird Program to determine the best approach to golden eagle monitoring prior to

commencing construction related activities. This approach would avoid inadvertent disturbance by duplicative monitoring efforts in the area.

To avoid and minimize impacts, as part of the standard PG&E Construction Measures, CEC staff recommends that PG&E implement mitigation measures **BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). In addition, the applicant has recommended general impact avoidance and minimization measures to reduce construction related impacts to common and sensitive wildlife. CEC staff has reviewed these measures and incorporated them into staff's proposed mitigation measures and enhanced them as necessary to reduce effects on common wildlife. These include **MM BIO-11** (Golden Eagle) which requires pre-construction surveys within 30 days prior to the start of ground disturbance and coordination with USFWS if the species is found within a 1-mile radius of the project site, **MM BIO-12** (Nesting Bird Surveys Prior to Construction and Bird Buffers), and **MM BIO-13** (Biological Monitor During Construction). These measures are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-10**, **MM BIO-12**, and **MM BIO-13** impacts to golden eagle would be reduced to less than significant.

Operation

Less Than Significant with Mitigation. Based on the analysis below, the operations associated with the proposed project would not substantially adversely affect golden eagle, either directly or through habitat modification, and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-17**, and recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-12**, and **MM BIO-13**.

Project Components Within CEC's Opt-In Certification

Direct and indirect impacts associated with operational activities would be substantially reduced relative to initial construction activities; however, while foraging habitat would be lacking due to the developed BESS facility, golden eagle could choose to nest on nearby transmission lines. Operational activities would include inspection of the facilities and other routine activities. During these events it is possible that direct impacts to nesting birds could result if activities occurred within close proximity. Operational noise at the project site is expected to be low and human presence limited.

To avoid and minimize impacts, both direct and indirect, from operation on golden eagle, CEC staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**. These proposed measures would require the project

owner to employ a DB and, if necessary, a biological monitor. They also require the implementation of minimization measures and best management practices to reduce wildlife mortality, and control fugitive dust. In addition, **BIO-17** (Golden Eagle and Nest Protection Buffers), which would also apply during operation, as needed.

With implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7**, and **BIO-17**, impacts to golden eagle during operation would be reduced to less than significant.

Project Components Outside CEC's Opt-In Certification

To avoid and minimize impacts to golden eagle during operations, and as part of the standard PG&E Construction Measures, CEC staff recommends that PG&E implement **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). In addition, the applicant has recommended general impact avoidance and minimization measures to reduce construction related impacts to golden eagle. CEC staff has reviewed these measures and incorporated them into staff's proposed mitigation measures and enhanced them as necessary to reduce effects on common wildlife. These include **MM BIO-11** (Golden Eagle) which requires pre-construction surveys within 30 days prior to the start of ground disturbance and coordination with USFWS if the species is found within a 1-mile radius of the project site, **MM BIO-12** (Nesting Bird Surveys Prior to Construction and Bird Buffers), and **MM BIO-13** (Biological Monitor During Construction). These measures are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-12**, and **MM BIO-13**, impacts to golden eagle during operation would be reduced to less than significant.

Burrowing Owl

Construction

Less Than Significant with Mitigation. Based on the analysis below, the proposed project would not substantially affect burrowing owl, either directly or through habitat modifications, and impacts would be less than significant with the implementation of staff's proposed COCs **AQ-SC3**, **AQ-SC4**, **BIO-1** through **BIO-7**, **BIO-18**, **BIO-26**, and recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-7**, **MM BIO-9**, and **MM BIO-13**.

Project Components Within CEC's Opt-In Certification

Direct impacts to burrowing owls include the loss or degradation of foraging habitat resulting from vegetation clearing or ground disturbance, removal or disturbance of vegetation, including mowing, injury or mortality from collisions with vehicles or construction equipment. Other direct impacts include disturbance from increased noise levels from heavy equipment, increased vehicle traffic, increased human presence, and exposure to fugitive dust, and long-term human presence associated with the approximately 18-month construction schedule. Indirect impacts include the loss or degradation of foraging habitat due to the spread of noxious and invasive weeds, soil erosion, exposure to hazardous materials from construction, and altered plant community composition caused by operation of the proposed project. Direct impacts to burrowing owls or their nests could be significant without mitigation. Any action that results in direct impacts to burrowing owls that result in harm would constitute take under CESA.

Table 5.2-7 identifies restricted activity dates and setback distances by level of disturbance for burrowing owls. These buffers would be implemented by the DB and/or Biological Monitor as identified in COC **BIO-18** if burrowing owls are discovered during **site mobilization and/or** construction activities.

TABLE 5.2-7 BURROWING OWL BUFFERS

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting Sites	April 1–Aug 15	656 feet	1640 feet	1640 feet
Nesting Sites	Aug 16–Oct 15	656 feet	656 feet	1640 feet
Nesting sites	Oct 16–Mar 31	164 feet	328 feet	1640 feet

CEC staff determined that mitigation for impacts to foraging habitat for burrowing owl, a state-listed candidate species, is necessary under CESA and CEQA to offset habitat loss and fully address project-related impacts to the species. The project owner has requested take authorization for burrowing owls, which, as a candidate species for listing under CESA, is afforded the same protection as a threatened or endangered species under CESA. CEC staff, in coordination with CDFW, have developed the following mitigation metrics that are proposed to reduce impacts from the proposed project to less than significant levels and comport with CDFW requirements to meet the standard of full mitigation required by CESA.

- Mitigation Ratio: 3:1 ratio for permanent and temporary impacts that result in the loss of ecological value and remove habitat from the project site.
- Impact Calculation: There are 60.7 acres of permanent impacts and 6.7 acres of temporary impacts. At the proposed 3:1 ratio 188.8 acres would be required to offset these impacts.

CEC staff incorporated incidental take permit conditions in coordination with CDFW, consistent with applicable LORS, as part of the take authorization under the CEC's in-

lieu permitting authority for the burrowing owl. These measures have been incorporated into staff's proposed COC **BIO-18**, (Burrowing Owl Impact Avoidance, Minimization, and Take Mitigation Measures), which includes specific survey, monitoring, and relocation methods. These include preparing detailed burrowing owl maps, a Burrowing Owl Mortality Reduction Plan, and a Burrowing Owl Burrow Replacement Plan, among other measures. In addition, COC **BIO-26** (Habitat Management Land Acquisition), require the project owner to obtain mitigation lands to replace habitat lost from the development of the project. In addition, Table 3-2 and 3-3, in the EACCS list specific avoidance and minimization measures to reduce effects on focal species. CEC staff incorporated these measures into COCs identified below.

Impacts from fugitive dust would be mitigated by implementation of COC **AQ-SC3**, which include watering roads and or stabilizing them with soil binders. Dust suppressants would be durable non-toxic soil stabilizers, and many other activity specific control measures would be applied to reduce fugitive dust and to ensure activities do not create visible dust emissions during construction. COC **AQ-SC4** would require a qualified dust monitor during dust producing activities and require remedial measures if fugitive dust exceeds authorized limits.

To avoid and minimize impacts, staff proposed implementation of general mitigation measures, including COCs **AQ-SC3**, **AQ-SC4**, **BIO-1** through **BIO-7**, **BIO-18**, and **BIO-26**.

With implementation of staff's proposed COCs **AQ-SC3**, **AQ-SC4**, **BIO-1** through **BIO-7**, **BIO-18**, and **BIO-26** impacts to burrowing owl and their foraging habitat would be reduced and full mitigation under CESA would be provided. Staff concluded that this mitigation approach mitigates for impacts to foraging habitat for this species and impacts would be less than significant.

Project Components Outside CEC's Opt-In Certification

Direct impacts to burrowing owls include the loss or degradation of foraging habitat resulting from vegetation clearing or ground disturbance, removal or disturbance of vegetation, including mowing, injury or mortality from collisions with vehicles or construction equipment. Other direct impacts include disturbance from increased noise levels from heavy equipment, increased vehicle traffic, increased human presence, and exposure to fugitive dust, and long-term human presence associated with the construction schedule. Indirect impacts include the loss or degradation of foraging habitat due to the spread of noxious and invasive weeds, soil erosion, exposure to hazardous materials from construction, and altered plant community composition caused by operation of the proposed project. Direct impacts to burrowing owls or their nests could be significant without mitigation. Any action that results in direct impacts to burrowing owls that result in harm would constitute take under CESA.

CEC staff determined that mitigation for impacts to foraging habitat for burrowing owl, a state-listed candidate species, is necessary under CESA and CEQA to offset habitat

loss and fully address project-related impacts to the species. The PG&E Standard Construction Measures did not specifically address burrowing owl or its habitat. Therefore, staff developed **MM BIO-9** (San Joaquin Kit Fox, American Badger, Burrowing Owl) which requires pre-construction surveys of areas proposed for disturbance within work areas and within a 500-foot buffer, where legally accessible. This measure also includes no-disturbance buffers if burrowing owls are found within or near the project site to avoid take. If impacts to the species is unavoidable, the qualified biologist would coordinate with PG&E and CDFW to determine if take coverage is necessary.

In addition, to further avoid and minimize impacts, both direct and indirect, from construction activities on burrowing owl the applicant has recommended general impact avoidance and minimization measures to reduce impacts. CEC staff has reviewed these measures and incorporated them into staff's proposed mitigation measures and enhanced them as necessary to reduce effects on burrowing owl should they be present during operation activities. These include **MM BIO-7** (General Impact Avoidance and Minimization Measures), and **MM BIO-13** (Biological Monitor During Construction). These measures are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive dust and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of staff's recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-7, MM BIO-9, and MM BIO-13**, impacts to burrowing owls during site mobilization and/or construction would be reduced to less than significant.

Operation

Less Than Significant with Mitigation. Based on the analysis below, the operations associated with the proposed project would not substantially adversely affect burrowing owl, either directly or through habitat modification, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **AQ-SC3, AQ-SC4, BIO-1 through BIO-5, BIO-7, BIO-18, and MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-7, MM BIO-9, and MM BIO-13.**

Project Components Within CEC's Opt-In Certification

Operational impacts are expected to result in minimal impacts, largely because the project site would be a developed facility lacking suitable habitat within its boundaries. To maintain this minimal impact, any necessary maintenance or facility augmentation should follow all required avoidance and minimization measures if a burrowing owl were to enter the facility. Therefore, CEC staff recommended implementation of COCs **AQ-SC3, AQ-SC4, BIO-1 through BIO-5, BIO-7, and BIO-18.**

Project Components Outside CEC's Opt-In Certification

Direct and indirect impacts associated with operation activities would be substantially reduced relative to initial construction activities. There is a potential for burrowing owls to enter the unfenced area prior or during operation activities. Depending on the operational activities direct impacts could include loss of foraging habitat from vegetation clearing or ground disturbance, removal or disturbance of vegetation, including mowing, injury or mortality from collisions with vehicles or construction equipment. Other direct impacts include disturbance from increased noise levels from heavy equipment, increased vehicle traffic, increased human presence, and exposure to fugitive dust, and long-term human presence associated with the construction schedule. Indirect impacts include the loss or degradation of foraging habitat due to the spread of noxious and invasive weeds, soil erosion, exposure to hazardous materials from construction, and altered plant community composition caused by operation of the proposed project. Direct impacts to burrowing owls or their nests could be significant without mitigation.

During operation activities, including routine maintenance, the standard PG&E Construction Measures are included as CEC staff's recommended mitigation measures **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). The PG&E Standard Measures did not specifically address burrowing owl or its habitat. Therefore, staff developed **MM BIO-9** (San Joaquin Kit Fox, American Badger, Burrowing Owl) which requires pre-construction surveys of areas proposed for disturbance within work areas and within a 500-foot buffer, where legally accessible. This measure also includes no-disturbance buffers if burrowing owls are found within or near the project site to avoid take during operations. If impacts to the species are unavoidable, the qualified biologist would coordinate with PG&E and CDFW to determine if take coverage is necessary.

In addition, to further avoid and minimize impacts, both direct and indirect, from operations activities on burrowing owl the applicant has recommended general impact avoidance and minimization measures to reduce impacts. CEC staff has reviewed these measures and incorporated them into staff's recommended mitigation measures and enhanced them as necessary to reduce effects on burrowing owl should they be present during operation activities. These include **MM BIO-7** (General Impact Avoidance and Minimization Measures), and **MM BIO-13** (Biological Monitor During Construction). These measures are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive dust and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-7**, **MM BIO-9**, and **MM BIO-13**, impacts to burrowing owls during operations would be reduced to less than significant.

Jeopardy Analysis

The 2024 CESA listing petition reports that western burrowing owls have been lost from approximately 16 percent of their former range, including the coastal Bay Area and parts of the northern Central Valley. An additional 13 percent of their range is nearing extirpation. The proposed project will permanently affect 60.7 acres and temporarily impact 6.7 acres of potential grassland habitat. Despite the presence of suitable nesting areas, no burrowing owls were found during the 2023 through 2025 field surveys. Therefore, the project would not jeopardize the continued existence of the species.

San Joaquin Kit Fox

Construction

Less Than Significant with Mitigation. Based on the analysis below, the operations associated with the proposed project would not substantially adversely affect San Joaquin kit fox, either directly or through habitat modification, and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-22**, **BIO-26**, and recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-9**, and **MM BIO-13**.

Project Components Within CEC's Opt-In Certification

The project area is located at the northern extent of the San Joaquin kit fox range (USFWS 2025d) but provides suitable habitat and likely serves as a connectivity corridor through the Altamont Hills, a corridor partially compromised by existing infrastructure development, notably I-580 (EACCS 2010). The project area occurs within the EACCS CZ10, designated as "SJKF East" and the goal is to increase San Joaquin kit fox populations while protecting and enhancing suitable habitat and important regional linkages for the species within this area. While no kit fox were observed during daytime surveys—consistent with the species' primarily nocturnal behavior—kit foxes may explore and forage within the project area.

If San Joaquin kit fox were to migrate through or forage within the project area, direct impacts to this species could include injury or death resulting from vehicle collision damage or destruction of occupied burrows, disturbance from construction noise or vibration, entrapment of individuals in excavation areas, and loss or degradation of foraging habitat due to soil compaction. Additionally, human-related subsidies—such as food waste, trash, and water sources—could inadvertently attract kit foxes to active construction areas, increasing the risk of vehicle strikes and predation. Indirect impacts could include disruption of movement due to increased traffic and human activity which could potentially alter foraging patterns and habitat use.

The Army Corps of Engineers initiated Section 7 consultation with the USFWS (SPK-2024-00486) regarding potential project effects on the federally endangered San Joaquin kit fox and other identified species. The USFWS determined that the proposed project may affect but is not likely to adversely affect the kit fox. The USFWS stated in

the PBO that potential adverse effect to the kit fox from the proposed project were unlikely to occur and therefore were discountable for purposes of the consultation based on the project area being within the northern limits of the known kit fox dispersal and migration boundary, and minimal impacts would occur, and the conservation measures proposed would minimize adverse effects to the species. These conservation measures have been incorporated into staff's COCs.

The project owner has requested take authorization for San Joaquin kit fox which is afforded protections under CESA. Staff incorporated incidental take permit conditions, consistent with applicable LORS, as part of the take authorization under the CEC's in-lieu permitting authority for the San Joaquin kit fox. CEC staff, in coordination with CDFW, have developed the following mitigation metric that are proposed to reduce impacts from the proposed project to less than significant levels and comport with CDFW requirements to meet the fully mitigate standard required by CESA. This approach also follows the EACCS Standardized Mitigation Ratios for San Joaquin Kit Fox Table 3-11 (EACCS 2010) for impacts located inside the SJKF East mitigation area.

- Mitigation Ratio: 3:1 ratio for permanent and temporary impacts that result in the loss of ecological value and remove habitat from the project site.
- Impact Calculation: There are 60.7 acres of permanent impacts and 6.7 acres of temporary impacts. At the proposed 3:1 ratio 188.8 acres would be required to offset these impacts.

These measures have been incorporated into staff's proposed COC **BIO-22**, (San Joaquin kit fox Impact Avoidance, Minimization, and Take Mitigation Measures), which requires pre-construction surveys, monitoring during **site mobilization and/or** construction, among other measures to minimize harm to the kit fox. In addition, COC **BIO-26** (Habitat Management Land Acquisition) which require the project owner to obtain mitigation lands to replace habitat lost from the development of the project.

To avoid and minimize impacts, staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**.

With implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-22**, and **BIO-26** impacts to San Joaquin kit fox and their habitat would be reduced and full mitigation under CESA would be provided. CEC staff concluded that this mitigation approach mitigates for impacts to habitat for this species and impacts would be less than significant.

Project Components Outside CEC's Opt-In Certification

The project area is located at the northern extent of the San Joaquin kit fox range (USFWS 2025d) but provides suitable habitat and likely serves as a connectivity corridor through the Altamont Hills, a corridor partially compromised by existing infrastructure development, notably I-580 (EACCS 2010). The project area occurs within the EACCS CZ10, designated as "SJKF East" and the goal is to increase San Joaquin kit fox

populations while protecting and enhancing suitable habitat and important regional linkages for the species within this area. While no kit fox were observed during daytime surveys—consistent with the species’ primarily nocturnal behavior—kit foxes may explore and forage within the project area.

If San Joaquin kit fox were to migrate through or forage within the project area, direct impacts to this species could include injury or death resulting from vehicle collision damage or destruction of occupied burrows, disturbance from construction noise/vibration, entrapment of individuals in excavation areas, and loss or degradation of foraging habitat due to soil compaction. Additionally, human-related subsidies—such as food waste, trash, and water sources—could inadvertently attract kit foxes to active construction areas, increasing the risk of vehicle strikes and predation. Indirect impacts could include disruption of movement due to increased traffic and human activity which could potentially alter foraging patterns and habitat use.

To avoid and minimize impacts to San Joaquin kit fox during operations, and as part of the standard PG&E Construction Measures, staff recommends that PG&E implement **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). The PG&E Standard Construction Measures did not specifically address San Joaquin kit fox or its habitat. Therefore, CEC staff developed **MM BIO-9** (San Joaquin Kit Fox, American Badger, Burrowing Owl) which requires pre-construction surveys of areas proposed for disturbance within work areas and within a 500-foot buffer, where legally accessible. This measure also includes no-disturbance buffers if San Joaquin kit fox are found within or near the project site to avoid take. If impacts to the species is unavoidable, the qualified biologist would coordinate with PG&E and CDFW to determine if take coverage is necessary.

To further avoid and minimize impacts, both direct and indirect, from construction activities on San Joaquin kit fox the applicant has recommended general impact avoidance and minimization measures to reduce impacts. CEC staff has reviewed these measures and incorporated them into staff’s recommended mitigation measures and enhanced them as necessary to reduce effects on San Joaquin kit fox should they be present during operation activities. This includes **MM BIO-13** (Biological Monitor During Construction). These measures are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive dust and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of CEC staff’s recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-9**, and **MM BIO-13**, impacts to San Joaquin kit fox during site mobilization and/or construction would be reduced to less than significant.

Operation

Less Than Significant with Mitigation. Based on the analysis below, the operations associated with the proposed project would not substantially adversely affect San Joaquin kit fox, either directly or through habitat modifications, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-22**, **BIO-25**, **BIO-27**, and recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-9**, and **MM BIO-13**.

Project Components Within CEC's Opt-In Certification

Operational impacts are expected to result in minimal impacts, largely because the project site would be a developed facility lacking suitable habitat within its boundaries. To maintain this minimal impact, any necessary maintenance or facility augmentation should follow all required avoidance and minimization measures if a San Joaquin kit fox were to enter the facility. Therefore, CEC staff recommended implementation of COCs **BIO-1** through **BIO-7**, **BIO-22** to reduce impacts to San Joaquin kit fox to less than significant.

Project Components Outside CEC's Opt-In Certification

Direct and indirect impacts associated with operation activities would be substantially reduced relative to initial construction activities. There is a potential for San Joaquin kit fox to enter the unfenced area prior or during operation activities. Depending on the operational activities direct impacts could include loss of foraging habitat from vegetation clearing or ground disturbance, removal or disturbance of vegetation, including mowing, injury or mortality from collisions with vehicles or construction equipment. Other direct impacts include disturbance from increased noise levels from heavy equipment, increased vehicle traffic, increased human presence, and exposure to fugitive dust, and long-term human presence associated with the construction schedule. Indirect impacts include the loss or degradation of foraging habitat due to the spread of noxious and invasive weeds, soil erosion, exposure to hazardous materials from construction, and altered plant community composition caused by operation of the proposed project. Direct impacts to San Joaquin kit fox or their dens could be significant without mitigation.

To avoid and minimize impacts to San Joaquin kit fox during operations, and as part of the standard PG&E Construction Measures, CEC staff recommends that PG&E implement **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). To further avoid and minimize impacts, both direct and indirect, from operations activities on San Joaquin kit fox the applicant has recommended general impact avoidance and minimization measures to reduce impacts. CEC staff has reviewed these measures and incorporated them into staff's proposed mitigation measures and enhanced them as necessary to reduce effects on San Joaquin kit fox should they be present during operation activities. These include **MM BIO-9** (San Joaquin Kit Fox, American Badger, Burrowing Owl), and **MM BIO-13** (Biological Monitor During Construction). These **MMs** are designed to educate workers of the

presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive dust and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of staff's recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-9, and MM BIO-13**, impacts to San Joaquin kit fox during operations would be reduced to less than significant.

Jeopardy Analysis

According to federal conservation guidelines from the USFWS, San Joaquin kit fox populations are naturally volatile, fluctuating based on environmental conditions and prey availability. However, widespread habitat loss from farming and urban expansion has fragmented their territory, making protected movement corridors essential for genetic health and long-term survival. The proposed project will permanently affect 60.7 acres and temporarily impact 6.7 acres of grassland used for dispersal and migration. Because the site lacks suitable dens or breeding grounds, the project would not jeopardize the continued existence of the species.

American Badger

Construction

Less Than Significant with Mitigation. Based on the analysis below, the proposed project would not substantially affect American badger, either directly or through habitat modifications, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7, BIO-23, BIO-26**, and recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-5, MM BIO-9, and MM BIO-13**.

Project Components Within CEC's Opt-In Certification

American badger is known to occur in the project vicinity but was not detected during the applicant's surveys. This species has a high potential to occur within the project area.

The American badger is a covered focal species under the EACCS, which has the goal of maintaining the badger population while protecting and enhancing important regional linkages the conservation area. The project area occurs within the EACCS CZ10, which has been identified as having a total of 20,793 acres of modeled suitable habitat for the badger.

If a den is documented on the project site, direct and indirect impacts on the den should be avoided during **site mobilization and/or** construction and post-project activities (EACCS 2010). Direct impacts may include the loss of habitat, loss of individuals of this species due to construction activities, including the risk of crushing or entombing in burrows, vehicle and construction equipment strikes, increased levels of

fugitive dust, noise, and increased human presence. Indirect impacts to American badger include alterations of soils, such as compaction that could preclude burrowing, alteration in prey base, and the spread of invasive plants and noxious weeds, as well as night lighting. These potential impacts would be considered significant and therefore require mitigation.

To avoid and minimize impacts, staff proposed implementation of general mitigation measures, including COCs **BIO-1** through **BIO-7**. In addition, staff proposed COC **BIO-23** (American Badger Avoidance and Minimization Measures) and **BIO-26** (Habitat Management Land Acquisition) which provides mitigation for impacts to denning, foraging and dispersal habitat for American badger shall be implemented.

With implementation of CEC staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-23**, and **BIO-26** impacts to American badger and their habitat would be reduced to less than significant.

Project Components Outside CEC's Opt-In Certification

To avoid and minimize impacts to American badger during **site mobilization and/or** construction, and as part of the standard PG&E Construction Measures, CEC staff recommends that PG&E implement **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), and **MM BIO-5** (Best Management Practices). The PG&E Standard Construction Measures did not specifically address American Badger or its habitat. Therefore, staff developed **MM BIO-9** (San Joaquin Kit Fox, American Badger, Burrowing Owl) which requires pre-construction surveys of areas proposed for disturbance within work areas and within a 500-foot buffer, where legally accessible. This measure also includes no-disturbance buffers if American Badger are found within or near the project site to avoid take. If impacts to the species is unavoidable, the qualified biologist would coordinate with PG&E and CDFW to determine if take coverage is necessary.

To further avoid and minimize impacts, both direct and indirect, from construction activities on American badger the applicant has recommended general impact avoidance and minimization measures to reduce impacts. Staff has reviewed these measures and incorporated them into staff's proposed mitigation measures and enhanced them as necessary to reduce effects on American badger should they be present during operation activities. This includes **MM BIO-13** (Biological Monitor During Construction). These **MMs** are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive dust and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of CEC staff's recommended mitigation measures **MM BIO-1**, **MM BIO-2**, **MM BIO-5**, **MM BIO-9**, and **MM BIO-13**, impacts to American badger during **site mobilization and/or** construction would be reduced to less than significant.

Operation

Less Than Significant with Mitigation. Based on the analysis below, the operations associated with the proposed project would not substantially adversely affect American badger, either directly or through habitat modifications, and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1** through **BIO-7**, **BIO-23**, **BIO-25**, and recommended mitigation measures **MM BIO-1**, **MM BIO-4**, and **MM BIO-9**.

Project Components Within CEC's Opt-In Certification

Operational impacts are expected to result in minimal impacts, largely because the project site would be a developed facility lacking suitable habitat within its boundaries. To maintain this minimal impact, any necessary maintenance or facility augmentation should follow all required avoidance and minimization measures if a badger were to enter the facility. Therefore, staff recommended implementation of COCs **BIO-1** through **BIO-7**, **BIO-23** to reduce impacts to American badger to less than significant.

Project Components Outside CEC's Opt-In Certification

Direct and indirect impacts associated with operation activities would be substantially reduced relative to initial construction activities. There is a potential for American badger to enter the unfenced area prior or during operation activities. Depending on the operational activities direct impacts could include loss of foraging habitat from vegetation clearing or ground disturbance, removal or disturbance of vegetation, including mowing, injury or mortality from collisions with vehicles or construction equipment. Other direct impacts include disturbance from increased noise levels from heavy equipment, increased vehicle traffic, increased human presence, and exposure to fugitive dust, and long-term human presence associated with the construction schedule. Indirect impacts include the loss or degradation of foraging habitat due to the spread of noxious and invasive weeds, soil erosion, exposure to hazardous materials from construction, and altered plant community composition caused by operation of the proposed project. Direct impacts to American badger or their dens could be significant without mitigation.

To avoid and minimize impacts, both direct and indirect, from operations activities on American badger the applicant has recommended general impact avoidance and minimization measures to reduce impacts. CEC staff has reviewed these measures and incorporated them into staff's recommended mitigation measures and enhanced them as necessary to reduce effects on American badger fox should they be present during operation activities. These include **MM BIO-1** (Worker Environmental Awareness Training), **MM BIO-2** (Standard Construction Practices), **MM BIO-9** (San Joaquin Kit Fox, American Badger, Burrowing Owl), and **MM BIO-13** (Biological Monitor During Construction). These **MMs** are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; require inspection for wildlife under vehicles; reducing or controlling fugitive dust and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of staff's recommended mitigation measures **MM BIO-1**, **MM BIO-4**, and **MM BIO-9**, impacts to American badger during operations would be reduced to less than significant.

Nitrogen Deposition

Nitrogen deposition is the input to an ecosystem of nitrogen-based atmospheric pollutants resulting primarily from vehicle, agriculture, and industrial emissions. This deposition acts as artificial fertilization, particularly impacting sensitive, naturally nitrogen-limited ecosystems such as serpentine soils. Increased nitrogen can shift species composition by favoring the growth of invasive annual grasses, which may eventually displace native species and alter the habitat type.

Mechanisms by which nitrogen deposition can lead to impacts on sensitive species and vegetation communities include changes in species composition among native plants and the enhancement of invasive species such as grasses (Fenn et al. 2003 and CEC 2006). The increased dominance and growth of invasive annual non-native species is especially prevalent in low biomass vegetation communities that are naturally nitrogen-limited (in certain soils such as serpentine soils). Nitrogen deposition artificially fertilizes the soil and creates better conditions for non-native species to persist and to ultimately displace native species, resulting in type conversion (conversion of one habitat type to another). Increased nitrogen deposition in nitrogen poor soils has allowed for the proliferation of non-native species that can crowd out native species. Other studies have found that nitrogen enrichment promotes eutrophication in wetlands and reduces biodiversity, undermining habitat stability (Yousef et al. 2021). This suggests that nitrogen deposition has the potential to adversely affect a variety of aquatic species including California red-legged frog.

Griffis-Kyle (2007) found that nitrite (NO_2^-) is highly toxic to amphibians, especially during early life stages. In experiments with wood frogs and tiger salamanders (species similar to those present in project area), exposure to nitrite at concentrations as low as 0.5 mg/L $\text{NO}_2\text{-N}$ caused significant mortality in early larval stages. The study found that embryos exposed to nitrite showed delayed mortality, with most deaths occurring after hatching, indicating that traditional toxicity tests (which often focus on a single life stage) may underestimate risk. However, Meredith & Whiteman (2008) found that embryos of three amphibian species (axolotl (*Ambystoma mexicanum*), Cope's gray treefrog (*Hyla chrysoscelis*), and green frog (*Rana clamitans*)) exposed to nitrate concentrations ranging from 0 to 500 mg/L did not show significant differences in mortality even at concentrations far exceeding those typically found in agricultural runoff. Only at extremely high concentrations (300–500 mg/L) was early hatching observed in *Ambystoma mexicanum*, which may have minor fitness implications, but no significant effect on larval length at hatching was detected. The study suggests that these amphibian embryos are highly tolerant to nitrate, likely due to physiological or developmental mechanisms that limit nitrate uptake or conversion to toxic nitrite during early development. Daam et al. (2020) found that while acute lethal effects from

nitrate and ammonium are unlikely at typical environmental concentrations, chronic and sublethal effects, as well as synergistic effects with other stressors, remain a concern.

One approach for quantifying nitrogen deposition is through “critical load” which is defined as the input of a pollutant below which no detrimental ecological effects have been documented to occur over long-term studies.

CEC staff evaluates nitrogen deposition impacts by considering protected areas within a 6-mile radius of the project site. These areas include CDFW sensitive natural communities and USFWS designated critical habitat. There is designated critical habitat within the project site. For a baseline nitrogen deposition estimate, CEC staff used the Community Multiscale Air Quality (CMAQ) modeling system, which provides estimates of ozone, particulates, toxics, and acid deposition. Staff considered the most recent CMAQ -predicted value as the best available data to determine baseline nitrogen deposition, which ranges from 3.01 to 6.02 kg/ha/yr (CMAQ 2019).

During operation, there would be emissions of NO_x from the testing, maintenance, and emergency use of two diesel backup generators. These emissions would result in nitrogen deposition around the project site. The proposed project would include two Rolls Royce generators rated at 4,680 horsepower each. Each generator is fitted with an ecoCUBE with a selective catalytic reduction (SCR), diesel particulate filter, and diesel oxidation catalyst allowing the generators to meet the U.S. Environmental Protection Agency (EPA) Tier 4 standard.

In order to determine the potential impacts during operation, the American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model (AERMOD) Version 23132 was used to model the concentration of nitrogen around the project site using wet and dry deposition algorithms. The emissions from the generators were estimated assuming compliance with the U.S. EPA Tier 4 standard and operation of up to 200 hours per year (100 hours for maintenance and testing and 100 hours for emergency use) (BAAQMD 2022). Ammonia (NH₃) is a product of combustion with equipment having SCR equipment. As the generators are equipped with SCR, emissions of NH₃ were estimated and added to the NO_x emissions for total nitrogen emissions.

To determine potential environmental impacts, the AERMOD model is **was** used to calculate the annual total nitrogen deposition rates within 6 miles of the project site. This calculation involves modeling both the dry settling (using a resistance model) and wet removal by rain (using washout coefficients) of nitrogen compounds, specifically HNO₃ parameters. The final output, initially in g/m², is converted to kg/ha/yr for direct comparison with established nitrogen critical loads for biological resources.

Use of emergency backup generators onsite would introduce a new source of nitrogen deposition. The modeling showed that the highest nitrogen loading from operation of the project would occur just outside the southern boundary as shown in Figure 3.2.9 and Appendix 3.2G of the docketed application (Dudek 2025hh). The maximum nitrogen loading directly adjacent to the source is 2.75 kg/ha/yr. However, the nitrogen

load reduces significantly with distance from the source and is less than 1 kg/ha/yr at the closest freshwater pond approximately 0.4 mile west of the project site.

Although precise, species-specific critical loads are not universally established, a standard threshold of 5 kg/ha/yr is generally applied for analysis as the maximum level an ecosystem can receive without experiencing significant harmful effects on sensitive plants and wildlife or other ecological processes (CEC 2006). The baseline nitrogen loading for the project area ranges from 3.01 to 6.02 kg/ha/yr (CMAQ 2019) which exceeds the critical load in some locations. Areas with baseline data of 6.02 kg/ha/yr are closely associated with the I-580 transportation corridor and other developed areas. With the exception of the project site, modeling data concludes that testing of the backup generators is not expected to increase baseline levels of nitrogen above the 5 kg/ha/yr threshold for areas supporting designated critical habitat for California red-legged frog or increase baseline loads at the known breeding pond.

Impacts to designated critical habitat for California red-legged frogs and other species would be mitigated through COC **BIO-26** (Habitat Management Land Acquisition) which requires the acquisition of 182 acres of habitat to offset project related impacts. Similarly, the nitrogen loading beyond the 5 kg/ha/yr threshold is not expected to adversely affect other sensitive biological resources, including California red-legged frog, California tiger salamander, Crotch's bumble bee, big tarplant, birds, and aquatic resources found (Patterson Run). While there may be other biological species within 6 miles of the project site that are not listed here, the annual nitrogen deposition is well below the maximum threshold indicated above and would not be above other species' critical nitrogen loads. Therefore, impacts from nitrogen deposition would be less than significant.

Thermal Runaway and BESS Fires

As described in **Section 5.7, Hazards, Hazardous Materials/Waste, and Wildfire**, the risk of thermal runaway or BESS fire is low and considering the infrequent, irregular, and unplanned nature of such events and the short exposure duration, the potential for adverse impact would be a very low probability event. Although the risk is low during operation of the project, it is possible that the BESS system could be subject to thermal runaway and result in a battery fire. Fires at battery storage facilities can be difficult to extinguish and can result in the discharge of hydrogen fluoride, heavy metals such as lithium, cobalt, nickel and copper, and semi-volatile organic compounds (SVOCs) (TEEX 2024). Should a thermal runaway event occur, the BESS enclosures are designed to prevent fire from spreading to adjacent units.

Potential impacts from a BESS fire on special status plant and wildlife species could occur from smoke and fine particles contaminating habitat and water sources (Claassen et al., 2024). Impacts could include risks from chemical exposure, smoke inhalation, soil and water contamination, mortality, and habitat degradation. A BESS fire would be expected to pose a high risk to special status species if the smoke plume deposits chemicals in the project area for species with limited ranges, species that forage on

plants that would contain harmful chemicals, and species that rely on ephemeral water sources that could concentrate harmful chemicals should a fire occur. Fossorial species could be exposed to contaminated soil when burrowing.

Chemicals from firefighting runoff can contaminate forage and water, while noise and human activity may disrupt critical behaviors for special status species such as foraging and burrow use. Soil contamination and habitat degradation in adjacent areas may also persist long after the fire event. Post fire clean up or soil sampling could result in disturbance to burrows and animals in adjacent habitat and contaminated spoils could transport dust far from the initial source of the fire. To reduce these impacts the applicant has proposed a series of mitigation measures to reduce fire risk, contain BESS fires, and ensure access to local firefighting personnel via a Fire Management and Prevention Plan. Project design features include on-site fire hydrants, multiple fire detection systems within individual BESS enclosures (including infrared camera system to trigger an alarm in case of an onsite fire, include monitors to shut down and mitigate hazards, ensures compliance with California Fire Code, and requires landscape fabric be installed under the surface of all laydown yards to prevent vegetation growth to comply with fire prevention standards.

Per **Section 4.4, Worker Safety and Fire Protection**, staff recommended COCs **WORKER SAFETY-1** and **WORKER SAFETY-2** which require Fire Management and Prevention Plans for construction and operation, **WORKER SAFETY-7** and **WORKER SAFETY-8** which include several actions to reduce the effects of accidents related to the BESS and require fire responder training for BESS fires. In addition, COC **HAZ-9** would require an air and water sampling plan and would require the project owner to develop an air sampling plan to ensure that information can be relayed to first responders in a timely manner. Additionally, water quality testing would be conducted prior to any disposal of water used for an incident. To further reduce and manage the risk of BESS fires to biological resources staff recommend COC **BIO-27** (Post BESS Fire Monitoring and Management Plan) which includes soil testing and remedial actions including pre- and post-fire ecological monitoring, runoff containment, and restrictions on cleanup activities during sensitive biological periods. See **Section 4.4, Worker Safety and Fire Protection** and **Section 5.7, Hazards, Hazardous Materials/Waste, and Wildfire** for further information.

In addition, CEC staff recommended COC **BIO-27**, which would require that any special status species found within the project area be translocated to adjacent habitat, thereby reducing the risk of incidental take or injury during potential wildfire events.

With the implementation of proposed COCs, **WORKER SAFETY-1** and **WORKER SAFETY-2**, **WORKER SAFETY-7** and **WORKER SAFETY-8**, **HAZ-9** and **BIO-27** impacts from a potential BESS fire would likely be reduced to less than significant level.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Construction

No Impact. Based on the analysis below, the proposed project would not cause substantial adverse effects on any riparian habitat or other sensitive natural community. Although no riparian habitat or other sensitive natural communities are present, staff proposed the implementation of COCs as a standard protective measure. CEC staff's proposed COCs include **BIO-1** through **BIO-8**, **BIO-25**, **BIO-26**, and **BIO-27**. There would be no impact to riparian habitat or sensitive natural communities.

Project Components Within CEC's Opt-In Certification

Patterson Run within the project site is characterized as a degraded ephemeral waterway with flows typically limited to March through May. While the presence of a few cottonwood and willows confirms a higher water table, its ecological integrity is considered poor due to historic and recent livestock use, invasive annual grasses (*Avena fatua* and *Bromus* sp.) present along the banks and extending out through upland grassland habitat, and damage from a late 2025 wildfire.

WORKER SAFETY-7 and **WORKER SAFETY-8** which include several actions to reduce the effects of accidents related to the BESS and require fire responder training for BESS fires. In addition, COC **HAZ-9** would require an air and water sampling plan and would require the project owner to develop an air sampling plan to ensure that information can be relayed to first responders in a timely manner. Additionally, water quality testing would be conducted prior to any disposal of water used for an incident. To further reduce and manage the risk of BESS fires to biological resources staff recommend COC **BIO-27** (Post BESS Fire Monitoring and Management Plan) which includes soil testing and remedial actions including pre- and post-fire ecological monitoring, runoff containment, and restrictions on cleanup activities during sensitive biological periods.

No Impact. Based on the analysis below, the proposed project would not cause substantial adverse effects on any riparian habitat or other sensitive natural community. Although no riparian habitat or other sensitive natural communities are present, staff proposed the implementation of COCs as a standard protective measure. CEC staff's proposed COCs include **BIO-1** through **BIO-8**, **BIO-25**, **BIO-26**, and **BIO-27**. There would be no impact to riparian habitat or sensitive natural communities.

Project Components Outside CEC's Opt-In Certification

No Impact. There are no sensitive natural communities or riparian habitat in the project area.

Operation

No Impact. Based on the analysis below, operation of the project would have no effect on any riparian habitat or other sensitive natural community and there would be no impact.

Project Components Within CEC's Opt-In Certification

Proposed project design features of a low water crossing and outfall structure to be placed within the Patterson Run corridor is discussed in section c) below.

Project Components Outside CEC's Opt-In Certification

There are no sensitive natural communities or riparian habitat in the project area. Direct and indirect impacts to native vegetation communities from operation would be similar in type but greatly reduced in magnitude compared to those discussed for construction. Vegetation removal and grading activities would occur during the construction phase of the project. During operation, all activities would occur in previously developed areas within the project area or along existing access roads. Periodic vegetation maintenance would be required to maintain defensible space around the project facilities and to comply with vegetation management requirements. See **Section 4.4, Worker Safety and Fire Protection** and **Section 5.7, Hazards, Hazardous Materials/Waste, and Wildfire** for further information.

- c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Construction

Less Than Significant with Mitigation. Based on the analysis below, the proposed project would not substantially affect state and federally protected wetland and non-wetland waters, and impacts would be less than significant with the implementation of CEC staff's proposed COCs **AQ-SC3, AQ-SC4, HAZ-1, WATER-1, WATER-2, WATER-4, BIO-1** through **BIO-7, BIO-8, BIO-25, BIO-26, BIO-27**, and recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-4, MM BIO-5, MM BIO-7**, and **MM BIO-13**.

Project Components Within CEC's Opt-In Certification

A preliminary wetland assessment was first conducted on August 2, 2023, during the initial reconnaissance survey. The purpose of this initial survey was to generally identify and coarsely map potential aquatic resources that might necessitate more formal, protocol-level jurisdictional delineations. Subsequently, a complete aquatic resources delineation was carried out on January 18, 2024, concurrent with a reconnaissance-level biological field survey. This delineation identified and mapped the full extent of aquatic resources throughout the project site that could be federal waters under the

jurisdiction of USACE, non-wetland waters of the state under the RWQCB, or considered streambeds regulated by CDFW.

The project owner evaluated aquatic resources within the jurisdictional study area (project site and a 250-foot buffer) for a preliminary jurisdictional determination. One jurisdictional feature was identified within the gen-tie alignment. Patterson Run Creek is an ephemeral drainage and is subject to Sections 404 and 401 of the Clean Water Act. Under the Warren Alquist Act, the CEC has in-lieu permitting authority to issue a Lake and Streambed Alteration Agreement when project activities would result in impacts to waters regulated under Fish and Game Code section 1600 et seq.

The proposed project would include two features requiring the placement of fill material into areas identified as jurisdictional waters: a new 36-inch diameter corrugated metal pipe designed to link the southwestern detention basin with the existing Patterson Pass Road culvert inlet, and a proposed low water crossing within Patterson Run Creek. Approximately 10 cubic yards (270 cubic feet) of clean rip rap would be installed at the pipe outfall to control discharge velocity and prevent erosion. The low water crossing would include minor grading to the bed and banks of Patterson Run Creek and placement of rip rap to create a stable point of crossing for maintenance activities within the gen-tie alignment. The project owner did not include approximately 150 square feet near the top of bank in the original Lake and Streambed Notification included with the application; however, staff, in coordination with CDFW, determined that the entirety of the 1,600 square feet impacted by construction of the low water crossing is within their jurisdiction, as described below. Work would occur between May 1 and October 31.

Direct impacts to state and federal waters would include the removal of native vegetation, the discharge of fill, degradation of water quality, and increased erosion and sediment transport. Permanent impacts to Patterson Run would result from improvements to an existing stormwater outfall and the installation of a low water crossing. The stormwater outfall improvements would impact approximately 80 square feet of Patterson Run Creek and 8 linear feet parallel to the flow of Patterson Run caused by the excavation of approximately 16 cubic yards of material from the stream and placement of approximately 3 cubic yards of native fill and 5 cubic yards of riprap below the top of bank. The low water crossing will impact approximately 1,600 square feet and 30 linear feet of Patterson Run for the excavation of approximately 18 cubic yards of material and placement of approximately 17 cubic yards of imported fill and 30 cubic yards of riprap below top of bank. A total of approximately 1,680 square feet and 38 linear feet of the Patterson Run Creek would be permanently impacted by these activities. No temporary impacts are anticipated, as access routes are in upland areas adjacent to Patterson Run Creek.

Indirect impacts would include inadvertent spillover impacts outside of the construction footprint, dust accumulation on adjacent native habitats, chemical spills, stormwater erosion and sedimentation and increased wildfire risk. To reduce fugitive dust resulting from project construction and to minimize adverse air quality impacts, the project would

employ dust control measures in accordance with the Air Quality Management District's Rules 401 and 403.2, which would limit the amount of fugitive dust generated during construction. Indirect impacts to waters of the state may include changes to erosion and sedimentation patterns around the outfall and ford locations due to increased surface roughness and altered channel dimensions; increased turbidity due to ground disturbance associated with the overall project; and increased risk of pollutants reaching Patterson Run due to the low water crossing installation and vehicle/equipment use for project construction and operation. Indirect impacts associated with erosion and pollutants would be minimized with the implementation of various best management practices.

Project construction requires adherence to multiple permits and plans to manage stormwater effectively. The Construction General Permit (CGP) mandates the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which outlines specific Best Management Practices (BMPs) to control run-on and runoff during construction activities. Additionally, CEC staff recommended the project owner implement a comprehensive Drainage, Erosion, and Sediment Control Plan (DESCP). This plan would cover runoff mitigation throughout the construction, operation, maintenance, and decommissioning phases of the project.

The final grading plan would incorporate specific erosion control facilities designed to contain silt deposits and ensure the safe discharge of silt-free stormwater into existing and proposed drainage facilities during the rainy season (October 1 to April 15), once rough grading is complete. The project would also integrate stormwater detention and Low Impact Development (LID) features designed in compliance with the Stormwater Technical Guidance Manual. Several LID features are proposed to minimize off-site impacts:

- **Bioretention Basins:** These features would consist of permeable gravel with a perforated underdrain pipe, topped by a permeable bioretention soil mix to filter and slow water flow. A riser outlet structure would be included to manage overflow from excessive storm events.
- **Perimeter Outlets:** Ten stormwater outlets are planned around the facility's perimeter (excluding the southwest boundary). These outlets would utilize riprap, which in combination with the basins, would further reduce the velocity of off-site stormwater flow.

The goal of these measures is to maintain minimal off-site stormwater flow velocities. This prevents erosive scour of sediments, thereby avoiding downstream siltation, off-site flooding, and overcapacity issues in existing drainage infrastructure. As a result, these controls would ensure that the project prevents water quality impacts from non-stormwater discharges.

The following BMPs would be implemented during construction to reduce potential indirect impacts to sensitive and protected resources to a less than significant level:

- Erosion and Sediment Control: Develop and implement erosion control measures per RWQCB Construction General Permit requirements to prevent increased siltation and pollutant release into receiving waters.
- Area Limitations: Confine the disturbance footprint to the maximum extent feasible, prioritizing the use of pre-existing access routes. Staging, storage, and excavation shall be positioned within previously disturbed areas and limited to the smallest footprint.
- Wildlife Protection (Trenches): Cover all open trenches exceeding 2 feet in depth with rigid materials (e.g., plywood) at the end of each workday or install earthen/wooden escape ramps. Conduct thorough inspections for trapped wildlife before backfilling operations. Contact the DB(s) and/or Designated Monitor(s) immediately for handling injured animals.
- Wildlife Protection (Pipes): Inspect all stored pipes/culverts daily for sensitive species (burrowing owls, California tiger salamander, California red-legged frog, nesting birds, etc.) before use. Capping pipe ends overnight is the preferred preventative measure. If wildlife is found within a pipe, movement is prohibited until the animal leaves voluntarily or is relocated by the Designated Biologist and/or Designated Monitor.

The project owner engaged in pre-application coordination with the Central Valley RWQCB (Dudek 2025nnn). The project owner, in the application, stated the project would result in 0.04 acres of permanent fill impacts to Patterson Run Creek (approximately 34 cubic yards of excavation, 55 cubic yards of fill, and 38 linear feet of impact). The project owner agreed to provide compensatory mitigation, which, in no case, will be reduced below 0.12 acre of preserved waters. The project owner also submitted an ACOE Nationwide Permit (NWP) application in July 2024 (AMLGMN 2024xx). The project owner has committed to a 3:1 mitigation ratio, preserving a total of 2.80 acres of various aquatic habitats, including ephemeral drainage (0.74 acres), pond (0.73 acres), swale (0.97 acres), and wetlands (0.36 acres). The proposed mitigation area is located within the 213-acre Mulqueeney Ranch, immediately west of the proposed project.

CEC staff, in coordination with CDFW, has developed the following mitigation metrics proposed to reduce impacts from the proposed project to less than significant levels and comport with CDFW requirements.

- Mitigation Ratio: **3:1** ratio for permanent impacts that result in the loss of ecological value to plants and wildlife. These features include rip rap placement at the outfall structure and installation of the low water crossing.
- Impact Calculation: The project owner shall provide compensation for permanent impacts to 2,100 square feet **(0.04 acres) at a 3:1 ratio** of stream habitat through creation, restoration and/or enhancement of aquatic habitat within CZ10 subject to CPM approval. **The project owner has committed to a 3:1 ratio, preserving a total of 2.80 acres of aquatic habitat as described above.**

This includes the implementation of COC **BIO-25** (Lake and Streambed Equivalency Conditions) which was drafted in coordination with CDFW to meet in-lieu permitting authority. For projects under the exclusive jurisdiction of the CEC, measures included in Lake and Streambed Alteration Agreements may be granted through the CEC's certification instead of ("in-lieu of") a Lake and Streambed Alteration Agreement by CDFW. This condition includes measures which would be included in a typical CDFW Lake and Streambed Alteration Agreement for a similar project. These conditions would address the construction of the project and require the acquisition of compensatory mitigation lands at the prescribed ratios. In addition, impacts to jurisdictional features and their associated resources are protected by staffs recommended COCs required to protect biological resources and water quality. This includes proposed COC **BIO-26** (Habitat Management Land Acquisition) which would offset the permanent loss of and degradation to jurisdictional waters, ~~including riparian habitat~~, by mitigating at a 3:1 ratio (protected: impacted). Mitigation shall include permanent protection of habitat through placement of a conservation easement and funding of an endowment for long-term management of the mitigation site as outlined in COC **BIO-26**.

In addition, proposed COCs **AQ-SC3, AQ-SC4, HAZ-1, WATER-1, WATER-2, and WATER-4** would be required. These measures include pre-construction surveys, monitoring, habitat restoration, weed and invasive species control, storm water management (SWPPP), worker training, spill containment and reporting, dust control, and verification of Waste Discharge Requirements (WDR) permit requirements. The implementation of the SWPPP would also ensure that the development of the site would not cause substantial degradation in the quality, or an increase in the rate or volume, of stormwater runoff from the site during construction. Staff recommended COC **WATER-1** to ensure the project complies with the requirements contained in the State Water Resources Control Board's National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities. A project operations Drainage, Erosion, and Sedimentation Control Plan (DESCP) should be prepared to monitor and manage both onsite and offsite stormwater events during construction, operation, maintenance, and decommissioning, per proposed COC **WATER-2**. In addition, implementation of **WATER-4** (Compliance with Clean Water Act Sections 401 & 404) would ensure compliance with Sections 401 and 404 of the Clean Water Act.

With implementation of staff's proposed COCs **AQ-SC3, AQ-SC4, HAZ-1, WATER-1, WATER-2, WATER-4, BIO-1** through **BIO-7, BIO-8, BIO-25, BIO-26, and BIO-27** adverse impacts to jurisdictional waters would be reduced. CEC staff concluded that this mitigation approach mitigates for impacts to jurisdictional waters and impacts would be less than significant.

Project Components Outside CEC's Opt-In Certification

Focused field surveys determined that no wetlands or other waters are present within the construction footprint of the gen-tie and related components outside the CEC's

Opt-in Certification. Therefore, implementation of the proposed project would not result in impacts to state or federally protected wetlands.

However, the gen-tie line would be installed crossing Patterson Run, an ephemeral stream channel. Impacts to this stream could occur if machinery is required in the creek, or if the cables are placed on the ground over the creek before prior to stretching and cause erosion of banks or streambed. Machinery would be placed above and outside of the stream, and cable placement would cause minimal if any erosion.

To avoid and minimize impacts to jurisdictional waters, as part of the standard PG&E Construction Measures, CEC staff recommends that PG&E implement **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), **MM BIO-4** (Patterson Run), and **MM BIO-5** (Best Management Practices). In addition, staff recommends the implementation of **MM BIO-7** (General Impact Avoidance and Minimization Measures), and **MM BIO-13** (Biological Monitor During Construction) to further reduce impacts to jurisdictional waters.

With implementation of CEC staff's recommended mitigation measures **MM BIO-1, MM BIO-2, MM BIO-4, MM BIO-5, MM BIO-7, and MM BIO-13** adverse impacts to jurisdictional waters would be less than significant.

Operation

Less Than Significant with Mitigation. Based on the analysis, the operation associated with the proposed project would not substantially adversely affect jurisdictional waters, and impacts would be less than significant with the implementation of staff's proposed COCs **AQ-SC3, AQ-SC4, HAZ-1, WATER-1, WATER-2, WATER-4, BIO-1** through **BIO-7, BIO-8, BIO-25, BIO-26, and BIO-27**.

Project Components Within CEC's Opt-In Certification

The low water crossing is part of a transmission structure access path for construction and maintenance activities, and the expected operation activities would be access management and any structural upkeep necessary over the life of the facility. The expected operation activities related to the outfall structure would include inspection, any necessary cleaning, and structural upkeep to ensure compliance with environmental regulations.

The low water crossing and outfall structure will remain in place during operations for the life of the project. Any routine maintenance would be done in accordance with staff proposed COCs **AQ-SC3, AQ-SC4, HAZ-1, WATER-1, WATER-2, WATER-4, BIO-1** through **BIO-7, BIO-8, BIO-25, and BIO-26**.

With implementation of staff's proposed COCs **AQ-SC3, AQ-SC4, HAZ-1, WATER-1, WATER-2, WATER-4, BIO-1** through **BIO-7, BIO-8, BIO-25, BIO-26, and BIO-27** adverse impacts to jurisdictional waters during operation would be reduced.

CEC staff concluded that this mitigation approach mitigates for impacts to jurisdictional waters and impacts would be less than significant.

Project Components Outside CEC's Opt-In Certification

Operation

Focused field surveys determined that no wetlands or other waters are present within the project components outside the CEC's Opt-in Certification. Therefore, implementation of the proposed project would not result in impacts to state or federally protected wetlands. There would be no impact.

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

Construction

Less Than Significant with Mitigation. Based on the analysis below, project construction and operation could affect wildlife movement, wildlife corridors, or nursery sites and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1** through **BIO-28**, and recommended mitigation measures **MM BIO-1** through **MM BIO-18**.

Project Components Within CEC's Opt-In Certification

The project site and surrounding area is characterized by undeveloped annual grassland habitats and grazing lands, barbed wire perimeter fences, and an existing PG&E Tesla substation to the east. These habitats may provide localized wildlife functions, including foraging, nursery use, and short-distance dispersal for common and special status wildlife species.

The undeveloped grassland habitat within the project site supports potential lifecycle functions, including nursery and dispersal activities for various wildlife species. Based on an evaluation of the project site using the California Essential Habitat Connectivity Project, CEC staff determined the project area is within a Natural Landscape Block that extends from Alameda County south through the Diablo Range and Southern Coastal Ranges, terminating north of the Transverse Ranges (BIOS 2025g). Construction of the project would not change these designations as it would not significantly impact habitat connectivity or introduce substantial barriers to wildlife movement.

The project area likely provides localized habitat movement value but is of limited linkage value in the broader landscape due to the existing vegetation being surrounded on three sides by similar open, undeveloped grassland habitat and its proximity to the existing PG&E Tesla substation. **Although the broader Altamont Hills landscape supports regional wildlife movement, regional conservation planning tools,**

including the California Essential Habitat Connectivity dataset, CDFW's Areas of Conservation Emphasis, and the EACCS, do not identify the project site as a regional wildlife movement corridor or Essential Connectivity Area. Local wildlife may utilize the project area as movement habitat, however regional connectivity is somewhat limited by Patterson Pass Road, the gravel access road directly to the north, Interstates (I) 580 and I-5 to the north and east, and the railroad to the south. The railroad to the south is likely permeable to movement; however, I-580 and I-5 have very limited areas for wildlife crossings. There are no known wildlife nursery sites in the project area and no active wildlife nursery sites were observed during field surveys within the project site.

The installation of perimeter fencing around the BESS facility is anticipated to have an impact on wildlife movement and foraging within the facility. However, local species usually exhibit established, short-range territorial movements and would still be able to utilize surrounding open, undeveloped grassland for movement during **site mobilization and/or** construction. The proposed installation of a low water crossing would maintain habitat connectivity during construction as this crossing type tends to have a lower profile than a traditional crossing. Patterson Run Creek is an ephemeral stream and therefore, no impacts to migratory fish would occur. Therefore, project related effects on local movement are anticipated during construction but would not result in significant impacts.

To reduce these impacts the applicant has proposed measures which would establish species-specific buffers around active nests during **site mobilization and/or** construction, restore areas disturbed during construction to their original habitat condition, minimize disruption to Patterson Run creek, and conduct pre-construction surveys and monitoring. CEC staff reviewed the applicant's proposed mitigation and incorporated the measures, as appropriate, into staff's proposed COCs **BIO-1** to **BIO-28** to ensure potential impacts are reduced to less than significant. These measures include implementing mandatory worker training, conducting preconstruction surveys, monitoring and reporting requirements, restoring temporarily disturbed areas, and provide compensatory mitigation for the loss of foraging and denning habitat.

Implementation of CEC staff's proposed COC **BIO-1** through **BIO-28** during **site mobilization and/or** construction would reduce impacts to native resident or migratory wildlife species, including use of established wildlife movement corridors and nearby breeding or nursery areas, to less than significant.

Project Components Outside CEC's Opt-In Certification

The construction of the proposed gen-tie line construction would impact migration routes primarily through habitat disturbance and physical barriers in the form of footings. Loss of foraging habitat could occur; however, all temporarily impacted areas would be revegetated. Disruption of species movement could also occur from heavy equipment and overland travel along the project footprint. The transmission line

infrastructure would not form an impassable barrier for most wildlife, meaning any regional movement patterns would persist.

Implementation of staff's recommended mitigation measures **MM BIO-1** through **MM BIO-18** during site mobilization and/or construction would reduce impacts to native resident or migratory wildlife species, including use of established wildlife movement corridors and nearby breeding or nursery areas, to less than significant.

Operation

Less Than Significant with Mitigation. Based on the analysis, the operation associated with the proposed project would not substantially adversely affect wildlife movement, wildlife corridors, or nursery sites and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1** through **BIO-28**, and recommended mitigation measures **MM BIO-1** through **MM BIO-18**.

Project Components Within CEC's Opt-In Certification

Operational impacts would be substantially reduced from construction levels, with wildlife movement limited to the gen-tie corridor or adjacent open areas surrounding the proposed BESS site. The proposed installation of a low water crossing would maintain habitat connectivity after construction as this crossing type tends to have a lower profile than a traditional crossing. Patterson Run Creek is an ephemeral stream and therefore, no impacts to migratory fish would occur.

Thermal Runaway and BESS Fires. The risk to movement of special-status species could be compounded should a BESS fire occur. Potential impacts would be similar to those described in the Thermal Runaway and BESS Fires section above; these could include risks from chemical exposure, smoke inhalation, soil and water contamination, mortality, and habitat degradation. Human disturbance and smoke could displace special-status species and or inhibit movement across important dispersal corridors.

To reduce these impacts the applicant has proposed measures which would establish species-specific buffers around active nests during any operations related construction, restore areas disturbed during construction to their original habitat condition, minimize disruption to Patterson Run creek, and conduct pre-construction surveys and monitoring. CEC staff reviewed the applicant's proposed mitigation and incorporated the measures, as appropriate, into staff's proposed COCs **BIO-1** to **BIO-28** to ensure potential impacts are reduced to less than significant. These measures include implementing mandatory worker training, conducting preconstruction surveys, monitoring and reporting requirements, restoring temporarily disturbed areas, and providing compensatory mitigation for the loss of foraging and denning habitat.

With implementation of staff's proposed COCs **BIO-1** through **BIO-28** adverse impacts to wildlife movement during operations would be reduced. Staff concluded that this mitigation approach mitigates for impacts to wildlife movement and impacts would be less than significant.

Project Components Outside CEC's Opt-In Certification

Operational impacts would be substantially reduced from construction levels, with wildlife movement limited to the gen-tie corridor or adjacent open areas surrounding the proposed BESS site. During the operation of the facility, the primary activities and associated impacts on wildlife migration or nursery sites would be limited to routine maintenance and the inherent presence of the infrastructure itself. The proposed installation of a low water crossing would maintain habitat connectivity after construction as this crossing type tends to have a lower profile than a traditional crossing.

To avoid and minimize impacts, both direct and indirect, and as part of the standard PG&E Construction Measures, CEC staff recommends that PG&E implement mitigation measures **MM BIO-1** (Annual Training), **MM BIO-2** (Standard Construction Practices), **MM BIO-3** (California Tiger Salamander), **MM BIO-4** (Patterson Run), **MM BIO-5** (Best Management Practices), and **MM BIO-6** (California Tiger Salamander Specific Conditions). In addition, the applicant has proposed avoidance and minimization measures which staff have reviewed and enhanced them as necessary to reduce effects on wildlife movement and nursery sites should they be present during operation activities. These include **MM BIO-7** (General Impact Avoidance and Minimization Measures), **MM BIO-8** (Special-Status Plants), **MM BIO-9** (San Joaquin Kit Fox, American Badger, Burrowing Owl), **MM BIO-10** (Swainson's Hawk), **MM BIO-11** (Golden Eagle), **MM BIO-12** (Nesting Bird Surveys Prior to Construction and Bird Buffers), **MM BIO-13** (Biological Monitor During Construction), **MM BIO-14** (California Red-Legged Frog), **MM BIO-15** (Crotch's Bumble Bee), **MM BIO-16** (Western Spadefoot), **MM BIO-17** (Coast Horned Lizard and San Joaquin Coachwhip), and **MM BIO-18** (Monarch Butterfly). These recommended mitigation measures are designed to educate workers of the presence and sensitivity of wildlife that may occur in the project area; provide limitations on the work that may occur during the breeding season; provide species specific avoidance and minimization measures, require inspection for wildlife under vehicles; reducing or controlling fugitive dust and vehicle speeds; monitoring construction to reduce direct wildlife mortality; and the control of noxious weeds.

With implementation of CEC staff's recommended mitigation measures **MM BIO-1** through **MM BIO-18**, impacts to wildlife movement and nursery sites during operations would be reduced to less than significant.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Construction and Operation

Less Than Significant with Mitigation. Based on the analysis below, construction and operation of the project would not conflict with any local policies or ordinances

protecting biological resources with the implementation of staff's proposed COCs **BIO-1** through **BIO-28**, and recommended mitigation measures **MM BIO-1** through **MM BIO-18**.

Project Components Within CEC's Opt-In Certification

The proposed project would not conflict with any local plans, policies, and regulations protecting biological resources. As summarized in **Table 5.2-8**, the proposed project would be consistent with applicable federal and state plans, policies and regulations during **site mobilization and/or** construction and operations.

This proposed project is located in unincorporated Alameda County where there are no countywide ordinances regulating trees on private property. The existing ordinance (County Ordinance No. O-2016-66) solely protects and regulates trees within the County right-of-way.

Due to a recent fire southeast of Patterson Pass Road, satellite imagery indicates fire damage to trees along Patterson Run. These trees are located within the County right-of-way and would require an encroachment or tree permit from the Alameda County Public Works Agency, if not for the CEC's in-lieu permitting authority. However, no tree removal is proposed.

The project would restore temporarily disturbed areas, provide compensatory mitigation for habitat disturbance, and require specific conditions for mitigating impacts to Patterson Run Creek as discussed in checklist items (a) and (c) above.

Table 5.2-8 also includes any proposed Conditions of Certification, where applicable, to ensure the project would not conflict with any federal or state plans, policies, and regulations. With implementation of CEC staff proposed COCs **BIO-1** through **BIO-28** construction of the project would not conflict with any local policies or ordinances and impacts would be reduced to less than significant.

Project Components Outside CEC's Opt-In Certification

Construction and operations activities are not expected to conflict with any local, state, or federal plans, policies, and regulations protecting biological resources because PG&E would coordinate and comply with all applicable plans, policies, and regulations. In addition, PG&E would coordinate with applicable resource agencies and implement **MM BIO-1** through **MM BIO-18** to reduce impacts to less than significant.

- f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

Construction

Less Than Significant with Mitigation. Based on the analysis below, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan, and impacts would be less than significant with the implementation of staff's proposed COCs **BIO-1** through **BIO-28**, and recommended mitigation measures **MM BIO-1** through **MM BIO-18**.

Project Components Within CEC's Opt-In Certification

The project site is not located within the boundary of a formally adopted conservation plan area; however, it lies within the broader geographic scope of the EACCS planning area. The EACCS provides a streamlined framework for natural resource conservation and environmental permitting within eastern Alameda County. The project area is located within the EACCS Conservation Zone (CZ) 10, which includes conservation priorities such as the protection of big tarplant occurrences and critical habitat for California red-legged frogs. The proposed project site constitutes a very small percentage (0.27%) of the total land inventory (26,144 acres) within CZ 10.

The proposed project would be consistent with and would not conflict with the goals of the EACCS through compliance with applicable regulatory requirements and implementation of avoidance, minimization, and mitigation measures that meet or exceed EACCS guidelines. The applicant would obtain all necessary permits and approvals from relevant agencies, including the USACE, and RWQCB, and adhere to the same regulatory standards these agencies used to approve the EACCS.

The applicant has applied for a Clean Water Act Section 404 Nationwide Permit docketed on July 30, 2024 (TN258199) and a Clean Water Act Section 401 Water Quality Certification from the Central Valley RWQCB docketed on June 19, 2025 (TN264361). The USACE completed Section 7 consultation under the federal ESA with the USFWS on June 25, 2025.

In addition, CEC staff has coordinated directly with CDFW to ensure CESA compliance through the CEC's in-lieu permitting authority.

- Avoidance and Minimization measures proposed by the applicant and recommended by CDFW would be implemented that meet or exceed EACCS guidelines.
- Compensatory mitigation would be provided for impacts to aquatic resources and EACCS-covered species via the acquisition of credits from approved mitigation banks, utilizing the standard mitigation ratios defined by the EACCS based on habitat quality evaluations as required by staff proposed COCs **BIO-10**, **BIO-11**, **BIO-18**, **BIO-22**, and **BIO-26**.

Implementation of staff's proposed COCs **BIO-1** through **BIO-28** would ensure compliance with the EACCS and meet the requirements of permitting agencies USACE and RWQCB. With implementation of these proposed COCs impacts would be reduced to less than significant.

Project Components Outside CEC's Opt-In Certification

CEC staff recommends implementation of mitigation measures **MM BIO-1** through **MM BIO-18**, which would ensure compliance with the EACCS and meet the requirements of permitting agencies USACE and RWQCB. With implementation of these proposed **MMs**, impacts would be reduced to less than significant.

Operation

No Impact. Based on the analysis below, the operation of the project would not conflict with the provisions of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan and there would be no impact.

Project Components Within and Outside CEC's Opt-In Certification

There is no adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other local, regional or state plans, on or adjacent or next to the project site or the PG&E utility switchyard. Therefore, the project would not conflict with any such plans and there would be no impact.

5.2.2.3 Cumulative Impacts

The following analysis considers the potential impacts of the proposed project in the context of the cumulative projects and conditions described in this report. The objective is to determine if the proposed project's incremental effect, when combined with other present and probable future projects, is "cumulatively considerable" (CEQA Guidelines Section 15064(h)(1)).

Construction and Operation

Project Components Within CEC's Opt-In Certification

Less Than Significant with Mitigation. The geographic scope of CEC staff's preliminary analysis of cumulative effects to special status wildlife encompasses portions of San Joaquin and Alameda County, including the City of Tracy and City of Mountain House. During construction and operation of the proposed project, cumulative impacts to biological resources would primarily result from permanent habitat loss, temporary disturbance, noise, and increased human activity.

As of May 2025, a portion of the gen-tie line area has been cleared, compacted, and graveled as part of the Mulqueeney Wind Project's staging area and underground gen-tie corridor. The Mulqueeney Wind Project obtained the necessary federal, state, and local permits required to clear the staging area, and as part of those permit

requirements, it is assumed that they would be required to restore these disturbed areas back to pre-project conditions. Construction activities on the Mulqueeney Wind Project would likely be complete prior to the commencement of construction of the proposed project.

The area around Patterson Pass Road and the I-580/I-205 interchange has been and continues to be subject to intense development pressures, including commercial growth, infrastructure improvements, and numerous energy projects (wind and battery storage). The following active and reasonably foreseeable projects, in combination with existing environmental stressors such as ongoing urban and agricultural conversion, have the potential to contribute to significant cumulative impacts on biological resources:

- Golden Hills Wind Energy Project (Repowering): This existing facility is located adjacent to the project area and has documented mortality of golden eagles, burrowing owls, and tricolored blackbirds due to turbine collisions.
- Interstate 580/Patterson Pass Road/International Parkway Interchange Improvements: A Caltrans and City of Tracy project involving construction of a new Diverging Diamond Interchange to accommodate increased traffic, which has undergone prior environmental review and habitat mitigation.
- Kola Energy Storage Project: This planned 700 MW BESS facility near the PG&E Tesla Substation involves the development of approximately 42 acres of vacant agricultural land, resulting in permanent impacts to habitat for Crotch's bumble bee, California tiger salamander, and San Joaquin kit fox.
- Griffith Energy Storage Project: Located approximately 0.9 miles southwest of I-580 in San Joaquin County, this project involves grading and developing a 400 MW BESS facility on roughly 45 acres of habitat for the same special-status species as the Kola project.
- Viracocha Hill BESS Project: Located in the Altamont Pass Wind Resource Area (APWRA), this project would convert approximately 17 acres of grassland habitat for the new facility and gen-tie line.
- Mulqueeney Wind Ranch Project (Repowering): This project, located south of I-580 in northeastern Alameda County, involves repowering existing wind infrastructure and has identified significant and unavoidable impacts to avian species, including golden eagles and other raptors.
- Sand Hill Wind Project/Rooney Ranch – Viracocha Wind Project (Repowering): This project involves replacing hundreds of old turbines with up to 40 modern turbines over 2,600 acres in the APWRA. While reducing overall turbine numbers, it involves significant construction disturbance and ongoing operational impacts to avian species.
- Summit Wind Repower Project: Located in the eastern Altamont Hills, this project involves replacing older turbines within a 3,363-acre boundary, contributing to

ongoing habitat modification and potential avian mortality within the sensitive wind resource area.

- **Urban and Agricultural Conversion:** The ongoing, region-wide conversion of grasslands and agricultural land to urban landscapes (e.g., Mountain House expansions) and orchards/vineyards contributes broadly to cumulative habitat loss for species like the Swainson's hawk and tricolored blackbird.

Special-Status Species

The proposed project would permanently impact 60.7 acres of special status species habitat and temporarily impact 6.7 acres. This includes the permanent loss and temporary disturbance of grassland habitat for special status wildlife, including foraging habitat for raptors, western burrowing owl, golden eagle, Swainson's hawk, and tricolored blackbird. Other cumulative projects considered below also impact similar vegetation communities and special status plant and wildlife species resulting in a net regional loss of grassland habitat. Without mitigation and conservation planning, cumulative effects to these species may result in population declines and reduced genetic viability. The framework of the EACCS provide regional conservation planning and coordinated avoidance, minimization, and mitigation for covered species, which reduces potential cumulative impacts.

Aquatic Resources

Proposed impacts to Patterson Run include installation of a new stormwater basin outfall and a low water crossing. These impacts are minor and would not alter the flow of water through the system. Additionally, the impacts would be fully mitigated with preservation of similar habitat and CEC staff proposed COCs.

Wildlife Corridors and Habitat Connectivity

The region provides important connectivity between larger habitat blocks. Cumulative development could impair landscape permeability and increase the risk of wildlife collisions. The proposed project close to existing development and roadways and will not introduce additional roads. Wildlife movement would be preserved in the open grassland to the south, west and north of the project area.

The project's incremental impact is considered cumulatively considerable prior to mitigation. This contribution exacerbates a regional trend of intense grassland conversion for energy and urban development, leading to a significant collective effect on critical avian and special status species habitats, including those supporting the Crotch's bumble bee, golden eagle, Swainson's hawk, burrowing owl, tricolored blackbird, California tiger salamander, California red-legged frog, and San Joaquin kit fox.

However, the implementation of a comprehensive suite of mitigation measures, specifically COCs **BIO-1** through **BIO-28** (detailed in **Section 5.2.5**), ensures that the project implements all feasible measures to minimize its habitat impact and provide adequate compensation. These COCs require substantial off-site mitigation and

adherence to stringent avian protection protocols. Through adherence to the required COCs, the project's contribution to the significant cumulative impact would be reduced to less than significant.

5.2.3 Project Conformance with Applicable LORS

Table 5.2-8 presents CEC staff's determination of conformance with applicable local, state and federal LORS, including any proposed COCs, where applicable, to ensure the project would conform with LORS. As shown in this table, CEC staff concluded that the project would be consistent with all applicable LORS. The subsection below, "5.2.5 Staff Proposed Conditions of Certification," contains the full text of the referenced COCs.

TABLE 5.2-8 CONFORMANCE WITH APPLICABLE LORS	
Applicable LORS	Consistency and Basis For Determination
Federal	
Federal Endangered Species Act (16 USC §§ 1531 et seq. and 50 CFR part 17.1 et seq.)	
Designates and protects federally threatened and endangered plants and animals and their critical habitat. Applicants for projects that could result in adverse impacts on any federally listed species are required to mitigate potential impacts in consultation with USFWS.	Yes. The applicant is seeking take coverage for California tiger salamander, Western burrowing owl, San Joaquin kit fox and Crotch's bumble bee through the in-lieu permitting process to ensure compliance with ~~CE~~ FESA. The additional implementation of COCs BIO-1 through BIO-28 would further ensure that impacts to state-listed species are less than significant.
Bald and Golden Eagle Protection Act (16 USC §§ 668 to 668c)	
Provides for the protection of the bald and golden eagle by prohibiting, except under certain specified conditions, the take, possession, and commerce of such birds. The 1972 amendments increased penalties for violating provisions of the Act or regulations issued pursuant thereto and strengthened other enforcement measures.	Yes. The proposed project would include COCs BIO-11, BIO-18, BIO-19, HAZ-9, WORKER SAFETY-1, WORKER SAFETY-2, WORKER SAFETY-6, WORKER SAFETY-7, and WORKER SAFETY-10 to protect golden eagles and ensure consistency with the BGEPA.
Migratory Bird Treaty Act (16 USC §§ 703 to 711)	
Makes it unlawful to take or possess any migratory nongame bird (or any part of such a migratory nongame bird as designated in the Act.	Yes. The proposed project would include COCs BIO-1 through BIO-5, BIO-7, BIO-8, BIO-9, BIO-11, BIO-17, BIO-19, AQ-SC3, AQ-SC4, HAZ-1, HAZ-9, WORKER SAFETY-1, WORKER SAFETY-2, WORKER SAFETY-6, WORKER SAFETY-7, and WORKER SAFETY-10 to reduce impacts to resident and migratory birds and ensure consistency with the MBTA.
Noxious Weed Act of 1974 (7 U.S.C. §2801 et seq.)	
The Noxious Weed Act created a national framework to control harmful non-native plants, empowering the Secretary of Agriculture to regulate their movement, enforce quarantines, and manage them on federal lands.	Yes. The proposed project includes COCs BIO-8, BIO-9, and BIO-10 to minimize the introduction and spread of noxious weeds and ensure consistency with the Noxious Weed Act.
Executive Order 13112	
Executive Order 13112 (1999) created the National Invasive Species Council, directing federal agencies to prevent, monitor, and control invasive species	Yes. The proposed project includes COCs BIO-8, BIO-9, and BIO-10 to minimize the introduction and spread of invasive species and ensure consistency with Executive Order 13112.

TABLE 5.2-8 CONFORMANCE WITH APPLICABLE LORS

Applicable LORS	Consistency and Basis For Determination
while coordinating efforts across departments and stakeholders.	
Clean Water Act §§ 401 and 404 (33 USC §§ 1251 to 1376)	
Requires the permitting and monitoring of all discharges to surface water bodies. Section 404 requires a permit from the ACOE for a discharge of dredged or fill materials into waters of the U.S., including wetlands. Section 401 requires a permit from RWQCB for the discharge of pollutants. By federal law, every applicant for a federal permit or license for an activity that may result in a discharge into a California water body, including wetlands, must request state certification that the proposed activity will not violate state and federal water quality standards.	Yes. The project area includes Patterson Run creek, which is a jurisdictional waterway. The project owner applied for a Clean Water Act Section 404 Nationwide Permit from the ACOE and a CWA Section 401 Water Quality Certification from the RWQCB. The project would include COCs WATER-1, WATER-2, WATER-4, HAZ-1, AQ-SC3, AQ-SC4, BIO-1 through BIO-7 , and BIO-8 and BIO-25 , which provides conditions, such as installation of BMPs to control erosion and sedimentation, refueling requirements, spill prevention plan and weed control, would further reduce impacts to Patterson Run creek.
State	
California Endangered Species Act (Fish and Game Code, §§ 2050 to 2098)	
Species listed under this act cannot be “taken” or harmed, except under specific permit.	Yes. The applicant is seeking take coverage for California tiger salamander, Western burrowing owl, San Joaquin kit fox and Crotch’s bumble bee through the in-lieu permitting process to ensure compliance with CESA. The additional implementation of COCs BIO-1 through BIO-28 would further ensure that impacts to state-listed species are less than significant.
Fully Protected Species (Fish and Game Code, §§ 3511, 4700, 5050, and 5515)	
Lists animal species that are fully protected in California and states that these species may not be “taken” or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species. However, California Senate Bill 147 (SB 147), passed in July 2023, authorizes CDFW to issue permits for the incidental take of fully protected species for certain projects including renewable energy.	Yes. Fully-protected species with the potential to occur within the project area include the golden eagle, white-tailed kite and the California condor. The implementation of COCs BIO-1 through BIO-7 , BIO-17 , BIO-16 and BIO-26 would reduce impacts to less than significant and ensure compliance with Fish and Game Code sections 3511, 4700, 5050, and 5515.
California Migratory Birds Protection Act (Fish and Game Code, §§ 3503, 3503.5, 3513, and 3800)	
Makes it unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any migratory bird.	Yes. The project would include COCs BIO-1 through BIO-7 , BIO-8 and BIO-16 through BIO-21 , and BIO-26 to reduce impacts to resident and migratory birds and ensure compliance with Fish and Game Code sections 3503, 3503.5, 3513, and 3800 3511, 4700, 5050, and 5515.
Furbearing Mammals (Fish and Game Code, §251.1 and Title 14 §460)	
Contains regulations for taking furbearing mammals, including prohibiting the harassment or unapproved take of furbearing mammals, including San Joaquin kit fox and American badger.	Yes. The project would include COCs BIO-1 through BIO-7 , BIO-8 , BIO-22 , BIO-23 , and BIO-26 to reduce impacts to fur-bearing mammals, specifically American badger and San Joaquin kit fox, and ensure compliance with Fish

TABLE 5.2-8 CONFORMANCE WITH APPLICABLE LORS

Applicable LORS	Consistency and Basis For Determination
	and Game Code section 251.1 and Cal. Code Regs., Title 14, § 460.
Native Plant Protection Act (Fish and Game Code, §§ 1900 et seq.)	
Designates state rare and endangered plants and provides specific protection measures for identified populations. The Act also prohibits take of rare and endangered native plants with exceptions for agricultural and nursery operations, emergencies, or in proper coordination with CDFW under specific circumstances.	Yes. Big tarplant is the only state rare or endangered plant occurring in the project area. The project would avoid these plants. The project would include COCs BIO-1 through BIO-7 , and BIO-9 to ensure plants are avoided and ensure compliance with Fish and Game Code, §§ <u>section</u> 1900 et seq.
Porter-Cologne Water Quality Control Act (California Water Code Division 7)	
Directs responsibility to RWQCBs for granting Waste Discharge Requirements (WDRs) or National Pollutant Discharge Elimination System (NPDES) permits for discharges to waters of the state. The Act also establishes water quality objectives to protect the beneficial uses of surface and groundwater resources.	Yes. The project owner would obtain the appropriate WDRs or NPDES permits through the CVRWQCB prior to impacting any jurisdictional features. The project would include COCs WATER-1, WATER-2, WATER-4, HAZ-1 , and BIO-25 to ensure compliance with water quality objectives.
California Lake and Streambed Alteration Notification/Agreement (Fish and Game Code, § 1602)	
Prohibits alteration of any water body meeting the CDFW jurisdictional requirements of the Fish and Game Code without the appropriate permits	Yes. The project owner would seek coverage for impacts to CDFW jurisdictional streambeds through the in-lieu permitting program to ensure compliance with Fish and Game Code, § 1602. The project would include COCs BIO-1 through BIO-7 . The additional implementation of COCs BIO-8, BIO-25, WATER-1, WATER-2, WATER-4 , and HAZ-1 which provides conditions, such as installation of BMPs to control erosion and sedimentation, refueling requirements, spill prevention and weed control, would further reduce impacts to these features.
Local	
Alameda County General Plan	
Applicable LORS	Conformance and Basis For Determination
Alameda County Code of Ordinances	
Chapter 13.12.090 requires anyone to obtain a written permit from the Director of Public Works before doing anything that could alter a watercourse. This includes connecting pipes, changing water flow, developing within setback areas, adding or removing materials, modifying structures, or placing loose materials that could divert flow or be washed away during storms.	Yes. The proposed project would include COCs AQ-SC3, AQ-SC4, WATER-1, WATER-2, WATER-4, HAZ-1 , and BIO-1 through BIO-7, BIO-25 , and BIO-26 to reduce impacts to Patterson Run Creek.
Under Policy 123, any land use outside the Urban Growth Boundary that impacts biological resources must provide mitigation that aligns with East County Area Plan (ECAP) goals, specifically by prioritizing restoration or preservation in Resource Management areas to ensure long-term habitat connectivity. Furthermore, Policies 125 and 126 mandate the active preservation of habitats for	Yes. The proposed project would include COCs BIO-1 through BIO-28 to ensure that impacts to threatened and endangered plants and wildlife and other sensitive biological resources are reduced and ensure compliance with the Alameda County General Plan.

TABLE 5.2-8 CONFORMANCE WITH APPLICABLE LORS

Applicable LORS	Consistency and Basis For Determination
special-status species and enforce a strict “no net loss” standard for critical riparian and seasonal wetlands. Together, these policies ensure that development in East County does not fragment the ecosystem but instead contributes to a protected, high-functioning natural landscape.	

5.2.4 Conclusions and Recommendations

As discussed above, with implementation of COCs, the project would have a less than significant impact related to biological resources and would conform with applicable LORS. CEC staff recommended adopting the conditions of certification as detailed in subsection “5.2.5 Proposed Conditions of Certification” below.

5.2.5 Proposed Conditions of Certification

BIO-1 Designated Biologist Selection. The project owner shall assign at least one **Designated Biologist (DB)** to the project (multiple personnel may be required to ensure compliance with conditions of certification). The project owner shall submit the resume of the proposed DB, with at least three references and contact information, to the California Energy Commission (CEC) Compliance Project Manager (CPM) for review and approval **and California Department of Fish and Wildlife (CDFW) for review and comment. Resumes shall be submitted using the Biologist Resume DFW 820 form, or current form, unless an alternate format is approved by the CPM.**

The Designated Biologist must meet the following minimum qualifications:

1. Bachelor’s degree in biological sciences, zoology, botany, ecology, or a closely related field;
2. Three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society; and
3. At least three years of field experience with biological resources found in or near the project area, or as specified below for listed species:

In lieu of the above requirements, the resume shall demonstrate to the satisfaction of the CPM that the proposed DB or alternate has the appropriate training and background to effectively implement the conditions of certification.

For work related to Swainson’s hawk, the above qualifications shall also apply. In addition, the DB(s) shall have conducted at least two complete years of protocol-level Swainson’s hawk surveys during which they have detected Swainson’s hawk.

For work related to Crotch's bumble bee, **California tiger salamander, California red-legged frog, San Joaquin kit fox**, and/or burrowing owl, the above qualifications shall also apply. In addition, the DB(s) must meet the following minimum qualifications:

1. Knowledgeable in the life history and ecology of Crotch's bumble bee, **California tiger salamander, California red-legged frog, San Joaquin kit fox**, or burrowing owl, or both, exclusion and/or monitoring techniques as applicable, construction and operational impact monitoring;
2. Demonstrable experience implementing exclusion and/or monitoring techniques and construction and operational impact monitoring for Crotch's bumble bee or burrowing owl, or both;
3. Demonstrable experience implementing conditions of a CDFW Incidental Take Permit or acting as a DB, or other **biological monitoring experience that demonstrates species-specific knowledge and expertise appropriate to Crotch's bumble bee, California tiger salamander, California red-legged frog, San Joaquin kit fox, and/or burrowing owl, including implementing required monitoring and avoidance measures. Qualifying experience is not limited to implementation of a CDFW ITP** experience implementing a CDFW Incidental Take Permit as a Biological Monitor.

Verification: The project owner shall submit to the CPM resumes and any other relevant documentation for DB(s) approval at least 75 days prior to the start of site mobilization and/or construction-related ground disturbance activities. No site mobilization or construction related activities shall commence until a DB has been approved by the CPM.

If a DB needs to be replaced, the specified information regarding the proposed replacement must be submitted to the CPM at least ten working days prior to the termination or release of the preceding DB. In an emergency, the project owner shall immediately notify the CPM to discuss the qualifications and approval of a short-term replacement while a permanent DB is proposed to the CPM for consideration.

BIO-2 Designated Biologist Duties. The project owner shall ensure that the DB performs the following during any site (or related facilities) mobilization, ground disturbance, grading, construction, operation, and decommissioning activities. The project owner may request approval from the CPM to terminate the DB's function during plant operation in writing and provide justification of the request. However, the project owner shall appoint a replacement DB at any time as directed by the CPM and would ensure the same duties are performed during closure activities.

If no DB is available at any time during the life of the project (including operation phase) and the CPM determines project-related actions may affect biological resources, the CPM may direct the project owner to assign a replacement DB, for short-term or long-term monitoring and reporting. The DB may be assisted by the approved Biological Monitor(s) but remains the primary contact for the project owner and CPM.

The Designated Biologist Duties shall include the following:

1. Advise the project owner's Construction and Operation Managers on the implementation of the biological resource conditions of certification;
2. Ensure that all **biological resource** conditions of certification are met and that all reporting standards for each **biological resource** COC are completed and submitted to the CPM and any other regulatory agencies in compliance with specified timelines;
3. Consult on the preparation of the Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) to be submitted by the project owner;
4. Be available to supervise other biological resource staff, conduct and coordinate mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as special status species or their habitat;
5. Ensure that all sensitive biological resource areas are flagged, delineated, or marked, and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;
6. Notify the CPM and CDFW of any observation of an unanticipated sensitive biological resource(s) encountered during all phases of the project. Unanticipated resources include sensitive species not addressed in the environmental document because of a perceived low potential to occur, species that are known to occur but have ~~been proposed as a~~ **become** candidate for state or federal listing **as threatened or endangered, or proposed for federal listing as threatened or endangered** after the approval of the project, and common species whose range is unexpected in the project area. Notifications shall occur immediately and no later than the following morning, or Monday morning in the case of a weekend, or the next business day in the case of a state or federal holiday. The initial notification shall be followed by a formal written notification submitted to the CPM and CDFW within 48 hours of the observation;
7. Inspect or direct the **Biological Monitor and/or** site personnel how to inspect active construction areas where animals may have become trapped prior to construction commencing each day. Inspect or direct the **Biological Monitor and/or** site personnel how to inspect the installation of structures that prevent entrapment or allow escape during periods of construction

inactivity. If site personnel perform these inspections, **upon approval of the CPM**, then they shall be trained by the DB and the name of the personnel and date of training shall be included in a log in the Monthly Compliance Report;

8. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm's way. Inspect soil or spoil stockpiles and dust abatement watering for compliance with **BIO-7**. Inspect erosion control materials (e.g., hay bales) to confirm weed-free certification. Inspect weed infestations and monitor eradication measures to determine success. Inspect trash receptacles, monitor site personnel compliance with trash handling, pet prohibitions, and all other WEAP components (**BIO-5**);
9. Ensure the implementation of the ~~post-construction~~ conditions of certification for biological resources;
10. Notify the project owner and the CPM and CDFW directly per the requirements of **BIO-4** of any non-compliance with any biological resources conditions of certification during all phases of the project. Notifications shall occur immediately and no later than the following morning, or Monday morning in the case of a weekend, or the next business day in the case of a state or federal holiday. The initial notification shall be followed by a formal written notification submitted to the CPM and CDFW within 48 hours of the non-compliance incident;
11. Notify the project owner, the CPM, and CDFW directly of any special-status species injury or mortality (notifications for Crotch's bumble bee, California tiger salamander, California red-legged frog, San Joaquin kit fox, or burrowing owl, are addressed per **BIO-10**, **BIO-11**, **BIO-12**, **BIO-18**, and **BIO-22**). Notifications shall occur immediately and no later than the following morning, or Monday morning in the case of a weekend, or the next business day in the case of a state or federal holiday. The initial notification shall be followed by a formal written notification submitted to the CPM and CDFW within 48 hours of the observation;
12. Respond directly to inquiries of the CPM regarding biological resource issues by phone, email, or other correspondence;
13. Maintain written records of the tasks specified above and those included in the BRMIMP. Summaries of these records shall be submitted in the Monthly Compliance Reports and the Annual Compliance Report;
14. Maintain a record of all fish/amphibians captured and moved, and the record shall be provided to the CPM, and CDFW (c/o 1600 program, 2825 Cordelia Road, Suite 1000, Fairfield, CA 94534) with the appropriate project name and certification number as part of the Monthly Compliance Reports and the Annual Compliance Report;

15. Train the Biological Monitors as appropriate, and ensure their familiarity with the BRMIMP, Worker Environmental Awareness Program (WEAP) training, and all permits; and
16. Maintain the ability to be in regular, direct communication with the CPM and representatives of CDFW, and USFWS, including notifying these agencies of dead or injured listed species and reporting special-status species observations to the California Natural Diversity Database.

Verification: The DB shall submit in the Monthly Compliance Reports to the CPM copies of all written reports and summaries that document construction activities that have the potential to affect biological resources and document compliance with all biological resources conditions of certification. The DB's written records would be made available for the CPM's inspection on request at any time during normal business hours. During project operation, the DB(s) shall submit record summaries in the Annual Compliance Reports unless their duties cease, as approved by the CPM.

BIO-3 Biological Monitor Selection. The project owner's CPM-approved DB shall submit the resume, at least three references, and contact information of the proposed Biological Monitor(s) to the CPM for **review and** approval and CDFW for review and comment. The resume shall demonstrate, to the satisfaction of the CPM, the appropriate education and experience to accomplish the assigned biological resource tasks.

Verification: The project owner shall submit the specified information to the CPM for review and approval at least 45 days prior to the start of any site mobilization activities. Within 10 days of completion of training, the DB shall submit a written statement to CPM confirming that individual Biological Monitor(s) have been trained including the date when training was completed. If additional biological monitors are needed during site mobilization, construction or for species specific surveys, the specified information shall be submitted to the CPM for approval at least 10 days prior to their first day of monitoring activities.

BIO-4 Designated Biologist and Biological Monitor Authority. The project owner's construction/operation manager shall act on the advice of the DB and Biological Monitor(s) to ensure conformance with the biological resource conditions of certification.

If required by the DB and/or Biological Monitor(s), the project owner's construction/operation manager shall halt all site mobilization, ground disturbance, grading, construction, and operation activities in areas specified by the DB and/or Biological Monitor. The DB shall:

1. Require a halt to all activities in any area when determined that there would be an unauthorized adverse impact to biological resources if the activities continued;

2. Inform the project owner and the construction/operation manager when to resume activities;
3. The DB or Biological Monitor shall notify the project owner and the CPM of any work stoppage of site mobilization, ground disturbance, grading, construction, and operation activities and associated non-compliance incidents; notifications shall occur immediately and no later than the following morning, or Monday morning in the case of a weekend, or the next business day in the case of a state or federal holiday;
4. Notify and advise the CPM of any corrective actions that have been taken or would be instituted as a result of the work stoppage; and
5. The CPM, in coordination with CDFW, as appropriate, would determine if corrective action has been effective and would direct the project owner to take further corrective action as needed.

If the DB is unavailable for direct consultation, the Biological Monitor shall act on behalf of the DB.

Verification: The project owner shall ensure that the DB or Biological Monitor notifies the CPM immediately (and no later than the morning following the incident, or Monday morning in the case of a weekend, or the next business day in the event of a state or federal holiday) of any non-compliance or a halt of any site mobilization, ground disturbance, grading, construction, and operation activities. The project owner shall notify the CPM, in writing, of the circumstances and actions being taken to resolve the problem within one (1) working day of initiating the corrective action.

BIO-5 Worker Environmental Awareness Program (WEAP). The project owner shall develop and implement a project-specific Worker Environmental Awareness Program (WEAP) and shall submit the draft WEAP for review and approval from the CPM. The WEAP shall be administered to all onsite personnel who would enter the project site including but not limited to surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors (but excluding delivery personnel), biologists, cultural, tribal, and paleontological monitors. An abbreviated WEAP (WEAP Light) can be provided to vendors, such as delivery personnel (e.g., building materials, concrete, heavy equipment, etc.), who periodically enter the project site and are limited to areas such as existing access roads and/or lay down areas. The WEAP Light shall also be submitted for review and approval from the CPM. The WEAP shall be implemented during site mobilization, vegetation clearing, preconstruction, construction, commissioning, operation, non-operation, and closure. All workers must complete the WEAP prior to commencing work on the project. The WEAP and the WEAP Light may be recorded for later electronic viewing by new workers who begin work after the initial presentations.

The WEAP shall:

1. Be developed by or in consultation with the DB (See **BIO-1**) and consist of an on-site or training center presentation in which supporting written material and electronic media in English, as well as Spanish or other languages, as applicable, including photographs of protected species and their habitat, is made available to all participants;
2. Identify the lead agencies, provide an overview of the conditions of certifications, other regulatory permit requirements, and applicable LORS that must be complied with and the ramifications of non-compliance which may include fines, imprisonment, work stoppages, or loss of employment depending on the violation;
3. Identify the roles of environmental staff and define communication protocols and chain of command between environmental and construction staff. Define what actions monitors can approve such as stopping work under specific circumstances, providing guidance to comply with conditions, conducting surveys, and what actions monitors cannot approve such as directing work, expanding work areas from approved limits, changing conditions of certification requirements, or approving variances to permit conditions. Identify key field contacts and ensure that this information is posted in all break areas;
4. Provide examples of environmental signage and flagging that would be used to delineate work limits; areas for avoidance, state and or federal drainages, or other protected areas, evacuation routes, and approved staging areas;
5. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas, and explain the reasons for protecting these resources; provide information to participants that no snakes or other wildlife shall be intentionally harmed (unless posing a reasonable and immediate threat to humans);
6. Describe standard environmental commitments and best management practices that apply to the project including but not limited to: storing trash in closed receptacles and removing weekly to prevent attracting animals, capping pipes and other cavities that could be used by birds and small mammals; collecting and removing the carcasses of dead animals; limiting work to daytime hours, limiting work during periods of high rainfall, preventing vehicles and equipment from operating within a stream unless specifically authorized by other permits or conditions of certification; restricting smoking to designated areas; storing chemicals and fuel in designated areas; spill prevention measures; and reporting requirements.
7. Identify project vehicle speeds on paved and unpaved access roads;
8. Place special emphasis on the protection of nesting birds, Species of Special Concern and listed species including pictures and information on physical

characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures;

9. Provide pictures of the sensitive plants and wildlife known to occur in the project area, including Crotch's bumble bee, Swainson's hawk, California horned lark, golden eagles, burrowing owl, loggerhead shrike, American badger, San Joaquin kit fox, California red-legged frog, California tiger salamander, and other sensitive plants and wildlife. Provide information on sensitivity to human activities, legal protection, reporting requirements, and how to identify construction avoidance zones for these species as marked by flagging, staking, or other means, as described above;
10. Provide an overview for all personnel of the risk of potential impacts to small mammals, birds, amphibians and reptiles from vehicle strikes on all project roads (paved and unpaved) during construction, operations, closure phases, reporting requirements, and protection measures;
11. Describe the risk of wildfires in grassland communities and the measures that would be taken to reduce these risks such as avoiding parking in tall vegetation, limits to where workers can smoke; the locations of fire safety equipment, contact information and the procedure should a wildfire be ignited, required tools for each piece of equipment such as a shovel, Pulaski, and fire extinguisher, restrictions on welding and controlled detonations, use of the Project Activity Level (PAL) system that describes what activities can occur based on specific weather conditions including Red Flag days;
12. Provide an overview of potential impacts to avian and bat species from collisions with the ~~cooling towers~~, generation tie-line, and other features associated with the operations phase, reporting requirements, and protection measures;
13. Identify whom to contact if there are further comments and questions about the material discussed in the program;
14. Include a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines. A small wallet card or pamphlet with key contacts and resource information shall be prepared and provided after the training. A hard hat sticker shall also be provided to each worker to demonstrate to the monitors that they have participated in the training; and
15. The WEAP Light shall include a summary of the items above as they relate to the limited areas that vendors need to access such as existing access roads and/or lay down areas. The specific program can be administered by a competent individual(s) acceptable to the DB and documented within the Monthly Compliance Reports.

Verification: At least 45 days prior to start of site mobilization the project owner shall provide to the CPM for review and approval the draft WEAP and all supporting written materials and electronic media prepared or reviewed by the DB and a resume of the person(s) administering the program. At least 10 days prior to site mobilization the project owner shall submit the approved final WEAP and implement the training for all workers.

The project owner shall provide in the Monthly Compliance Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date. Training acknowledgement forms signed during construction shall be kept on file by the project owner for at least 6 months after the start of commercial operation.

Throughout the life of the project, the WEAP shall be repeated annually for permanent operational employees and shall be routinely administered to any new construction or operation personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area prior to being authorized to perform work in the project area. Training acknowledgement forms shall be maintained by the project owner and shall be made available to the CPM upon request. Workers shall receive and be required to visibly display a hard-hat sticker or certificate that they have completed the training.

During project operation, signed statements for operational personnel shall be kept on file for 6 months following the termination of an individual's employment.

BIO-6 Biological Resources Mitigation Implementation and Monitoring Plan.

The project owner shall develop a Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP). The project owner shall provide the draft BRMIMP to the CPM for review and comment. No site mobilization or construction activities may occur prior to approval of the final BRMIMP by the CPM. Under no circumstances shall ground disturbance proceed without implementation of all applicable permit conditions.

The BRMIMP shall be prepared in consultation with the DB and shall include the following:

1. All biological resources mitigation, monitoring, and compliance measures proposed and agreed to by the project owner;
2. All biological resources conditions of certification identified as necessary to avoid or mitigate impacts;
3. All biological resource mitigation, monitoring, and compliance measures required in state or federal agency terms and conditions, such as those provided in the National Pollution Discharge Elimination System (NPDES) Construction Activities Stormwater General Permit and Waste Discharge Certification;

4. A discussion of all sensitive biological resources that could be impacted by project site mobilization, construction, operation, and decommissioning;
5. A detailed description of measures that shall be taken to avoid or mitigate impacts on each special-status species potentially impacted by construction and operation, including remedial actions;
6. All required mitigation measures for each sensitive biological resource;
7. All locations on a map, at an approved scale (typically 1:6,000 or other scale with CPM approval), of special-status biological resource areas subject to disturbance and areas requiring temporary protection and avoidance during **site mobilization**, construction, and operation;
8. Aerial photographs, at an approved scale (typically 1:6,000 or other scale with CPM approval), of all areas to be disturbed during project construction activities; include one set prior to any site or related facilities mobilization disturbance and one set subsequent to completion of project construction. The aerial photographs shall include a reference map that shows the aerial map location in reference to the project site, reference key on each aerial, and displays the project boundary. Provide planned timing of aerial photography and a description of why times were chosen;
9. Provide a final accounting of the before/after whole acreages and a determination of whether more or less habitat compensation is necessary, **as an addendum to the BRMIMP**;
10. All measures that shall be taken to avoid or mitigate temporary disturbances from construction activities;
11. Duration for each type of monitoring and a description of monitoring methodologies and frequency;
12. Performance standards to be used to help decide if/when proposed mitigation is or is not successful;
13. All performance standards and remedial measures to be implemented if performance standards are not met;
14. A process for proposing plan modifications to the CPM and appropriate agencies for review and approval;
15. All final versions of required plans including ~~BRMIMP, WEAP,~~ **Vegetation Restoration and Enhancement Plan**, ~~Weed Control Plan~~, Nesting Bird Management Plan, Crotch's Bumble Bee Mortality Reduction and Relocation Plan, California Tiger Salamander Relocation Plan, Burrowing Owl Mortality Reduction Plan, American Badger Eviction Plan, Post BESS Fire Monitoring and Management Plan, Compensation Lands Management Plan, and all other individual biological mitigation and/or monitoring plans associated with the project shall be included as attachments; and

16. A requirement to submit any sightings of any special-status species that are observed on or in proximity to the project site, or during project surveys, to the California Natural Diversity Database (CNDDB), per CDFW requirements; and
17. Final Report. The project owner shall provide a construction termination report to the CPM after the project is fully completed. The construction termination report at a minimum shall contain, list of all species, including fish or amphibians, relocated from the project area, photographs of work area, low water crossing, and photographs of the site after the project is completed.

Verification: The project owner shall submit the draft BRMIMP to the CPM for review and approval at least 45 days prior to start of any site mobilization. The project owner shall provide the final BRMIMP to the CPM at least 10 days prior to start of any site mobilization.

If any federal permits have not yet been received when the final BRMIMP is submitted, these permits shall be submitted to the CPM within 5 days of their receipt, and the BRMIMP shall be revised or supplemented to reflect the permit condition(s). The project owner shall submit to the CPM and CDFW the revised or supplemented BRMIMP within 10 days following the project owner's receipt of any additional federal permits. Any changes to the approved BRMIMP shall be submitted to the CPM at least 10 days prior to implementation and must be approved by the CPM in consultation with CDFW prior to implementation.

Implementation of BRMIMP measures shall be reported in the Monthly Compliance Reports by the DB (e.g., survey results, construction activities that were monitored, non-compliance incidences and resolution, species observed, etc.). Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written construction termination report identifying which items of the BRMIMP have been completed, a summary of all CPM-approved modifications to mitigation measures made during the project's site mobilization and construction activities, and which mitigation and monitoring items are still outstanding.

To verify that the extent of construction disturbance does not exceed that described in these conditions, the project owner shall submit aerial photographs, at an approved scale, taken before and after construction to the CPM and CDFW. The first set of aerial photographs shall reflect site conditions prior to any preconstruction site mobilization and construction activities and shall be submitted prior to initiation of such activities. The second set of aerial photographs shall be taken subsequent to completion of construction and shall be submitted to the CPM for review and approval, and CDFW for review and comment, no later than 30 days after completion of construction. The project owner shall also provide a final accounting in whole acres of vegetation communities/cover types

present before and after construction no later than 30 days after completion of construction. Construction acreages shall be rounded to the nearest acre. The project owner shall also provide GIS shapefiles of all pre- and post-disturbance areas no later than 30 days after completion of construction.

BIO-7 General Impact Avoidance and Minimization Measures. The project owner shall ensure implementation of the following measures during site mobilization, construction, operation, and closure to manage their project site and related facilities in a manner to avoid or minimize impacts to biological resources:

1. Limit Disturbance Areas. The boundaries of all areas to be temporarily or permanently disturbed (including staging areas, access roads gen-tie line pole locations, etc.) shall be delineated with stakes and flagging prior to any site mobilization, vegetation clearing, ground disturbance, or construction activities in consultation with the DB. All construction sites, laydown areas, and parking locations shall be fenced to prevent potential access to the site by small animals. Fencing shall not be required around generation tie-line pole locations; however full-time biological monitoring would be required for work in any unfenced areas. Any deviations of the fencing requirements shall be approved by the CPM. Spoils shall be stockpiled away from the edges of drainages and stabilized to ensure sediment laded water does not enter the drainage. All disturbances, vehicles, and equipment shall be confined to the flagged areas.
2. Minimize Road Impacts. New and existing roads that are planned for construction, widening, or other improvements shall not extend beyond the flagged impact area as described above. All vehicles passing or turning around would do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, the route shall be clearly marked (i.e., flagged and/or staked) prior to the onset of construction.
3. Minimize Traffic Impacts. Vehicular traffic during project site mobilization, construction and operation shall be confined to existing routes of travel to and from the project site, and cross-country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit shall not exceed 15 miles per hour on paved or stabilized unpaved roads within the project area, on maintenance roads for linear facilities, or on access roads to the project site. Project vehicles shall abide by posted speed limits on paved public roads outside the project site.
4. Inspect Pipes and Trenches. At the end of each workday, the DB, Biological Monitor, and/or site personnel (approved and trained by the DB, as described under **BIO-2**) shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled. If site

personnel are inspecting trenches, bores, and other excavations and wildlife is trapped, they shall immediately notify the DB and/or Biological Monitor.

If backfilling is not feasible, all trenches, bores, and other excavations shall be covered **or fenced** to prevent wildlife entrapment, or sloped at a 3:1 (~~protected: impacted~~) **(run:rise)** ratio at the ends to provide wildlife escape ramps; **a 2:1 slope may be used only with written approval by the CPM. The DB shall provide site-specific written justification demonstrating that the 2:1 slope is both necessary and protective of the species present to the CPM for review and approval.**

Should wildlife become trapped, the DB or Biological Monitor shall remove and relocate the animal to a safe location. Any wildlife encountered during **site mobilization and/or** construction shall not be harassed and shall be allowed to leave the construction area unharmed. If needed, a qualified biologist possessing the appropriate state and federal scientific collecting permits may guide, handle, or capture an individual non-CESA-listed wildlife species to move it to a nearby safe location within nearby refugium, or it shall be allowed to leave the project area of its own volition. Capture methods may include hand, dip net, lizard lasso, snake tongs and snake hook.

5. **Prevent Wildlife Entrapment.** All pipes, tubes, ducting, or other cavities, 2 inches or greater, shall be capped to prevent wildlife entrapment. Portable toilets shall require vent pipes to be screened to prevent cavity using birds from becoming trapped in the pipe.
6. **Unexpected Wildlife.** The DB or Biological Monitor shall ensure that any unexpected special-status wildlife species such as California condor, or other species are fully avoided during **site mobilization and/or** construction. Should an unexpected wildlife species be detected a non-disturbance buffer shall be implemented based on the species ecology or species-specific condition of certification, and work shall be suspended in that area until the animal leaves on its own volition. Any observations of unexpected wildlife should comply with notification requirements provided in **BIO-2**, Item 6.
7. **Prepare a Wildlife Protection and Relocation Plan.** The project owner, in coordination with the DB, shall prepare a Wildlife Protection and Relocation Plan (WPRP) and submit to the CPM for review and approval, prior to start of site mobilization. The WPRP shall provide guidance and protocols when avoiding or handling common and sensitive species that are located within the project area. The WPRP shall include measures for handling rattlesnakes or other snakes found in or near work areas and access roads and provide these guidelines to all Biological Monitors, safety staff, and other personnel. Killing or harming rattlesnakes or other wildlife is not authorized, unless there is an immediate and unavoidable threat to human safety and relocation is not feasible. The WPRP shall include methods to salvage or relocate

common and sensitive wildlife during ground disturbance activities including clearing, grubbing, and grading operations when feasible to off-site habitat or out of harm's way. Specific plans for the handling of Crotch's bumble bee, California tiger salamander, California red-legged, and burrowing owl are included in COCs **BIO-10, BIO-11, BIO-12, and BIO-18**. The species shall be salvaged or relocated when conditions would not jeopardize the health and safety of the DB or Biological Monitor.

8. Minimize Lighting Impacts. To minimize adverse effects of artificial light on wildlife, exterior lighting fixtures associated with project construction shall be downward facing, fully shielded, and designed and installed to minimize backscatter, reflection, minimize skyward illumination, minimize spillover onto adjacent wildlife habitat. Lights used shall be lower on the light spectrum (lower Kelvins with fewer short-wavelength blue light emissions).
9. Use Non-toxic Soil Binders. Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants and shall be approved by the CPM prior to use.
10. Minimize Impacts from Pest Control. Anticoagulants shall not be used for rodent control. Pre-emergent and other herbicides with documented residual toxicity shall not be used. Herbicides shall be applied consistent with federal, state, and local laws and according to the guidelines for wildlife-safe use of herbicides in Item 20.
11. Minimize Standing Water. Water applied to dirt roads and construction areas (trenches or spoil piles) for dust abatement shall use the minimal amount needed to meet safety and air quality standards to prevent the formation of puddles, which could attract predators of special-status species to construction sites. During **site mobilization and/or** construction, site personnel shall patrol these areas to ensure water does not puddle and attract crows and other wildlife to the site, and shall take appropriate action to reduce water application rates where necessary.
12. Handling of Road-killed Animals. Report all inadvertent deaths of special status species to the appropriate project representative, including roadkill. Species name, identifiable physical characteristics of the animal (sex, age class, length, weight), and other pertinent information shall be noted and reported in the Monthly Compliance Reports. During **site mobilization and/or** construction, injured or dead animals detected by personnel in the project area shall be reported immediately to the DB and/or Biological Monitor, who shall remove the carcass or injured animal promptly. During operations, the Environmental Compliance Manager, or equivalent position, for the project owner shall be notified and they shall contact the DB and/or Biological Monitor for further instructions. The DB shall notify the project owner, the CPM, and CDFW directly of any special-status species injury or mortality. Notifications shall occur immediately and no later than the following morning, or Monday morning in the case of a weekend, or the next

business day in the case of a state or federal holiday per **BIO-2**.

Additionally, the DB shall contact the CPM, CDFW and/or USFWS within 1 working day of receipt of the carcass for guidance on disposal or storage of the carcass. The project owner shall follow instructions that are provided by the appropriate agency contact. The veterinary fees for the treatment of injured wildlife shall be covered by the project owner for project-related injuries or wildlife found injured on the project site.

13. Minimize Spills of Hazardous Materials. All vehicles and equipment shall be maintained in proper working conditions to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials or wastes. The DB and/or Biological Monitor shall be informed immediately of any hazardous spills. Any on-site servicing of vehicles or construction equipment shall take place only at a designated area approved by the DB. Service/maintenance vehicles shall carry a bucket and pads to absorb leaks or spills.
14. Remove Trash Weekly. During construction all trash and food-related waste including micro-trash shall be placed in secure, self-closing containers to prevent access by wildlife and removed weekly or more frequently from the site. Workers shall not feed wildlife or bring pets to the project site.
15. No Firearms. Except for law enforcement or security personnel, no workers or visitors to the site shall bring firearms or weapons to the project site.
16. Avoid Use of Toxic Substances. Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants.
17. Minimize Disturbance Areas. Limit the size of any vegetation and/or ground disturbance to the minimum area needed for safe completion of project activities, and limit ingress and egress to defined routes; Vegetation marked for protection may only be trimmed with hand tools to the extent necessary to gain access to work sites. The project owner shall ensure that mower blade heights are set no lower than 4 inches, unless otherwise approved by the CPM in writing.
18. Weed and Monofilament Free Wattles. All materials used for erosion control and sediment barriers (e.g. straw, hay bales, and seed) shall be certified as weed free. Monofilament plastic shall not be used for erosion control. In addition, non-native species shall not be used in landscaping plans and erosion control;
19. Consistent with APLIC Guidelines. The generation tie-line and all associated components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC's) Suggested Practices for Avian Protection on Power Lines (APLIC 2006) and Reducing Avian Collisions with Power Lines (APLIC 2012), or most recent APLIC guidance, to reduce the likelihood of large bird electrocutions and collisions;

20. Herbicide and Pesticide Use. During **site mobilization and/or** construction and operation, the project owner shall conduct pesticide management in accordance with standard BMPs. The BMPs shall include non-point source pollution control measures. The project owner shall use a licensed herbicide applicator and obtain recommendations for herbicide use from a licensed Pest Control Advisor. The project owner shall minimize use of rodenticides and herbicides in the project area and prohibit the use of chemicals and pesticides known to cause harm to non-target plants and wildlife. Prior to any such use of herbicides or pesticides, the project owner shall consult with the CPM and may only use herbicides or pesticides upon the CPM's express written approval for each type of use. The project owner shall ensure that any herbicide use only occurs when Crotch's bumble bees are dormant, or when flowers within the application area are no longer in bloom, unless authorized by the CPM to control weeds.

The project owner shall not use pesticides, including herbicides, insecticides, fungicides, or rodenticides within the project area without prior consultation with and written approval from the CPM. Herbicides may be used if needed for noxious weed control or habitat restoration and enhancement.

Areas identified as sensitive by the DB, or with suspected occupied nesting or denning habitats, shall not be treated with pesticides or herbicides. Through this consultation, the CPM, in coordination with CDFW, may approve limited use of herbicides through targeted spray (e.g., backpack sprayer) at a buffer from covered species habitat. Herbicide-mixing sites shall be located in areas devoid of vegetation, and where there is no potential of a spill reaching a vegetated area or waters of the state. Use of neonicotinoid pesticides will not be approved by the CPM within the project area. If approved by the CPM, application would be in accordance with federal, state, and Alameda County regulations, as directed by the manufacturer, and shall be applied by a California state-licensed pesticide applicator.

The project owner shall ensure that pesticide use only occurs when Crotch's bumble bee are dormant or when flowers are no longer in bloom. Pesticides (including insecticides) may only be applied post construction in indoor areas where contact with wildlife and foraging Crotch's bumble bee could not occur. **All pesticide use shall strictly adhere to label requirements established by the U.S. Environmental Protection Agency and shall comply with all applicable federal, state, and local regulations and application shall be conducted in a manner that avoids adverse effects to special-status species and their habitats.** The project owner shall only use pesticides for which a "no effect" determination has been issued by the EPA's Endangered Species Protection Program for any species likely to occur within the project area, per **BIO-13** if rodent control must be conducted, zinc phosphide or an equivalent product shall be used.

21. Minimize Stormwater Impacts. Standard best management practices (BMPs) from the project Storm Water Pollution Prevention Plan shall be implemented during all phases of the project (construction, operation, and decommissioning) where storm water run-off from the site could enter adjacent drainages. Sediment and other flow-restricting materials shall be moved to a location where they shall not be washed back into the jurisdictional waters. All disturbed soils within the project site shall be stabilized to reduce erosion potential, both during and following construction. Impacts from grading shall be minimized by ensuring that existing drainage areas and patterns be maintained in their pre-project conditions, as feasible.
22. Storage of Project Materials. Work crews shall store all project materials, tools, hardware, equipment and all loose items in a manner that shall prevent their removal or ingestion by California condors and other wildlife.

Verification: All general impact avoidance and minimization measures shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported by DB in the Monthly Compliance Reports during construction and reported in Annual Compliance Reports during operation, including but not limited to the requirements cited above and in **BIO-2**.

The project owner shall submit the draft WPRP to the CPM for review and comment at least 45 days prior to the start of project site mobilization. The project owner shall provide the final WPRP to the CPM for approval at least 10 days prior to project site mobilization.

Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written construction termination report identifying how measures were completed.

BIO-8 Vegetation Restoration and Enhancement Plan. The project owner shall develop and implement a Vegetation Restoration and Enhancement Plan (Restoration Plan) to restore 6.7 acres of habitat subject to temporary impacts. The restoration activities shall not be implemented until the project owner has received written approval from the CPM of the Restoration Plan. The Restoration Plan shall be prepared in consultation with the DB or qualified restoration specialist and shall include, but not be limited to, the following:

1. Performance Standards. The Restoration Plan shall include the following performance standards that project owner shall meet:
 - a. Gravel and other non-native substrate shall be removed from restoration areas;
 - b. To the maximum extent feasible, topsoil shall be salvaged from within on-site work areas prior to construction. Imported fill soils shall be limited to weed-free and pathogen-free topsoil similar in texture, chemical composition and pH to soils found at the project area;

- c. Minor re-contouring may be conducted; however, project owner shall limit grading compaction, fill, and other earthmoving activities to the project Area. Soils shall be protected from wind erosion using a biodegradable erosion control blanket or appropriate mulch cover, or other appropriate methods approved by the CPM, until vegetation is established. Seed shall be applied in the early fall, typically between October 15 and October 31, or outside of this window with CPM approval. If feasible, seed shall be applied immediately prior to the first rain event. Mulch and seed shall be weed free and pathogen free;
 - d. Seed mixes shall be approved by the CPM prior to application and shall include a mix of locally native species and non-native forage species (no species designated by Cal-IPC as high or moderate invasive species may be used), including diverse assemblages of native and non-native flora, with an emphasis on native bunchgrasses and other grassland species including local, native wildflowers. Seed may be collected from within the Project Area. Additional seed shall be sourced from within 50 miles of the Project Area, and within level 4 eco-regions as seed zones, to the extent feasible (original genetic material collected within this radius); however, the seed may be purchased from a seed farm outside of this area. For seeding and mulching exposed slopes, the seed blend may include one or two sterile non-native perennial grass species. Seed mixes shall not have been treated with pesticides and shall be pathogen-free.
 - e. The project owner shall complete seeding prior to winter rains, but no later than October 31 of the year of the impact (or by December 31 of the year of the impact with prior approval from the CPM). At the discretion of the CPM, all exposed areas where seeding is unsuccessful after 90 days shall receive appropriate soil preparation and a second application of seeding, straw, or mulch as soon as is practical on a date mutually agreed upon. Straw and/or mulch used shall be weed and pathogen free.
 - f. No more than 15 percent of the vegetation shall consist of species designated as high or moderate invasive plants in the Cal-IPC California Invasive Plant Inventory Database (CAL-IPC). If the presence of invasive species exceeds this threshold, the project owner is responsible for conducting appropriate control activities in coordination with the CPM.
2. Monitoring and Maintenance. The project owner is responsible for monitoring and maintaining the restored areas for a period of three years or until the Restoration Plan success criteria have been met, whichever is longer. Following the initial six-month period after restoration activities conclude, the project owner shall submit a brief monitoring report (10 pages or less, not including figures) to the CPM. This report detailing vegetation establishment,

percent invasive plant cover, and other observations regarding restoration success.

The **annual** reports shall include the following: i) monitoring results (including methods and a discussion of modifications since the previous monitoring period, **if applicable**); ii) evaluation of conditions relative to success criteria; iii) remedial measures identified and implemented following the previous monitoring period; and iv) overall site progress. Any proposed changes to the performance criteria or timelines shall require the CPM's written approval. The report shall include photos from designated photo stations at the mitigations site. Annual reports must be submitted thereafter.

If the survival and/or cover requirements are not meeting the performance standards outlined in Item 5, the project owner is responsible for replacement planting, additional watering, weeding, invasive plant eradication, or any other practice necessary to achieve these requirements. Project owner shall submit annual restoration reports by December 31 to the CPM until the standards have been met. Replacement plantings shall be monitored with the same survival and growth requirements for three years after planting.

3. **Pollen and Nectar Resources**. The Restoration Plan shall include a list of pollen and nectar resources that specifies a palette of drought-tolerant, locally native (eastern San Francisco Bay Area) species of which at least three species can be expected to be blooming at any given time throughout the active season for Crotch's bumble bee (approximately February 1 through October 31). Nectar- and pollen-producing plants that may be used by Crotch's bumble bee include, but are not limited to, the genera *Asclepias*, *Chaenactis*, *Lupinus*, *Phacelia*, and *Salvia*, and plants in the families Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, Hydrophyllaceae, Plantaginaceae, Onograceae, Papaveraceae, Polygonaceae, Boraginaceae, including non-native flowering plants. The plan shall also identify a revised list of locally native pollen and nectar resources appropriate for incorporation in the grassland seed mix to be used for restoration. The Restoration Plan shall specify that pollen and nectar resources imported to the project area shall not have been treated with pesticides and shall be pathogen-free.
4. **Photo Monitoring**. The DB shall establish no less than 10 photo monitoring stations to provide representative views of project construction and restoration activities. Photo monitoring station results shall contribute to the CPM's assessment of temporary impacts and restoration work; therefore, the DB should ensure that photo monitoring stations numbers and locations are sufficient to document temporary impacts and restoration success. Photo monitoring shall be done as follows:

Stations should be located in areas that allow for unobstructed views and a field of vision of approximately 2,000 feet.

- a. At least one photograph shall be taken at all stations prior to ground-disturbing activities, and each month thereafter until construction and initial restoration are complete. Photo documentation of restoration success shall occur every three months following initial restoration until restoration success criteria are reached.
- b. Photo monitoring station locations shall be provided to the CPM in a geographic format with the coordinate system and horizontal error identified. If the CPM determines, in coordination with the DB (as necessary), that additional monitoring stations are necessary, the locations shall be added to the inventory of photo monitoring stations.

During each photo monitoring cycle, the project owner shall take photographs at all stations within two consecutive days.

Verification: The project owner shall submit a draft Vegetation Restoration **and Enhancement** Plan to the CPM for review and approval at least 30 days prior to the start of restoration activities, or within 6 months of certification, whichever occurs first.

After the first 6 months of restoration activities, the project owner shall submit to the CPM for review and approval a monitoring report. The project owner shall submit an Annual Restoration report to the CPM for review and approval before December 31st each year until all performance standards are met.

BIO-9 Special-Status Plant Avoidance Measures. The DB and/or Biological Monitor(s) shall conduct floristic pre-construction surveys for special-status plants prior to the start of ground or vegetation disturbing project activities, including site mobilization or construction. **If site mobilization and/or construction is scheduled to occur before the blooming period for special-status plant species, floristic pre-construction surveys shall be conducted prior to site mobilization and/or construction. If the blooming period occurs after the scheduled start of site mobilization and/or construction, survey timing shall not delay such activities, and the CPM may accept surveys from prior appropriate survey years. For big tarplant, focused surveys shall be conducted during the species' blooming period, if not otherwise covered by floristic surveys.**

Surveys shall be conducted with the appropriate protocols approved by the CPM during the appropriate season in all suitable habitat within the project disturbance areas and access roads and within 100 feet of disturbance areas, where accessible. Surveys shall be conducted by qualified botanists or biologists approved by the CPM, pursuant to **BIO-1** and/or **BIO-3**.

The field surveys and reporting shall be consistent with current CDFW botanical field survey protocol (CDFW 2018) or more recent updates. With respect to areas potentially directly disturbed during the construction of the generation tie-line, protocol surveys shall be consistent with current CDFW botanical field survey protocol (CDFW 2018) and are required for areas that have not previously been surveyed by the project owner to date. During each year of construction, and prior to site mobilization and ground disturbance, the project owner shall identify proposed survey areas to the CPM for review and approval prior to initiating annual botanical surveys. The survey plan shall identify proposed survey areas and the rationale for any areas not proposed for surveys. The survey plan shall include maps, at an approved scale, clearly defining each proposed survey area.

Any special-status plant species (including state and federally listed threatened or endangered species, candidates for listing, and all CRPR 1A, 1B, 2, 3, and 4 ranked species) detected shall be documented in the pre-construction survey reports. The results shall be submitted to CPM for review and approval, as well as CDFW and USFWS (should federally listed plants be discovered). The reports shall describe any conditions that may have prevented target species from being located or identified, even if they are present as dormant seeds or below-ground root stock (e.g., poor rainfall, disturbance, or wildfire). In some cases, follow-up surveys may be necessary to adequately evaluate impacts. Pre-construction field survey reports shall include maps, at an approved scale, showing locations of survey areas, reference populations, and special-status plants.

The results of these surveys would inform the implementation of appropriate avoidance and minimization measures, as outlined below:

1. Avoidance. Where feasible, any special status plant shall be protected by establishment of a minimum 50-foot non-disturbance buffer. The buffer area shall be clearly staked, flagged, and signed for avoidance prior to the beginning of site mobilization and maintained throughout the construction phase. The buffer zone shall be of sufficient size to prevent direct or indirect disturbance to the plants from site mobilization and construction activities, erosion, inundation, or dust.

The final buffer distance shall be determined by a qualified biologist or botanist, approved under **BIO-1** and/or **BIO-3**, based upon the proposed use of the immediately adjacent areas and the plant's ecological requirements (e.g., sunlight, moisture, shade tolerance, water availability, edaphic physical and chemical characteristics).

For tree or shrub species, the buffer shall be no less than twice the drip line (i.e., two times the distance from the trunk to the canopy edge) to protect and preserve the root systems. For herbaceous species, the buffer shall be a minimum of 50 feet from the outer edge of the occupied habitat or the individual.

If a smaller buffer is necessary due to other site-specific constraints, the project owner, in coordination with the DB or qualified botanist shall develop and implement site-specific protection measures, such as monitoring, to avoid the impacts to the species, if possible. The measure shall be subject to approval from the CPM, in consultation with CDFW. Such measures may include placing decking or pads above dormant species to prevent their loss and limit soil compaction.

2. Compensatory Mitigation. If avoidance is not feasible, the project owner shall mitigate impacts to any state or federally listed plants that are subject to disturbance from project activities. Should a ~~S~~state listed plant be subject to disturbance the project owner would be required to implement standard categories of mitigation applicable for take coverage through CESA which includes seed salvage, propagation, and the preservation of lands occupied by the species. The measures shall be subject to approval from the CPM, in consultation with CDFW.

In addition, the project owner shall provide compensatory mitigation for CRPR 1 or 2 ranked species if project activities result in the loss of more than 10 percent of a defined occurrence due to direct or indirect impacts to soils, vegetation, or water transport that could affect the species' viability.

An occurrence, or local population, shall be defined as the number of individuals occurring on the project site or all plants within a 0.25-mile buffer.

- a. For perennial species, percent avoidance shall be based on population size or number of individuals avoided.
- b. For annuals, avoidance shall be based on occupied habitat, which include habitat containing the species' micro-habitat preferences (e.g., such as "soil types and moist depressions").

Occupied habitat shall be calculated on both the project site and compensation lands as including each special status plant occurrence and a surrounding 100-foot buffer area to account for seed bank. The project owner shall provide compensation lands at the following minimum ratios:

- a. 3:1 (protected: impacted) for any state or federally listed plants ~~and CRPR 1 or 2 ranked species~~; and
 - b. 2:1 (protected: impacted) ratio for CRPR 1 or 2 ranked species.
3. Compensatory Mitigation by Acquisition. The requirements for the acquisition, initial protection and habitat improvement, and long-term maintenance and management of special-status plant compensation lands shall include the following:

Selection Criteria for Acquisition Lands. The compensation lands selected for acquisition may include any of the following three categories:

- i. Occupied Habitat, No Habitat Threats. The compensation lands selected for acquisition shall be occupied by the target plant population and shall be characterized by site integrity and habitat quality that are required to support the target species and shall be of equal or better habitat quality than that of the affected occurrence. The occurrence of the target special-status plant on the proposed acquisition lands should be viable, stable, or increasing (in size and reproduction).
 - ii. Occupied Habitat, Habitat Threats. Occupied compensation lands characterized by habitat threats may also be acquired if the population could be reasonably expected to recover with habitat restoration efforts (e.g., OHV or grazing exclusion, or removal of invasive non-native plants) and is accompanied by a Habitat Enhancement/Restoration Plan.
 - iii. Unoccupied but Adjacent. The project owner may also acquire habitat for which occupancy by the target species has not been documented, if the proposed acquisition lands are adjacent to occupied habitat. The project owner shall provide evidence that acquisitions of such unoccupied lands would improve the defensibility and long-term sustainability of the occupied habitat by providing a protective buffer around the occurrence and by enhancing connectivity with undisturbed habitat. This acquisition may include habitat restoration efforts where appropriate, particularly when these restoration efforts would benefit adjacent habitat that is occupied by the target species.
4. Review and Approval of Compensation Lands Prior to Acquisition. The project owner shall submit a formal acquisition proposal that discusses the suitability of the proposed parcel(s) as compensation lands for special-status plants in relation to the criteria listed above. The formal acquisition proposal shall be submitted for review and approval to the CPM, in coordination with CDFW and/or USFWS.
5. Compensation Lands Management Plan. The project owner shall prepare a management plan for the compensation lands in consultation with the entity that would be managing the lands. The objective of the management plan shall be to support and enhance the long-term viability of the target special status plant occurrences. The Compensation Lands Management Plan shall be submitted for review and approval to the CPM, in coordination with the CDFW and/or USFWS.
6. Integrating Special-Status Plant Mitigation with Other Mitigation Lands. If all or any portion of the acquired compensation lands for Crotch's bumble bee, burrowing owl, waters of the state, or other required compensation lands meets the criteria above for special-status plant compensation lands, the portion of the other species or habitat compensation lands that meets any of the criteria above may be used to fulfill that portion of the obligation for special-status plant mitigation.

7. Compensation Lands Acquisition Requirements. The project owner shall comply with the following requirements relating to acquisition of the compensation lands after the CPM has approved the proposed compensation lands:
- a. Preliminary Report. The project owner, or an approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary or requested documents for the proposed compensation land to the CPM and CDFW. All documents conveying or conserving compensation lands and all conditions of title are subject to review and approval by the CPM. For conveyances to the State, approval may also be required from the California Department of General Services and the Wildlife Conservation Board.
 - b. Title/Conveyance. The project owner shall acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both fee title and conservation easement, as required by the CPM. Any transfer of a conservation easement or fee title shall be to CDFW if accepted by CDFW, a non-profit organization qualified to hold title to and manage compensation lands (pursuant to California Government Code section 65965), or other public agency approved by the CPM. If an approved non-profit organization holds fee title to the compensation lands, a conservation easement shall be recorded in favor of CDFW or another entity approved by the CPM. If an entity other than CDFW holds a conservation easement over the compensation lands, the CPM may require that CDFW or another entity approved by the CPM, in consultation with CDFW, be named a third-party beneficiary of the conservation easement. The project owner shall obtain approval of the CPM of the terms of any transfer of fee title or conservation easement to the compensation lands.
 - c. Initial Protection and Habitat Improvement. The project owner shall fund activities that the CPM requires for the initial protection and habitat improvement of the compensation lands. These activities would vary depending on the condition and location of the land acquired, but may include trash removal, construction and repair of fences, invasive plant removal, and similar measures to protect habitat and improve habitat quality on the compensation lands.

The habitat improvement funds may be held and expended by a qualified non-profit organization, CDFW or another public agency, provided that the entity is qualified to manage compensation lands (pursuant to California Government Code section 65965) and is authorized to participate in implementing the required activities on the compensation lands, upon approval of the CPM, in consultation with CDFW. If CDFW

accepts fee title to the compensation lands, the project owner shall provide habitat improvement fund directly to CDFW or its designee.

- d. **Calculate the Endowment Funds Deposit.** ~~Property Analysis Record.~~ Upon identification of the compensation lands, the project owner shall conduct an **endowment assessment (equivalent to a** ~~Property Analysis Record (PAR))~~ ~~or PAR-like analysis~~ to establish the appropriate amount of the long-term maintenance and management fund to pay the in-perpetuity management of the compensation lands. The **endowment assessment (PAR or PAR-like analysis)** must be approved by the CPM before it can be used to establish funding levels or management activities for the compensation lands.
- e. **Long-term Maintenance and Management Funding.** The project owner shall deposit a capital long-term maintenance and management fee in a dedicated interest-bearing account held by governmental entity, special district, or nonprofit organization or other CPM approved entity, in the amount determined through the **endowment assessment (Property Analysis Record (PAR) or PAR-like analysis)** conducted for the compensation lands. The CPM, in consultation with CDFW, may designate another non-profit organization to hold the non-refundable, long-term maintenance and management fee if the organization is qualified to manage the compensation lands in perpetuity. If CDFW takes fee title to the compensation lands, CDFW shall determine whether it would hold the long-term management fee in the special deposit fund or designate another entity to manage the long-term maintenance and management fee under CDFW oversight.

In addition to the costs listed above under Measures Items a-d, the project owner shall be responsible for all other costs related to acquisition of compensation lands and conservation easements, including but not limited to: title and document review costs incurred from other state agency reviews, overhead related to providing compensation lands to CDFW or an approved third party, escrow fees or costs, environmental contaminants clearance, and other site cleanup measures.

- f. **Mitigation Security.** The project owner shall provide financial assurances to the CPM to guarantee that an adequate level of funding is available to implement any of the mitigation measures required by this condition that are not completed prior to the start of site mobilization and ground-disturbing activities.

Financial assurances shall be provided to the CPM, and copy to the CDFW, in the form of an irrevocable letter of credit, a pledged savings account or another form of security ("Security") approved by the CPM. The actual costs to comply with this condition will vary depending on the actual costs of acquiring compensation habitat, the costs of initially improving the habitat,

and the actual costs of long-term management as determined by a PAR report.

Prior to submitting the evidence of Security, the project owner shall obtain the CPM's approval of the form of the Security. The CPM may draw on the Security or approve of the security beneficiary to draw on the security, if the CPM determines the project owner has failed to comply with the requirements specified in this condition. Funds from the Security may solely be used for implementation of the requirements of this condition. Use of the Security by the CPM or other approved entity does not relieve the project owner of its obligations under this condition if the Security is insufficient to fully cover required measures. Any unused portion of Security shall be returned to the project owner, in whole or in part, upon successful completion of the associated requirements in this condition.

8. Monitoring. Annual monitoring and documentation of salvaged plants shall include, but not be limited to, details of plants salvaged, stored, and transplanted (salvage and transplanting locations, species, number, size, condition, etc.); adaptive management efforts implemented (date, location, type of treatment, results, etc.); and evaluation of success of transplantation. Transplanted species may not be placed in areas subject to future land disturbance and must be protected by a conservation easement that prohibits disturbance and ensures conservation of the site in perpetuity. Conservation lands would be acquired consistent with the specifications identified above under Section **Item 7b**. Title /Conveyance.

Annual monitoring shall occur for a minimum of three years ~~post-~~**following** relocation to ensure the **salvaged or propagated** plants become established and are not at risk from weed **invasions** or other impacts, unless **a reduced monitoring period is** approved by the CPM. The results of annual monitoring shall be reported in an Annual Monitoring Report **for each year of the monitoring period.** ~~specific to salvaged or propagated plants for a minimum of three years of annual reports.~~

If, upon review of the Annual Monitoring Reports, the CPM determines that success criteria have not been met, additional monitoring shall be required until such criteria are achieved. ~~Additional monitoring may be necessary if determined upon review of the annual reports by the CPM that the success criteria are not met.~~ **The project owner shall submit separate annual salvage-monitoring and restoration-monitoring reports, unless the CPM approves submission of a combined report. Any approved combined report shall fully address and document all requirements of both monitoring programs, with no reduction in scope, detail, or reporting frequency. The CPM retains discretion to require separate reports at any time.**

Success criteria shall include maintaining habitat occupied by the impacted species at the identified **specified** ratios and **sustaining the required** number of plants for any occupied habitat affected by the project.

9. **Propagation and Relocation Strategy.** If salvage and relocation is not believed to be feasible for special-status plants, then the project owner shall consult with California Botanic Garden, or another qualified entity, to develop an appropriate propagation and relocation strategy, based on the life history of the species affected. The Special-Status Plant Propagation and Relocation Plan shall include at minimum: (a) collection and salvage measures for plant materials (e.g., cuttings), seed, or seed banks, to maximize success likelihood; (b) details regarding storage of plant, plant materials, or seed banks; (c) location of the proposed propagation facility, and proposed methods; (d) time of year that the salvage and other practices will occur; (e) success criteria; and (f) a detailed monitoring program, commensurate with the plan's goals. The draft Special-Status Plant Propagation and Relocation Plan shall be submitted to the CPM for review and approval and to the CDFW for review and comment. The final plan approved by the CPM shall be submitted prior to any salvage or relocation.

Verification: The project owner shall submit the proposed annual survey plan 45 days prior to commencing the surveys to the CPM for review and approval. The project owner shall submit the results of each annual survey to the CPM for review and approval no more than 45 days after the completion of the surveys.

Should mitigation be required the project owner shall **provide verification that the required acquisition, protection and transfer of all HM lands has occurred, and record any required conservation easements no later than 18 months from the date of start of site mobilization, even if a Security is provided. If a Security is provided, the project owner shall provide the approved Security at least 30 days prior to the start of site mobilization activities.** ~~-submit the Habitat Enhancement/Restoration Plan, Formal Acquisition Proposal, Compensation Lands Management Plan, Recent Preliminary Title Report, and Property Analysis Record (PAR) and Security to the CPM for review and approval and the CDFW/USFWS if applicable for review and comment no later than 45 days prior to construction.~~

If plant propagation is proposed as mitigation the project owner shall submit the Special-Status Plant Propagation and Relocation Plan to the CPM for review and approval and the CDFW/**and/or** USFWS, if applicable, for review and comment no later than 45 days prior to construction **site mobilization.**

The project owner shall submit the Annual Monitoring Reports to the CPM for review and approval no more than 30 days after each reporting period.

BIO-10 Crotch's Bumble Bee Measures for Take. The project owner shall implement the following measures to avoid, minimize and offset impacts to Crotch's bumble bee during site mobilization, construction, and operation:

The DB and/or Biological Monitor(s) shall conduct preconstruction surveys and monitoring for Crotch's bumble bee. Surveys shall be conducted by a qualified entomologist(s) or biologist(s) familiar with the life history and ecology of Crotch's bumble bee. All proposed surveyors shall be approved by the CPM, in coordination with the CDFW, pursuant to **BIO-1** and/or **BIO-3**.

Surveys shall cover all project work areas, including staging and parking areas. Surveys shall follow the non-invasive protocols established by CDFW in "Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species" or more recent CDFW-approved methods, as available (CDFW 2023).

1. Crotch's Bumble Bee Mortality Reduction and Relocation Plan. The project owner shall submit a Crotch's Bumble Bee Mortality Reduction and Relocation Plan to the CPM for review and approval, and to the CDFW for review and comment, prior to beginning any site mobilization or ground disturbing activities. The Crotch's Bumble Bee Mortality Reduction and Relocation Plan shall include a map of the project area indicating where Crotch's bumble bee are likely to occur; a detailed description of the survey methodology (survey details shall be in accordance with the Colony Active Period Season - Pre-Construction Survey described below under Item 3); bumble bee identification and handling methods; measures that would be implemented to minimize impacts to foraging bees during ground disturbing and vegetation removal activities; measures to minimize impacts to overwintering bees during overwintering habitat removal; and measures to minimize impacts to bumble bee nests that are discovered during project activities. The plan shall identify nest relocation techniques and locations where Crotch's bumble bee nests would be relocated to; an assessment of the habitat and floristic resources found within the relocation sites; and a detailed description of the relocation process including method of removal, transport, and relocation.

The Mortality Reduction and Relocation Plan shall provide the name and contact information for a native bumble bee researcher who would assist and/or consult on techniques to relocate Crotch's bumble bee nests and the procedure for notification, collection, and salvage of Crotch's bumble bee carcasses. Only the CPM-approved DB(s), or personnel following direction from and under the supervision of the CPM-approved DB(s), are authorized to handle and transport Crotch's bumble bee individuals and Crotch's bumble bee nests for salvage. Handling of Crotch's bumble bee individuals and nests by any personnel not specifically authorized by the CPM is prohibited.

Upon written approval of the Crotch's Bumble Bee Mortality Reduction and Relocation Plan by the CPM, it shall be implemented and remain in effect for

the duration of the project license. The plan may be updated by the project owner, in consultation with and subject to the approval of the CPM, to reflect best available science, address unanticipated issues associated with implementation, or update mitigation and conservation strategies. In such cases, the CPM will contact the project owner to discuss needs to update the plan. Any proposed changes to the Crotch's Bumble Bee Mortality Reduction and Relocation Plan shall be submitted, in writing, to the CPM for approval prior to the implementation of any proposed modifications.

2. Overwintering Season Surveys (Pre-Construction and During Operation). If initial ground disturbing construction activities in any given work area occurs during the overwintering season (November 1 through January 31), the CPM approved DBs(s) and/or Biological Monitor(s) shall conduct overwintering season surveys within areas of suitable habitat ~~(i.e., where vegetation, and floral resources occur)~~ in each area planned for project activities no more than 10 days in advance of vegetation removal or ground disturbance in that area of the project site. If ground disturbing activities during operation occur within areas of suitable habitat ~~(i.e., where vegetation, and floral resources occur)~~ during the overwintering season, the CPM-approved DB(s) shall conduct overwintering season surveys **described below** throughout the project site in areas planned for ground disturbance no more than 10 days in advance of ground or vegetation removal activities, unless approved by the CPM. **The CPM has authority, based on the timing, intensity, and location of mowing, to determine when mowing constitutes vegetation removal.**

Overwintering season surveys shall look for potential Crotch's bumble bee overwintering queens and hibernacula such as leaf litter, logs, and rodent burrows. If overwintering queens or other Crotch's bumble bee are found utilizing hibernacula during surveys, the project owner shall implement the Overwintering Site Buffer (see Item 5, below).

3. Colony Active Period Season (Pre-Construction and Pre-Maintenance). If initial ground disturbing construction activities, including site mobilization, in any given work area occur during the Colony Active Period (February 1 to October 31), the CPM-approved DB(s) and/or Biological Monitor(s) shall search for Crotch's bumble bee throughout the area planned for project activities in accordance with the Crotch's Bumble Bee Mortality Reduction and Relocation Plan.

Survey efforts for each area shall include at least two visual surveys consisting of meandering transects occurring no more than 10 days prior to the start of ground and vegetation disturbing activities in that area. The CPM approved DB(s) and/or Biological Monitor(s) shall conduct the surveys at least four days apart, with the second survey occurring within two days prior to starting ground and/or vegetation removal activities in that area. The

survey duration shall be appropriate to the size of the area planned for project activities plus 50 feet based on the metric of a minimum of one person-hour of searching per three acres of suitable habitat. The CPM approved DB(s) and/or Biological Monitor(s) shall conduct surveys between 7:00 AM and 6:00 PM (Pacific Time) on sunny days between 55- and 95-degrees Fahrenheit with sustained wind speeds measuring less than 10 miles per hour. Survey efforts are further detailed in the Crotch's Bumble Bee Mortality Reduction and Relocation Plan, and any variances to the Survey Protocol, including variances to survey temperatures or timing, shall be submitted to the CPM for review and approval prior to implementation.

If ground disturbing activities occur during operation within areas of suitable habitat during the colony active period, the CPM-approved DB(s) and/or Biological Monitor(s) shall search for Crotch's bumble bee throughout the areas planned for ground disturbance in accordance with the Crotch's Bumble Bee Mortality Reduction and Relocation Plan.

If ground disturbing activities are halted for longer than three days within a work area supporting suitable habitat during the Queen Flight Season (February 1 through March 31), the CPM approved DB(s) and/or Biological Monitor(s) shall perform a minimum of one additional survey in the work area in accordance with the Crotch's Bumble Bee Mortality Reduction and Relocation Plan prior to reinitiating project activities in the work area.

If a Crotch's bumble bee nest is detected during project surveys or any project activities, the project owner shall implement the Crotch's Bumble Bee Mortality Reduction and Relocation Plan unless the nest can be avoided per the Crotch's Bumble Bee Nest Site Buffer measures (Item 6).

4. Pre-Construction Survey and Observation Submittal (Construction and Operation). The project owner shall provide the Colony Active Period Season - Pre-Construction Survey (Item 3) results or Overwintering Survey Results (to the CPM no more than ten days prior to initiating or resuming (Item 2) if ~~initial disturbance not complete~~) project activities in each work area, unless alternate timing is approved by the CPM. The CPM-approved DB(s) and/or Biological Monitor(s) shall notify the CPM if an overwintering individual and/or nest is observed within 100 feet of the project site during site mobilization, construction, or operation. Pre-construction surveys and observational submittals shall include a Keyhole Markup Language (KML) map, or KML-Zipped (KMZ) map, and Geographic Information System (GIS) shapefiles of all Crotch's bumble bee detections and/or nests found during survey efforts or during any incidental observations, and photographs of the individual or nest. The map shall include an outline of the project site, and any distinct work area(s) surveyed within the project site, title, north arrow, scale bar, and legend.

5. Overwintering Site Buffer (Construction and Operation). If any overwintering Crotch's bumble bee are found during focused overwintering surveys, during ground and/or vegetation disturbing activities, including site mobilization or construction activities, or during operation of the project, the project owner, in consultation with the CPM approved DB(s) and/or Biological Monitor(s) shall immediately stop and prohibit all ground disturbing activities within 50 feet of the queen and/or hibernaculum. The ~~project owner~~ **DB** shall delineate the 50-foot buffer and notify all workers not to enter the environmentally sensitive area. This buffer may be adjusted with the approval of the CPM based on project activities and potential to disturb the nest. **Buffers shall remain in place until the nest has senesced, project activities are complete, or the nest has been relocated in accordance with the Crotch's Bumble Bee Mortality Reduction and Relocation Plan. This buffer may be adjusted by the DB, with the approval of the CPM, based on project activities and potential to disturb the nest.**

If an overwintering queen is exposed, the CPM approved DB(s) shall implement the Crotch's Bumble Bee Mortality Reduction and Relocation Plan. The CPM-approved DB(s) and/or Biological Monitor(s) shall record the queen's location with a GPS (including datum and horizontal accuracy in feet) and include photographs and a map of the queen's location as detailed in Item 4 (Pre-Construction Survey and Observation Submittal). Upon notice from the CPM, the project owner shall increase the size and modify the environmentally sensitive area buffer accordingly.

6. Crotch's Bumble Bee Nest Site Buffer (Construction and Operation). If a Crotch's bumble bee nest is identified during Colony Active Period Season focused surveys, during ground and/or vegetation disturbing site mobilization or construction activities, or during operation of the project, the project owner shall ensure establishment of a 50-foot no disturbance buffer around each nest. Buffers shall remain in place until the nest has senesced, project activities are complete, or the nest has been relocated in accordance with the Crotch's Bumble Bee Mortality Reduction and Relocation Plan. This buffer may be adjusted with the approval of the CPM based on project activities and potential to disturb the nest.

To determine if a nest has senesced, the CPM-approved DB(s) and/or Biological Monitor(s) shall monitor the nest for senescence in late summer and fall (September-October). Nest senescence can typically be denoted after the presence of reproductive **bees** (gynes and males) are observed. Nests shall be monitored for a minimum of one hour per day for three consecutive days during optimal weather conditions (i.e., from 7:00 AM to 6:00 PM, low wind, and low cloud cover conditions, etc.). If there has been no nest activity after the above conditions are met, or the nest has been relocated, the no disturbance buffer may be removed upon approval of the

CPM. Survey efforts shall be further detailed in Crotch's Bumble Bee Mortality Reduction and Relocation Plan (Item 1).

7. Daily Work Area Monitoring (Construction and Operation). The CPM approved DB(s) and/or Biological Monitor(s) shall be on-site during all initial ground disturbing site mobilization and/or construction activities in any given work area to visually monitor for Crotch's bumble bee and to detect flight activity. Visual sweeps of each work area shall occur prior to beginning daily project activities, and a minimum of three times throughout the workday, unless alternate timing is approved by the CPM.

The CPM approved DB(s) shall be on-site during all ground disturbing operation activities occurring within areas of suitable habitat. The DB(s) and/or Biological Monitor(s) shall visually monitor for Crotch's bumble bee and to detect flight activity. Visual sweeps of each work area shall occur prior to beginning ground disturbing activities, and a minimum of three times throughout the workday for the duration of ground disturbing activities, unless alternate timing is approved by the CPM.

8. Crotch's Bumble Bee Observations and Notification. All workers shall inform the CPM-approved DB(s) and/or Biological Monitor(s) if a Crotch's bumble bee nest is observed within or near a work area during implementation of any project activity, including ground or vegetation disturbing construction or operation activities. If a nest is observed all activities occurring within 50 feet of the nest shall cease and the project owner shall implement a 50-foot no disturbance buffer. If an overwintering Crotch's bumble bee nest cannot be avoided, then Item 1 (Crotch's Bumble Bee Mortality Reduction and Relocation Plan) shall be implemented.
9. Crotch's Bumble Bee Salvage. If a Crotch's bumble bee is accidentally killed during survey efforts, the project owner shall stop all work and immediately contact the CPM, and CDFW Regional Representative, for guidance. The carcass shall be photographed, salvaged, and placed in a labeled, clean plastic, resealable bag or vial and stored in a freezer. The label shall include a unique identifier (collection number), species name, time and date of collection, collection location, GPS location (including datum and horizontal error in feet), circumstances surrounding death (e.g. cooler may have been too cold; hot day and extreme shifts in temperature from ambient air to cooler may have contributed), collector name and contact information (phone number or email), and certification tracking number. If deemed necessary by the CPM, in coordination with CDFW, the carcass shall be delivered (on dry ice if possible) to the following address, or current address, and reported with photographs via email to the CPM, and CDFW Regional Representatives, at the time of collection and shipping:

CDFW Wildlife Genetics Research Unit (Wildlife Health Lab)
Attention: Michael Buchalski
1415 North Market Blvd., Suite 9
Sacramento, CA 95834

10. Pesticide and Herbicide Use. The project owner shall not use substances such as herbicides, insecticides, or rodenticides except as allowed under **BIO-7**, Item 20: Herbicide and Pesticide Use.
11. **Vegetation Removal. Disturbance or removal of vegetation within Crotch's bumble bee habitat shall be kept to the minimum necessary to complete work. Mower blades shall be set at heights no lower than 4 inches off the ground, unless otherwise approved by the CPM. Routine mowing shall be scheduled to avoid the blooming period, unless surveys do not detect the species or as otherwise approved by the CPM.**

Verification: The project owner shall submit the draft Crotch's Bumble Bee Mortality Reduction and Relocation Plan no less than 45 days prior to commencing site mobilization or ground disturbing activities to the CPM for review and approval and to the CDFW for review and comment. The project owner shall provide the final plan to the CPM and CDFW at least 7 days prior to the start of any site mobilization or ground disturbing activities.

The project owner shall submit the results of each survey (overwintering and colony active period) to the CPM for review and approval and to the CDFW for review and comment no more than 10 days after the completion of the surveys. The project owner shall submit information describing the findings of the bumble bee surveys and implementation of any avoidance measures in the Monthly Compliance Report (per **BIO-6**) and the Annual Compliance Report, during operation, to the CPM.

BIO-11 California Tiger Salamander Measures for Take. The project owner shall implement the following measures to avoid, minimize and offset impacts to breeding and foraging California tiger salamander during site mobilization, construction, and operation:

1. Inspections. The following inspections shall be implemented to prevent injury or mortality of California tiger salamander during ground-disturbing or other construction activities:
 - a. Daily Morning Inspections: Before the start of work each morning, the DB and/or Biological Monitor shall inspect all vehicles, heavy equipment, materials, and other suitable hiding locations within the project site, per **BIO-2**, Item 7.
 - b. Equipment Moving: All workers shall inspect beneath vehicles and equipment immediately prior to movement. If a California tiger

salamander is discovered, work must stop immediately, and the DB and/or Biological Monitor must be notified.

- c. Excavation and Spoils Inspection: All ruts, holes, and trenches shall be inspected by the DB and/or Biological Monitor prior to and during excavation or backfill activities.
 - d. Stored Materials: Any pipes, structures, or containers (including battery storage containers) with a diameter or opening of 2 inches or greater that are stored overnight in the project site must be securely capped before storage. **The DB may determine when stored materials are not accessible to wildlife and therefore do not require capping.** See also, **BIO-7**, Item 5.
2. Open Excavations. To prevent inadvertent entrapment of California tiger salamander during **site mobilization and/or** construction, the DB and/or Biological Monitor shall implement the following measures for all open excavations (including **but not limited to** open holes and trenches more than 6 inches deep):
- a. Daily Morning inspections: All open excavations shall be thoroughly inspected for trapped animals each day no later than 9:00 a.m.
 - b. Inspections During Workday: Before any open trenches or holes are filled, the DB and/or Biological Monitor shall thoroughly inspect them.
 - c. Daily Securing of Excavations: At the close of each working day, **the DB and/or Biological Monitor shall check open excavations and ensure that all** open excavations shall be secured by providing **are provided with** one or more escape ramps constructed of earthen fill or wooden planks with a slope of 3:1 **(run:rise) or less; a 2:1 (run:rise) may be used only if the project owner provides site-specific justification demonstrating that the 2:1 slope is both feasible and protective of the species present, and only upon written review and approval by the CPM;** or covering the excavations with boards or metal plates placed flush to the ground, with the edges overlaid by loose dirt to ensure no gaps remain for species entry.

If any open holes, trenches or other excavations greater than 6-inches deep cannot be covered or fitted with escape ramps as described above, then temporary exclusion fence shall be installed around these trenches, holes, or other excavations to prevent California tiger salamander from becoming trapped. **Refuge opportunities, such as coverboards (2-foot x 3-foot or larger plywood), shall be provided on the outside perimeter of the temporary exclusion fences.**

3. ~~Relocations.~~ The DB shall relocate any California tiger salamander found within the project site to an active rodent burrow system located no more than 300 feet outside of the project site unless otherwise approved by the CPM in writing. The DB shall document both the capture and relocation areas by photographs and GPS positions. The California tiger salamander shall be photographed and measured in millimeters (snout-vent) for identification purposes prior to relocation. All documentation shall be provided to the CPM within 24 hours of relocation.
4. Relocation Plan. The DB shall prepare a California Tiger Salamander Relocation Plan (Plan). The Plan shall include, but not be limited to, an identification of the survey and hand excavation, capture, handling, and relocation methods, and identification of where the individuals would be relocated to. **The DB shall relocate any California tiger salamander found within the project site to an active rodent burrow system located no more than 300 feet outside of the project site unless otherwise approved by the CPM in writing. The DB shall document both the capture and relocation areas by photographs and GPS positions. The California tiger salamander shall be photographed and measured in millimeters (snout-vent) for identification purposes prior to relocation. All documentation shall be provided to the CPM within 24 hours of relocation.** Relocation areas shall be identified by the DB based upon best suitable habitat available and time of year and approved by the CPM prior to the start of site mobilization. The Relocation Plan shall be submitted to the CPM for approval prior to the beginning of project activities. Project activities anywhere within the project site may not proceed until the Relocation Plan is approved in writing by the CPM. Only the approved DB **and Biological Monitor(s) are** is authorized to capture and handle California tiger salamander.
5. Handling and Injury. California tiger salamander shall be handled and assessed according to the Restraint and Handling of Live Amphibians USGS, National Wildlife Health Center (D. Earl Greene, ARMI SOP NO. 100; 16 February 2001) or most recent guidance. If an injured California tiger salamander is found, the individual shall be evaluated by the DB **and/or Biological Monitor(s), approved by the CPM and working under the direct supervision of a CTS Designated Biologist. Following evaluation, the DB and/or** who shall then immediately contact the CPM, and the CDFW Regional Representative, via email and telephone, to discuss the next steps. If the CPM or the CDFW Regional Representative cannot be contacted immediately, the injured California tiger salamander shall be placed in a shaded container and kept moist. If the CPM or CDFW Regional Representative is not available or has not responded within 15 minutes of initial attempts, then the following steps shall be taken by the DB:

- a. If the injury is minor or healing and the California tiger salamander is likely to survive, the salamander shall be released immediately in accordance with Item 3.
 - b. If it is determined that the California tiger salamander has major or serious injuries as a result of project-related activities, the DB shall immediately take it to the Lindsay Wildlife Experience or another CDFW-approved facility.
 - c. If taken into captivity, the individual shall remain in captivity and not be released into the wild unless it has been kept in quarantine and the release is authorized by the CPM, CDFW and/or U.S. Fish and Wildlife Service.
 - d. The project owner shall bear any costs associated with the care or treatment of such injured California tiger salamander. The project owner shall document the circumstances of the injury, the procedure followed, and the final disposition of the injured animal in a written incident report as described in Item 3.
6. California Tiger Salamander Salvage. If a California tiger salamander is found recently deceased, ~~a 1/2-inch portion of the tail tip shall be removed and placed in a labeled tissue tube with 95 percent ethanol.~~ The remaining the carcass, if salvageable, shall be immediately bagged, labeled, and preserved in a freezer. The label shall include a unique identifier (collection number), species name, time and date of collection, collection location, GPS location (including datum and horizontal error in feet), circumstances surrounding death (if known), collector name and contact information (phone number or email), and project tracking number. ~~Tail specimens shall be delivered to (or current contact at CDFW):~~

CDFW Bay Delta Region
Attention: Brenda Blinn
2825 Cordelia Road, Suite 100
Fairfield, CA 94534

Fresh and desiccated carcasses shall be delivered to the following address, or current address, within two calendar days of the discovery:

Attention: Carol Spencer, Staff Curator of Herpetology
Museum of Vertebrate Zoology (MZV)
3101 Valley Life Sciences Building
University of California
Berkeley, CA 94720
MVZ Contact phone: 510-642-3567

~~The remaining carcasses shall be delivered to the following address within two calendar days of the discovery:~~

~~CDFW Wildlife Investigations Lab
Attention: Deana Clifford
1701 Nimbus Road, Suite D
Rancho Cordova, CA 95670~~

If the carcass is shipped, then the project owner shall ship the frozen or desiccated specimen to the address below. Additionally, the DB shall send email to mvz@berkeley.edu that includes the tracking number of the package.

**Attention: Carol Spencer, Staff Curator of Herpetology
163 Weill Hall UC Berkeley
Berkeley, CA 94720**

7. Temporary Exclusion Fencing Plan. Prior to commencing activities ~~the start of site mobilization~~, the project owner shall install temporary exclusion fencing, **approved by the CPM for exclusion of California tiger salamander**, according to the approved Temporary Exclusion Fence Plan (Item 8) to prevent California tiger salamanders from dispersing into the project site. Within each project phase, the project owner shall ensure that temporary exclusion fencing is installed around the footprint of all planned vegetation- and ground-disturbing activities, including but not limited to disking and seeding involved with restoration. The project owner shall ensure that exclusion fencing remains in place **throughout construction** until project owner has completed the related vegetation- and/or ground-disturbing activities and removed related equipment from that footprint. The project owner shall remove temporary exclusion fencing at the culmination of related **construction** activities **upon approval from the CPM**. To limit barriers to California tiger salamander movement imposed by temporary exclusion fencing, exclusion fencing may be installed and removed in stages (enclosed subsets of fencing) as vegetation- and ground-disturbing activities progress across the project site.
8. Temporary Exclusion Fence Plan for California Tiger Salamander. The project owner shall submit to the CPM a Temporary Exclusion Fence Plan (Fence Plan) for review and approval prior to the start of activities. The Fence Plan shall describe the location and design of the temporary exclusion fencing and refugia, and survey method to inspect refugia. The project owner shall design temporary exclusion fencing to allow California tiger salamanders to leave the project site through one-way funnels or another method approved by the CPM. The project owner shall provide refuge opportunities such as coverboards (2-foot x 3- foot or larger plywood) or pitfall traps along both sides of the exclusion fence. If the project owner chooses to use pitfall traps, these shall be placed on the interior of the fence only and coverboards shall

be placed on the exterior of the fence. The DB shall inspect the temporary exclusion fencing for damage each day. The DB and/or Biological Monitor shall inspect under cover boards for California tiger salamander ~~by 8:00 AM~~ **at the start of the workday, and prior to outside temperatures reaching 70 degrees Fahrenheit,** during and after rain events. **The CPM shall have the authority to require earlier inspections and/or additional monitoring based on site conditions or monitoring results, including upon observation of dead or desiccated California tiger salamander.**

The DB shall relocate animals found within the interior fence or in refugia along the fence to a pre-determined location outside the fence line no more than 300 feet from the project boundary per the Relocation Plan described in Item 4. The project owner shall maintain and repair the temporary exclusion fencing immediately to ensure that it is functional and without defects. If initial site grading and restoration of temporary impacts is not completed in the project site by October 31, then temporary exclusion fencing shall be installed between any ungraded and graded portions of the planned grading footprint. Temporary exclusion fencing in place between November 1 and April 30 shall be considered a semi-permanent impact because it may impede potential California tiger salamander movement to breeding ponds. If temporary exclusion fencing is in place between November 1 and April 30, the project owner shall adjust impacts assessment in consultation with the CPM.

If work is approved by the CPM outside of the dry season work window required in Item 11, the following shall apply: Any work site located within 2,000 feet of potential California tiger salamander breeding habitat, including where equipment would be stored overnight, shall be completely fenced with wildlife exclusion fencing. All construction work shall take place within the fenced area. Installation of exclusion fencing does not apply to graveled or well- traveled roads. **Exclusion fencing shall remain intact throughout all construction activities, including equipment installation, and may be removed once all ground-disturbing and equipment installation activities are complete, upon approval by the CPM.**

9. **Barriers to Movement.** As part of infrastructure construction, the project owner shall not install curbs or other barriers to California tiger salamander movement, if feasible.
10. **Roads.** The project owner shall construct roadways such that there are no steep curbs, berms, straw wattles, or dikes that could prevent California tiger salamander from crossing or exiting the roadway. If curbs, berms, and/or straw wattles are necessary for safety and/or surface runoff, the project owner shall design and construct them to allow California tiger salamander to walk over them. If steep dikes are required, the project owner shall design and construct them to include over-side drains or curb/dike breaks spaced at

intervals of 16.4 to 32.8 feet to allow California tiger salamander passage. **If alternative roadway designs are warranted due to site constraints, the project owner shall submit a written request, including justification, to the CPM for review and approval.**

11. Detention Basin. The project owner shall install a permanent barrier to minimize potential for California tiger salamander movement into the detention basins. The project owner shall submit a Detention Basin Permanent Barrier Plan to the CPM for review and approval prior to the start of activities.
12. Dry Season Work Restriction. During the Dry Season of May 1 to October 31 of each year, the project owner shall limit activities involving ground disturbance and heavy equipment use (including but not limited to excavation, grading, contouring, or disking) to periods of low rainfall (less than 0.10 inches per 24-hour period). If rain exceeds 0.10 inches during a 24-hour period, work shall cease. Construction may resume 24 hours after the rain ceases when there is a less than 40 percent chance of precipitation in the National Weather Service 24-hour forecast for the project area, and **daytime** humidity, as measured locally on-site under the supervision of the DB, has fallen below 75 percent. Both rainfall and humidity records shall be kept on-site and subject to inspection.
13. Seasonal Work Window. The project owner shall limit ground-disturbing activities involving heavy equipment use (such as excavation, road construction and repair, grading and trenching) to May 1 to October 31 (Dry Season), except as otherwise authorized in Item 14.
14. Seasonal Work Window Extension. Activities involving ground disturbing and heavy equipment use (including but not limited to excavation, grading, contouring, and disking) during November 1 to April 30 (Wet Season) shall be subject to written approval of the CPM. The project owner shall submit request for extension to the CPM at least 14 days prior to the desired Wet Season start date of activities. If the CPM approves Wet Season work, the project owner shall monitor the National Weather Service 48-hour hourly forecast for the project area and shall ensure that activities involving ground-disturbing activities and heavy equipment cease 24 hours prior to a 40-percent or greater forecast of precipitation. Activities may resume 24 hours after the precipitation ceases if there is less than a 40 percent chance of precipitation in the 24-hour forecast for the project area. If the CPM approves wet-season work, the DB shall **conduct a clearance survey of the full project area and underneath potential cover, including all vehicles, heavy equipment, materials, and other suitable hiding locations within the project site** each day precipitation is forecast and the morning after all precipitation events.

If work during the wet season delays restoration of temporarily disturbed areas past December 31 of the year of impact, the project owner shall

recategorize these areas as semi-permanent or permanent impacts depending on the timing of restoration and achievement of performance standards. In this circumstance, the project owner shall adjust impacts assessment in consultation with the CPM.

15. Daily Work Window. The project owner shall terminate all activities 30 minutes before sunset and shall not resume activities until 30 minutes after sunrise during California tiger salamander migration/active season from November 1 to June 15. The project owner shall use sunrise and sunset times established by the U.S. Naval Observatory Astronomical Applications Department for the geographic area where the project is located to determine when activities shall terminate and resume.
16. Nighttime Activities and Artificial Lighting. If nighttime work cannot be avoided, the project owner shall obtain written approval from the CPM prior to working during non-daylight hours at least 24 hours prior to proposed nighttime activities. The project owner's written request to the CPM to perform nighttime work shall outline the extent of activities and minimization measures specific to the request (monitoring, surveys, etc.). The project owner shall ensure that nighttime work is limited in extent, duration, and brightness to the minimal amount necessary to complete the approved nighttime work. Except when necessary for emergency work, the project owner shall ensure that no earthmoving activities or overland travel take place during nighttime work. Except when necessary for emergency work or driver/pedestrian safety, the project owner shall minimize artificial lighting in the project site during nighttime hours to the minimal amount necessary to complete the approved nighttime work. The project owner shall ensure that lighting shall be faced downward and shall only be utilized in the immediate workspace. All nighttime work shall be suspended during rain events.
17. Notification of Non-Native Tiger Salamanders or Hybrids. The DB shall immediately notify the CPM and CDFW if a non-native tiger salamander (tiger salamander, *Ambystoma tigrinum*; barred tiger salamander, *A. mavortium*; or plateau tiger salamander, *A. velasci*) or California tiger salamander hybrid is found or suspected within the project site within 24 hours by calling the CPM and CDFW's Regional Representatives. The DB shall not release any non-native or hybrid salamanders back to the wild until directed to do so by the CPM in coordination with the CDFW. The DB shall follow the Covered Species Handling and Injury measures, as described in Item 5.

Verification: The project owner shall submit a California Tiger Salamander Relocation Plan to the CPM for review and approval 30 days prior to the start of site mobilization activities. The project owner shall submit to the CPM for review and approval a Temporary Exclusion Fence Plan no less than 15 days prior to the start of site mobilization activities. The project owner shall submit a Detention Basin Permanent Barrier Plan to the CPM for review and approval no later than 15 days prior to the start of site mobilization activities.

BIO-12 California Red-Legged Frog Measures for Take. The project owner shall implement the following measures to avoid, minimize and offset impacts to breeding and foraging California red-legged frogs during site mobilization, construction, and operation:

1. The DB and/or Biological Monitor(s) shall conduct pre-construction surveys for California red-legged frogs. Surveys shall be conducted by qualified biologists approved by the CPM, in coordination with CDFW, pursuant to **BIO-1** and/or **BIO-3**. These measures shall be included in the BRMIMP and implemented. Pre-construction surveys for California red-legged frogs shall be conducted within a 500-foot radius of all project disturbance areas, where legal access is granted, to detect individuals and suitable habitat features. Habitat features include both aquatic habitat such as plunge pools and ponds and terrestrial habitat such as burrows. Surveys shall be conducted no more than 14 days prior to the start of project activities include one survey conducted within 48 hours of site mobilization. Surveys shall include diurnal and nocturnal surveys. The project owner may elect to conduct additional surveys to map and detect potential areas this species may occur on or near disturbance areas.

The results of the habitat feature assessment shall be submitted to the CPM for ~~written acceptance~~ **approval** prior to starting project activities, **including site mobilization and/or construction.** Habitat features shall be flagged for avoidance to the extent feasible.

2. If Detected. If a California red-legged frog is encountered or the DB believes that California red-legged frog is likely to occur in the project area, the project owner shall notify the CPM immediately. If California red-legged frogs are encountered during the assessment or during project activities, all work shall cease until the frog is moved out of the construction area, following the requirements in the Relocation Plan, to a USFWS/CDFW approved relocation site **identified in the Relocation Plan,** and the CPM shall be notified immediately.
3. Relocation Plan. The project owner shall prepare a California Red-legged Frog Relocation Plan that includes all the conservation measures outlined in the *Formal Consultation on the Potentia Viridi Battery Storage System Project, Alameda County, California* (Corps File Number: SPK-2024-00486) (TN264538) **as well as any additional measures required pursuant to subsequent consultation with the USFWS.** The Plan shall include, but not be limited to, an identification of the survey and hand excavation, capture, handling, and relocation methods, and identification of where the individuals would be relocated to. Relocation areas shall be identified by the DB based upon best suitable habitat available and time of year and approved by the CPM, **in consultation with** and USFWS prior to the start of site mobilization. The Relocation Plan shall be submitted to the CPM and USFWS for **review and approval** **and USFWS for review and comment** at least

30 days and no less than 14 days prior to the beginning of project activities. Project activities anywhere within the project site may not proceed until the Relocation Plan is approved in writing by the CPM. Only the approved DB is authorized to capture and handle California red-legged frogs.

4. Inspections. The following inspections shall be implemented to prevent injury or mortality of California red-legged frogs during ground-disturbing or other construction activities:
 - a. Daily Morning Inspections: Before the start of work each morning, the DB and/or Biological Monitor shall inspect all vehicles, heavy equipment, materials, and other suitable hiding locations within the project site, per **BIO-2**, Item 7.
 - b. Equipment Moving: All workers shall inspect beneath vehicles and equipment immediately prior to movement. If a California red-legged frog is discovered, work must stop immediately, and the DB and/or Biological Monitor must be notified.
 - c. Excavation and Spoils Inspection: All ruts, holes, and trenches shall be inspected by the DB and/or Biological Monitor prior to and during excavation or backfill activities.
 - d. Stored Materials: Any pipes, structures, or containers (including battery storage containers) with a diameter or opening of 2 inches or greater that are stored overnight in the project site must be securely capped before storage. **The CPM-approved Designated Biologist may determine when stored materials are not accessible to wildlife and therefore do not require capping.** See also, **BIO-7**, Item 5.
5. Open Excavations. To prevent inadvertent entrapment of California red-legged frogs during **site mobilization and/or** construction, the DB and/or Biological Monitor shall implement the following measures for all open excavations (including open holes and trenches more than 6 inches deep):
 - a. Daily Morning inspections: All open excavations shall be thoroughly inspected for trapped animals each day no later than 9:00 a.m.
 - b. Inspections During Workday: Before any open trenches or holes are filled, the DB and/or Biological Monitor shall thoroughly inspect them.
 - c. Daily Securing of Excavations: At the close of each working day, all open excavations shall be secured by providing one or more escape ramps constructed of earthen fill or wooden planks with a slope of 3:1 or less; or covering the excavations with boards or metal plates placed flush to the ground, with the edges overlaid by loose dirt to ensure no gaps remain for species entry. If any open holes, trenches or other excavations greater than 6-inches deep cannot be covered or fitted with escape ramps as described above, then temporary exclusion fence

shall be installed around these trenches, holes, or other excavations to prevent California red-legged frogs from becoming trapped.

6. Relocations. Pursuant to the approved Recovery Plan in Item 3, the DB shall relocate any California red-legged frogs found within the project site to an active rodent burrow system located no more than 300 feet outside of the project site unless otherwise approved by the CPM and USFWS in writing, **in coordination with the USFWS**. The DB shall document both the capture and relocation areas by photographs and GPS positions. The California red-legged frog shall be photographed for identification purposes prior to relocation. All documentation shall be provided to the CPM and USFWS within 24 hours of relocation.
7. Handling and Injury. California red-legged frogs shall be handled and assessed according to the Restraint and Handling of Live Amphibians USGS, National Wildlife Health Center (D. Earl Greene, ARMI SOP NO. 100; 16 February 2001) or most recent guidance. If an injured California red-legged frog is found, the individual shall be evaluated by the DB who shall then immediately contact the CPM, and the CDFW Regional Representative, via email and telephone, to discuss the next steps. If the CPM or the CDFW Regional Representative cannot be contacted immediately, the injured California red-legged frog shall be placed in a shaded container and kept moist. If the CPM or CDFW Regional Representative is not available or has not responded within 15 minutes of initial attempts, then the following steps shall be taken by the DB:
 - a. If the injury is minor or healing and the California red-legged frog is likely to survive, the frog shall be released immediately in accordance with the California Red-legged Frog Relocation Plan.
 - b. If it is determined that the California red-legged frog has major or serious injuries as a result of project-related activities, the DB shall immediately take it to the Lindsay Wildlife Experience or another CDFW-approved facility.
 - c. If taken into captivity, the individual shall remain in captivity and not be released into the wild unless it has been kept in quarantine and the release is authorized by the CPM; **in coordination with the** CDFW and U.S. Fish and Wildlife Service.
 - d. The project owner shall bear any costs associated with the care or treatment of such injured California red-legged frog. The project owner shall document the circumstances of the injury, the procedure followed, and the final disposition of the injured animal in a written incident report as described in Item 3.
8. California Red-legged Frog Salvage. If a California red-legged frog is found recently deceased, the carcass, if salvageable, shall be immediately bagged, labeled, and preserved in a freezer. The label shall include a unique identifier

(collection number), species name, time and date of collection, collection location, GPS location (including datum and horizontal error in feet), circumstances surrounding death (if known), collector name and contact information (phone number or email), and project tracking number. The carcass(es) shall be delivered to the following address within two calendar days of the discovery:

Wildlife Investigations Lab
Attention: Deana Clifford
1701 Nimbus Road, Suite D
Rancho Cordova, CA 95670

9. Temporary Exclusion Fencing. **At the start of site mobilization**~~Prior to commencing activities,~~ the project owner shall install temporary exclusion fencing according to the approved Temporary Exclusion Fence Plan (Item **10**) to prevent California red-legged frogs from dispersing into the project site. Within each project phase, the project owner shall ensure that temporary exclusion fencing is installed around the footprint of all planned vegetation- and ground-disturbing activities, including but not limited to disking and seeding involved with restoration. The project owner shall ensure that exclusion fencing remains in place **throughout construction** until project owner has completed the related vegetation- and/or ground-disturbing activities and removed related equipment from that footprint. ~~The project owner shall remove it~~ **Temporary exclusion fencing may be removed once all vegetation- and ground-disturbing activities and related equipment use are complete, upon approval by the CPM** ~~at the culmination of related activities.~~ To limit barriers to California red-legged frogs movement imposed by temporary exclusion fencing, exclusion fencing may be installed and removed in stages (enclosed subsets of fencing) as vegetation- and ground-disturbing activities progress across the project site.
10. Temporary Exclusion Fence Plan for California Red-legged Frog. The project owner shall submit to the CPM a Temporary Exclusion Fence Plan (Fence Plan) for review and approval prior to the start of activities. The Fence Plan shall describe the location and design of the temporary exclusion fencing and refugia, and survey method to inspect refugia. The project owner shall design temporary exclusion fencing to allow California red-legged frogs to leave the project site through one-way funnels or another method approved by the CPM. The project owner shall provide refuge opportunities such as coverboards (2-foot x 3- foot or larger plywood) or pitfall traps along both sides of the exclusion fence. If the project owner chooses to use pitfall traps, these shall be placed on the interior of the fence only and coverboards shall be placed on the exterior of the fence. The DB shall inspect the temporary exclusion fencing for damage each day. The DB and/or Biological Monitor shall inspect under cover boards for California **red-legged frog** ~~tiger salamander~~ ~~by 8:00 AM~~ **at the start of the workday, and prior to**

outside temperatures reaching 70 degrees Fahrenheit, during and after rain events. The CPM shall have the authority to require earlier inspections and/or additional monitoring based on site conditions or monitoring results, including upon observation of dead or desiccated California red-legged frog.

The DB shall relocate animals found within the interior fence or in refugia along the fence to a pre-determined location outside the fence line no more than 300 feet from the project boundary per the Relocation Plan described in Items 3 and 5. The project owner shall maintain and repair the temporary exclusion fencing immediately to ensure that it is functional and without defects. If initial site grading and restoration of temporary impacts is not completed in the project site by October 31, then temporary exclusion fencing shall be installed between any ungraded and graded portions of the planned grading footprint. Temporary exclusion fencing in place between November 1 and April 30 shall be considered a semi-permanent impact because it may impede potential California red-legged frog movement to breeding ponds or other aquatic habitat. If temporary exclusion fencing is in place between November 1 and April 30, the project owner shall adjust impacts assessment in consultation with the CPM.

Any work site located within 2,000 feet of potential California red-legged frog aestivation or dispersal habitat, including where equipment will be stored overnight, shall be completely fenced with wildlife exclusion fencing. All construction work shall take place within the fenced area. Installation of exclusion fencing does not apply to graveled or well-traveled roads. **A combined Fence Plan may be submitted, provided it maintains full species-specific protections and clearly distinguishes requirements for each species, subject to CPM approval.**

11. Barriers to Movement. As part of infrastructure construction, the project owner shall not install curbs or other barriers that would impede California red-legged frog movement, if feasible.
12. Detention Basin. The project owner shall install a permanent barrier to minimize potential for California red-legged frog movement into the detention basins. The project owner shall submit a Detention Basin Permanent Barrier Plan to the CPM for review and approval prior to the start of activities.
13. Daily Work Window. The project owner shall terminate all activities 30 minutes before sunset and shall not resume activities until 30 minutes after sunrise until the exclusion fencing has been installed. The project owner shall use sunrise and sunset times established by the U.S. Naval Observatory Astronomical Applications Department for the geographic area where the project is located to determine when activities shall terminate and resume.

14. Nighttime Activities and Artificial Lighting. If nighttime work cannot be avoided, the project owner shall obtain written approval from the CPM prior to working during non-daylight hours at least 24 hours prior to proposed nighttime activities. The project owner's written request to the CPM to perform nighttime work shall outline the extent of activities and minimization measures specific to the request (monitoring, surveys, etc.). The project owner shall ensure that nighttime work is limited in extent, duration, and brightness to the minimal amount necessary to complete the approved nighttime work. Except when necessary for emergency work, the project owner shall ensure that no earthmoving activities or overland travel take place during nighttime work. Except when necessary for emergency work or driver/pedestrian safety, the project owner shall minimize artificial lighting in the project site during nighttime hours to the minimal amount necessary to complete the approved nighttime work. The project owner shall ensure that lighting shall be faced downward and shall only be utilized in the immediate workspace. All nighttime work shall be suspended during rain events.

Verification: The project owner shall submit a California Red-legged Frog Relocation Plan to the CPM for review and approval 30 days prior to the start of site mobilization activities. The project owner shall submit to the CPM for review and approval a Temporary Exclusion Fence Plan no less than 15 days prior to the start of site mobilization activities. The project owner shall submit a Detention Basin Permanent Barrier Plan to the CPM for review and approval no later than 15 days prior to the start of site mobilization activities.

The project owner shall submit the results of the California red-legged frog pre-construction surveys to the CPM for review and approval no later than 7 days after the survey has been completed. **The project owner shall submit a final survey report to the CPM for review and approval within 30 days of completion of California red-legged frog surveys.**

BIO-13 Western Spadefoot. The project owner shall implement the following measures to avoid and minimize impacts to western spadefoot during site mobilization, construction, and operation: ~~If work will be conducted within or near western spadefoot breeding habitat (e.g. vernal pools, ephemeral rain pools, wetlands, and similar features) and would commence during breeding season (approximately February 1 through March 30), the DB and/or Biological Monitor shall complete a pre-construction survey within 48 hours prior to any site mobilization and/or construction activities. Surveys shall be conducted by qualified biologists approved by the CPM pursuant to **BIO-1** and/or **BIO-3**. The DB shall submit the results of the survey to the CPM prior to start of site mobilization and/or construction. These measures shall be included in the BRMIMP and implemented. In addition:~~

1. **Surveyor Qualifications: All western spadefoot habitat assessments and surveys shall be conducted by qualified biologists approved by the CPM pursuant to BIO-1 and/or BIO-3.**
2. **Habitat Assessment. Prior to any ground-disturbing activities, the DB and/or Biological Monitor shall conduct a habitat assessment to evaluate whether suitable aquatic breeding sites (e.g. vernal pools, ephemeral rain pools, wetlands, and similar features e.g., shallow temporarily ponded or non-flowing drainage areas such as isolated pools within a drainage, and similar features; which persist for at least three weeks between October and May) occur at or within 300 feet of the project area. The results of the habitat assessment shall be submitted to the CPM for review and approval.**
3. **Breeding-Season Surveys. If suitable aquatic breeding sites are identified, the DB and/or Biological Monitor shall conduct surveys at those sites during the time of year when western spadefoot can be detected above ground. Survey methods shall be consistent with current CDFW guidance or more recent CDFW-approved methods. Survey results shall be submitted to the CPM for review and approval.**
4. **Pre-Construction Surveys. For discreet work areas located within 300 feet of suitable aquatic breeding sites, the DB and/or Biological Monitor shall conduct pre-activity surveys for adult western spadefoot or metamorphosed young dispersing from those breeding sites. Pre-construction surveys shall occur no more than 14 days prior to the start of ground disturbance in each work area. Survey results shall be submitted to the CPM for review and approval prior to initiating work.**
5. **Protection of Individuals During Work. Western spadefoot individuals that enter the project area after work has begun shall be allowed to leave the area of their own volition. If an individual cannot avoid the work area, the CPM-approved DB and/or Biological Monitor may move the individual out of harm's way to a suitable protected location in the vicinity of the project area, consistent with CDFW guidance and subject to CPM approval.**
6. **Protection of Breeding Sites. No disturbance of suitable aquatic breeding sites containing western spadefoot shall occur until all western spadefoot individuals have left the breeding site of their own volition. If western spadefoots are found within vernal pools or other wetland areas that cannot be avoided or work cannot be delayed, the qualified biologist shall develop a relocation plan and submit it to the CEC for review and approval. Western spadefoots shall be relocated, according to the relocation plan, to the nearest available suitable habitat at least 250 feet away from the project**

area to minimize the potential for spreading disease. Relocation may only be conducted by a qualified biologist with all appropriate permits.

If alternative survey timing is required based on site-specific conditions, the DB shall submit a written request that includes justification demonstrating that such conditions warrant the adjustment and that the alternative timing will provide equal or greater protection for the species; the CPM shall provide written approval prior to implementation.

If western spadefoot are found within vernal pools or other wetland areas that cannot be avoided, ~~they~~ the DB shall develop a relocation plan and submit it to the CPM for review and approval. Western spadefoots shall be relocated **from the project site by the DB and/or Biological Monitor with appropriate experience handling western spadefoot** to the nearest available suitable habitat at least 250 feet away from the project site to minimize the potential for spreading disease. **The DB shall develop a relocation plan and submit it to the CPM for review and approval prior to any relocation.**

Should western spadefoot become a state candidate for listing under CESA during the construction of the project, and the species is detected on the project site, work shall be suspended within 50-feet of the animal or until the species moves out of the project area. No handling would be authorized pending coordination with the CPM in collaboration with the CDFW. The submittal of an application for incidental take to the CPM would be required if project-related activities have the potential to result in take of the species. The DB shall secure all appropriate handling permits prior to relocating the species.

Verification: The project owner shall submit the results of the western spadefoot **habitat assessments, breeding-season surveys**, and pre-construction surveys to the CPM for review and approval no later than 7 days after the assessment or survey has been completed. **The project owner shall submit a final survey report to the CPM for review and approval within 30 days of completion of western spadefoot surveys.** In the event **western spadefoot become a state candidate for listing under CESA and** relocation is necessary, the project owner shall submit a relocation plan to the CPM for review and approval.

BIO-14 Western Pond Turtle. Within 48 hours prior to initiation of site mobilization and/or construction, the DB and/or Biological Monitor shall survey the project site for western pond turtles and their nests. Surveys shall be conducted by qualified biologists approved by the CPM pursuant to **BIO-1** and/or **BIO-3**. **Surveys shall consist of visual encounter surveys for western pond**

turtle individuals, nests, or evidence of nesting prior to any ground disturbance within 656 feet of aquatic habitats, using methods consistent with current CDFW guidance, including the USGS draft Western Pond Turtle survey protocol posted on the CDFW website, or more recent CDFW-approved methods. Surveys shall be conducted on sunny days between the hours of 8:00 a.m. and 12:00 p.m. to maximize likelihood of observation of individual turtles during basking events in nearby aquatic habitats. If western pond turtles are found in the work area, work shall not commence until the DB contacts the CPM for approval. These measures shall be included in the BRMIMP and implemented.

If a nest is found, work within 50 feet of the nest shall be stopped and the DB and/or Biological Monitor shall prepare a nest protection plan, to be reviewed and approved by the CPM, in coordination with CDFW, to ensure the nest is protected until it is no longer active. Turtles may be moved “out of harm’s way” to the nearest safe and suitable habitat at least 250 feet away from the project site, **provided the individual is not actively nesting,** by the **CPM-approved** DB and/or Biological Monitor **with appropriate experience handling the species.**

Verification: The project owner shall submit the results of the pre-construction survey results to the CPM for review and approval within 7 days after the survey has been completed. **The project owner shall submit a final survey report to the CPM for review and approval within 30 days of completion of western pond turtle surveys.**

If required, the project owner shall submit a draft nest protection plan to the CPM for review and approval and to CDFW for review and comment. A final nest protection plan shall be submitted prior to implementation.

BIO-15 Coast Horned Lizard and San Joaquin Coachwhip. The DB and/or Biological Monitor shall survey the construction site for coast horned lizard and San Joaquin coachwhip, including any and all rock outcrops and mammal burrows and any other potential habitat features. Surveys shall be conducted by qualified biologists approved by the CPM pursuant to **BIO-1** and/or **BIO-3**. Surveys shall occur within 48 hours prior to site mobilization and/or construction. These measures shall be included in the BRMIMP and implemented.

If coast horned lizards and/or San Joaquin coachwhips are found, they shall be allowed to leave the site before construction begins. Coast horned lizards and/or San Joaquin coachwhips may be moved “out of harm’s way” to the nearest safe and suitable habitat at least 250 feet away from the project site by the DB and/or Biological Monitor **with appropriate experience handling these species.**

Verification: The project owner shall submit the results of the pre-construction survey(s) to the CPM for review and approval within 7 days after the survey has been completed. **The project owner shall submit a final survey report to the CPM for review and approval within 30 days of completion of coast horned lizard and San Joaquin coachwhip surveys.**

BIO-16 Nesting Birds and Bird Buffers. The project owner shall develop **prepare** and implement a Nesting Bird Management Plan (NBMP) in coordination with the DB and submit to the CPM for review and approval. The project owner shall submit the resumes of avian monitors under **BIO-1** and/or **BIO-3** prior to site mobilization and/or construction, if these activities are planned to occur during the breeding season. The NBMP shall describe methods to minimize potential project effects to nesting birds and avoid any potential for unauthorized take of special status birds without incidental take authorization. Where scheduling allows, the project owner shall clear or remove any vegetation, conduct site preparation in open or barren areas, or other project-related activities that may adversely affect breeding birds outside the nesting season. The NBMP would be applicable throughout the nesting season.

Pre-construction nest surveys shall be conducted during the breeding season for local and migratory birds and would be timed to account for seasonal variation that occurs in the project area (February **1** to September **30** for raptors and January 1 to August 31 for other species).

1. **Survey Requirements.** Surveys shall cover all potential nesting habitat and substrates within the project area and areas surrounding the project area within 500 feet of the project boundary for sensitive passerines (e.g. shrikes) and raptors and within 2-mile line of sight for eagles, unless otherwise prohibited due to legal access or safety issues, upon approval from the CPM. The NBMP shall describe each of the survey methodologies proposed to ensure that common and special status birds (except for **golden eagles**, western burrowing owls, **Swainson's hawks, white-tailed kites, and California condors** addressed in COCs **BIO-17 through BIO-18-21**) that have the potential to occur in the project area are detected. Surveys shall be repeated during all phases of site mobilization through construction.
2. **Survey Schedules.** At least two pre-construction surveys shall be conducted, separated by a minimum 10-day interval. Pre-construction surveys shall be conducted no more than 14 days prior to initiation of construction activity. One survey needs to be conducted within the 3-day period preceding initiation of site mobilization, brush clearing, ground disturbance, or construction activity. Surveys shall be repeated throughout site mobilization and construction phases to ensure that birds are not nesting on equipment or have moved into an area after the initial vegetation clearance has been completed.

3. Nest and Avian Monitoring and Surveys During Construction. Additional follow-up surveys shall be required if periods of construction inactivity exceed three weeks during January 1 through September 30 in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation.
4. Nest Detection. If active nests are detected during surveys, a no-disturbance buffer zone (protected area surrounding the nest) shall be established around each nest. Fencing and/or flagging would be used to delineate the no-activity zone. To minimize the potential to affect the reproductive success of the nesting pair, the extent of the no-activity zone shall be based several factors, including the distance of the activity to the nest, the type and extent of the proposed activity, the duration and timing of the activity, the sensitivity and habituation of the species, and the dissimilarity of the proposed activity to background activities. The no-activities zone shall be large enough to avoid nest abandonment. Specific buffers shall also be proposed for any shrike caches should they be detected during **site mobilization and/or** construction.

The NBMP shall define species-specific or guild-specific default buffers to be applied if an active nest is encountered. These buffer distances shall be reviewed and approved by the CPM, in consultation with CDFW. The default buffers may be modified in the NBMP, with CPM approval **upon request by the DB, with justification provided**. For special-status species, if an active nest is identified, the size of each buffer zone shall be determined by the DB in consultation with the CPM (or as described in conditions of certification specific for those species). Nest locations shall be mapped using GPS technology.

The plan shall include a table outlining default buffer distances for specific avian groups during **site mobilization and/or** construction, detailing the avian groups, species potentially nesting within the project limits and survey area, and corresponding horizontal buffer distances based on disturbance level (DL) in feet, unless alternative table format is approved by the CPM. Typical default buffer distances are 500 feet for most raptors and 250 feet for most passerines, as well as other species or guild-specific buffers.

Nest buffers shall be delineated using the following process:

- a. Upon discovery of an active nest the default buffer identified in the NBMP shall be applied.
- b. The DB(s) and/or Biological Monitor(s) with avian experience may adjust the buffer based on nest location characteristics (e.g. natural barriers), type and extent of project disturbance, and observed bird behavior. The nest buffer would be sufficiently large to avoid

disturbance to the nesting birds and based on the default buffers included in the approved NBMP.

- c. Nest buffer reductions for special status species shall be requested in writing via email to the CPM for review and approval.
5. Active Nest Protection. If active nests are detected during the survey, the DB(s) or Biological Monitor(s) shall monitor all nests with buffers at least once per week, to determine whether birds are being disturbed. If signs of disturbance or distress are observed, the DB(s) or Biological Monitor(s) shall immediately implement adaptive measures to reduce disturbance, in coordination with the CPM. These measures could include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed, or placement of visual screens or sound dampening structures between the nest and construction activity. The DB(s) or Biological Monitor(s) shall monitor the nest until it is determined that nestlings have fledged and dispersed or the nest is no longer active. Activities that might, in the opinion of the DB(s) or Biological Monitor, disturb nesting activities (e.g., exposure to exhaust), shall be prohibited within the buffer zone until such a determination is made. Any nest buffer reduction would require full time monitoring if reduced from the levels identified in the approved NBMP.
6. NBMP Content. The NBMP shall include:
 - a. definitions of default nest avoidance buffers for each species or group of species, depending on characteristics and conservation status for each species and the nature of planned project activities in the vicinity;
 - b. a notification procedure for buffer distance reductions should they become necessary;
 - c. a pre-construction survey protocol (surveys no longer than 3 days prior to starting work activity at any site);
 - d. a monitoring protocol, to be implemented until adjacent construction activities are completed or the nest is no longer active, including qualifications of monitors, monitoring schedule, and field methods, to ensure that any project-related effects to nesting birds shall be minimized;
 - e. a protocol for documenting and reporting any inadvertent contact with or effects to birds or nests;
 - f. Specify the responsibilities of construction workers and site personnel with regard to nests and nest issues and specify a direct communication protocol to the Biological Monitor and/or DB;
 - g. Specify a procedure to be implemented following accidental disturbance of nests, including wildlife rehabilitation options; and

- h. Specify a procedure for removal of inactive nests, including verification that the nest is inactive and a notification/approval process.

The NBMP would be applicable throughout the nesting season (from January 1 through September 30).

- 7. Nest deterrents. The NBMP shall describe any proposed measures or deterrents to prevent or reduce bird nesting activity on project equipment or facilities, such as buoys, visual or auditory hazing devices, bird repellents, securing of materials, and netting of materials, vehicles, and equipment.

It shall also include timing for installation of nest deterrents and field confirmation to prevent effects to any active nest; guidance for the contractor to install, maintain, and remove nest deterrents according to product specifications; and periodic monitoring of nest deterrents to ensure proper installation and functioning and prevent injury or entrapment of birds or other animals.

If an active nest is located on project facilities, materials or equipment, the project owner shall avoid disturbance or use of the facilities, materials or equipment (e.g., by red-tag) until the nest is no longer active.

- 8. Nest Start Removal. Prior to removing any suitable nesting habitat, preconstruction nesting bird surveys should inform as to where existing raptor nests, and other special status bird nests, occur throughout the project area. The locations of existing special status bird nests within the habitat removal footprint shall be recorded and mapped by a qualified biologist. Such nests shall be removed outside of the nesting bird season.

Due to the potential for nest building during active construction, a biological monitor shall be employed for the duration of project construction to regularly inspect for nest building attempts that may occur on/within construction equipment and/or within an area of active construction disturbance.

In the event nest building is detected, the biologist shall deter birds from nesting using non-invasive methods to modify the circumstances. In the event a nest is built, and eggs are laid, the nest shall be considered active nest and shall be avoided. This may include placing a buffer around a piece of equipment or closing off a work area until the nest has fledged. This measure shall not be employed for state or federal special status species.

- 9. Accidental Nest Disturbance. The NBMP shall specify a procedure to be implemented following accidental disturbance of nests, including wildlife rehabilitation options. It also shall describe any proposed measures, and applicable circumstances, to prevent take of precocial young of ground-nesting birds such as killdeer or quail. The project owner shall identify an

appropriate wildlife care facility before starting site mobilization. The location of the care facility shall be provided to the CPM prior to site mobilization. The project owner shall bear any costs associated with the care or treatment of project related injured birds. The project owner shall provide a letter report detailing the outcome of the care to the CPM.

10. Reporting. Throughout the **site mobilization and/or** construction phase of the project, nest locations, project activities in the vicinity of nests (~~including helicopter traces~~), and any adjustments to buffer areas shall be updated and available to the CPM, weekly or other CPM-approved timeframe. All buffer reduction notifications and prompt notifications of nest-related non-compliance and corrective actions will be made via email to the CPM.

The draft NBMP shall include a proposed format for regular reporting (e.g., spreadsheet available online, tracking each nest). In addition, the NBMP shall specify the format and content of nest data to be provided in regular monitoring and compliance reports. At the end of each year's nest season, the project owner shall submit an annual NBMP report to the CPM and CDFW. Specific contents and format of the annual report would be reviewed and approved by the CPM in consultation with CDFW.

Verification: The project owner shall prepare and implement an NBMP in coordination with the DB and submit to the CPM for review and approval no less than 45 days prior to site mobilization. At the end of each year's nest season, the project owner shall submit an annual NBMP report to the CPM and CDFW no more than 30 days after the end of the nesting season. The project owner shall submit pre-construction survey reports to the CPM and CDFW no more than 30 days after each survey effort has been completed. The project owner shall provide a letter report detailing the outcome of the care of any injured birds or nest failures to the CPM and the CDFW within 14 days of the incident.

BIO-17 Golden Eagle and Nest Protection Buffers. To avoid impacts to golden eagle, if project activities will occur during the golden eagle nesting season (December 15 to August 31), the DB and/or Biological Monitor shall conduct pre-construction surveys no more than 30 days prior to the start of any site mobilization, construction, or other ground-disturbing activities, including heavy equipment use and staging. The survey(s) shall include a sufficient area, but no less than 1-mile from activities, to identify any golden eagle that are present and determine their status. "Sufficient" in the context of this condition means covering all areas in which nests could potentially be affected by the project activities.

Surveys shall be conducted by qualified biologists approved by the CPM pursuant to **BIO-1** and/or **BIO-3**. The DB shall submit protocol-level survey methodologies to the CPM for review and approval prior to the start of surveys. These measures shall be included in the BRMIMP and implemented.

The DB and/or Biological Monitor shall report any coordination with USFWS and active golden eagle nests to the CPM ~~representative~~ within 24 hours. It is recommended that the DB coordinates with the USFWS to coordinate implementation of golden eagle monitoring protocol so as to minimize duplicate efforts by others in the area.

1. Nest Protection Buffer. The qualified biologist shall monitor any identified active golden eagle nests for the first two days prior to any construction activities to establish a behavioral baseline of the adults and any nestlings. In addition to direct impacts, such as nest destruction, nesting birds might be affected by noise, vibration, odors and movement of workers or equipment. The DB and/or Biological Monitor shall establish appropriate nest protection buffers of at least 1-mile for golden eagle during site mobilization and construction-related activities. The DB and/or Biological Monitor may expand or reduce the buffer, with the CPM's approval, in coordination with the CDFW and USFWS, based on specific site conditions, or in instances there is sufficient topographic relief to protect the nest(s) from excessive noise or visual disturbance between the activities and the active nest(s). Depending on site characteristics, the sensitivity of the nest, and surrounding land uses, the DB and/or Biological Monitor may increase the buffer zone to prevent disturbance at the active nest site from maintenance and repair-related activities.
2. Monitoring. If active nests are detected, the DB(s) or Biological Monitor(s) shall monitor the nest at all times during any mobilization, ground disturbing, construction, or other activity that disturb the nest. If signs of disturbance or distress are observed, the DB(s) or Biological Monitor(s) shall immediately implement adaptive measures to reduce disturbance, in coordination with the CPM. These measures could include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed, or placement of visual screens or sound dampening structures between the nest and construction activity. The DB(s) or Biological Monitor(s) shall monitor the nest until it is determined that nestlings have fledged and dispersed or the nest is no longer active. Activities that might, in the opinion of the DB(s) or Biological Monitor, disturb nesting activities, shall be prohibited within the buffer zone until such a determination is made. If the DB(s) or Biological Monitor(s) determines that the nest is still at risk, the DB(s) or Biological Monitor(s) shall notify the CPM and a meeting with the project owner and the CPM shall be held to determine the best course of action to avoid nest abandonment or take of individual Birds.

Verification: The project owner shall submit protocol-level survey methodologies to the CPM for review and approval at least 30 days prior to the start of surveys.

The project owner shall submit the results of the pre-construction survey to the CPM no more than 7 days after the survey has been completed. The project owner shall submit ~~pre-construction survey reports~~ a **final survey report** to the CPM **for review and approval** no more than 30

days after the survey has been completed. The DB and/or Biological Monitor shall report any coordination with USFWS or CDFW regarding active golden eagle nests to the CPM within 24 hours.

BIO-18 Burrowing Owl Impact Avoidance, Minimization, and Mitigation

Measures for Take. The project owner shall implement the following measures to avoid, minimize and offset impacts to breeding and foraging burrowing owls during site mobilization, construction, operation, and decommissioning:

1. Burrowing Owl Mortality Reduction Plan. The project owner shall submit a Burrowing Owl Mortality Reduction Plan prepared the DB(s) for review and approval to the CPM, and CDFW for review and comment, prior to beginning any project activities including site mobilization, surveying, fencing, or ground disturbance. Burrow exclusion, burrow excavation, monitoring, reducing predator subsidies, artificial burrow construction, and other relocation activities shall not proceed until this plan has been approved in writing by the CPM, in coordination with the CDFW.

The Burrowing Owl Mortality Reduction Plan shall include, but not be limited to detailed description of survey methodology; detailed burrow exclusion and excavation methods; project activities that may be performed within burrowing owl avoidance buffers; identification of a wildlife rehabilitation center or veterinary facility capable of and willing to treat injured burrowing owl or care for at-risk burrowing owl, burrowing owl eggs, and/or burrowing owl chicks; and procedure for collection and storage of burrowing owl carcasses. Only CPM approved DB(s), or personnel following directions from and under the supervision of the DB(s), are authorized to handle and transport injured burrowing owl for treatment or impacted burrowing owl eggs for salvage. All other burrowing owl handling is prohibited.

Once the Burrowing Owl Mortality Reduction Plan is approved in writing by the CPM, it shall be used for the duration of the project unless updated by request of the CPM to reflect best available science, or to update mitigation and conservation strategies. If any updates are required, the CPM would contact the project owner to discuss potential updates. Any proposed changes to the Burrowing Owl Mortality Reduction Plan shall be submitted, in writing, to the CPM for review and approval, and the CDFW for review and comment, in writing prior to the implementation of any proposed modifications.

2. Burrowing Owl Burrow Replacement Plan. **If project activities are unable to avoid destruction of known or occupied burrowing owl burrows, and the DB and/or Biological Monitor cannot determine that suitable unoccupied burrows exist outside of the impact area,** the project owner shall replace each known or occupied burrowing owl burrow (as defined below under Burrow Avoidance) that cannot be avoided within

the project site with an artificial burrow **complex. The artificial burrow shall be constructed within approximately 328 feet (100 meters) or further with CPM approval of the original burrow prior to eviction of burrowing owls from occupied burrows and burrow excavation to facilitate detection of displaced owls and** to compensate for the loss of important shelter used by burrowing owls for protection, reproduction, and escape from predators. The project owner shall submit a Burrowing Owl Burrow Replacement Plan prepared by an approved DB(s) to the CPM. Implementation of the Burrowing Owl Burrow Replacement Plan shall not proceed until this plan has been approved in writing by the CPM, in coordination with the CDFW. The Burrowing Owl Burrow Replacement Plan shall include, but not be limited to: a discussion and map of potential artificial burrow replacement locations; description of the replacement burrow design and dimensions (e.g., depth and width of burrow, width of burrow entrance, orientation of burrow entrance, number and placement of entrances to natal burrows); artificial burrow installation methods; long-term artificial burrow protection and maintenance methods; and timing of burrowing owl burrow installation/construction.

Once the burrowing owl Burrow Replacement Plan is approved in writing by the CPM, it shall be used for the duration of the project unless it is updated by the CPM to reflect best available science, or to update mitigation and conservation strategies in which case the CPM would contact the project owner to discuss needed updates. If any updates are required, the CPM would contact the project owner to discuss potential updates. Any proposed changes to the Burrowing Owl Mortality Reduction Plan shall be submitted, in writing, to the CPM for review and approval and the CDFW for review and concurrence in writing prior to the implementation of any proposed modifications.

3. **Burrowing Owl Pre-Construction Nesting Surveys and Reporting.** The DB and/or Biological Monitor shall conduct preconstruction surveys for burrowing owls if project activities will occur during the nesting season (February 1 through August 31), no more than thirty (30) days prior. These surveys would identify potential, known, and/or nesting burrowing owl burrows. A potential burrowing owl burrow is any subterranean hole three inches or larger for which no evidence is present to conclude that the burrow is being used or any past use by a burrowing owl; a known burrowing owl burrow is a burrow that shows evidence the burrow is being used, known to have been used, or past use by a burrowing owl, or an "atypical" burrow (e.g., a pipe, culvert, buckled concrete, etc.) showing signs of occupancy (e.g. burrowing owl presence, whitewash, pellets, prey remains, etc.); and a nesting burrowing owl burrow is used for nesting (e.g. known burrowing owl burrow indications of the presence of eggs, chicks, dependent young, and/or brood-

ing or egg incubation. The survey area shall include the project disturbance area and surrounding 1,600-foot survey buffer, as accessible.

If surveys detect burrowing owls within 1,600 feet of proposed construction activities, the DB shall provide to the CPM documentation indicating that non-disturbance buffer fencing has been installed no less than 10 days prior to the start of any project-related site disturbance activities. The documentation shall include information as specified in Items 4 and 5, or as otherwise requested by the CPM.

4. Avoidance Surveys. No more than 14 days prior to beginning construction-related activities, the DB shall conduct at least two surveys using the methods described in the CDFW Staff Report on Burrowing Owl Mitigation, Appendix D (2012) or other appropriate method if agreed upon in writing by the CPM, at least seven days apart, with the final survey conducted no more than 48 hours prior to beginning construction. Pre-construction surveys may be conducted as part of the surveys identified above. The DB shall submit the results of the survey to the CPM within 24 hours prior to beginning construction. If changes in burrowing owl presence are detected (e.g., burrowing owls have moved onsite or changed burrow use), the DB shall contact the CPM by phone or email within 24 hours of the observation to consult on appropriate measures to avoid or minimize impacts of the project to the burrowing owl. If a lapse in project-related work of 14 calendar days or longer occurs, the project owner shall contact the CPM and may be required to conduct additional surveys before work may be reinitiated.
5. Burrow Map. The DB(s) shall provide a Keyhole Markup Language (KMZ) map and Geographic Information Systems (GIS) shapefiles to the CPM of all burrowing owl burrows found during the surveys conducted during the surveys required under Item 3 requirements (Burrowing Owl Pre-Construction Surveys and Reporting). The map shall show the details and locations of all burrowing owl sightings and potential, known, and nesting burrowing owl burrows as defined in the Burrowing Owl Burrow Avoidance section. The map shall include an outline of the project site, and any distinct work area(s) surveyed within the project site, title, north arrow, scale bar, and legend. The burrow map shall be updated when additional occupied burrows are observed and maps shall be included in the following monthly reports.

If a territory or nest is confirmed during the surveys the project owner shall notify the CPM and CDFW within 48 hours. In coordination with the DB(s), CPM and CDFW, a 1,600-foot line of sight disturbance-free buffer shall be established and demarcated by fencing or flagging and placed on project maps. This buffer may be adjusted as determined by a qualified avian biologist in coordination with the CPM and CDFW. Nest locations shall be mapped using GPS technology and provided the CPM.

6. Burrowing Owl Burrow Avoidance. The DB shall establish no-disturbance buffer zones around potential, known **or occupied**, and nesting burrowing owl burrows according to the following guidelines:
- a. If a potential burrowing owl burrow (any subterranean hole three inches or larger for which no evidence is present to conclude that the burrow is being used or any past use by a burrowing owl) is discovered, the DB shall establish a minimum 50-foot no-disturbance buffer around the burrow.
 - b. If a known **or occupied** burrowing owl burrow (a burrow that is known to have been used or shows evidence of current or past use) or an "atypical" burrow (e.g., a pipe, culvert, buckled concrete, etc.) showing signs of occupancy (e.g. burrowing owl presence, whitewash, pellets, prey remains, etc.) is discovered, the DB(s) shall establish a minimum no-disturbance buffer of at least 100 feet around the burrow. A no-disturbance buffer of at least 656 feet shall be established around known burrowing owl burrows currently occupied by burrowing owl during the nesting season (typically February 1 to August 31 in this area). Nest buffer reductions are described below.
 - c. If a **nesting** burrowing owl burrow (e.g. known burrowing owl burrow with indications of the presence of eggs, chicks, dependent young, and/or brooding or egg incubation) is discovered within or immediately adjacent to the project site, the project owner and/or DB shall notify the CPM and CDFW immediately through email. A no-disturbance buffer of at least 656 feet shall be established around the nest burrow. A no-disturbance buffer of at least 656 feet shall be established around known burrowing owl burrows currently occupied by burrowing owl during the nesting season (February 1 to August 31).
 - d. If burrowing owl burrows cannot be avoided as described above, then the project owner shall follow Item 6 (Burrowing Owl Burrow Blockage), Item 7 (Burrowing Owl Burrow Excavation), and Item 1 (Burrowing Owl Mortality Reduction Plan), as appropriate. If the approved DB determines burrowing owl are visibly stressed by project activities or by workers in the vicinity after these no-disturbance buffers the DB shall immediately increase the non-disturbance buffer to a distance where the visible stress is no longer observed. The increased no-disturbance buffers would be reviewed and approved by the CPM, in coordination with CDFW, based on their behavioral observations of the affected burrowing owl.

The buffers prescribed above shall not be reduced or otherwise modified without prior written approval from the CPM, in coordination with the CDFW. If the approved DB(s) determines that specific project activities are not likely to affect the burrowing owl using known or

nesting burrowing owl burrows due to the nature of the specific project activities, or due to objects or topography that might reduce potential noise disturbance and obstruct view of the project activities from the nest, then the CPM approved DB(s) may email a written request to the CPM to reduce the buffer distance with documented observational data (Buffer Reduction Request). The CPM will review each Buffer Reduction Request on a case-by-case basis and provide a determination in response to each Buffer Reduction Request in writing. The CPM may request additional and ongoing biological monitoring prior to approving a Buffer Reduction Request.

7. Burrowing Owl Burrow Blockage. If the CPM has approved the blockage of a known, **but not occupied**, burrowing owl burrow, the DB shall block rather than destroy any unoccupied known burrowing owl burrow located within the buffer distances limits prescribed in Item 5 (Burrowing Owl Burrow Avoidance), but outside the discrete work area(s) within the project site where ground and vegetation disturbing project activities would be performed. Burrows (including burrows in natural substrate and in under man-made structures) may be blocked only immediately after the CPM-approved DB(s) has conducted four consecutive 24-hour periods of monitoring with infrared camera and determined that burrowing owl is not currently present. Burrow blockage shall be done in a manner that prevents burrowing animals from digging back into the burrow. All blocked burrows shall be monitored by the approved DB(s) and/or Biological Monitor(s) at least once every 48 hours while the blockage is in place to ensure that the exclusion material is still intact. If burrowing owl regains access to the burrow, the project owner or DB shall contact the CPM immediately and obtain written guidance regarding how to proceed. All blocked burrows shall be unblocked within 48 hours of completion of construction activities within the prescribed buffer distance.
8. Burrowing Owl Burrow Excavation. The approved DB(s), and/or Biological Monitor under direct supervision of the approved DB(s), shall excavate known or potential burrows that exhibit signs of current or past burrowing owl use or characteristics suggestive of a burrowing owl burrow (including burrows in natural substrate and in/under man-made structures) that cannot be avoided per guidance in Item 5 (Burrowing Owl Burrow Avoidance), that are within the project site. Burrows to be destroyed shall be fully excavated, filled with dirt, and compacted to ensure that burrowing owl cannot reenter or use the burrow during the period that project activities occur in the project site.
 - a. Excavation of known burrowing owl burrows shall only occur after the approved DB(s) has determined that burrowing owl is not currently present after 4 consecutive 24-hour periods of monitoring with infrared cameras. If the excavation process reveals evidence of current use by

burrowing owl, then burrow excavation shall cease immediately, and camera monitoring as described above shall be conducted or resumed as applicable. Burrowing owl burrows shall be carefully excavated with hand tools, or by mechanical means if a specific methodology is approved in writing by the CPM, until it is clear no individuals of burrowing owl are inside.

- b. Potential burrowing owl burrows without any signs of burrowing owl use or characteristics suggesting it is a burrowing owl burrow may be excavated under the direct supervision of the approved DB(s) without prior camera monitoring.
 - c. Nesting burrowing owl burrows used for nesting shall not be excavated until biological and camera monitoring confirm that the chicks have fledged and are no longer dependent on the nest and then only after written concurrence from the CPM. An established burrowing owl burrow no-disturbance buffer may be removed once the burrow is collapsed and the burrowing owl (s) is/are no longer using the burrow.
9. Burrowing Owl Injury or Mortality. If a burrowing owl is injured within the vicinity of the project site, project owner shall notify the CPM of the injury to the burrowing owl immediately. The DB(s) shall follow the Burrowing Owl Mortality Reduction Plan to either immediately transport injured individuals to a CPM-approved wildlife rehabilitation center or veterinary facility or follow approved collection and storage procedures for deceased animals. The project owner shall bear any cost associated with care and recovery of any injured burrowing owl adults, nestling(s) or egg(s) and hacking (controlled release of captive reared young).

If a burrowing owl is found dead, project owner shall notify the CPM and the CDFW Regional Representative, Krysta Rogers (Krysta.Rogers@wildlife.ca.gov), or current CDFW contact, at the CDFW Wildlife Health Laboratory within 24 hours of the discovery. The DB shall collect the carcass and place it in a clean sealed, plastic bag with a specimen label, and temporarily store in a freezer. The DB shall obtain packing and transportation or shipping instructions from the Wildlife Health Laboratory, and deliver the specimen within 60 days of discovery to the address below:

CDFW Wildlife Health Laboratory
Avian Investigations
Attention: Krysta Rogers
1701 Nimbus Road, Suite D
Rancho Cordova, CA 95670

The initial notification to the CPM shall include information regarding the location, species, number of animals taken or injured, and if injured, the facility to which the individual was transported. Following initial notification,

the project owner shall send the CPM a written report within two calendar days. The report shall include the common and scientific name, date and time of the finding or incident, geo-referenced location of the animal or carcass (Project name, County, GPS location, and GPS datum), sex (if known), observer name and contact information, a photograph (if possible), explanation as to cause of take or injury, and any other pertinent information. The DB shall provide weekly updates on the status of the rehabilitation facility's treatment of the individual.

If nestling(s) or egg(s) are abandoned, the DB shall recover the nestling(s) and or egg(s) and immediately take it to a CDFW-approved wildlife rehabilitation or veterinary facility. The project owner shall bear any cost associated with care and recovery of any injured burrowing owl adults, nestling(s) or egg(s), and hacking (controlled release of captive reared young), and follow notification and reporting requirements described above.

10. Burrowing Owl Observations and Notification. All workers shall be trained to identify a burrowing owl and shall inform the approved DB(s) if a burrowing owl is seen within or near the project site during implementation of any project activity. All work in the vicinity of the burrowing owl which could harm the individual, shall cease until the individual moves from the project site of its own accord or the approved DB(s) passively encourages the individual to move out of harm's way, in compliance with the timing and methods identified in the CPM-approved Burrowing Owl Mortality Reduction Plan.
11. Operation Activities DB On-site. The approved DB(s) shall be onsite during all ground and vegetation disturbing activities. The approved DB(s) shall be on-site during all non-emergency ground and vegetation disturbing project activities performed at night.
12. Vehicle Parking (Site Mobilization, Construction and Operation). During site mobilization, construction, operation, and maintenance activities or while implementing burrowing owl take minimization measures, the project owner shall not allow vehicles to park on top of known or potential burrowing owl burrows. Vehicles left overnight shall not be located within 50 feet of known burrowing owl burrows. Workers shall inspect for burrowing owl under vehicles and equipment every time the vehicles and equipment are moved. If a burrowing owl is present, the worker shall wait for the burrowing owl to move unimpeded to a safe location. Alternatively, the approved DB(s) shall be contacted to passively encourage the burrowing owl to move away from the vehicle or equipment, in compliance with the timing and methods identified in the Burrowing Owl Mortality Reduction Plan.
13. Pipes and Materials Inspection (Site Mobilization, Construction, Operation). The project owner shall ensure that all pipes or similar materials stockpiled or replaced in the project site are capped or otherwise enclosed at the ends

to prevent entry by burrowing owl. The project owner shall ensure that any permanent pipes or similar materials or structures are left open where burrowing owl or other species may enter them and become trapped. The approved DB shall thoroughly inspect all such materials for burrowing owl, before they are moved, buried, or capped. If a burrowing owl is discovered inside such material, that section of material shall not be moved until the animal has escaped of its own accord. Alternatively, the approved DB may passively encourage the burrowing owl to move away from the pipes, culverts, or similar structures, in compliance with the timing and methods identified in the Burrowing Owl Mortality Reduction Plan.

14. Ground and Vegetation Disturbing (Site Mobilization, Construction, and Operation). Burrowing Owl Pre-Construction Surveys and Reporting (Item 3) shall be implemented within 30 calendar days prior to commencing ground or vegetation disturbing activities during operation in each distinct work area(s) within the project site. If the approved DB identifies any potential, known, or nesting burrowing owl burrows, the burrow(s) shall be monitored following the Burrowing Owl Burrow Blockage (Item 6) and Burrowing Owl Burrow Excavation (Item 7) as applicable, unless avoided per the Burrowing Owl Burrow Avoidance requirements (Item 5).
15. Burrowing Owl Observations (Operation). During operational activities within the project site, all workers shall inform the approved DB if a burrowing owl is observed within or near the project site. All work in the vicinity of the burrowing owl, which could injure or kill the animal, shall cease immediately until the burrowing owl moves from the project site of its own accord or the approved DB passively encourages the individual to move out of harm's way, in compliance with the timing and methods identified in the approved Burrowing Owl Mortality Reduction Plan.
16. Burrowing Owl Injury (Operation). If a burrowing owl is injured or found dead within the vicinity of the project site, the project owner shall notify the CPM of the injury or mortality to the burrowing owl immediately. The approved DB shall follow the approved Burrowing Owl Mortality Reduction Plan to either immediately transport injured individuals to a CDFW-approved wildlife rehabilitation center or veterinary facility or follow approved collection and storage procedures for deceased animals. The project owner shall bear any cost associated with care and recovery of any injured burrowing owl adults, nestling(s) or egg(s) and hacking (controlled release of captive reared young).

Verification: The DB shall provide the preconstruction survey results to the CPM within 14 days of the completion of the survey. If surveys detect burrowing owls within 1,600 feet of proposed construction activities, the DB shall provide the CPM documentation indicating that a non-disturbance buffer has been installed no less than 10 days prior to the start of any project-related site disturbance

activities. The documentation shall include information as specified in Items 4 and 5, or as otherwise requested by the CPM.

If pre-construction surveys detect burrowing owls or active burrowing owl burrows within the project disturbance area the project owner shall submit the Burrowing Owl Mortality Reduction Plan and Burrow Replacement Plan to the CPM for review and comment at least 30 days prior to initiation of site mobilization. Within 30 days of the conclusion of the construction period, the project owner shall submit a final Burrowing Owl Mitigation Implementation Report detailing location of all burrowing owl observed, take measures implemented, and their effectiveness.

During operations, the project owner shall include in the Annual Compliance Report an accounting of all burrowing owl documented on site, including copies of the DB and/or Biological Monitor's field notes, any buffer zones erected, maps, additional avoidance and minimization measures implemented, and their perceived effectiveness.

BIO-19 Swainson's Hawk Surveys and Avoidance. If project activities, including site mobilization and construction, are scheduled during the nesting season for Swainson's hawks (March 1 to September 15), prior to beginning work on the project, the DB shall conduct surveys according to the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (SHTA 2000) and prepare a report documenting the survey results. The project owner shall obtain the CPM's written approval of the Designated Biological and/or Biological Monitor, per **BIO-1** and/or **BIO-3**. The survey report shall be submitted prior to starting project activities between March 1 and September 15. Survey methods shall be closely followed by starting early in the nesting season (late March to early April) to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as vegetation increases).

Surveys shall be conducted: 1) within a minimum 0.5-mile radius of the project site or a larger area if needed to identify potentially impacted active nests, unless otherwise approved by the CPM in writing, and 2) for at least the two survey periods immediately prior to initiating project-related construction activities. Surveys shall occur annually for the duration of the project.

If active Swainson's hawk nests are detected, the DB and/or Biological Monitor shall immediately notify the CPM and implement a 0.5-mile construction avoidance buffer around the nest until the nest is no longer active as determined by the DB, unless otherwise approved by the CPM in writing. Any detected nesting Swainson's hawk shall be monitored by the DB and/or Biological Monitor to ensure it is not disturbed during construction activities, unless otherwise approved in writing by the CPM. If work within the 0.5-mile buffer cannot be

avoided the project owner shall consult with the CPM to avoid any potential for unauthorized take for Swainson's hawk without incidental take authorization.

Verification: The project owner shall submit pre-construction survey **results** reports to the CPM for review and approval no more than ~~30~~ **7** days after each survey effort has been completed. The project owner shall submit reports in the MCR during nesting season and an annual report to the CPM within 60 days of the end of nesting season.

BIO-20 White-Tailed Kite Nesting Preconstruction Surveys and Nest

Protection Buffers. If project activities occur during the white-tailed kite nesting season (January **20** to October **1** with peak nesting occurring from February to August), no more than thirty (30) days prior to activities commencing, including heavy equipment use and staging, the DB shall survey all accessible areas within 0.25-mile of the project site for white-tailed kite nests. The DB shall report white-tailed kite nests to the CPM within 24 hours.

Nest Protection Buffers. The DB shall establish appropriate nest protection buffers of at **least** 0.25-mile for white-tailed kite during project construction-related activities. The DB and/or Biological Monitor may expand or reduce the buffer, with the CPM approval, if deemed necessary based on specific site conditions, or in instances there is sufficient topographic relief to protect the nest(s) from excessive noise or visual disturbance between the activities and the active nest(s). Depending on site characteristics, the sensitivity of the nest, and surrounding land uses, the DB and/or Biological Monitor may increase the buffer zone to prevent disturbance at the active nest site from construction activities.

The DB and/or Biological Monitor shall monitor any white-tailed kite nests for the first two days prior to any construction activities to establish a behavioral baseline of the adults and any nestlings. In addition to direct impacts, such as nest destruction, nesting birds might be affected by noise, vibration, odors and movement of workers or equipment.

The DB and/or Biological Monitor shall monitor the behavior of any active golden eagle and white-tailed kite nest(s) within the buffer area at all times during **site mobilization and/or** construction activities and shall have authority to order the cessation of all construction work if the birds exhibit abnormal nesting behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young). Activities within line of sight of the nest shall not resume until the DB and/or Biological Monitor has consulted with the CPM and both the DB and/or Biological Monitor and the CPM confirm that the bird's behavior has normalized, or the young have fledged and are foraging independently. If the DB and/or Biological Monitor continues to detect signs of disturbance or behavioral changes, the buffer shall be increased. If the DB and/or Biological Monitor determines that the nest is still at risk, the DB and/or Biological Monitor shall

notify the CPM and a meeting with the project owner and the CPM shall be held to determine the best course of action to avoid nest abandonment or take of individuals.

Verification: The project owner shall submit the results of the pre-construction survey to the CPM no more than 7 days after the survey has been completed. The project owner shall submit ~~pre-construction~~ a final survey reports to the CPM for review and approval no more than 30 days after survey effort has been completed.

BIO-21 California Condor. The DB and/or Biological Monitor shall temporarily halt project activities if any California condors are observed within the project area prior to the start of work. Overflights of California condors, where birds are above the height of the tallest equipment or landscape features on site and do not land within the project site would not require work stoppage. The DB and/or Biological Monitor shall allow the California condors to depart on their own before project activities resume. The DB and/or Biological Monitor shall immediately inform the CPM, CDFW and USFWS should any California condor-related work stoppages take place. These measures shall be included in the BRMIMP and implemented.

Verification: The DB and/or the Designated Monitor shall immediately notify the CPM, CDFW and USFWS if a work stoppage occurs due to the presence of California condor.

BIO-22 San Joaquin Kit Fox Impact Avoidance, Minimization, and Mitigation Measures for Take. The project owner shall implement the following measures to avoid, minimize and offset impacts to San Joaquin kit fox during site mobilization, construction, and operation. These measures shall be included in the BRMIMP and implemented.

1. Standard Protective Guidance for San Joaquin Kit Fox. At no time shall the project owner or its representatives capture, pursue, or otherwise attempt to handle a San Joaquin kit fox. The project owner shall follow USFWS' Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (USFWS 2011) or most recent guidance.
2. Pre-Construction Surveys for San Joaquin Kit Fox. Within 15 days prior to any site mobilization, the DB and/or Biological Monitor shall conduct transect surveys to detect potential San Joaquin kit fox dens. Surveys shall be conducted by qualified biologists approved by the CPM, in coordination with USFWS and CDFW, pursuant to **BIO-1** and/or **BIO-3**. The DB and/or Biological Monitor shall conduct walking transects such that 100 percent visual coverage of the project site is achieved. Transect width shall be adjusted based on vegetation height, topography, etc., to facilitate the

detection of dens and other signs. Walking transect surveys shall be used to detect and map known dens, potential dens, and sign (tracks, scat, prey remains). Detection dogs may be used if practicable with the approval of the CPM, in consultation with the USFWS and CDFW. Potential San Joaquin kit fox scat shall be collected and labeled based on mapped location. Potential dens shall be considered to be any subterranean hole on the site that has entrances of appropriate dimensions for which available evidence is insufficient to conclude that it is being used or has been used by a San Joaquin kit fox.

3. Construction Buffers for San Joaquin Kit Fox Dens. If a potential San Joaquin kit fox den is discovered, or a fox is found in an "atypical" den such as a pipe or culvert, the project owner or DB and/or Biological Monitor shall establish a 50-foot buffer using tagging. If a known kit fox den (one that shows evidence of current use or is known to have been used in the past) is discovered, a buffer of at least 100 feet shall be established using fencing. If a natal den is discovered, it shall be fenced and avoided in a buffer with a diameter of at least 200 feet. The project owner or DB and/or Biological Monitor shall notify USFWS, CDFW and the CPM for all of the above except potential kit fox dens. Buffer zones shall be considered environmentally sensitive areas, and entry shall be restricted.
4. Protection of San Joaquin Kit Fox Natal Dens. The project owner shall not excavate natal dens for San Joaquin kit fox until the pups and adults have vacated and only after receiving written permission from the CPM, USFWS, and CDFW. The project owner may destroy known dens only after three days of monitoring with tracking medium and an infra-red camera has determined that a San Joaquin kit fox is not present.
5. Destruction/Collapse of Potential San Joaquin Kit Fox Dens. Destruction of any potential San Joaquin kit fox dens shall be accomplished by the DB and/or Biological Monitor by careful excavation until it is certain that no San Joaquin kit foxes are inside. The den should be fully excavated, filled with dirt, and compacted to ensure that San Joaquin kit foxes cannot re-enter or use the den during the construction period. If at any point during excavation a San Joaquin kit fox or kit fox signs is discovered inside the den, excavation shall cease immediately, and monitoring of the den shall be resumed. The project owner, DB and/or Biological Monitor shall notify the CPM, USFWS, and CDFW within 24 hours should a kit fox be detected during a den excavation. If the animal is injured the project owner shall coordinate with the CPM, USFWS, and CDFW to transport the animal to an approved veterinarian for treatment. The cost of treatment shall be the responsibility of the project owner. Destruction of the den shall only be completed when, in the judgment of the DB, the animal has escaped from or otherwise vacated the partially destroyed den.

Verification: The project owner shall submit the results of the pre-construction surveys to the CPM for review and approval no more than ~~30~~ **7** days after the survey has been completed. **The project owner shall submit a final survey report to the CPM for review and approval no more than 30 days after survey effort has been completed.**

BIO-23 American Badger Avoidance and Minimization Measures. The DB and/or Biological Monitor(s) shall conduct pre-construction surveys for American badger. Surveys shall be conducted by qualified biologists approved by the CPM, in coordination with CDFW, pursuant to **BIO-1** and/or **BIO-3**. These measures shall be included in the BRMIMP and implemented.

1. DB(s) and/or Biological Monitor(s) shall perform preconstruction surveys within 48 hours of ground disturbance to identify badger dens in the project disturbance area, including a 250-foot buffer zone within suitable habitat. If surveys need to be conducted more than 48 hours before construction, approval must be obtained from the CPM.
2. If dens are detected each den shall be classified as inactive, potentially active, or definitely active. If an American badger den is determined to be active, it shall be avoided by a minimum of 250 feet during the pupping season (March 1 through August 31) and by a minimum of 100 feet during the non-pupping season (September 1 through February 28). Avoidance buffers shall be established by the DB using staking, flagging, or other conspicuous materials. No project activities would be permitted within the avoidance buffers. The DB and/or Biological Monitor(s) may modify the avoidance buffer distances based on the location of the den, specific site conditions, and nature of proposed work activities, with prior written approval from the CPM in coordination with CDFW. The avoidance buffer shall remain in place until the DB(s) confirms that the young have left the den or the den has been naturally abandoned or failed.
3. Passive Relocation. If an active American badger den cannot be avoided, the project owner shall submit an American Badger Eviction Plan to the CPM for review and approval and the CDFW for review and comment. The American Badger Eviction Plan shall address proposed eviction activities outside the pupping season, and shall include, at a minimum, the following:
 - a. Methods and materials used for construction and maintenance of one-way eviction doors;
 - b. Use of continuous camera monitoring of dens for at least five consecutive days to confirm that no American badger individuals are present and to ensure none are trapped during eviction;
 - c. Specific timing of eviction activities;

- d. Design, materials, and methods used for construction and maintenance of artificial burrows and/or identification of location and discussion of preexisting, suitable, and unoccupied natural dens;
- e. Methods of den collapse; and
- f. Details regarding a "protect-in-place" option (i.e., evict but no collapse).

Passive relocation during the pupping season shall not be authorized. Passive relocation outside the pupping season shall be evaluated on a case-by-case basis by the CPM, in consultation with CDFW.

- 4. Notification of Detection. The project owner or DB shall notify the CPM as well as CDFW within 24-hours if an American badger or any other special status mammal is detected during the surveys or during routine monitoring. The report shall include the number of animals detected, photos, and the location of the detection. Upon receiving notification, the CPM and CDFW may provide guidance for further action as appropriate to the species.
- 5. Monitoring. The DB and/or Biological Monitor(s) shall remain onsite throughout the duration of any project activities that are conducted within 200 feet of the edge of the avoidance buffer. The biologist would have the authority to halt work, if it is determined that the animals are exhibiting increased levels of distress (e.g., displaying defensive behavior, pacing, leaving the den).
- 6. Report Mortalities and Serious Injuries Immediately. If any special status mammal species are found dead or injured during any project-related activities, the project owner or DB shall immediately notify the CPM and CDFW and shall provide written notification to CPM and CDFW within 48 hours. The CPM and CDFW shall review the activities resulting in mortality and determine if additional protective measures are required.
- 7. Reporting. A report documenting survey results, including surveyor name(s), date(s) of survey, location (with maps), weather conditions, and any observations or detections of sensitive mammals or their dens would be prepared and submitted to the CPM and CDFW. In addition, a monitoring report that includes the location, description, and duration of the activities, any observations or detections of these species found during the surveys or project activities would be provided during monthly, quarterly, and annual compliance reporting.

Verification: The project owner shall submit the results of the pre-construction survey reports to the CPM and CDFW no more than 30 7 days after each survey effort has been completed. The project owner shall submit a final survey report to the CPM for review and approval no more than 30 days after survey effort has been completed. If required, the project owner shall submit a draft American Badger Eviction Plan to the CPM for review and approval

and CDFW for review and comment. The final approved plan shall be submitted no less than 7 days prior to implementation.

BIO-24 Bat Habitat Assessment and Surveys. The DB and/or Biological Monitor(s) shall conduct a habitat assessment for listed bat species within a minimum of 30 days prior to the beginning of site mobilization activities. Surveys shall be conducted by qualified biologists approved by the CPM, in coordination with CDFW, pursuant to **BIO-1** and/or **BIO-3**. These measures shall be included in the BRMIMP and implemented.

Surveys shall include a visual inspection of potential roosting features (e.g., cavities, crevices in wood and bark, exfoliating bark for colonial species, suitable canopy for foliage roosting species, and anthropogenic structures such as buildings, bridges, and culverts). If suitable habitat is found, it shall be flagged or otherwise clearly marked.

If any active maternity or hibernation roosts are identified within 100 feet of the construction work area, a CPM-approved DB and/or Biological Monitor shall establish site-specific protective buffers around roosts, sized with consideration for the species that are present and the time of year bats are roosting, as well as levels of construction noise and light emission from project activities.

Verification: The project owner shall submit the results of the pre-construction surveys to the CPM for review and approval no more than 7 days after the survey has been completed. **The project owner shall submit a final survey report to the CPM for review and approval no more than 30 days after survey effort has been completed.**

BIO-25 Lake and Streambed Equivalency Conditions. The project owner shall implement the following measures to avoid, minimize and mitigate for potential direct and indirect impacts to jurisdictional features and to satisfy the requirements of California Fish and Game Code, sections 1600 through 1607.

1. Copies of Requirements, Stop Work Authority: The project owner shall provide a copy of the Streambed Impact Minimization and Compensation Measures identified in this condition of certification and any other water related permit conditions to all contractors, subcontractors, and the project owner's project supervisors. This includes copies of the WDR required by **WATER-4**. Copies shall be maintained at each work site and be readily available during periods of active work and must be presented to the CPM or personnel from another state, federal, or local agency upon request. The CPM reserves the right to issue a stop work order after giving notice to the project owner, if the CPM, in consultation with CDFW, determines that the project owner is not in compliance with any of the requirements in this condition, including but not limited to the existence of any of the following:

- a. The information provided by the project owner regarding streambed alteration is incomplete or inaccurate;
 - b. New information becomes available that was not known to the CEC CPM or the CDFW at the time of project certification; or
 - c. The project or project activities as approved in the Final Commission Decision have changed.
2. Provide Maps of Proposed Disturbance Areas. The project owner shall provide detailed maps of all proposed work areas that have the potential to result in temporary or permanent impacts to any jurisdictional feature to the CPM and CDFW prior to any site mobilization. This includes providing maps of work areas around each of the access roads, pull and tensioning sites, and staging areas or other work areas if near Patterson Run Creek. Maps, at an approved scale of all proposed temporary and permanent work areas shall be provided to the CPM and CDFW prior to any site mobilization. At the conclusion of construction, the project owner shall provide a true-up of any jurisdictional features that were subject to temporary or permanent impacts.
3. General Species Protection Measures. Species specific protection measures including surveys and monitoring for sensitive plants and wildlife are included in separate conditions of certification. General protective conditions applicable to all species are identified below.
4. Best Management Practices. The project owner shall comply with the following conditions to protect drainages near the project disturbance area:
 - a. Silt Control Measures. Silt control measures shall be utilized throughout all phases of the project where silt and/or earthen fill threaten to enter jurisdictional features. Silt control structures shall be monitored for effectiveness and shall be repaired or replaced as needed. Build-up of soil behind the fence shall be removed promptly and any breaches or undermined areas repaired at once.
 - b. Erosion Control. All exposed/disturbed areas within the project site shall be stabilized to the greatest extent possible. Erosion control measures, such as silt fences, shall be used wherever silt laden water has the potential to leave the work site and enter State waters. Erosion control measures shall be monitored during and after each storm event. Modifications, repairs and improvements to erosion control measures shall be made whenever it is needed. Materials used for erosion control or to repair erosion control shall not pose a risk to fish or wildlife. Monofilament shall not be used.
 - c. Culverts and outfalls. Culverts and outfalls shall be adequately sized to carry peak storm flows for the drainage to one outfall structure. The culverts and the outfall structure shall be properly aligned within the stream and otherwise engineered, installed and maintained, to assure

resistance to washout, and erosion of the stream bed, stream banks and/or fill. Water velocity shall be dissipated at the outfall, to reduce erosion.

- d. Prohibition Against Use of Plastic Netting in Erosion Control Measures. The project owner shall not use temporary or permanent erosion control devices containing plastic netting, including photo- or bio-degradable plastic netting. Erosion control and landscaping specification shall only allow natural fiber for use in erosion control mats, blankets, and straw or fiber wattles.
- e. Bank Stabilization. The project owner shall construct bank stabilization with suitable non-erodible materials that will withstand wash out. The bank stabilization material shall extend above the normal high-water mark. Only clean material such as rock riprap that is free of trash, debris and deleterious material shall be used as bank stabilization. Asphalt shall not be considered an acceptable material.
- f. Clean Equipment Use. Prior to operations, all heavy equipment and vehicles shall be cleaned of all external materials, which may be deleterious to aquatic life, wildlife, and riparian habitat (such as oil, grease, or hydraulic fluid). Cleaning shall not occur within a watercourse, stream channel or stream bank.
- g. Storage and Stationary Equipment. Stationary equipment such as motors, pumps, generators, compressors and welders, located within **or** adjacent to the stream, shall be positioned over drip pans. Stationary heavy equipment shall have suitable containment to handle a catastrophic spill/leak.
- h. No Equipment Operated on Wet Bed of Creek. Equipment shall not be operated in wetted areas including but not limited to ponded, flowing, or wetland areas, except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.

5. Hazardous Materials, Concrete, and Spills

- a. Hazardous Substances. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project-related activities, shall be prevented from contaminating the soil and/or entering the waters of the state.
- b. Toxic Materials. Any hazardous or toxic materials that could be deleterious to aquatic life that could be washed into a stream, or its tributaries shall be contained in watertight containers or removed from the project area.
- c. Hazardous Materials. Debris, soil, silt, bark, slash, sawdust, rubbish, creosote-treated wood, raw cement/concrete or washings thereof,

asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, wildlife, or riparian habitat resulting from the project related activities shall be prevented from contaminating the soil and/or entering the waters of the state.

- d. Sacked Concrete. The use of sacked concrete, asphalt pieces or asphalt containing pavement grindings within twenty (20) feet of the top-of-bank of a stream /outside of the ordinary high-water mark is prohibited, or where it may enter the channel.
- e. Concrete – Primary Containment. Wet concrete shall be contained and prevented from entering any stream unless as authorized by this COC. No concrete shall be poured within the high flow line if the 10-day weather forecast indicates any chance of rain above ¼" in a 24-hour period, unless approved by the CPM, in coordination with CDFW.
- f. Concrete – Biological Monitor. At all times when pouring or working with wet concrete a DB and/or Biological Monitor shall be present to inspect containment structures and ensure that no concrete or other debris enters the stream outside of those structures.
- g. Concrete – Secondary Containment. Secondary containment shall be installed between the primary containment structures (i.e. headwall form, roadway forms) and the stream to prevent wet concrete from entering into the stream upon failure or leak of primary structures. No concrete shall be poured within the high flow line if the 10-day weather forecast indicates any chance of rain above ¼" in a 24-hour period, unless approved by the CPM, in coordination with CDFW.
- h. Creosote-Treated Wood. Creosote-treated wood products for decking shall not be used in waters of the state. Alternatives that may be appropriate include steel, concrete, plastic, or wood products treated with preservatives that do not contain creosote or other materials that are deleterious to aquatic life.
- i. Spill Containment. All activities performed in or near a stream shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. In the event of a spill the project owner shall immediately notify the CPM, CDFW, RWQCB, and the California Emergency Management Agency at 1-800-852-7550, or most current phone number, and immediately initiate the cleanup activities.
- j. Staging and Storage. Staging and storage areas for equipment, materials, fuels, lubricants and solvents, shall be located outside of the stream channel and banks, avoiding areas of concentrated ground squirrel burrows suitable for use by California tiger salamander or burrowing owls. Stationary equipment such as motors, pumps,

generators, compressors and welders, located within or adjacent to the stream shall be positioned over drip pans. Any equipment or vehicles driven and/or operated within or adjacent to the stream must be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. Vehicles must be moved away from the stream prior to refueling and lubrication.

- k. Spoils Placement. Spoils shall be placed in a stable area above the ordinary high water mark avoiding areas of concentrated ground squirrel burrows suitable for use by burrowing owls or California tiger salamanders.
6. Compensatory Measures. To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, the project owner shall implement each measure listed below.
- a. Seed and Mulch. Upon completion of operations and/or onset of wet weather, all disturbed earthen materials shall be seeded and mulched.
 - b. Permanent Impacts to Aquatic Habitat. The project owner shall provide compensation for permanent impacts to 2,100 square feet **(0.04 acres) at a 3:1 ratio** of stream habitat through creation, restoration and/or enhancement of aquatic habitat subject to CPM approval. The project owner shall submit a Mitigation and Monitoring Plan (MMP) for permanent impacts to aquatic habitat within a minimum of 60 days prior to the start of site mobilization for the CPM review and written approval. The MMP shall describe the type of mitigation and monitoring activities to be conducted, and performance criteria to be met to ensure successful mitigation.
 - c. Vegetation Restoration and Enhancement Plan. The project owner shall prepare a Vegetation Restoration and Enhancement Plan (Restoration Plan) **(BIO-8)** to restore areas that are temporarily disturbed during construction to pre-project or better conditions. The project owner shall submit the Restoration Plan to the CPM for approval within at least 30 days prior to the start of restoration activities.
 - d. Native Plant Materials. Revegetation shall include only local plant materials native to the project area, unless otherwise approved by the CPM in writing. Seed may be collected from within the project site. Additional seed shall be sourced from within 50 miles of the project site (i.e., original genetic material shall have been collected within this radius); however, the seed may be purchased from a seed farm outside of this area. For seeding and mulching exposed slopes, the seed blend may include one or two sterile non-native perennial grass species.
 - e. Prohibited Plant Species. The project owner shall not plant, seed, or otherwise introduce invasive plant species. Prohibited exotic plant

species include those identified in the California Invasive Plant Council's Inventory Database, which is accessible at: <http://www.cal-ipc.org/paf/>. No more than 15 percent of the vegetation in each restoration site shall consist of species designated as high or moderate invasive plants in the Cal-IPC. If the presence of invasive species exceeds this threshold, the project owner is responsible for conducting appropriate control activities in coordination with the property owner.

- f. Compost or Mulch. Compost and/or mulch shall contain no visible glass, metal, or plastic. Paper shall be no more than 0.5 percent by weight or volume. Municipal compost shall not be used.

Verification: Maps of all proposed temporary and permanent work areas shall be provided to the CPM no less than 30 days prior to any site mobilization. At the conclusion of construction, the project owner shall provide a true-up of any jurisdictional features that were subject to temporary or permanent impacts the CPM no more than 30 days following the cessation of construction along the generation tie- line in the Construction Termination Report.

BIO-26 Habitat Management Land Acquisition for Crotch's Bumble Bee, Western Burrowing Owl, California Tiger Salamander and San Joaquin Kit Fox. To mitigate for impacts to Crotch's Bumble Bee, Western Burrowing Owl, California Tiger Salamander and San Joaquin Kit Fox the project owner shall prepare a ~~Habitat Lands Acquisition Plan~~ to fulfill the following requirements:

The project owner shall either 1) purchase 188.8 acres of ~~Covered Species~~ **mitigation or conservation bank** credits from a CDFW-approved mitigation or conservation bank pursuant to Item 2 below within the East Alameda County Conservation Strategy (EACCS) CTS North mitigation area (Chapter 3, Figure 3-10, dated October 2010) **approved in advance by the CPM, in coordination with USFWS and CDFW**, 2) shall provide for the permanent protection and management of 188.8 acres of Habitat Management (HM) lands for ~~Covered Species~~ pursuant to Item 3 **(Habitat Management Land Acquisition and Protection)** below and the calculation and deposit of the management funds pursuant to Item 5 **(Endowment Fund)** below, or 3) shall complete mitigation obligations for 188.8 acres of ~~covered species~~ habitat **for Crotch's bumble bee, western burrowing owl, California tiger salamander and San Joaquin kit fox** using a combination of purchasing ~~covered species~~ **mitigation or conservation bank** credits and providing for the permanent protection and management of habitat. **The project owner shall provide compensation for permanent impacts to 2,100 square feet (0.04 acre) of stream habitat at a 3:1 ratio through creation, restoration, and/or enhancement of aquatic habitat within CZ10, subject to CPM approval. The project owner has committed to meeting this obligation through preservation of approximately 2.80 acres of aquatic habitat, as described above.**

The HM lands for California tiger salamander habitat, San Joaquin kit fox habitat, Crotch's bumble bee habitat and western burrowing owl habitat may be combined if the habitat is suitable for all four ~~Covered Species~~ **species, or a combination of these species**, and approved by the CPM, in coordination with CDFW and USFWS.

~~Additional credits or HM lands may be required if~~ **If** the CDFW-approved conservation bank site or HM lands site is outside of the EACCS CTS North mitigation area described above, **additional credits or HM lands may be required and will require CPM approval, in coordination with CDFW and USFWS.** Additional credits may also be required if the project is not within the Service Area of the CDFW-approved conservation bank. ~~The project owner shall provide the CPM with a copy of the credit purchase agreement for the required credits prior to commencing Covered Activities.~~

~~Purchase of Covered Species credits at a CDFW-approved conservation bank~~ **The purchase of mitigation or conservation bank credits** or permanent protection and funding for perpetual management of HM lands must be complete before starting **site mobilization** ~~Covered Activities~~, or within 18 months of the **start of site mobilization** effective date of this certification if Security is provided pursuant to **the Security (Item 12)** below for all uncompleted obligations. ~~If the project owner is unable to purchase credits or provide permanent protection and funding for perpetual management of HM lands within the allowed timeframe, an Amendment to this certification may be required.~~

1. **Cost Estimates.** For the purposes of determining the Security amount, the CPM, in coordination with CDFW, has estimated the cost sufficient for the CEC **CPM** or its contractors to complete acquisition, protection, and perpetual management of the HM lands and restoration of temporarily disturbed habitat as follows:
 - a. Land acquisition costs for HM lands identified in Condition of Approval 9.3 below, estimated at \$20,000.00/acre for 188.8 acres: **\$3,776,000.00** for construction and maintenance impacts. Land acquisitions costs are estimated using local fair market current value per acre for lands with habitat values meeting mitigation requirements;
 - b. All other costs necessary to review and acquire the land in fee title and record a conservation easement as described in Item 3**b (Conservation Easement)** below: **\$10,000.**
 - c. Start-up costs for HM lands, including initial site protection and enhancement (including Crotch's Bumble Bee Habitat Mitigation and Monitoring Plan) costs as described in Item 3**f (Start-up Activities)** below, estimated at **\$50,000.00;**

- d. Interim management period funding as described in Item 3e **4** **Interim Management (Initial and Capital)**, below, estimated at **\$350,000.00** **\$351,764.74**;
 - e. Long-term management funding as described in ~~Condition of Approval 9.4~~ **Item 5 (Endowment Fund)** below, estimated at \$5,000.00/acre for 188.8 acres: **\$944,000.00**. Long-term management funding is estimated initially for the purpose of providing Security to ensure implementation of HM lands management.
 - f. Related transaction fees including but not limited to account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to the **CDFW** as described in Item 10 **(Reimburse CDFW)** estimated at **\$3,400.00**.
 - g. Restoration of on-site temporary effects to ~~Covered Species~~ **species** habitat as described in Item 11, calculated at \$3,500.00/acre for 6.7 acres: **\$23,450.00**.
 - h. All costs associated with the CPM ~~or CDFW~~ engaging an outside contractor to complete the mitigation tasks, including but not limited to acquisition, protection, and perpetual funding and management of the HM lands and restoration of temporarily disturbed habitat. These costs include but are not limited to the cost of issuing a request for proposals, transaction costs, contract administration costs, and costs associated with monitoring the contractor's work: **\$100,000.00**.
2. ~~Covered Species~~ **Mitigation Bank Credits**. If the project owner elects to purchase ~~Covered Species~~ credits to complete compensatory mitigation obligations, then the project owner shall purchase 188.8 acres of ~~Covered Species~~ credits from a ~~CDFW-approved~~ mitigation or conservation bank prior to initiating **site mobilization** ~~Covered Activities~~, or no later than 18 months from start of site mobilization if Security is provided **pursuant to Item 12 (Security) below**. Prior to purchase of ~~Covered Species~~ credits, the project owner shall obtain CPM approval to ensure the mitigation or conservation bank is appropriate to compensate for the impacts of the ~~P~~project. The project owner shall submit to the CPM a copy of the Bill of Sale(s) and Payment Receipt prior to initiating ~~Covered Activities~~ **site mobilization** or within 18 months from start of site mobilization, if Security is provided.
3. **Habitat Management Land Acquisition and Protection**. If the project owner elects to provide for the acquisition and perpetual protection and management of HM lands to complete the compensatory mitigation obligations, the project owner shall:
- a. **Fee Title**. Transfer fee title of the HM lands to the CDFW pursuant to terms approved in writing by **CDFW** CPM. Alternatively, the CPM, in

coordination with CDFW, may authorize a governmental entity, special district, non-profit organization, for-profit entity, person, or another entity to hold title to and manage the property provided that the district, organization, entity, or person meets the requirements of Government Code sections 65965-65968, as amended.

- b. Conservation Easement. If CDFW does not hold fee title to the HM lands, CDFW shall act as grantee for a conservation easement over the HM lands or shall, in its sole discretion, approve a non-profit entity, public agency, or Native American tribe to act as grantee for a conservation easement over the HM lands provided that the entity, agency, or tribe meets the requirements of Civil Code section 815.3. If CDFW elects not to be named as the grantee for the conservation easement, CDFW shall be expressly named in the conservation easement as a third-party beneficiary. The project owner shall obtain ~~CDFW~~ written approval **from the CPM, in coordination with CDFW,** of any conservation easement before its execution or recordation. No conservation easement shall be approved by ~~CDFW~~ **the CPM** unless it complies with Civil Code sections 815-816, as amended, and Government Code sections 65965-65968, as amended and includes provisions expressly addressing Government Code sections 65966(j) and 65967(e). Because the "doctrine of merger" could invalidate the conservation interest, under no circumstances can the fee title owner of the HM lands serve as grantee for the conservation easement.
- c. HM Lands Approval. The project owner shall ~~Obtain~~ CPM written approval of the HM lands before acquisition and/or transfer of the land by submitting, at least ~~three months~~ **90 days** before acquisition and/or transfer of the HM lands, documentation identifying the land to be purchased or property interest conveyed to an approved entity as mitigation for the project's impacts ~~on Covered Species~~. HM lands shall meet the minimum habitat requirements for the ~~Covered Species~~ **for the required species** including, but not limited to one or more aquatic features on-site which have been documented to support successful breeding in an average or below average rainfall year (abundance and distribution) or adjacent to aquatic features which have been documented to support successful breeding in an average or below average rainfall year (abundance and distribution) and already conserved and managed to the satisfaction of the CPM for the ~~Covered Species~~; no less than 100 acres of suitable upland or adjacent to suitable upland already conserved and managed for the **species** ~~Covered Species~~;
- d. HM Lands Documentation. Provide a recent preliminary title report, Phase I Environmental Site Assessment, and other necessary documents (please contact the CPM for document list). All documents

conveying the HM lands and all conditions of title are subject to the approval of the CPM in coordination with CDFW, and if applicable, the Wildlife Conservation Board and the Department of General Services;

- e. Land Manager. Designate both an interim and long-term land manager approved by the CPM in coordination with CDFW. The interim and long-term land managers may, but need not, be the same. The interim and/or long-term land managers may be the landowner or another party. The land manager shall prepare a draft management plan for CPM review and approval, in consultation with CDFW, and written approval as part of the HM lands acquisition process. The project owner shall notify the CPM of any subsequent changes in the land manager within 30 days of the change. If CDFW will hold fee title to the mitigation land, CDFW would also act as both the interim and long-term land manager unless otherwise specified. The grantee for the conservation easement cannot serve as the interim or long-term manager without the express written authorization of the CPM in its sole discretion.
 - f. Start-up Activities. Provide for the implementation of start-up activities, including the initial site protection and enhancement of HM lands, once the HM lands have been approved by the CPM in coordination with CDFW. Start-up activities include, at a minimum: (1) preparing a final management plan for CPM review and approval in coordination with CDFW (see <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=137386&inline>) (2) conducting a baseline biological assessment and land survey report within four months of recording or transfer; (3) developing and transferring Geographic Information Systems (GIS) data if applicable; (4) establishing initial fencing; (5) conducting litter removal; (6) conducting initial habitat restoration or enhancement, if applicable; and (7) installing signage;
4. Interim Management (Initial and Capital). Provide for the interim management of the HM lands. The project owner shall ensure that the interim land manager implements the interim management of the HM lands as described in the final management plan and conservation easement approved by the CPM. The interim management period shall be a minimum of three years from the date of HM land acquisition and protection and full funding of the Endowment and includes expected management following start-up activities. Interim management period activities described in the final management plan shall include fence repair, continuing trash removal, site monitoring, and vegetation and invasive species management, and pond repair and maintenance.

The project owner shall either (1) provide Security to the CPM for the minimum of three years of interim management that the land owner, the

project owner, or land manager agrees to manage and pay for at their own expense, (2) establish an escrow account with written instructions approved in advance in writing by the CPM to pay the land manager annually in advance, or (3) establish a short-term enhancement account with the CPM or a the CPM-approved entity for payment to the land manager.

5. Endowment Fund. If the project owner elects to provide for the acquisition, permanent protection, and perpetual management of HM lands to complete compensatory mitigation obligations, then the project owner shall ensure that the HM lands are perpetually managed, maintained, and monitored by the long-term land manager as described in this condition of certification, the conservation easement, and the final management plan approved by the CPM ~~in coordination with CDFW~~. After obtaining the CPM approval, **in consultation with CDFW**, of the HM lands, the project owner shall provide long-term management funding for the perpetual management of the HM lands by establishing a long-term management fund (Endowment). The Endowment is a sum of money, held in a CEC-approved fund (**in consultation with CDFW**) that is permanently restricted to paying the costs of long-term management and stewardship of the mitigation property for which the funds were set aside, which costs include the perpetual management, maintenance, monitoring, and other activities on the HM lands consistent with the condition of certification, the conservation easement, and the management plan. Endowment as used in the Certification shall refer to the endowment deposit and all interest, dividends, other earnings, additions and appreciation thereon. The Endowment shall be governed by this ~~license~~ **certificate**, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

After the interim management period, the project owner shall ensure that the designated long-term land manager implements the management and monitoring of the HM lands according to the final management plan. The long-term land manager shall be obligated to manage and monitor the HM lands in perpetuity to preserve their conservation values in accordance with this ~~license~~ **certificate**, the conservation easement, and the final management plan. Such activities shall be funded through the Endowment.

6. Identify an Endowment Manager. The Endowment shall be held by the Endowment Manager, which shall be either **CEC and/or** CDFW or another entity qualified pursuant to Government Code sections 65965-65968, as amended.

The project owner shall submit to the CPM **for review and approval**, a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a governmental entity, special district, nonprofit organization, community foundation, or congressionally chartered foundation; (iii) whether the proposed Endowment

Manager holds the property or an interest in the property for conservation purposes as required by Government Code section 65968(b)(1) or, in the alternative, the basis for finding that the Project qualifies for an exception pursuant to Government Code section 65968(b)(2); and (iv) a copy of the proposed Endowment Manager's certification pursuant to Government Code section 65968(e).

~~Within thirty days of the CPM's receipt of the project owner's written proposal, the CPM in coordination with CDFW shall inform the project owner in writing if it determines the proposal does not satisfy the requirements of Fish and Game Code section 2081(b)(3) and, if so, shall provide the project owner with a written explanation of the reasons for its determination. If the CPM in coordination with CDFW does not provide the project owner with a written determination within the thirty day period, the proposal shall be deemed consistent with Section 2081(b)(3).~~

7. Calculate the Endowment Funds Deposit. After obtaining the CPM's written approval, **in consultation with CDFW,** of the HM lands, long-term management plan, and Endowment Manager, the project owner shall prepare an endowment assessment (equivalent to a Property Analysis Record (PAR)) to calculate the amount of funding necessary to ensure the long-term management of the HM lands (Endowment Deposit Amount). Note that the endowment for the easement holder should not be included in this calculation. The project owner shall submit to the CPM, in coordination with CDFW, for review and approval the results of the endowment assessment before transferring funds to the Endowment Manager.
 - a. Capitalization Rate and Fees. The project owner shall obtain the capitalization rate from the selected Endowment Manager for use in calculating the endowment assessment and adjust for any additional administrative, periodic, or annual fees.
 - b. Endowment Buffers/Assumptions. The project owner shall include in the endowment assessment assumptions the following buffers for endowment establishment and use that would substantially ensure long-term viability and security of the Endowment:
 - i. 10 Percent Contingency. A 10 percent contingency shall be added to each endowment calculation to hedge against underestimation of the fund, unanticipated expenditures, inflation, or catastrophic events.
 - ii. Three Years Delayed Spending. The endowment shall be established assuming spending will not occur for the first three years after full funding.
 - iii. Non-annualized Expenses. For all large capital expenses to occur periodically but not annually such as fence replacement or well replacement, payments shall be withheld from the annual

disbursement until the year of anticipated need or upon request to Endowment Manager and the CPM.

8. Transfer Long-term Endowment Funds. The project owner shall transfer the long-term endowment funds to the Endowment Manager ~~upon~~ **following** the CPM's approval of the Endowment Deposit Amount identified above **under Item 6, and at the time of acquisition and/or transfer of the HM lands.**
9. Management of the Endowment. The approved Endowment Manager may pool the Endowment with other endowments for the operation, management, and protection of HM lands for local populations of the Covered Species **species** but shall maintain separate accounting for each Endowment. The Endowment Manager shall, at all times, hold and manage the Endowment in compliance with this certification, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

Notwithstanding Probate Code sections 18501-18510, the Endowment Manager shall not make any disbursement from the Endowment that would result in expenditure of any portion of the principal of the endowment without the prior written approval of the CPM in its sole discretion. The project owner shall ensure that this requirement is included in any agreement of any kind governing the holding, investment, management, and/or disbursement of the Endowment funds.

Notwithstanding Probate Code sections 18501-18510, if the CPM determines in its sole discretion that an expenditure needs to be made from the Endowment to preserve the conservation values of the HM lands, the Endowment Manager shall process that expenditure in accordance with directions from the CPM. The Endowment Manager shall not be liable for any shortfall in the Endowment resulting from the CPM's decision to make such an expenditure.

10. Reimburse CDFW ~~the CEC~~. The project owner shall reimburse ~~CEC~~ for all **reasonable** costs incurred by **CDFW** ~~the CEC~~ related **to transfer of the HM lands to CDFW, as applicable,** ~~issuance and monitoring of this certification,~~ including, but not limited to transaction fees, account set-up fees, administrative fees, title and documentation review and related title transactions, costs incurred from other state agency reviews, and overhead related to transfer of HM lands to **CDFW** ~~the CEC~~.
11. Habitat Restoration. The project owner shall restore on-site the 6.7 acres of Covered Species habitat that will be temporarily disturbed during **site mobilization and/or** construction to pre-project or better conditions. The restoration shall occur the same year the disturbance occurs. Within 6 months of issuance of the start of site mobilization, the project owner shall

prepare a Vegetation Restoration and Enhancement Plan (**BIO-8**) to facilitate revegetation of the 6.7 acres of temporary construction disturbance on-site and shall ensure that the Plan is successfully implemented by the contractor. The Plan shall include detailed specifications for restoring all temporarily disturbed areas, such as seed mixes and application methods. The Plan shall also indicate the best time of year for seeding to occur.

12. Security: The project owner may proceed with project activities only after the project owner has ensured funding (Security) to complete any activity required by Item 3 (Habitat Management Land Acquisition and Protection) that has not been completed before project activities begin. The project owner shall provide Security as follows:
 - a. Security Amount. The Security shall be in the amount of ~~\$5,258,614.746,850.00~~ or in the amount identified in Item 1 (Cost Estimates) specific to the obligation that has not been completed. This amount is determined by the CPM and is based on cost estimates identified in Item 1 above, sufficient for the CEC or its contractors to complete land acquisition, property enhancement, startup costs, initial management, long-term management, and monitoring. **The Security amount shall include the cost of compensatory mitigation for the 2,100 square feet (0.04 acre) of permanent stream-habitat loss, including acquisition, restoration, enhancement, or bank-credit purchase, consistent with RWQCB and USACE permitting and mitigation requirements (per WATER-4).**
 - b. Security Form. The Security shall be in the form of an irrevocable letter of credit or another form of Security approved in advance in writing by the CPM, in coordination **consultation** with CDFW.
 - c. Security Timeline. The Security shall be provided to the CPM before starting site mobilization.
 - d. Security Holder. The Security shall be held by the CPM or in a manner approved in advance in writing by the CPM.
 - e. Security Transmittal. The project owner shall transmit the security to the CPM by way of an approved instrument such as an escrow agreement, irrevocable letter of credit, or other.
 - f. Security Drawing. The Security shall allow the CPM to draw on the principal sum if the CPM, in its sole discretion, determines that the project owner has failed to comply with this condition of certification.
 - g. Security Release. The Security (or any portion of the Security then remaining) shall be released to the project owner after the CPM has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by:

- i. Copy of Bill of Sale(s) and Payment Receipt(s) or Credit Transfer Agreement for the purchase of Covered Species credits; or
 - ii. Written documentation of the acquisition of the HM lands;
 - iii. Copies of all executed and recorded conservation easements; and
 - iv. Written confirmation from the approved Endowment Manager of its receipt of the full Endowment;
- ~~h. Additional Funding. The CPM, in consultation with USFWS and CDFW, may require the project owner to provide additional HM lands and additional funding to ensure the impacts of the taking are minimized and fully mitigated, as required by law, if the project owner does not complete these requirements within the specified timeframe.~~

Even if Security is provided, the project owner must complete the required acquisition, protection and transfer of all HM lands and record any required conservation easements no later than 18 months from the date of start of site mobilization.

Verification: ~~Even if Security is provided, the project owner shall provide the CPM verification~~ **to the CPM** that the required acquisition, protection and transfer of all HM lands has occurred, and record any required conservation easements no later than 18 months from the start date of site mobilization, **even if a security is provided. If a Security is provided, it shall be provided no later than 30 days prior to the start of site mobilization.**

The project owner shall submit to the CPM for review and approval, and to CDFW for review and comment, all HM lands due diligence documentation required for HM lands approval, including but not limited to a preliminary title report, Phase I Environmental Site Assessment, and any other documents required by the CPM, no later than 12 months after the date of the start of site mobilization, if providing a Security.

The project owner shall provide the ~~Draft Habitat Lands Acquisition Plan~~ **draft long-term management plan** to the CPM for review and approval and to CDFW for review and comment no later than 60 days prior to **acquisition and/or transfer of the HM lands, as part of the HM lands approval process** construction. The project owner shall submit the ~~Final Management Plan~~ **final long-term management plan** to the CPM and CDFW no later than 7 days prior to **recordation of the conservation easement** construction.

BIO-27 Post BESS Fire Monitoring and Management Plan. The project owner shall develop a Post BESS Fire Monitoring and Management Plan (PBFMMP), **which is to be implemented in the event of a "BESS FIRE", which is defined as a confirmed thermal runaway within a battery module of the**

project that results in sustained combustion or open flame. The project owner shall provide the draft PBFMMP to the CPM for review and approval. No site mobilization or construction activities may occur prior to approval of the final PBFMMP by the CPM. The PBFMMP shall be prepared in consultation with the DB and shall include the following:

1. **Baseline Data.** The development of ~~pp~~Pre-operation sediment sampling locations **shall be determined as a result of specific plume analysis performed for the Project and approved by the CPM** within a two-mile radius of the **Project that could be reasonably affected by a BESS FIRE event.** BESS. The sampling shall include a test for the expected post fire constituents, **as identified in the BESS manufacturer's Large Scale Fire Test Report.** In addition, known seeps and springs within a five-mile radius **of the Project that could reasonably be affected by a BESS FIRE event, are publicly accessible, and that support habitat of a special status species, as approved by the CPM,** that could be used by special status species shall be sampled for water quality and chemical constituents; Identify locations along the major drainages downstream of the project site where chemicals could become concentrated after rainfall;
2. **Toxicity Thresholds.** Identify the **established regulatory or peer reviewed toxicity** thresholds for toxicity for each chemical constituent **of concern** to vegetation and wildlife. **Where thresholds are not established, the PBFMMP shall identify a scientifically defensible evaluation framework to be submitted for review and approval by the CPM in coordination with the USFWS, CDFW, and Department of Toxic Substances Control (DTSC);**
3. **Post Fire Monitoring.** Include post fire monitoring requirements including an initial assessment within 2-weeks of the fire and a program of quarterly testing **of the same locations used for baseline data collection,** for the first year then annually for 3-5 years if battery-related contaminants (HF, heavy metals) are detected above **established baseline levels or toxicity** threshold levels in water or sediment. Conduct additional monitoring if invasive species spread or species decline or patterns of habitat use are detected;
4. **Species Specific Monitoring.** Describe post fire monitoring to evaluate potential impacts to sensitive vegetation and wildlife **that are attributed to the BESS FIRE. The monitoring design shall e**Evaluate burn severity and chemical contamination; track vegetation recovery and if there are any increases in non-native vegetation; document species presence and health post fire include observations of changes in nesting behavior or use of habitat; assess soil erosion and soil stability in any areas subject to remediation. **The monitoring design shall also include** Conduct surveys for special status species, including burrowing owls. **Include protocols for** and

- include health checks **of wildlife** where possible and **mechanisms to** provide veterinarian care for injured wildlife;
5. **Habitat Recovery Metrics and Decontamination Methods.** Provide a detailed description of the measures and metrics that would be used to assess health impacts to plants and wildlife, evaluate impacts to important foraging habitat and what decontamination methods shall be taken to avoid or mitigate impacts on each special-status species potentially impacted by a **BESS FIRE. The decontamination methods shall include methods to** containment **ment of contaminated** storm and firefighting waste water;
 6. **Restoration, Additional Mitigation, and Adaptive Management. If** **impacts to plants and wildlife are confirmed and attributed to the BESS FIRE, i**Identify methods for **restoration and post fire mitigation** restoration if needed **outside of areas already subject to approved mitigation ratios,** including the acquisition of additional habitat at a 1:1 ratio should soils be contaminated above threshold limits and/or become unavailable to wildlife after the fire, **or as otherwise approved by the CPM, in coordination with the CDFW and USFWS.** Include methods for collaborating with CDFW, USFWS, and CPM during these activities; and
 7. **Reporting.** Identify all pre-fire testing locations on a map, at an approved scale (typically 1:6,000 or other scale with CPM approval). Identify post fire plume direction(s) and areas where soil testing indicates chemical constituents above baseline and at or above toxicity levels. Provide a detailed report of remedial actions taken during and post fire of all monitoring and restoration activities. Include the results of field surveys, animal health assessments, and observations of damaged vegetation or other fire related factors.

Verification: The project owner shall submit the draft PBFMMP to the CPM for review and approval at least ~~45~~**90** days prior to start of the delivery of any BESS battery components. The project owner shall provide the final PBFMMP to the CPM at least ~~10~~**30** days prior to start of the delivery of any BESS battery components.

BIO-28 Monarch Butterfly Avoidance and Minimization Measures. No more than 2 days prior to the initiation of site mobilization and/or construction-related vegetation trimming or removal, the applicant shall ensure that the DB and/or Biological Monitor surveys all areas of potentially suitable habitat for monarch butterfly larval host plants. Surveys shall be conducted by qualified biologists approved by the CPM pursuant to **BIO-1** and/or **BIO-3**. These measures shall be included in the BRMIMP and implemented.

If host plants are found, the DB shall survey all host plants for monarch eggs, larvae, and pupae. If no eggs, larvae, or pupae are found, plants may be removed within 2 days with approval from the CPM. If eggs, larvae, or pupae are present, host plants shall be protected in place until the DB has determined that the breeding season has concluded, or coordination with the CPM and USFWS

occurs. It is recommended, to the extent feasible, that that milkweed removal should be avoided until after the plant has gone to seed.

Verification: The project owner shall submit the results of the pre-construction monarch butterfly survey to the CPM for review and approval no later than 7 days after the survey is completed. **The project owner shall submit a final survey report to the CPM for review and approval no more than 30 days after survey effort has been completed.**

5.2.6 Recommended Mitigation Measures

For the project components outside CEC's Opt-In Certification area, the following mitigation measures can and should be adopted by the agency with permitting authority over those components consistent with California Code of Regulations title 14, section 15091(a)(2). If surveys or subsequent analysis indicate potential for 'take' of state or federally listed species, PG&E shall coordinate with the CDFW and/or USFWS to determine the necessity for incidental take coverage (e.g., Incidental Take Permit or Biological Opinion) and obtain such coverage prior to ground disturbing activities in the potentially affected area. **Any revisions to the PG&E provided measures are shown in bold underline for additions and strikethrough for deletions.**

MM BIO-1 Annual Training (FP-01). Hold annual training on habitat conservation plan requirements for employees and contractors performing covered activities in the Plan Area that are applicable to their job duties and work.

MM BIO-2 Standard Construction Practices. The following standard construction practices would be implemented, to reduce the potential for environmental impacts:

1. Parking (FP-02): Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt).
2. Use Existing Roads (FP-03): Use existing access and ROW roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation.
3. Off Road Access (FP-04): Locate off-road access routes and work sites to minimize impacts on plants, shrubs, and trees, small mammal burrows, and unique natural features (e.g., rock outcrops).
4. Equipment Inspection (FP-06): Minimize potential for covered species to seek refuge or shelter in pipes and culverts. Inspect pipes and culverts, of diameter wide enough to be entered by a covered species that could inhabit the area where pipes are stored, for wildlife species prior to moving pipes and culverts. Immediately contact a biologist if a covered species is suspected or discovered.
5. Vehicle Speed (FP-07): Vehicle speeds on unpaved roads will not exceed 15 miles per hour.

6. Trash, Firearms, Fire, Hunting, and Pets (FP-08): Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites.
7. Fire Safety (FP-09): During fire season in designated State Responsibility Areas, equip all motorized equipment with federally approved or state-approved spark arrestors. Use a backpack pump filled with water and a shovel and fire-resistant mats and/or windscreens when welding. During fire "red flag" conditions as determined by Cal Fire, curtail welding. Each fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C. Clear parking and storage areas of all flammable materials.
8. Minimize Footprint and Time (FP-10): Minimize the activity footprint and minimize the amount of time spent at a work location to reduce the potential for take of species.
9. Erosion and Sediment Control (FP-11): Utilize standard erosion and sediment control BMPs (pursuant to the most current version of PG&E's Stormwater Field Manual for Construction Best Management Practices) to prevent construction site runoff into waterways.
10. Trench/Hole Inspection and Escape Ramps (FP-13): Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife are not trapped. If any **common** wildlife are found, a biologist will be notified and would relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist. **If any special-status species are found, the biologist will coordinate with CDFW and/or USFWS to determine if take coverage is necessary.**
11. Revegetation (FP-14): If the covered activity disturbs 0.1 acre or more of habitat for a covered species in grasslands, the field crew will revegetate the area with a commercial "weed free" seed mix.
12. Refueling (FP-15): Prohibit vehicular and equipment refueling 250 feet from the edge of vernal pools, and 100 feet from the edge of other wetlands, streams, or waterways. If refueling must be conducted closer to **jurisdictional waters** wetlands, construct a secondary containment area subject to review by an environmental field specialist (EFS) and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas.
13. **Wetland/Riparian Jurisdictional Waters** Buffers (FP-16): Maintain a buffer of 250 feet from the edge of vernal pools and 50 feet from the edge of **jurisdictional waters** wetlands, ponds, or riparian areas. If maintaining the buffer is not possible because the areas are either in or adjacent to facilities, the field crew would implement other measures as prescribed by the land planner, biologist, or HCP administrator to minimize impacts by

flagging access, requiring foot access, restricting work until dry season, or requiring a biological monitor during the activity.

14. Tree Felling and Removal (FP-17): Directionally fell trees away from an exclusion zone, if an exclusion zone has been defined. If this is not possible, remove the tree in sections. Avoid damage to adjacent trees to the extent possible. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs over 6 inches in diameter.
15. Active Nests (FP-18): Nests with eggs and/or chicks would be avoided: contact a biologist, land planner or the Avian Protection Program manager for further guidance.

MM BIO-3 California Tiger Salamander (Hot Zone-6). Limit activities to foot access only when working off of established roadways unless a biological monitor flags off-road access routes for equipment that minimize impacts on habitat and species.

MM BIO-4 Patterson Run (Wetland-2). Identify wetlands, ponds, and riparian areas and establish buffers. Maintain a buffer of 50 feet around wetlands, ponds, and riparian areas. If maintaining the buffer is not possible because the areas are either in or adjacent to facilities, the field crew would implement other measures as prescribed by the biologist or HCP administrator to minimize impacts. These measures include flagging access, requiring foot access, restricting work until the dry season, requiring a biological monitor during the activity, or excavating burrows in ROWs where trenching will occur. Activities must maintain the downstream hydrology to the wetland, pond, or riparian area. Additional minimization measures may be implemented with prior concurrence from USFWS.

MM BIO-5 Best Management Practices. Even though the project is not a covered activity under the Bay Area Incidental Take Permit (BAITP), project owner shall follow applicable measures, including the following:

1. Education Program (ITP 5.4): Project owner shall conduct an education program for all persons employed or otherwise working in the project area before performing any work. The program shall consist of a presentation from the DB or General Biological Monitor that includes a discussion of the biology and general behavior of special-status species with the potential to occur, information about the distribution and habitat needs of special-status species, sensitivity of special-status species to human activities, its status pursuant to CESA including legal protection, recovery efforts, and penalties for violations. Project owner shall provide interpretation for non-English speaking workers, and the same instruction shall be provided to any new workers before they are authorized to perform work in the project area. Upon completion of the education program, employees or contractors shall sign a form or equivalent acknowledging that they attended the program and

understand all protection measures. This training shall be repeated at least once annually for long-term and/or permanent employees or contractors that would be conducting work in the project area.

2. Trash Abatement (ITP 5.6): Project owner shall initiate a trash abatement program before starting project activities and shall continue the program for the duration of the project. Project owner shall ensure that trash and food items are contained in animal-proof containers and removed, ideally at daily intervals but at least once a week, to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs.
3. Prohibition of Firearms (ITP 5.8): Firearms and domestic dogs shall be prohibited in each Work Area as well as from site access routes during construction and development of the project, except those firearms and domestic dogs that are in the possession of authorized security personnel or local, state, or federal law enforcement officials.
4. Erosion Control (ITP 5.9): Project owner shall implement and install all erosion and sediment control measures and devices prior to conducting project activities that include grading, excavation, or placement of fill. Project owner shall utilize erosion control measures where sediment runoff from exposed slopes or surfaces could enter a drainage, stream, wetland or pond. Project owner shall repair and/or replace ineffective measures or contrivances whose integrity has been compromised immediately.
5. Work Area Access (ITP 5.13): To the extent practicable, project related personnel shall access a Work Area using existing routes, and shall not cross special-status species' habitat outside of or en route to a Work Area. Project owner shall restrict project-related vehicle traffic to established roads, staging, and parking areas to the maximum extent practicable. Project owner shall ensure that vehicle speeds do not exceed 15 miles per hour to avoid special-status species on or traversing the roads.
6. Staging Areas (ITP 5.14): Project owner shall confine all project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to a Work Area using, to the extent possible, previously disturbed areas. No staging areas shall be located in chaparral or scrub habitats, over rock outcroppings or within 300 feet of a stock pond or vernal pool.
7. Equipment Fueling (ITP 7.1): No vehicles or heavy equipment will be refueled within 100 feet of a wetland, stream, or other waterway, ~~or within 250 feet of vernal pools~~, unless secondary containment is used. The fueling operator must always stay with the fueling operation. Tanks may not be topped off. If refueling must be conducted closer to **the waterway**, construct a secondary containment area subject to review by an environmental field specialist and/or biologist. Project owner shall maintain spill prevention and cleanup equipment in refueling areas. Sufficient spill

containment and cleanup equipment shall be present at all mobile, temporary, and permanent equipment fueling locations.

8. Lighting (ITP 7.2): Project owner shall ensure that all artificial outdoor lighting shall be limited to lighting for safety and security, and designed using Illuminating Engineering Society's design guidelines, International Dark-Sky Association-approved fixtures, or other industry standards that address lighting impacts. Lighting above ground level shall be directed downward or inward, where consistent with safety concerns, and shielding shall be utilized, where needed, to minimize light scatter off-site. Light fixtures shall have non-glare finishes that will not cause reflective daytime glare.
9. Covered Activities Hours (ITP 7.3): Construction activities shall cease 30 minutes before sunset and shall not begin prior to 30 minutes after sunrise, to the extent practicable. Emergency night work shall be limited in extent, duration, and brightness, to the extent feasible. For project activities E9a (Reconductoring), G9 (Pipeline Lowering), G11 (Pipeline Replacement), and minor new construction, work may not occur at night during rain events in CTS habitat within 0.5 miles of known or potential breeding habitat between November 1 and April 30 unless otherwise authorized by CDFW.
10. Stored Materials Inspection (ITP 7.4): Workers shall thoroughly inspect for CTS in all construction pipe, culverts, or similar structures with a diameter of two inches or greater that are stored for one or more overnight periods before the structure is subsequently moved, buried, or capped. If during inspection one of these animals is discovered inside the structure, workers shall notify the Biological Monitors) and allow the special-status species to safely escape that section of the structure before moving and utilizing the structure or moved out of harm's way by a DB.
11. Cover or Ramp Open Excavations (ITP 7.5): Trenches or pits shall be covered or equipped with an escape ramp if left overnight in special status species modeled habitat. Crews shall inspect any trench, pit, or hole every morning prior to conducting project activities to ensure no individuals are trapped; if any animals are found staff shall contact the DB(s) to identify whether it is a special status species and if so, it shall be moved out of harm's way by the DB(s). If the animal is not a special status species, then a General Monitoring Biologist or other individual with wildlife handling experience in possession of any applicable handling permits may move it out of harm's way.
12. Soil Stockpiles (ITP 7.6): Project owner shall ensure that soil stockpiles are placed where soil would not pass into ~~wetlands or any other~~ "waters of the state," in accordance with Fish and Game Code section 5650. Project owner shall cover and protect stockpiles to prevent soil erosion, including wind and rain. Spoils and shall be placed away from chaparral habitat, rock outcroppings, and concentrated ground squirrel, pocket gopher, or other

small mammal burrows or habitat features suitable for use by the special status species as refugia habitat.

13. Screen or Cap Hollow Pipes or Posts (ITP 7.7): All hollow pipes or posts that are installed as part of project activities, or encountered in a Work Area that the project owner owns or is responsible for, that are above ground shall be capped, screened, or filled with material by the project owner prior to the end of the day in which installation occurs.
14. Equipment Inspection (ITP 7.8): Workers shall inspect for special status species under vehicles and equipment before the vehicles and equipment are moved. If a special status species is present, the worker shall notify the Biological Monitors and wait for the special status species to move unimpeded to a safe location.
15. No Barriers to Covered Species Movement (ITP 7.9): Project owner shall construct access routes such that there are no steep curbs, v-ditches, berms, straw wattles, or dikes that could prevent special status species from traversing through ROWs or from exiting roadways. If curbs/berms/straw wattles are necessary for safety and/or surface runoff, project owner shall design and construct them to allow special status species to move over them. Project owner shall modify or remove exclusion fencing at the request of Biological Monitors or CDFW staff that may impede special status species movements.

MM BIO-6 California Tiger Salamander Specific Conditions.

1. California Tiger Salamander Pre-Activity Clearance Surveys (ITP 7.11): When project activities will result in ground disturbance in potential CTS aquatic habitat (seasonal or perennial), the DB(s) shall perform a pre-activity clearance survey no more than 14 days prior to the start of project activities. If project activities will be conducted within 500 meters of a known or suspected CTS breeding pond that will result in displacement of soil to a depth of 3-inches or greater and over an area of 0.1 acres or greater, the DB(s) shall perform a pre-activity clearance survey no more than 14 days prior to the start of project activities. For project activities E9a (Reconductoring), G9 (Pipeline Lowering), G11 (Pipeline Replacement), and E14 (Minor Substation Expansion) in modeled habitat, the DB(s) shall also conduct a pre-activity clearance survey. If a California tiger salamander in any life stage (adult, metamorph, larval, eggs, etc.) is encountered in a Work Area or at the recommendation of the DB, the project owner shall stop work and coordinate with CDFW to determine if take coverage is necessary. Pre-activity clearance surveys shall provide 100 percent visual coverage of a Work Area and a 50-foot buffer zone. All small mammal burrows within the Work Area and a 50-foot buffer zone shall be flagged to alert General Biological Monitors and work crews to their presence. Where feasible, an avoidance buffer of 50 feet or greater around active small mammal burrows

shall be maintained. The DB(s) shall submit a report documenting the results of the pre-construction surveys to CDFW within five days after performing the surveys. If any California tiger salamander are found within the Work Area or 50-foot buffer zone, the project owner shall stop work and coordinate with CDFW to determine if take coverage is necessary.

2. California Tiger Salamander Protection during Upland Movements or Exclusion Fencing (ITP 7.14): Project owner shall implement the following additional protective measures for Covered Activities E9a (Reconductoring), G9 (Pipeline Lowering), G11 (Pipeline Replacement), and E14 (Minor Substation Expansion), as well as E15 (Underground Line Construction) when the activity occurs outside of existing roadways or urban areas, in CTS habitat within 0.5 mile of known or potential breeding habitat between November 1 and April 30:
 - a. 7.14.1. Project owner shall not conduct project activities at night during rain events unless otherwise authorized by CDFW. The following day, crews will check for CTS around tires, equipment, and materials before resuming work. If a CTS is found, the project owner shall stop work and coordinate with CDFW to determine if take coverage is necessary.
 - b. 7.14.2. Prior to a rain event of 0.25 inches or greater within a 24-hour period, project owner shall install exclusion fencing around the perimeter of Work Areas to prevent CTS movement into the Work Areas. Installation of the exclusion fence shall be overseen and directed by the DB(s). The exclusion fence shall be buried a minimum of 4 inches below ground surface and equipped with one-way exits (if the Work Area still has burrows and has not been cleared of CTS) to avoid entrapment of CTS and other amphibians or reptiles within the fenced area. For every 100 feet of exclusion fencing, project owner shall provide coverboards to provide shelter for CTS.
 - c. 7.14.3. The exclusion fence shall be supported sufficiently to maintain its integrity under all conditions, such as wind and heavy rain, for the duration of the project activities in the Work Area being fenced. The DB(s) shall inspect the completed fencing prior to construction. General Biological Monitors shall check the exclusion fence at least once daily and maintain/repair the fence when necessary. Project owner shall install temporary exclusion fencing in a sequential manner that corresponds to the progression of project activities as specified above within a Work Area. When exclusion fencing is not required to be installed simultaneously throughout a Work Area then it shall be installed for only the portion of a Work Area that is under active construction and removed immediately after the construction has ceased to prevent substantial impediments to CTS movement.

3. Discovery of California Tiger Salamander in Work Area(s) (ITP 7.15): If a CTS, including body parts, is found by any person in a Work Area before or during project activities, project owner shall stop all work when safe to do so that could potentially injure CTS immediately and coordinate with CDFW to determine if take coverage is necessary.

Additional Staff Recommended Mitigation Measures

MM BIO-7 General Impact Avoidance and Minimization Measures.

1. Invasives: seed mixtures/straw used within natural vegetation will be either rice straw or weed-free straw. Clean all vehicles, equipment, clothing, etc. of material potentially containing noxious weeds/seeds prior to entering and exiting work locations. Cleaning can be accomplished by brushing, washing, or blowing with compressed air.
2. Herbicides: herbicides will be applied in a manner to avoid drift, will be stored and transported in a manner to prevent spilling, and will be applied to target species only. Applications must not be made immediately prior to or immediately following rain.
3. Wildlife Handling: no wildlife or plant species will be handled or removed from activity areas without PG&E approval, in coordination with CDFW and/or USFWS, if applicable.
4. Dead or Injured Listed Species: personnel will be required to report any accidental death or injury of a listed species or the finding of any dead or injured listed species to a qualified biologist. Notification of CDFW and/or USFWS of any accidental death or injury of a listed species shall be done in accordance with standard reporting procedures.
5. Consistent with APLIC Guidelines: generation tie-line and all associated components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC's) Suggested Practices for Avian Protection on Power Lines (APLIC 2006) and Reducing Avian Collisions with Power Lines (APLIC 2012), or most recent APLIC guidance, to reduce the likelihood of large bird electrocutions and collisions.

MM BIO-8 Special-Status Plants. Prior to the start of ground disturbance activities, a qualified biologist knowledgeable on the identification of rare plant species, including big tarplant, shall conduct a pre-construction plant survey of areas proposed disturbance and within a 100-foot buffer (where legally accessible) timed during the appropriate blooming period of the survey season immediately prior to construction to determine if any special-status plant species are present. If special-status plants are identified on-site, environmentally sensitive area fencing and appropriate signage should be installed at a minimum of ~~20~~ **50** feet from the edge of the population. The locations shall be mapped and PG&E shall confer with CDFW or USFWS as required by applicable law to avoid take of state

or federally listed species. **If a smaller buffer is necessary due to other site-specific constraints, the project owner, in coordination with the DB or qualified botanist shall develop and implement site-specific protection measures, such as monitoring, to avoid the impacts to the species, if possible. The measure shall be subject to approval from CPUC, in consultation with CDFW and/or USFWS.**

MM BIO-9 San Joaquin Kit Fox, American Badger, Burrowing Owl. Within 15 days prior to any habitat modification, a qualified biologist knowledgeable in the identification of all special-status wildlife species shall conduct a pre-construction survey of areas proposed for disturbance within work areas and 500-foot buffer (where legally accessible) to determine if any special-status species are present. If, as a result of this pre-construction survey it is determined that San Joaquin kit fox, American badger or burrowing owl are present, the following measures shall be implemented:

1. If signs of burrowing owl are identified on-site, CDFW shall be notified to determine if take coverage is necessary, and appropriate buffers shall be established to limit all construction activities. Buffers for burrows shall be as follows:

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting Sites	April 1–Aug 15	656 feet	1640 feet	1640 feet
Nesting Sites	Aug 16–Oct 15	656 feet	656 feet	1640 feet
Nesting sites	Oct 16–Mar 31	164 feet	328 feet	1640 feet

2. If a potential San Joaquin kit fox or American badger den is discovered, or a fox or badger is found in an “atypical” den such as a pipe or culvert, the qualified biologist shall establish a 50-foot buffer. If a known kit fox or badger den (one that shows evidence of current use or is known to have been used in the past) is discovered, a buffer of at least 100 feet shall be established using fencing. If a natal den is discovered, it shall be fenced and avoided in a buffer with a diameter of at least 200 feet. The qualified biologist shall notify CDFW and/or USFWS. Buffer zones shall be considered environmentally sensitive areas, and entry shall be restricted. If required buffers are not possible to protect the species, then CDFW and/or USFWS would be consulted to determine the need for take authorization through the acquisition of an incidental take permit, pursuant to Fish and Game Code section 2081 subdivision (d) and appropriate USFWS permit.

MM BIO-10 Swainson’s Hawk. If project activities, including site mobilization and construction, are scheduled during the nesting season for Swainson’s hawks (March 1 to September 15), prior to beginning work on the project, a qualified biologist shall conduct surveys according to the *Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley* (SHTA 2000) and prepare a report documenting the survey results. Surveys shall

be conducted: 1) within a minimum 0.5-mile radius of the project site or a larger area if needed to identify potentially impacted active nests, unless otherwise approved by the PG&E in writing, and 2) for at least the two survey periods immediately prior to initiating project-related construction activities. Surveys shall occur annually for the duration of the project.

If active Swainson's hawk nests are detected, the qualified biologist shall immediately notify CDFW and implement a 0.5-mile construction avoidance buffer around the nest until the nest is no longer active as determined by the qualified biologist, unless otherwise approved by PG&E in writing. Any detected nesting Swainson's hawk shall be monitored by the qualified biologist to ensure it is not disturbed during **site mobilization and/or** construction activities, unless otherwise approved in writing by PG&E. If work within the 0.5-mile buffer cannot be avoided the project owner shall consult with PG&E to avoid any potential for unauthorized take for Swainson's hawk without incidental take authorization.

MM BIO-11 Golden Eagle. If work occurs during the golden eagle nesting season (December 15 to August 31), a qualified biologist shall conduct surveys within a 1-mile radius no more than 30 days before starting activities. The qualified biologist shall submit protocol-level survey methodologies to PG&E for review and approval at least thirty (30) days prior to the start of surveys. It is recommended that the qualified biologist coordinates with the USFWS **and CDFW** to discuss implementation of golden eagle monitoring protocol so as to minimize duplicate efforts by others in the area. If eagles or active nests are found within 1 mile, work may only proceed after a USFWS **and CDFW** approved mitigation plan is established.

MM BIO-12 Nesting Bird Surveys Prior to Construction and Bird Buffers. Where scheduling allows, the clearing or removal of any vegetation, or other project-related activities that may adversely affect breeding birds shall occur outside the nesting season. If work occurs during nesting bird season (generally February 1 through August 31) pre-construction nesting bird surveys shall be conducted at least two weeks prior to work commencing, including staging, clearing and grubbing, the qualified biologist shall survey a sufficient area around the work site to identify any nests that are present and determine their status. The qualified biologist shall establish an adequate buffer around all active nests prior to the start of construction. Once construction work begins, the survey effort shall continue to ensure any nest starts established after the work commences are identified and adequate buffers applied. 'Sufficient' in the context of this condition means any nest within an area that could potentially be affected by the project. In addition to direct impacts, such as nest destruction, nesting birds might be affected by noise, vibration, odors and movement of workers or equipment. Identified active nests shall be continuously monitored during daylight hours for 24 hours immediately prior to any construction-related activities to establish a behavioral baseline of the adults and any nestlings. Once

work commences, all active nests shall be monitored by the qualified biologist to detect any signs of disturbance and behavioral changes as a result of the project and the buffers adjusted as appropriate or construction activities shall cease until the young have fledged.

Bird Buffers: The DB(s) and/or the Biological Monitor shall establish the following minimum no-disturbance buffers around active nests: 150 feet for species such as passerines, 500 feet for raptors such as buteos and accipiters and 0.25 miles for eagles. These buffers shall remain in place until the breeding season has ended or until the DB and/or Designated Monitor has determined that the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival.

MM BIO-13 Biological Monitor During Construction. A biological monitor will be onsite during ground disturbing activities, or other activities with the potential to impact sensitive biological resources, in order to minimize impacts to sensitive biological resources. Before the start of work each morning, the biological monitor would check under all equipment and stored supplies left in the work area overnight near suitable habitat for listed species with a potential to occur in the area. The monitor would have the authority to stop work or determine alternative work practices in consultation with agencies and construction personnel, as appropriate, if construction activities are likely to impact sensitive biological resources. The biological monitor would document monitoring activities in a daily log summarizing construction activities and environmental compliance.

MM BIO-14 California Red-Legged Frog. A qualified biologist will conduct pre-construction surveys prior to ground disturbing activities. If individuals are found, work would not begin until USFWS and CDFW are consulted. The DB and/or Biological Monitor would be present for all ground disturbing activities. Barrier fencing would be constructed around the worksite to prevent amphibians from entering the work area and will be removed within 72 hours of completion of work. No monofilament plastic will be used for erosion control. All open trenches would be inspected each morning and evening for trapped amphibians. Work would be avoided within suitable habitat from October 15 (or the first measurable rainfall of 1" or greater) to May 1.

MM BIO-15 Crotch's Bumble Bee. A PG&E and CDFW approved biologist shall conduct pre-construction surveys and daily monitoring for Crotch's bumble bee in all project areas, following CDFW non-invasive protocols. Prior to ground disturbance, the project owner must submit a Mortality Reduction and Relocation Plan to PG&E and CDFW for approval. This plan will detail survey methodology, habitat mapping, and specific protocols for nest relocation and minimizing impacts to foraging or overwintering bees. If bees or nests are detected, the qualified biologist shall coordinate with agencies to implement avoidance measures to avoid take.

MM BIO-16 Western Spadefoot. A qualified biologist shall complete pre-construction surveys within 48 hours prior to initiating construction and during the appropriate season (approximately February 1 through March 30). The qualified biologist shall submit the results to PG&E prior to starting construction. In the unanticipated event that western spadefoot are discovered on site, a qualified biologist shall develop a relocation plan and submit it to PG&E for review and approval. Western spadefoots shall be relocated to the nearest available suitable habitat at least 250 feet away from the project site to minimize the potential for spreading disease. Relocation may only be conducted by a qualified biologist with all appropriate permits. **Should western spadefoot become a state candidate for listing under CESA during the construction of the project, and the species is detected on the project site, work shall be suspended within 50-feet of the animal or until the species moves out of the project area. No handling would be authorized pending coordination with CDFW to determine if take coverage is necessary.**

MM BIO-17 Coast Horned Lizard and San Joaquin Coachwhip. A qualified biologist shall conduct pre-construction surveys within 48 hours prior to initiating project activities, the qualified biologist shall survey the construction site for coast horned lizard and San Joaquin coachwhip, including any and all rock outcrops and mammal burrows and any other potential habitat features. If coast horned lizards and/or San Joaquin coachwhips are found, they shall be allowed to leave the site before construction begins. Coast horned lizards and/or San Joaquin coachwhips may be moved “out of harm’s way” to the nearest safe and suitable habitat at least 250 feet away from the project site by the qualified biologist with all appropriate permits.

MM BIO-18 Monarch Butterfly. No more than 2 days prior to the initiation of site mobilization and/or construction-related vegetation trimming or removal, the applicant shall ensure that a qualified biologist and/or Biological Monitor surveys all areas of potentially suitable habitat for monarch butterfly larval host plants. If host plants are found, the DB shall survey all host plants for monarch eggs, larvae, and pupae. If no eggs, larvae, or pupae are found, plants may be removed within 2 days with approval from the PG&E. If eggs, larvae, or pupae are present, host plants shall be protected in place until the qualified biologist has determined that the breeding season has concluded, or coordination with the PG&E and USFWS occurs. It is recommended, to the extent feasible, that that milkweed removal should be avoided until after the plant has gone to seed.

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5.8 Land Use, Agriculture, and Forestry

5.8.1 Environmental Setting

Existing Conditions

The Potentia-Viridi Battery Energy Storage System (BESS) (project) is proposed to be located in eastern Alameda County at 17257 Patterson Pass Road (Assessor Parcel Number (APN) 99B-7890-2-4) (AMLGMN 2024p, AMLGMN 2024o, AC 2025a). The operational project would be on approximately 70 acres of the approximately 235.97 acre parcel (AMLGMN 2024p, AMLGMN 2024o). The project would consist of an approximately 3,200 megawatt-hour BESS facility, three operations and maintenance buildings, a project substation, and an overhead generation intertie (gen-tie) line running east across APN 99B-7890-2-6 to connect the project to the Tesla Substation, owned by Pacific Gas and Electric Company (PG&E) and located on APN 99B-7885-12 (AMLGMN 2024p, AMLGMN 2024j).

The main project parcel (APN 99B-7890-2-4) and one of the parcels the gen-tie line would cross (APN 99B-7890-2-6) are undeveloped annual grassland used for cattle grazing (AMLGMN 2024p, AMLGMN 2024j, Dudek 2025a). These two parcels are under a Williamson Act contract established in 1972 that was most recently renewed in 2024 (AMLGMN 2024j, AMLGMN 2024qq, DOC 2024; AC 2025b). A Williamson Act contract is a contract between a landowner and local government which ensures a property remains largely in agricultural or open space use in exchange for property tax benefits (DOC 2025a). While the parcels are subject to a Williamson Act contract, they are designated by the DOC as Grazing Lands and are not identified as Important Farmlands (including Prime Farmlands) (DOC 2022).

The CEC has certification authority over the project to a point of junction with any interconnected electrical transmission system, which is the point of change of ownership at a transmission tower on the east side of APN 99B-7890-2-6. The CEC certificate for the project would extend only to this transmission tower. The California Public Utilities Commission would have jurisdiction over the remaining project transmission structures extending from this point to the Tesla Substation, since PG&E would construct and own this portion of the gen-tie. The overall length of the gen-tie line is approximately one-half mile; the PG&E portion is approximately 1,300 feet from the point of interconnection to the Tesla substation. This **Land Use, Agriculture, and Forestry** section evaluates environmental impacts from the entire project, including the portion to be built and operated by PG&E. See **Section 2, Introduction**, for a description of the project components within the CEC's Opt-In certification and project components outside the CEC's Opt-In certification.

Surrounding land uses include mostly grazing agricultural land uses and transmission infrastructure, such as high voltage transmission lines and electrical substations, and the Altamont Corridor Express railway (AMLGMN 2024p, AMLGMN 2024o, AMLGMN

2024vv). The City of Tracy is about 2.5 miles to the northeast of the project (AMLGMN 2024j). There are no airports within 20,000 feet of the project site.

Regulatory

There are state and local laws, ordinances, regulations, and standards (LORS) related to land use and agriculture that would apply to the project. These LORS are discussed below, and a discussion of the project's conformance with these LORS is found later in subsection, "5.8.3 Project Conformance with Applicable LORS."

Federal

No federal regulations apply to this project. The project is not within 20,000 feet of an airport and has no features exceeding 200 feet in height, so Federal Aviation Administration (FAA) notification is not needed. The project is not within 1,000 feet of a military installation, within military special use airspace, or beneath a military low-level flight path, so notification of the military is also not needed (OPR 2025a; OPR 2025b).

State

California Land Conservation Act of 1965 (Williamson Act, Government Code section 51200 *et seq.*). This Act authorizes local governments to contract with private landowners for the purpose of preserving agricultural and open space lands from urban development. These contracts are referred to as Williamson Act contracts, and the term of the contract is at least 10 years. (DOC 2025a). Williamson Act contracts prevent development of the subject land unless the use is deemed compatible. (Gov. Code § 51243(a).) The term of the contract automatically renews each year, unless it is nonrenewed or canceled. The most common method for withdrawing from a Williamson Act contract is filing a notice of nonrenewal, which can be initiated by either the land use agency or the landowner. Under this process, the contract is ended after a 9-year nonrenewal period, during which taxes gradually increase every year. A Williamson Act contract cancellation is also an option under the circumstances and conditions set forth in Government Code section 51280 *et seq.* In such cases, landowners may petition the board or council of their county or city for cancellation of the Williamson Act contract. The board or council may grant tentative cancellation only if it makes required statutory findings, that (1) the cancellation is consistent with the purposes of the chapter, and (2) the cancellation is in the public interest. (Government Code § 51282(a).)

California Government Code section 51238 states that, unless otherwise decided by a local board or council, the erection, construction, alteration, or maintenance of electric facilities, as well as other specified types of facilities, are determined to be compatible uses within any agricultural preserve. Government Code section 51238 states that the board of supervisors may impose conditions on lands or land uses to be placed within preserves to permit and encourage compatible uses in conformity with Government Code section 51238.1.

Local

Alameda County East County Area Plan. The Alameda County East County Area Plan is the only section of the General Plan with land use and agriculture policies pertaining to the proposed project (AC 2002). The project's General Plan land use designation is Large Parcel Agriculture (LPA) (AC 2025b). This plan also shows the project as outside of the Urban Growth Boundary in an area designated as a Wind Resource Area (AC 2002, Figures 3 and 4).

Alameda County Zoning Code. The Alameda County Zoning Code includes discussion of allowed uses and development standards (such as minimum setbacks and maximum height) for parcels in various zoning districts (AC 2025c). The project's zoning classification is Agriculture-Combining B District (A-BE) (AC 2025b).

Alameda County Uniform Rules and Procedures Governing Agricultural Preserves and Williamson Act Contracts (Uniform Rules). Alameda County's Uniform Rules document provides regulations for development on Williamson Act lands in the County (AC 2011). Alameda County most recently revised this document on October 11, 2011, to meet the Department of Conservation's (DOC's) standards for Williamson Act implementation.

Cumulative

There are other past and future projects in the vicinity of the project. Impacts from these projects could potentially combine with impacts from the Potentia-Viridi BESS project to cause significant cumulative impacts. The projects that comprise the cumulative setting for Land Use, Agriculture, and Forestry are the projects listed in **Appendix A, Table A-1** that are under a Williamson Act contract. These projects are:

Map Id Number	Project Name	Description	Location	Distance to Project (miles)	Status
1	Mulqueeney Ranch Wind Repowering Project (Grazing Land and Non-Prime Williamson Act)	Installation of up to 36 new wind turbines, replacing the 518 old generation wind turbines that have been removed	Southeast quadrant of the Alameda County portion of the Altamont Pass, north and south Patterson Pass between 1-2 miles north of Tesla Road and 1 mile south of I-580	0	Under Construction
3	Jess Ranch Compost Project (Grazing Land, Williamson Act Contract Nonrenewal)	Industrial- Project facility would receive and process organic materials,	15850 Jess Ranch Road, Tracy (99B-7800-007-07)	1	Approved

Map Id Number	Project Name	Description	Location	Distance to Project (miles)	Status
		primarily green waste			
9	Sand Hill Wind Repowering Project (Grazing Land and Non-Prime Williamson Act)	Energy-Wind Turbine. Installation of up to 40 wind turbines	Along north and south sides of Altamont Pass Road, west of Grant Line Road, along east and west sides of Mountain House Road, and on both sides of Bethany Reservoir, west of Delta-Mendota Canal northwest of Mountain House Road, and southeast of the intersection of Christensen and Bruns Road	2.14	Approved
28	Viracocha Hills BESS (Grazing Land and Non-Prime Williamson Act)	BESS	North of Altamont Pass Road, 1mile east of Dyer Road	4.18	Under Review

5.8.2 Environmental Impacts

LAND USE, AGRICULTURE, AND FORESTRY	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project physically divide an established community?	☐	☐	☐	☒
b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c. Would the project Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? ¹	☐	☐	☐	☒

LAND USE, AGRICULTURE, AND FORESTRY	Significant and Unavoidable Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
e. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code, section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code, section 51104(g))? ²	☐	☐	☐	☒
f. Would the project result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
g. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental checklist established by Cal. Code Regs., tit. 14, Div. 6, Ch. 3, Appendix G, land use and planning and agriculture and forestry resources.

1 In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

2 In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

5.8.2.1 Methodology and Thresholds of Significance

CEC staff evaluated the proposed project according to the provisions in California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et. seq.) and the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et. seq.). There are no other applicable methodologies or thresholds of significance applicable to this project.

Impact discussions below for construction and operation pertain to project components both within the CEC's Opt-In Certification and project components outside the CEC's Opt-In certification.

5.8.2.2 Direct and Indirect Impacts

a. Would the project physically divide an established community?

Construction

No Impact. Construction activities would not physically divide an established community. Construction activities would occur on three adjacent parcels in an undeveloped rural area with no nearby pedestrian, bicycle, or transit facilities (AMLGMN 2024j; AMLGMN 2024u). These parcels do not serve as links between communities or parts of a community. Although the transmission line from the main project site would need to cross Patterson Pass Road on its way to the PG&E Tesla Substation, the applicant stated that no full road closures are expected during construction (AMLGMN 2024u). Condition of Certification **TRANS-1** would require the project to implement a Traffic Management Plan during construction to ensure that road access is maintained. (See **Section 5.14, Transportation**, for more information.)

For these reasons, construction activities would not physically divide an established community, and there would be no impact.

Operation

No Impact. The permanent, operational project structures would not physically divide an existing community. The project would occupy currently undeveloped rural parcels that do not serve as a link between communities or parts of a community. The off-site gen-tie line would not obstruct any roadways, sidewalks, bikeways, or railways. Because the project would not occupy parcels linking communities and would not prevent pedestrian, bike, or vehicular movement between different areas of the community, there would be no impact.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Construction and Operation

Less Than Significant Impact. While the project would conflict with a regulation in Alameda County's Uniform Rules and Procedures Governing Agricultural Preserves and Williamson Act Contracts, this conflict would result in less than significant impacts, as discussed below. The following are state and local regulations affecting the project and an analysis of project conformance with these regulations.

State

California Land Conservation Act of 1965 (Williamson Act, Government Code section 51200 et seq.). This Act authorizes local governments to contract with private landowners for the purpose of preserving agricultural and open space lands

from urban development. These contracts are referred to as Williamson Act contracts (DOC 2025a).

As discussed later in Section d. of this **Land Use, Agriculture, and Forestry** section, the project conflicts with Alameda County's Uniform Rules and Procedures applying to Williamson Act contracts. These conflicts do not cause a significant impact, as discussed later.

Local

Alameda County East County Area Plan. The Alameda County East County Area Plan is the only section of the General Plan with land use and agriculture policies pertaining to the proposed project (AC 2002). The project is designated Large Parcel Agriculture (LPA) with respect to the East County Area Plan (AC 2025b). This plan also shows the project as outside of the Urban Growth Boundary in an area designated as a Wind Resource Area (AC 2002, Figures 3 and 4). East County Area Plan policies applicable to the project are discussed below:

Policy: Large Parcel Agriculture land use designation (page 47 of the East County Area Plan): *The maximum building intensity for non-residential buildings shall be .01 FAR (floor area ratio) but (the maximum building square footage allowed shall) not (be) less than 20,000 square feet.*

Apart from infrastructure under Policy 13, all buildings shall be on a contiguous development envelope not to exceed 2 acres, except they may be located outside the envelope if necessary for security reasons or, if structures for agricultural use, necessary for agricultural use.

*...This designation permits agricultural uses, agricultural processing facilities, limited agricultural support service uses, secondary residential units, visitor-serving commercial facilities, 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** (page 47, emphasis added).*

Conformance Analysis: Consistent. On the main project parcel (APN 99B-7890-2-4), there is a proposed operations and maintenance building of approximately 5,000 square feet and a control building of approximately 1,040 square feet for a building floor area total of 6,040 square feet (AMLGMN 2024o, Table 2-1). The total parcel size is approximately 236 acres, or 10,280,160 square feet (AC 2025a). This translates to a FAR of approximately 0.0006, which is less than the maximum of 0.01.

The development envelope for the project is approximately 70 acres. This exceeds the 2-acre development envelope maximum in this regulation for buildings. However, this is permissible because the project meets the definition of "infrastructure" under Policy 13,

which includes public facilities and all structures and development necessary for the provision of public services and utilities.

The project is also consistent with the uses allowed in the Large Parcel Agriculture land use designation, which include public and quasi-public uses, utility corridors, and similar uses.

Policy 13: The County shall not provide nor authorize public facilities or other infrastructure in excess of that needed for permissible development consistent with the Initiative (referring to Measure D, approved by voters in the year 2000, which is reflected in the current East County Area Plan). This policy shall not bar 1) new, expanded or replacement infrastructure necessary to create adequate service for the East County, 2) maintenance, repair or improvements of public facilities which do not increase capacity, and 3) infrastructure such as pipelines, canals, and power transmission lines which have no excessive growth-inducing effect on the East County area and have permit conditions to ensure that no service can be provided beyond that consistent with development allowed by the Initiative. "Infrastructure" shall include public facilities, community facilities, and all structures and development necessary to the provision of public services and utilities.

Conformance Analysis: Consistent. The BESS would not exceed what is allowed in the Large Parcel Agriculture land use designation, which includes public and quasi-public uses, utility corridors, and similar uses. It would provide electrical infrastructure needed to support adequate service for California, including the East County. The BESS facility would also not be growth-inducing, as it would be used to power the grid when additional electricity is needed, accommodating the integration of intermittent renewables like solar and wind power.

Policy 54: The County shall approve only open space, park, recreational, agricultural, limited infrastructure, public facilities (e.g., limited infrastructure, hospitals, research facilities, landfill sites, jails, etc.) and other similar and compatible uses outside the Urban Growth Boundary.

Conformance Analysis: Consistent. The project would be classified as a public facility or similar use, which is allowable outside the Urban Growth Boundary. Policy 54 includes as examples of a public facility: limited infrastructure, hospitals, research facilities, landfill sites, and jails. Policy 218 in the East County Area Plan includes the following other examples of a public facility: parks and recreational facilities, schools, child care facilities, police, fire, and emergency medical facilities, solid waste, water, storm drainage, flood control, subregional facilities, utilities, etc. Policy 311 lists the additional examples of wastewater treatment and communications facilities. The project would be similar in scale to these types of uses and most similar to the listed utility use.

Policy 71: The County shall conserve prime soils (Class I and Class II, as defined by the USDA Soil Conservation Service Land Capability Classification) and Farmland of Statewide Importance and Unique Farmland (as defined by the California Department of

Conservation Farmland Mapping and Monitoring Program) outside the Urban Growth Boundary.

Conformance Analysis: Consistent. The project would not be on Prime Farmland, which has soil with the best physical and chemical characteristics for producing crops, Farmland of Statewide Importance, or Unique Farmland. It is on Non-Prime Farmland designated as Grazing Land by the DOC (DOC 2022). The USDA soil classifications for the project site are not Class I or Class II prime soils, but Class IV soils, which are soils that have very severe limitations that restrict the choice of plants or require very careful management, or both.

Policy 73: The County shall require buffers between those areas designated for agricultural use and new non-agricultural uses within agricultural areas or abutting parcels. The size, configuration and design of buffers shall be determined based on the characteristics of the project site and the intensity of the adjacent agricultural uses, and if applicable, the anticipated timing of future urbanization of adjacent agricultural land where such agricultural land is included in a phased growth plan. The buffer shall be located on the parcel for which a permit is sought and shall provide for the protection of the maximum amount of arable, pasture, and grazing land feasible.

Conformance Analysis: Consistent. The project would occur on 70 acres of an approximately 236-acre parcel, with varying buffer space of at least 100 feet between the structures and the property lines (Dudek 2025d). This would be more than sufficient for separation between the project and adjacent grazing land, given that the project would have less than significant impacts with relation to noise, hazardous materials, wildfires, and air quality. (See **Sections 5.9, Noise and Vibration, 5.7, Hazards, Hazardous Materials/Waste, and Wildfire**, and **5.1, Air Quality** for details.)

Policy 138: The County shall allow development and expansion of major public facilities (e.g., hospitals, research facilities, landfill sites, jails, etc.) in appropriate locations inside and outside the Urban Growth Boundary consistent with the policies and Land Use Diagram of the East County Area Plan.

Conformance Analysis: Consistent. As discussed here, the project would be consistent with the policies of the East County Area Plan, including the land uses allowed under the project site's Large Parcel Agriculture land use designation.

Policy 139: The County shall ensure that new major public facilities are properly sited to avoid land use conflicts and potential health and safety risks.

Conformance Analysis: Consistent. The project would be consistent with the Large Parcel Agriculture land use designation and would not interfere with surrounding agricultural lands. Siting of the project would cause no significant health and safety risks. See **Sections 5.1, Air Quality, 5.7, Hazards, Hazardous Materials/Waste,**

and Wildfire, 5.9, Noise and Vibration, 5.10, Public Health, 5.13, Transmission Line Safety and Nuisance, and 5.14, Transportation of this document for details.

Policy 173: The County shall discourage the development of uses and structures that are not compatible with wind energy operations within the Wind Resource Area.

Conformance Analysis: Consistent. The project, located within the County's designated Wind Resource Area, would be a similar use to wind energy facilities and would not obstruct or interfere with wind energy operations in any way. The project is also not adjacent to wind energy facilities.

Alameda County Zoning Code. The Alameda County Zoning Code includes discussion of allowed uses and development standards (such as minimum setbacks and maximum height) for parcels in various zoning districts (AC 2025c).

Regulation: The project's zone classification is Agriculture-Combining B District (A-BE) (AC 2025b). The Agriculture zoning designation does not specifically address battery storage, which is not unexpected given that it is a newer technology. However, per Section 17.06.040J of the Alameda County Zoning Ordinance, a similar use, "public utility building or uses", may be allowed in the Agriculture zoning district with a conditional use permit. This conditional use permit would be issued by Alameda County's Board of Zoning Adjustments if the project was under the jurisdiction of Alameda County (AC 2025c).

Conformance Analysis. Consistent. CEC staff has determined that the project would meet the required findings for a Conditional Use Permit, per Section 17.54.130 of the Alameda County Zoning Ordinance, as discussed below (AC 2025c).

Conditional Use Permit Considerations.

In reviewing a CUP application, special review is needed to determine whether or not the use:

a) Is required by the public need;

Analysis: The project is needed to provide the electrical grid with additional capacity during peak demand. The project would charge when demand for electricity is low and discharge electricity to the grid when demand is high. This would help accommodate intermittent renewable sources of energy, such as solar and wind energy, and would reduce the need for more polluting natural gas peaker plants. See **Section 4.3, Transmission System Engineering**, for more details.

b) Will be properly related to other land uses and transportation and service facilities in the vicinity;

Analysis: The project would be in an area with other electrical infrastructure, such as transmission lines and substations. The project site is designated by the

East County Area Plan as part of a Wind Resource Area (AC 2002, Figures 3 and 4), meaning that the area is appropriate for wind energy facilities, a use similar to a BESS plant. Also, the project would generate very few operational trips and would not lead to population growth. No new transportation facilities or service facilities would be needed, and existing transportation and service facilities would not be significantly impacted. (See **Section 5.14, Transportation**, for more information.)

- c) If permitted, will under all the circumstances and conditions of the particular case, materially affect adversely the health or safety of persons residing or working in the vicinity, or be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood;*

Analysis: The project would not adversely affect the health or safety of people living or working nearby or be detrimental to the public welfare or to properties or improvements in the neighborhood. The project would not have significant off-site impacts or significant health and safety risks. See **Sections 5.1, Air Quality, 5.7, Hazards, Hazardous Materials/Waste, and Wildfire, 5.9, Noise and Vibration, 5.10, Public Health, 5.13, Transmission Line Safety and Nuisance, and 5.14, Transportation** of this document for details.

- d) Will be contrary to the specific intent clauses or performance standards established for the district, in which it is to be located.*

Analysis: The project would not be contrary to the specific intent clauses or performance standards established for the Agriculture zoning district. The Agriculture zoning district was “established to promote implementation of general plan land use proposals for agricultural and other nonurban uses” and does not exclude electrical infrastructure or public utility uses. As discussed above, the project meets the other required findings for a conditional use permit, such as not adversely affecting the public or properties nearby.

Because CEC staff was able to make the findings Alameda County would require for issuance of a conditional use permit, the project would be consistent with the Alameda County Zoning Code’s allowed uses in the Agriculture-Combining B District.

Regulation: The Agriculture zoning designation requires development to be on a lot size of at least 100 acres (AC 2025c, Section 17.06.060). It also requires setbacks of at least 30 feet for the front yard, at least 10 feet for the rear yard, and at least 10 feet for the side yards. No maximum height is provided (AC 2025c, Section 17.06.070).

Conformance Analysis: Consistent. With respect to the zoning district’s development standards, the project parcel is more than 100 acres, and the project setbacks exceed those required. Structures have varying setbacks of at least 100 feet between the structures and the property lines (Dudek 2025d). Therefore, the project is consistent with the Alameda County Zoning Code’s development standards for the Agriculture-Combining B District. Condition of Certification (COC) **LAND-1**, which would require

review of the final project site plan by Alameda County, would ensure compliance with zoning code standards.

Alameda County Uniform Rules and Procedures Governing Agricultural Preserves and Williamson Act Contracts (Uniform Rules). Alameda County's Uniform Rules document provides a framework for creating and modifying Williamson Act contracts in Alameda County. It also provides regulations for development on Williamson Act lands in the County and rules for determining compatible uses and development on contracted land (AC 2011).

Conformance Analysis: Inconsistent. The project is not consistent with Uniform Rule 2, Section I.B.3.c of this document, which states that compatible, non-agricultural uses that do not qualify as buildings shall be cumulatively restricted to no more than 10 percent of the contracted property, or 10 acres, whichever is less. Alameda County refers to this as the 10/10 Rule (AC 2022; AC 2011, page 2-2). The majority of the project structures do not qualify as buildings, with the exception of an operations and maintenance building and control building totaling approximately 6,040 square feet, on the main project parcel (APN 99B-7890-2-4) (AMLGMN 2024o, Table 2-1). The project would be clustered in an area so that the remaining contracted land remains devoted to grazing but would be located on approximately 70 acres, with approximately 58 acres of permanent disturbance (AMLGMN 2024o, Table 2-2), which is more than 10 acres. This is a LORS nonconformance, but a less than significant environmental impact. The reason is that although the project site is under a Williamson Act contract, the project site is classified by the DOC as non-prime Grazing Land. This is not an Important Farmland category, so exceeding the permitted development on the site would not affect Important Farmland. See Section d. of this Land Use, Agriculture, and Forestry section for more details.

c. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?¹

Construction and Operation

No Impact. The California Department of Conservation designates the main project parcel (APN 99B-7890-2-4) and the main transmission line parcel (APN 99B-7890-2-6)

1 In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

as Grazing Land. The PG&E Tesla Substation parcel with the gen-tie connection (APN 99B-7885-12) is designated as Urban and Built-Up Land (DOC 2022). Neither of these designations is an Important Farmland category of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC 2025b). Therefore, construction and operation of the project would have no impact to Important Farmland.

d. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Construction and Operation

Less Than Significant Impact. The project conflicts with a Williamson Act contract through its nonconformance with Alameda County's Uniform Rules and Procedures Governing Agricultural Preserves and Williamson Act Contracts. Specifically, the project conflicts with Uniform Rule 2.I.B.3.c, which states that compatible, non-agricultural uses that do not qualify as buildings shall be cumulatively restricted to no more than 10 percent of the contracted property, or 10 acres, whichever is less (the 10/10 Rule) (AC 2022; AC 2011, page 2-2). The conflict with Williamson Act regulations is a LORS nonconformance, but a less than significant environmental impact. The reason is that although the project site is under a Williamson Act contract, the project site is classified by the DOC as non-prime Grazing Land. This is not an Important Farmland category, so exceeding the permitted development on the site would not affect Important Farmland. More details are discussed later in this subsection.

Existing Zoning

As discussed earlier under subsection b), the project is consistent with existing agricultural zoning for the project site. CEC staff was able to make the conditional use permit findings required by Alameda County for project approval, and the project met the required development standards for lot size and setbacks.

Williamson Act Contract

A Williamson Act contract is a contract between a landowner and local government which ensures a property remains largely in agricultural or open space use in exchange for property tax benefits (DOC 2025a). The main project parcel (APN 99B-7890-2-4) and the main gen-tie line parcel (APN 99B-7890-2-6) are under the same Williamson Act contract established in 1972, which was most recently renewed in 2024 (AMLGMN 2024j, AMLGMN 2024qq, DOC 2024). The land under the contract is defined as Non-Prime Farmland, meaning that the soil does not have the best physical and chemical features to sustain long-term agricultural production (DOC 2024; DOC 2025b). The total acreage covered by the Williamson Act contract is 232.79 acres for the main project parcel, and 43.35 acres for the gen-tie parcel (DOC 2024). The remaining parcel on which the gen-tie line would be located, the Tesla Substation parcel (APN 99B-7885-12), is not under a Williamson Act contract (DOC 2024). In Alameda County, the County's "Uniform Rules and Procedures Governing Agricultural Preserves and Williamson Act Contracts" regulates Williamson Act contracts.

Uses Allowed by Contract and Definition of Electric Facility

It should be noted that the list of allowed uses in the Williamson Act contract governing the project parcels does not include energy storage of any type, including battery energy storage, or standalone electrical facilities. It is not unexpected that battery energy storage is not included, given that battery energy storage systems are a relatively new technology, and the contract was formalized in 1972. (See Attachment 1, Exhibit B.) The only listed energy-related allowed uses are “drilling for and removal of oil, gas or other hydrocarbon substances, and mining and quarrying” and supportive electrical facilities associated with a permitted use. However, the contract does allow for other uses that have been deemed as compatible uses by Alameda County. The contract states: “The Board of Supervisors may, from time to time, during the time of this contract or renewal thereof, by resolution add to those uses set forth in Exhibit B other uses which are compatible with the agricultural uses within the preserve where said property is located. The provisions of this contract and any resolution supplementing the uses permitted in Exhibit B are not intended to limit or supersede the planning and zoning powers of the County” (AMLGMN 2024qq).

The application states that under the Williamson Act, electrical facilities are determined to be a compatible use, absent an express finding to the contrary, referencing Government Code section 51238(a)(1) (AMLGMN 2024j, p. 3.6-6). According to state law: *Notwithstanding any determination of compatible uses by the county or city pursuant to this article, unless the board or council after notice and hearing makes a finding to the contrary, the erection, construction, alteration, or maintenance of gas, electric, water, communication, or agricultural laborer housing facilities are hereby determined to be compatible uses within any agricultural preserve*. (Gov. Code, § 51238 (a)(1).) Alameda County reiterates this state law in its local regulations. In Alameda County’s Uniform Rules, Section II.E.1 states that: *“The erection, construction, alteration or maintenance of gas, electric, water or communication utility facilities are compatible uses unless the Board of Supervisors, after notice and hearing, makes a finding to the contrary (see Government Code Section 51238)”* (AC 2011, page 2-11).

Neither state law nor Alameda County’s Uniform Rules, which govern Williamson Act contracts in the County, define what is meant by “electric facility.” Government agencies differ in their interpretation of what an “electric facility” is, with some defining it more narrowly as transmission lines supporting agricultural uses and others more broadly to include electric generation facilities (Breakfield 2012). Although Alameda County does not formally define which type of electric facility would be compatible with a Williamson Act contract, in their 2022 “Large Commercial Solar and Battery Storage Statement of Policy Components” (Policy Components), the County defines battery storage facilities as “electrical transmission corridor equipment” for the purposes of General Plan conformance (AC 2022). This implies that Alameda County would consider battery storage facilities as electric facilities for the purposes of compatibility with Williamson Act contracts; however, no formal policy has been approved. It could be argued that the definition of “electric facility” may include battery storage facilities, in the absence of regulations prohibiting this interpretation. This is the position CEC staff

has taken, although it is not fully clear what types of facilities are intended to be included in the definition, in the absence of state or local guidance.

However, it is clear that the proposed transmission infrastructure would be included even under the most narrow interpretation of “electric facility”, meaning that the project’s transmission infrastructure located on Williamson Act parcels are clearly compatible with Williamson Act contracts. Accordingly, these project components would not require the cancellation of Williamson Act contracts under Government Code Section 51238. The impact associated with construction and operation of these project transmission infrastructure would be less than significant.

Project Conformance with Alameda County Uniform Rules and Procedures Governing Agricultural Preserves and Williamson Act Contracts

If Alameda County was the jurisdictional agency reviewing this project, the project would be required to meet certain standards, as discussed below.

Alameda County Williamson Act Uniform Rules and Procedures – Uniform Rule 2, Compatible Uses and Development on Contracted Land, Section I.B.3.c., Location by Types of Compatible Use (10/10 Rule) (AC 2011, pages 2-2 to 2-3). To preserve agricultural lands, the County’s Uniform Rules limit the location and scale of compatible development on Williamson Act contracted properties to maintain agriculture as the primary use of the land. In Uniform Rule 2, under the “Location by Types of Use” header, Section I.B.3.c states that compatible, non-agricultural uses that do not qualify as buildings shall be cumulatively restricted to no more than 10 percent of the contracted property, or 10 acres, whichever is less, which is referred to by Alameda County as the 10/10 Rule (AC 2022; AC 2011, page 2-2)². The proposed project’s size exceeds the County’s 10/10 Rule on the main project parcel, 99B-7890-2-4, which would house the BESS. Ten percent of the project’s parcel size is (0.10)(235.97), which is approximately 24 acres. In this case, 10 acres is less than ten percent of the project parcel’s size, so the project may not exceed 10 acres. The project exceeds this at approximately 70 acres, with approximately 58 acres of permanent disturbance (AMLGMN 2024o, Table 2-2).

The project’s conflict with Williamson Act regulations is a LORS nonconformance, but a less than significant environmental impact. The reason is that although the project site is under a Williamson Act contract, the project site is classified by the DOC as non-prime Grazing Land. This is not an Important Farmland category, so exceeding the permitted development on the site would not affect Important Farmland. Furthermore,

² The Policy Components document notes the need to amend the County’s Uniform Rules to allow compatible uses, such as battery storage facilities, on non-prime Williamson Act land to exceed these limits. The Policy Components document states that any project exceeding the 10/10 Rule would be required to be an agrivoltaics project, which the document defines as “the establishment of... energy generation with active agriculture (grazing/crops) on the same site” (AC 2022). BESS facilities would not be considered to be agrivoltaics projects because compared to solar panels or wind facilities, they have large footprints.

while not directly resolving the LORS conflict, proposed COC **LAND-2**, discussed later, would require the project owner to **do one of two things: (1) obtain partial cancellation of the existing Williamson Act contract from Alameda County, removing the project site from the contract; or, 2) conserve agricultural land equivalent to the amount of Grazing Land lost to the project.**

Alameda County Williamson Act Uniform Rules and Procedures – Section III.B.3 – Findings for a Compatible Use Determination (AC 2011, page 2-14).

If Alameda County was the reviewing agency, the applicant would be required to apply for a Compatible Use Determination with the County, in accordance with Section III of the County's Uniform Rules. CEC staff has determined that the project does not meet the findings required for a Compatible Use Determination from Alameda County due to its size, although it does meet the findings for an Exception to the Compatible Use Determination, as discussed below. The discussion of the Compatible Use Determination findings is below.

The Alameda County Williamson Act Compatible Use Determination involves a two-part determination: 1) whether there is an existing commercial agricultural use that meets the thresholds established in Uniform Rule 1; and, 2) whether the proposed use or development meets other required findings in the Uniform Rules and Procedures.

- a) There is an existing commercial agricultural use on the parcel that meets one of the thresholds established in Uniform Rule 1.*

Analysis: Consistent. The main project parcel, APN 99B-7890-2-4, is currently in use for cattle grazing and has been in use for this since before the creation of the Williamson Act contract in 1972 (Dudek 2025a). According to Uniform Rule 1, grazing of livestock on non-prime land at least 40 acres in size, like the project site, is defined as a commercial use if it yields some gross annual revenue, and if at least 60 percent of the property is used for commercial agriculture (AC 2011, page 1-6). Grazing on the BESS site meets these criteria, and so there is an existing commercial agricultural use on the parcel (Dudek 2025a). The project parcel which the gen-tie line crosses, APN 99B-7890-2-6, is also undeveloped land used for cattle grazing and meets these criteria.

- b) The proposed use is included on Table 1: Compatible Uses – A-District or on Table 2: Compatible Uses – CA-District depending on (in) which zoning district the contracted parcel(s) is located.*

Analysis: Consistent. Table 1 on pages 2-16 to 2-19 of Alameda County's Uniform Rules lists uses compatible with Williamson Act contracted lands in the A-District, or Agriculture zoning district. The most similar compatible use to the project is "erection, construction, alteration, or maintenance of gas, electric, water, and communication facilities". Energy facilities such as solar panels and commercial wind turbines are also listed as compatible uses. As discussed earlier, Alameda County's 2022 "Policy Components" defines battery storage facilities as "electrical transmission corridor equipment" for the purposes of General Plan conformance

(AC 2022). This, along with the listing of similar energy facilities as compatible, implies that Alameda County would consider battery storage facilities as electric facilities compatible with Williamson Act contracts. The gen-tie line would also be considered an electric facility, which is compatible with Williamson Act contracts.

- c) *The proposed use is consistent with the Principles of Compatibility listed under Section I.A. of this Rule. If the compatible use was allowed by contract before June 7, 1994, the Principles of Compatibility do not apply; although the use must be compatible within the limits of the definition of the Williamson Act at that time (see Government Code Section 51238.3).*

Analysis: Inconsistent. The proposed use was not allowed by contract before June 7, 1994, and it is inconsistent with the Principles of Compatibility, located in Alameda County's Uniform Rules in Section I.A. on page 2-1, as analyzed below.

Principles of Compatibility:

Uses approved on contracted lands shall be consistent with all of the following principles of compatibility:

- 1) *The use will not significantly compromise the long-term productive agricultural capability of the contracted property or other contracted lands in agricultural preserves. (See also Government Code Section 51238.1).*

Analysis: Inconsistent. The use would significantly compromise the long-term productive agricultural capability of the contracted property, but not other contracted lands in agricultural preserves.

The proposed BESS would be on approximately 70 acres, or approximately 30 percent, of a 235.97-acre parcel (APN 99B-7890-2-4) that is part of a larger Williamson Act contract. This leaves approximately 70 percent of the parcel for continued grazing uses and meets the Uniform Rules' definition of non-prime land eligible for a Williamson Act contract, which requires that at least 60 percent of a contracted parcel be used for commercial agriculture (AC 2011, p. 1-6). However, development of the BESS would significantly reduce the grazable land of the property, and it would not meet the 10/10 Rule for development on a Williamson Act contract (discussed earlier). Development of the gen-tie portions of the project would not significantly reduce grazable land, given the small footprint of gen-tie line infrastructure.

The project would not compromise the long-term agricultural capability of other contracted lands in agricultural preserves. The total acreage of land under the Williamson Act contract governing the project parcels is approximately 4,990 acres, and the proposed BESS site would only be approximately 1.4 percent of the total contracted properties. Also, the BESS facility would not have offsite impacts which would significantly compromise the long-term agricultural capability of other contracted lands. It would not be growth-inducing or produce excessive noise, hazards, or fire risk. (See

Sections 5.9, Noise and Vibration and 5.7, Hazards, Hazardous Materials/Waste, and Wildfire.)

- 2) *The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the contracted property or on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations on the contracted property may be deemed compatible if they relate directly to the production of commercial agricultural products on the contracted property or neighboring lands, including activities such as harvesting, processing, or shipping. (See also Government Code Section 51238.1).*

Analysis: Inconsistent. The use would significantly displace or impair current or reasonably foreseeable agricultural operations on the contracted property but not on other contracted lands in agricultural preserves. The proposed BESS would be on approximately 70 acres, or approximately 30 percent, of a 235.97-acre parcel (APN 99B-7890-2-4) that is part of a larger Williamson Act contract. This leaves approximately 70 percent of the parcel for continued grazing uses and meets the Uniform Rules' definition of non-prime land eligible for a Williamson Act contract, which requires that at least 60 percent of a contracted parcel be used for commercial agriculture (AC 2011, p. 1-6). However, development of the BESS would significantly reduce the grazable land of the property, and it would not meet the 10/10 Rule for development on a Williamson Act contract (discussed earlier). The use would not relate directly to the production of commercial agricultural products on the contracted property or neighboring lands and therefore would not meet this criterion for maintaining compatibility with the contract. Development of the gen-tie portions of the project would not significantly displace or impair agricultural operations, given their small footprint.

The project would not compromise the long-term agricultural capability of other contracted lands in agricultural preserves. The total acreage of land under the Williamson Act contract is approximately 4,990 acres, and the proposed BESS site would only be approximately 1.4 percent of the total contracted properties. Also, the BESS facility would not have offsite impacts which would significantly compromise the long-term agricultural capability of other contracted lands. It would not be growth-inducing or produce excessive noise, hazards, or fire risk. (See **Sections 5.9, Noise and Vibration and 5.7, Hazards, Hazardous Materials/Waste, and Wildfire.**)

- 3) *The use will not result in the significant removal of adjacent contracted land from agricultural use or open space use. (See Government Code Section 51238.1).*

Analysis: Consistent. The use would not result in the significant removal of adjacent contracted land from agricultural use or open space use. The Williamson Act contract that covers APN 99B-7890-2-4, the parcel proposed

for location of the BESS, also covers other nearby parcels. The total acreage of land under this contract is approximately 4,990 acres (Dudek 2025a; AMLGMN 2024j, AMLGMN 2024qq). The proposed project would remove approximately 70 acres of grazing land from this contract, but it would not impact the rest of the grazing lands under the Williamson Act contract, or any other nearby contracted agricultural lands. The project would not result in limits on agricultural activities on nearby parcels. It also would not be growth-inducing or produce excessive noise, hazards, or fire risk that would result in significant removal of adjacent contracted land from agricultural use or open space use. (See **Sections 5.9, Noise and Vibration** and **5.7, Hazards, Hazardous Materials/Waste, and Wildfire.**)

- 4) *The use will not result in the significant increase in the density of the temporary or permanent human population that could hinder or impair agricultural operations on the contracted property. (See Government Code Section 51220.5).*

Analysis: Consistent. The use would not result in a significant increase in the density of the temporary or permanent human population. The use would be battery storage and associated transmission infrastructure which supports the existing electrical grid, and it would not attract or lead to new residents nearby that would impact agricultural operations on the contracted property.

Based on the findings above, the proposed use is not fully consistent with the Principles of Compatibility (located in Alameda County's Uniform Rules in Section I.A. on page 2-1) because it is not consistent with the first two principles of compatibility.

- d) *The proposed use is in an appropriate scale with the primary agricultural use so as to be considered incidental to the primary use.*

Analysis: Inconsistent. The proposed BESS would be on approximately 70 acres, or approximately 30 percent, of a 235.97-acre parcel (APN 99B-7890-2-4). This leaves approximately 70 percent of the parcel for continued grazing uses and meets the definition of non-prime land eligible for a Williamson Act contract, which requires that at least 60 percent of the property be used for commercial agriculture (AC 2011, p. 1-6). However, development of the BESS would significantly reduce the grazable land of the property, and it would not meet the 10/10 Rule for development on a Williamson Act contract (discussed earlier). The use would also not relate to the production of commercial agricultural products on the contracted property. For these reasons, the project would not be considered incidental to the primary agricultural use of the property.

- e) *The planned use is conditioned on any applicable standards found under Section II. of this Rule or as found necessary by planning staff.*

Analysis: Consistent. There are no applicable standards to the project under Section II. of this Rule, and Alameda County staff has not currently proposed any conditions.

As discussed above, the project does not fully meet Alameda County's "Findings for a Compatible Use Determination" (Section III.B.3 of the Uniform Rules) which the County would normally need to make to approve a use on Williamson Act contracted land (AC 2011, page 2-14). However, the Uniform Rules provides an exception for certain projects on non-prime agricultural land that do not meet the first two principles of compatibility. This exception allows these projects to be approved through a conditional use permit, provided required findings are made, as discussed below.

Alameda County Williamson Act Uniform Rules and Procedures – Section III.B.4 – Exception to Compatible Use Determination Findings (AC 2011, page 2-14). Section III.B.4 of the Uniform Rules states that: *"An exception to the findings required under Section III.B.3 above shall be made for uses on non-prime land that cannot meet the first two principles of compatibility listed under Section I. A."* As discussed earlier, the project is on non-prime land and is inconsistent with the first two principles of compatibility, which are:

- *The use will not significantly compromise the long-term productive agricultural capability of the contracted property or other contracted lands in agricultural preserves; and*
- *The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the contracted property or on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations on the contracted property may be deemed compatible if they relate directly to the production of commercial agricultural products on the contracted property or neighboring lands, including activities such as harvesting, processing, or shipping.*

Due to the project's location on non-prime agricultural land and its nonconformance with the first two principles of compatibility, the project qualifies for a possible exception under Section III.B.4 of Alameda County's Uniform Rules (AC 2011). The Uniform Rules allow for uses to be approved on the basis of a conditional use permit provided required findings are made (although the CEC retains exclusive jurisdiction over the project and its certification is in lieu of a conditional use permit). Staff found that the findings can be made for an exception, as discussed below (AC 2011, page 2-14):

Alameda County Williamson Act Uniform Rules and Procedures – Section III.B.4 – Findings for an Exception to the Compatible Use Determination Findings (AC 2011, page 2-14).

- a. There is an existing commercial agricultural use on the parcel that meets one of the thresholds established in Uniform Rule 1.*

Analysis: Consistent. As discussed earlier, the main project parcel, APN 99B-7890-2-4, is currently in use for cattle grazing and has been in use for this since before the creation of the Williamson Act contract in 1972 (Dudek 2025a). According to Uniform Rule 1, grazing of livestock on non-prime land at least 40 acres in size, like the project site, is defined as a commercial use if it yields some gross annual revenue, and if at least 60 percent of the property is used for commercial agriculture (AC 2011, page 1-6). Grazing on the BESS site meets these criteria, and so there is an existing commercial agricultural use on the parcel (Dudek 2025a). The project parcel which the gen-tie line crosses, APN 99B-7890-2-6, is also undeveloped land used for cattle grazing and meets these criteria.

- b. *Conditions imposed on the renewed permit will avoid or mitigate impacts to agriculture that could occur on contracted land or on adjacent lands. These conditions shall include any standards in the New Rules if applicable and if feasible.*
- c. Analysis: Consistent. Grazing land is not an Important Farmland category recognized by the DOC, but COC **LAND-2** would ensure LORS compliance by requiring the project owner **to do one of two things: (1) obtain partial cancellation of the existing Williamson Act contract from Alameda County, removing the project site from the contract; or 2)** to conserve agricultural land equivalent to the amount of grazing land lost to the project. *The effects on agricultural productivity and the loss or displacement of agriculture has been considered.*
- d. Analysis: Consistent. Grazing land is not an Important Farmland category recognized by the DOC, but COC **LAND-2** would ensure LORS compliance by requiring the project owner to **do one of two things: (1) obtain partial cancellation of the existing Williamson Act contract from Alameda County, removing the project site from the contract; or, 2)** conserve agricultural land equivalent to the amount of grazing land lost to the project. *The use is consistent with the purposes of the Act to preserve agricultural land and open-space land (as defined).*

Analysis: Consistent. The use may be categorized as an electric facility, which the Act permits. The use also would not lead to population growth in the area or affect agriculture on nearby properties.

- e. *The use is not a residential subdivision.*

Analysis: Consistent. The use is not a residential subdivision.

For these reasons, with implementation of proposed COC **LAND-2**, the project would meet the findings for an Exception to the Compatible Use Determination Findings, which would remedy its nonconformance with the Compatible Use Determination Findings found in Alameda County's Uniform Rules (AC 2011, Section II.B.3, page 2-14). However, because the project is inconsistent with the 10/10 Rule in Alameda County's Uniform Rules (Uniform Rule 2, Section I.B.3.c), it seems unlikely that Alameda County,

if they had jurisdiction over the project, would approve a conditional use permit for the project, even with the project meeting the findings for an Exception to the Compatible Use Determination findings. **If the applicant obtains partial cancellation of the Williamson Act contract from Alameda County, removing the project site from the contract, there would be no conflict with the 10/10 Rule or any of Alameda County's regulations.**

In conclusion, the project is consistent with the site's agricultural zoning and mostly consistent with the Williamson Act regulations contained in Alameda County's Uniform Rules and Procedures Governing Agricultural Preserves and Williamson Act Contracts. While the project meets the findings for an Exception to the Compatible Use Determination Findings, it is not consistent with the 10/10 Rule in the Uniform Rules. This is a LORS nonconformance which is discussed further in **Section 11, Project's Inconsistency with State and Local Laws and Staff's CEQA Override Findings and Recommendation**, but not an environmental impact, as the project site is classified by the DOC as non-prime Grazing Land, which is not an Important Farmland category.

- e. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code, section 12220(g)), timberland (as defined by Public Resources Code, section 4526), or timberland zoned Timberland Production (as defined by Government Code, section 51104(g))?**

Construction and Operation

No Impact. The main project site and its offsite components are not on or near forest land, timberland, or timberland zoned Timberland Production.

- f. Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

Construction and Operation

No Impact. The main project site and its offsite components are not on or near forest land.

- g. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

Construction and Operation

No Impact. Construction of the project would not induce growth or cause any other changes in the existing environment which could result in conversion of Farmland to non-agricultural use. The DOC does not classify any of the project parcels as

Agricultural Land (Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, according to Section 21060.1 of the California Public Resources Code). Much of the surrounding land is classified by the DOC as Grazing Land (DOC 2022), and energy storage would not be disruptive to this use. There is no forest land in the area.

5.8.2.3 Cumulative Impacts

Less Than Significant Impact. There are four other projects nearby that are either under review, approved, or under construction and are on Williamson Act lands. These projects are: Mulqueeney Ranch Wind Repowering Project, Jess Ranch Compost Project, Sand Hill Wind Repowering Project, and Viracocha Hills BESS. These project sites are all under Williamson Act contracts for non-prime agricultural land, with the exception of the site of the Jess Ranch Compost Project, which has a Williamson Act contract in non-renewal status that is scheduled to terminate. All projects are on land classified by the DOC as Grazing Land. Because all of these projects, including the proposed project, are on non-prime agricultural land classified as Grazing Land, which is not an Important Farmland category, cumulative impacts to agriculture are less than significant.

5.8.3 Project Conformance with Applicable LORS

Table 5.8-1 below details CEC staff’s determination of conformance with applicable local, state and federal LORS, including any proposed COCs, where applicable, to ensure the project would conform with LORS. As shown in this table, CEC staff concludes that with implementation of specific COCs, the proposed project would conform with all applicable LORS. The subsection below, “5.8.5 Proposed Conditions of Certification,” contains the full text of the referenced COCs.

TABLE 5.8-1 CONFORMANCE WITH APPLICABLE LORS	
Applicable LORS	Conformance and Basis For Determination
Local	
Alameda County East County Area Plan	
Large Parcel Agriculture land use designation (page 47): The maximum building intensity for non-residential buildings shall be .01 FAR (floor area ratio) but (the maximum building square footage allowed shall) not (be) less than 20,000 square feet.	Yes. On the main project parcel (APN 99B-7890-2-4), there is a proposed operations and maintenance building of approximately 5,000 square feet and a control building of approximately 1,040 square feet for a building floor area total of 6,040 square feet (AMLGMN 2024o, Table 2-1). The total parcel size is approximately 236 acres, or 10,280,160 square feet (AC 2025a). This translates to a FAR of approximately 0.0006, which is less than the maximum of 0.01. The development envelope for the project is approximately 70 acres. This exceeds the 2-acre development envelope maximum in this regulation for buildings. However, this is permissible because the project meets the definition of “infrastructure” under Policy 13, which includes public facilities and
Apart from infrastructure under Policy 13, all buildings shall be on a contiguous development envelope not to exceed 2 acres, except they may be outside the envelope if necessary for security reasons or, if structures for agricultural use, necessary for agricultural use.	
Subject to the provisions of the Initiative, this designation permits agricultural uses, agricultural processing facilities, limited agricultural support service uses, secondary residential units, visitor-	

TABLE 5.8-1 CONFORMANCE WITH APPLICABLE LORS

Applicable LORS	Conformance and Basis For Determination
serving commercial facilities, 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.	all structures and development necessary for the provision of public services and utilities. The project is also consistent with the uses allowed in the Large Parcel Agriculture land use designation, which include public and quasi-public uses, utility corridors, and similar uses.
Policy 13: The County shall not provide nor authorize public facilities or other infrastructure in excess of that needed for permissible development consistent with the Initiative. This policy shall not bar 1) new, expanded or replacement infrastructure necessary to create adequate service for the East County, 2) maintenance, repair or improvements of public facilities which do not increase capacity, and 3) infrastructure such as pipelines, canals, and power transmission lines which have no excessive growth-inducing effect on the East County area and have permit conditions to ensure that no service can be provided beyond that consistent with development allowed by the Initiative. "Infrastructure" shall include public facilities, community facilities, and all structures and development necessary to the provision of public services and utilities.	Yes. The BESS does not exceed what is allowed in the Large Parcel Agriculture land use designation, which includes public and quasi-public uses, utility corridors, and similar uses. It would provide electrical infrastructure needed to support adequate service for the East County. The BESS facility would also not be growth-inducing, as it would be used to power the grid when additional electricity is needed, accommodating the integration of intermittent renewables like solar and wind power.
Policy 54: The County shall approve only open space, park, recreational, agricultural, limited infrastructure, public facilities (e.g., limited infrastructure, hospitals, research facilities, landfill sites, jails, etc.) and other similar and compatible uses outside the Urban Growth Boundary.	Yes. The project is a public facility, which is allowable outside the Urban Growth Boundary.
Policy 71: The County shall conserve prime soils (Class I and Class II, as defined by the USDA Soil Conservation Service Land Capability Classification) and Farmland of Statewide Importance and Unique Farmland (as defined by the California Department of Conservation Farmland Mapping and Monitoring Program) outside the Urban Growth Boundary.	Yes. The project is not on Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. It is on Non-Prime Farmland designated as Grazing Land by the Department of Conservation.
Policy 73: The County shall require buffers between those areas designated for agricultural use and new non-agricultural uses within agricultural areas or abutting parcels. The size, configuration and design of buffers shall be determined based on the characteristics of the project site and the intensity of the adjacent agricultural uses, and if applicable, the anticipated timing of future urbanization of adjacent agricultural land where such agricultural land is included in a phased growth plan. The buffer shall be on the parcel for which a permit is sought and shall provide for the protection of the maximum amount of arable, pasture, and grazing land feasible.	Yes. The project would occur on 70 acres of an approximately 236-acre parcel, with varying buffer space of at least 100 feet between the structures and the property lines (Dudek 2025d). This would be more than sufficient for separation between the project and adjacent grazing land, given that BESS facilities would have less than significant impacts with relation to noise, hazardous materials, wildfires, and air quality. (See Sections 5.9, Noise and Vibration, 5.7, Hazards, Hazardous Materials/Waste, and Wildfire, and 5.1, Air Quality for details.)

TABLE 5.8-1 CONFORMANCE WITH APPLICABLE LORS

Applicable LORS	Conformance and Basis For Determination
Policy 138: The County shall allow development and expansion of major public facilities (e.g., hospitals, research facilities, landfill sites, jails, etc.) in appropriate locations inside and outside the Urban Growth Boundary consistent with the policies and Land Use Diagram of the East County Area Plan.	Yes. As discussed here, the project is consistent with the policies of the East County Area Plan, including the land uses allowed under the project site's Large Parcel Agriculture land use designation.
Policy 139: The County shall ensure that new major public facilities are properly sited to avoid land use conflicts and potential health and safety risks.	Yes. The project is consistent with the Large Parcel Agriculture land use designation and would not interfere with surrounding agricultural lands. Siting of the project would cause no significant health and safety risks. See Sections 5.1, Air Quality, 5.7, Hazards, Hazardous Materials/Waste, and Wildfire, 5.9, Noise and Vibration, 5.10, Public Health, 5.13, Transmission Line Safety and Nuisance, and 5.14, Transportation of this document for details.
Policy 173: The County shall discourage the development of uses and structures that are not compatible with wind energy operations within the Wind Resource Area.	Yes. The project would be a similar use to wind energy facilities and would not obstruct or interfere with wind energy operations in any way. The project is also not adjacent to wind energy facilities.
Alameda County Zoning Code	
The project's zone classification is Agriculture-Combining B District (A-BE) (AC 2025b). The Agriculture zoning designation does not specifically address battery storage, which is not unexpected given that it is a newer technology. However, per Section 17.06.040J of the Alameda County Zoning Ordinance, a similar use, "public utility building or uses", may be allowed in the Agriculture zoning district with a conditional use permit. This conditional use permit would be issued by Alameda County's Board of Zoning Adjustments if the project was under the jurisdiction of Alameda County (AC 2025c). The Agriculture zoning designation requires development to be on a lot size of at least 100 acres (AC 2025c, Section 17.06.060). It also requires setbacks of at least 30 feet for the front yard, at least 10 feet for the rear yard, and at least 10 feet for the side yards. No maximum height is provided (AC 2025c, Section 17.06.070).	Yes. CEC staff was able to make the findings Alameda County would require for issuance of a conditional use permit, as discussed earlier. With respect to the zoning district's development standards, the project parcel is more than 100 acres large, and the project setbacks exceed those required. Structures have varying setbacks of at least 100 feet between the structures and the property lines (Dudek 2025d). COC LAND-1, which would require review of the final project site plan by Alameda County and the CPM, would ensure compliance with zoning code standards.
Alameda County Uniform Rules and Procedures Governing Agricultural Preserves and Williamson Act Contracts	
Alameda County Williamson Act Uniform Rules and Procedures – Sections III.B.3 and III.B.5 – Findings for a Compatible Use Determination and Findings for an Exception to the Compatible Use Determination Findings (AC 2011, pages 2-14 and 2-15).	Yes. The project meets the findings for an Exception to the Compatible Use Determination with implementation of COC LAND-2 .

TABLE 5.8-1 CONFORMANCE WITH APPLICABLE LORS

Applicable LORS	Conformance and Basis For Determination
Uniform Rule 2.I.B.3.c states that compatible, non-agricultural uses that do not qualify as buildings shall be cumulatively restricted to no more than 10% of the contracted property, or 10 acres, whichever is less, which is referred to by Alameda County as the 10/10 Rule (AC 2022; AC 2011, page 2-2).	No. The project exceeds 10 acres and 10% of the contracted property.

5.8.4 Conclusions and Recommendations

As discussed above, the project would have less than significant impacts with respect to Land Use, Agriculture, and Forestry. With implementation of COCs for the project components within the CEC's Opt-In certification, the project would comply with LORS related to land use, agriculture, and forestry, with the exception of the 10/10 Rule limiting the size of the project to no more than 10 acres. CEC staff concluded that this conflict is not an environmental impact, as the project site is classified by the DOC as non-prime Grazing Land which is not an Important Farmland category. See **Section 11, Project's Inconsistency with State and Local Laws and Staff's CEQA Override Findings and Recommendation**, for discussion of LORS inconsistency and CEC staff's recommendation. No mitigation measures are needed for components of the project outside the CEC's certification authority.

CEC staff recommends adopting the conditions of certification as detailed below in subsection "5.8.5 Proposed Conditions of Certification". These conditions are enforceable as part of the CEC's certificate for the portions of the project constituting the site and related facilities.

5.8.5 Proposed Conditions of Certification

LAND-1 Prior to any grading or development for the permanent project facilities under CEC jurisdiction, the project owner shall develop a site plan and submit it **simultaneously** to the Alameda County Planning Department for **review and comment** to ensure compliance with local regulations, **and to the CPM for approval**. The project owner shall adhere to CPM-approved site plans and ensure that local regulations are complied with during construction and operation.

Verification: At least 60 days prior to any grading or development for permanent project facilities under CEC jurisdiction, the project owner shall submit proposed site plans for these facilities to the Alameda County Planning Department for review and comment, and to the CPM for approval. ~~The project owner shall provide any review comments from Alameda County to the CPM at least 30 days prior to any grading or development for these permanent project facilities.~~

LAND-2 Prior to any grading or development for the permanent project facilities under CEC jurisdiction **and in order to ensure compliance with local ordinances**

regarding land subject to the Williamson Act, the project owner shall either: 1) obtain partial cancellation of the existing Williamson Act contract from Alameda County, removing the project site from the contract; or, 2) conserve agricultural land at an amount equivalent to the Grazing Land lost to project development. Options include conservation easements with the Tri-Valley Conservancy or California Rangeland Trust, or other arrangements, including fees for agricultural conservation.

Verification: At least 60 days prior to any project grading or building, the project owner shall provide documentation to the CPM **detailing** verifying implementation of the selected option(s) and acceptance by Alameda County.

5.8.6 Recommended Mitigation Measures

There are no recommended mitigation measures for land use, agriculture, and forestry.

5.8.7 References

- AC 2002 – Alameda County Community Development Agency Planning Department. East County Area Plan: A Portion of the Alameda County General Plan. Adopted May 5, 1994. Most recently amended May 2002. Accessed on May 21, 2025. Accessed online at <https://www.acgov.org/cda/planning/generalplans/documents/EastCountyAreaPlancombined.pdf>
- AC 2011 – Alameda County Community Development Agency Planning Department. Alameda County Uniform Rules and Procedures Governing Agricultural Preserves and Williamson Act Contracts. Amended October 11, 2011. Accessed on May 22, 2025. Accessed online at https://www.acgov.org/cda/planning/generalplans/williamson_act.htm
- AC 2022 – Alameda County Planning Department. Large Commercial Solar and Battery Storage Statement of Policy Components. Adopted May 12, 2022. Accessed on May 21, 2025. Accessed online at <https://www.acgov.org/cda/planning/landuseprojects/documents/Statement-of-Policy-FINAL-adopted-by-BOS-5.12.2022.pdf>
- AC 2025a – Alameda County Assessor’s Office. Property Search. Accessed on May 7, 2025. Accessed online at <https://propinfo.acgov.org/>
- AC 2025b – Alameda County Community Development Agency. Unincorporated Alameda County Public Access Map (PAM). Accessed on May 7, 2025. Accessed online at <https://accda.maps.arcgis.com/apps/webappviewer/index.html?id=303ba7fe78934234ac3c42af53754c43>
- AC 2025c – Alameda County. Alameda County Zoning Code. Version April 7, 2025. Accessed on May 21, 2025. Accessed online at

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AMLGMN 2024u – Allen Matkins Leck Gamble Mallory & Nats (TN 258024). Traffic and Transportation. Docketed July 26, 2024. Accessed online at:
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Section 10

Mandatory Opt-In Requirements

10 Mandatory Opt-In Requirements

10.1 “Facility” Definition Met

Summary of Requirements

The California Energy Commission (CEC) has jurisdiction to certify certain non-fossil-fueled power plants, energy storage facilities, the electric transmission lines from these facilities to the first point of interconnection, and related manufacturing facilities.¹ A developer with an eligible project may optionally file with the CEC to obtain a certification to construct and operate the project. The CEC is the “lead agency” under the California Environmental Quality Act (CEQA) and is required to prepare an environmental impact report, mitigated negative declaration, or negative declaration, for any facility that elects to opt-in to the CEC’s jurisdiction. With exceptions, the issuance of a certificate by the CEC for an eligible facility is in lieu of any permit, certificate, or similar document required by any state, local, or regional agency, or federal agency to the extent permitted by federal law, and supersedes any applicable statute, ordinance, or regulation of any state, local, or regional agency, or federal agency to the extent permitted by federal law.

An eligible Opt-In project must meet one or more of the definitions of a “facility”²:

1. A solar photovoltaic or terrestrial wind electrical generating powerplant with a generating capacity of 50 megawatts or more and any facilities appurtenant thereto.
2. An energy storage system³ that can store 200 megawatt hours or more of electrical energy.
3. A stationary electrical generating powerplant using any source of thermal energy, with a generating capacity of 50 megawatts or more, excluding any powerplant that burns, uses, or relies on fossil or nuclear fuels.
4. A discretionary project⁴ for which the applicant has certified that a capital investment of at least two hundred fifty million dollars will be made over a period of five years **and is for the manufacture, production, or assembly of the following:**⁵ ~~The applicant must additionally provide what the facility would manufacture, produce, or assemble, and how the facility's products or services would be used in the manufacture, production, or assembly of the following:~~
 - a. Energy storage systems or component manufacturing;
 - b. Wind systems or component manufacturing;

1 Pub. Resources Code, § 25545.1

2 Pub. Resources Code, § 25545(b)

3 Pub. Util. Code, § 2835

4 Pub. Resources Code, § 21080

5 Pub. Resources Code, § 25545(b)(4)

- c. Solar photovoltaic energy systems or component manufacturing; or
 - d. Specialized products, components, or systems that are integral to renewable energy or energy storage technologies; or
 - e. **The manufacture, production, or assembly of specialized products, components, or systems that are integral to renewable energy or energy storage technologies.**
5. An electric transmission line carrying electric power from a facility described in paragraph (1), (2), or (3) that is located in the state to a point of junction with any interconnected electrical transmission system.
6. A hydrogen production facility and associated onsite storage and processing facilities that do not derive hydrogen from a fossil fuel feedstock and that receive funding from any of the following:
- a. The Hydrogen Program established pursuant to Section 25664.1.
 - b. Section 91530, as added by the Safe Drinking Water, Wildfire Prevention, Drought Preparedness, and Clean Air Bond Act of 2024 (Section 2 of Chapter 83 of the Statutes of 2024 (Senate Bill (SB) 867), ~~if that act is approved by the voters at the November 5, 2024, statewide general election.~~
 - c. The Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES) authorized by Article 15 (commencing with Section 12100.160) of Chapter 1.6 of Part 2 of Division 3 of Title 2 of the Government Code, as awarded by the United States Department of Energy Office of Clean Energy Demonstrations.
7. A geothermal powerplant or a project that comprises multiple geothermal powerplants on a single site.

The applicant must provide an explanation of how the facility meets the definition of a facility in the Opt-In application, including detailed descriptions and specific information.⁶

Proposed Findings of Fact

Based on the information provided in the application, and additional evidence and information as described below and contained in the record of this proceeding, staff concludes the following fact is supported by substantial evidence in the record:

1. The project is an up to 3,200 megawatt-hour (MW-hour) battery energy storage system thus exceeding the minimum 200 MW-hour threshold required to meet the definition of a facility.

6 Cal. Code Regs., tit. 20, § 1877(b)

Conclusions

Based on the foregoing findings, staff concludes the project meets one or more of the definitions of a “facility,” as required under Public Resources Code section 25545(b) and recommends the CEC may adopt these proposed findings and conclusions as they are supported by substantial evidence in the record.

10.2 Requirements for Covered Project Under the Labor Code

Summary of Requirements

Public Resources Code section 25545.3.3 requires the applicant to certify that either the entirety of the construction of the project is a public work for purposes of Chapter 1 (commencing with section 1720) of Part 7 of Division 2 of the Labor Code, or the construction of the project is not in its entirety a public work for which prevailing wages must be paid, but all construction workers employed on the project will be paid at least the general prevailing rate of per diem wages. In addition, Public Resources code section 25545.3.5 requires the applicant to certify that a skilled and trained workforce will be used to perform all construction work.

Proposed Finding of Fact

Based on the information provided in the application, and additional evidence and information as described below and contained in the record of this proceeding, staff concludes the following facts are supported by substantial evidence in the record:

1. In Appendix 1D of the Opt-In application (AMLGMN 2024ff), the applicant has certified that all construction workers employed on the project will be paid at least the general prevailing rate of per diem wages for the type of work and geographic area, as determined by the Director of Industrial Relations pursuant to Sections 1773 and 1773.9 of the Labor Code, except that apprentices registered in programs approved by the Chief of the Division of Apprenticeship Standards may be paid at least the applicable apprentice prevailing rate.
2. Applicant further certifies that, for the portion(s) of the project that are not a public work for which prevailing wages must be paid under Article 1 (commencing with Section 1720) of Chapter 1 of Part 7 of Division 2 of the Labor Code, it will comply with the following statutory requirements, as applicable:
 - a. Applicant shall ensure that the prevailing wage requirement is included in all contracts for the performance of all construction work.
 - b. All contractors and subcontractors shall pay to all construction workers employed in the construction of the project at least the general prevailing rate of per diem wages. Apprentices registered in programs approved by the Chief of the Division of Apprenticeship Standards may be paid at least the applicable apprentice prevailing rate.

- c. All contractors and subcontractors performing construction work on the project shall employ apprentices at no less than the ratio required in the Labor Code section 1777.5.
 - d. All contractors and subcontractors performing construction work shall maintain and verify payroll records pursuant to the Labor Code section 1776, make those records available for inspection and copying as provided therein and furnish those payroll records to the Labor Commissioner pursuant to Labor Code section 1771.4.
 - e. Contractors and subcontractors performing construction work on the project may be subject to a project labor agreement. The project labor agreement shall include, but is not limited to, all of the following:
 - i. Prevailing wages provisions applicable to all construction workers employed in the construction of the project and an arbitration procedure.
 - ii. Target hiring provisions as required under Public Resources Code section 25545.3.3(b)(6)(B).
 - iii. Apprenticeship utilization provisions committing to increasing the share of work performed by state-registered apprentices above the state-mandated minimum ratio required in the Labor Code section 1777.5.
 - iv. Apprenticeship utilization provisions committing to hiring and retaining a certain percentage of state-registered apprentices that completed the Multi-Craft Core pre-apprenticeship training as defined in the Unemployment Insurance Code section 14005(t).
3. In Appendix 1D of the Opt-In application (AMLGMN 2024ff), the applicant certified that a skilled and trained workforce will be used to perform all construction work on the project, and it will comply with the following statutory requirements, as applicable:
- a. All contracts shall require for the performance of work that every contractor and subcontractor at every tier will individually use a skilled and trained workforce to construct the project.
 - b. Every contractor and subcontractor must use a skilled and trained workforce to construct the project.
 - c. Except as provided in Public Resources Code section 25545.3.5(e), contractors and subcontractors that fail to use a skilled and trained workforce shall be subject to the penalties provided in the Public Contract Code section 2603.
 - d. Applicant must retain records, including copies of monthly reports, that demonstrate compliance with the Public Contract Code section 2600 while the project or contract is being performed and for three years after completion of the project or contract. The applicant must submit these records immediately upon request of the CEC. When submitted to the CEC, these records shall be a public

record under the California Public Records Act and shall be open to public inspection.

4. Applicant further certifies that if all contractors and subcontractors performing work on the project are subject to a project labor agreement, the project labor agreement will include:
 - a. Provisions requiring compliance with the skilled and trained workforce requirement and for enforcement of that obligation through an arbitration procedure.
 - b. Targeted hiring provisions, including a targeted hiring plan, on a craft-by-craft basis to address job access for local, disadvantaged, or underrepresented workers, as defined by a local agency.
 - c. Apprenticeship utilization provisions that commit all parties to increasing the share of work performed by state-registered apprentices above the state-mandated minimum ratio required in the Labor Code section 1777.5.
 - d. Apprenticeship utilization provisions that commit all parties to hiring and retaining a certain percentage of state-registered apprentices that have completed the Multi-Craft Core pre-apprenticeship training curriculum referenced in the Unemployment Insurance Code section 14005(t).

Conclusions

Based on the foregoing certifications, staff concludes the record contains substantial evidence to support a proposed finding of compliance with Public Resources Code sections 25545.3.3 and 25545.3.5. In addition, to comport with sections 25545.3.3 and 25545.3.5, staff proposes Condition of Certification (COC) **LABOR-1** requiring compliance with the labor requirements as set forth in this finding.

LABOR-1 The project owner shall implement the construction labor requirements of Public Resources Code sections 25545.3.3 and 25545.3.5.

Verification: Upon request by the Compliance Project Manager (CPM), the project owner shall provide documentation evidencing compliance with the requirements of Public Resources Code sections 25545.3.3 and 25545.3.5.

10.3 Identification of Whether Site is Located at a Prohibited Area

Summary of Requirements

The Opt-In applicant must identify whether the project is on a prohibited site as identified in Public Resources Code section 25527 or on a site designated by the California Coastal Commission under Public Resources Code section 30413(b) or on a site designated by the San Francisco Bay Conservation and Development Commission under Government Code section 66645(b). For projects on such a site, the Opt-In

application shall include documentation of the approval of the public agency having ownership or control of the land.⁷

Proposed Findings of Fact

Based on the information provided in the application, and additional evidence and information as described below and contained in the record of this proceeding, staff concludes the following facts are supported by substantial evidence in the record:

- As part of its application, the applicant has identified that the project is in eastern Alameda County. The project site is not on a prohibited site identified in Public Resources Code section 25527, which includes a state, regional, County, or city park; wilderness, scenic, or natural reserve, area for wildlife protection, recreation, historic preservation; or natural preservation area. Similarly, consistent with Public Resources Code section 25527, there are no estuaries in an essentially natural and undeveloped state on the project site.
- The project site is not in an area designated by the California Coastal Commission under Public Resources Code section 30413(b).
- The project is not on a site designated by the San Francisco Bay Conservation and Development Commission as identified in Public Resources Code section 66645(b).

Conclusions

Based on the location of the project, staff has concluded that the site is not within a prohibited site as identified in Public Resources Code section 25527 or on a site designated by the California Coastal Commission under Public Resources Code section 30413(b) or on a site designated by the San Francisco Bay Conservation and Development Commission under Government Code section 66645(b). Staff recommends the CEC may adopt this proposed finding and conclusion as it is supported by substantial evidence in the record.

10.4 Net Positive Economic Benefit to the Local Government

Summary of Requirements

Public Resource Code section 25545.9(a) states:

"The commission shall not certify a site and related facility under this chapter unless the commission finds that the construction or operation of the facility will have an overall net positive economic benefit to the local government that would have had permitting authority over the site and related facility."

Economic benefits may include, but are not limited to, employment growth, housing development, infrastructure and environmental improvements, assistance to public

7 Cal. Code Regs., tit. 20, § 1877(e)

schools and education, assistance to public safety agencies and departments, and property taxes and sales and use tax revenues.⁸

Under Public Resource Code section 25545.9(b), there is a rebuttable presumption that the construction or operation of the facility will have an overall net positive economic benefit to Alameda County. Staff also reviewed and analyzed the applicant's confidential socioeconomics report and data request responses (TN 259076, TN 262323, TN 265609), and calculated a net positive economic value to Alameda County. Staff is unaware of any information in the record that rebuts the presumption and thus staff recommends the CEC find the project results in an overall net positive economic impact to Alameda County.

10.5 Legally Binding Enforceable Agreement(s) for Community Benefits of the Project

Summary of Requirements

Public Resources Code section 25545.10(a) states that the CEC shall not certify a site and related facility unless the CEC finds that the applicant has entered into one or more legally binding and enforceable agreements with, or that benefit, a coalition of one or more community-based organizations, such as workforce development and training organizations, labor unions, social justice advocates, local governmental entities, California Native American tribes, or other organizations that represent community interests, where there is mutual benefit to the parties to the agreement.⁹

The topics and specific terms in the community benefits agreements may vary and may include workforce development, job quality, and job access provisions that include, but are not limited to, any of the following¹⁰:

1. Terms of employment, such as wages and benefits, employment status, workplace health and safety, scheduling, and career advancement opportunities.
2. Worker recruitment, screening, and hiring strategies and practices, targeted hiring planning and execution, investment in workforce training and education, and worker voice and representation in decision making affecting employment and training.
3. Establishing a high road training partnership, as defined in Section 14005 of the Unemployment Insurance Code.

The topics and specific terms in the community benefits agreement may also include, but not be limited to, funding for or providing specific community improvements or amenities such as park and playground equipment, urban greening, enhanced safety crossings, paving roads and bike paths, and annual contributions to a nonprofit or

8 Cal. Code Regs., tit. 20 § 1879(a)(7); Pub. Resources Code § 25545.9

9 Pub. Resources Code, § 25545.10(a)

10 Id.

community-based organization that awards grants to organizations delivering community-based services and amenities (Pub. Resources Code § 25545.10(b)).

The topics and specific terms in agreements with California Native American tribes may include, but not be limited to, cultural preservation and revitalization programs, joint management and stewardship agreements, open-space preservation agreements, repatriation and reparations agreements, and other compensatory mitigation programs (Pub. Resources Code § 25545.10(c)).

Proposed Findings of Fact

Based on the information provided in the application, and additional evidence and information as described below and contained in the record of this proceeding, staff recommends the CEC make the following findings and conclusions, upon the applicant providing executed agreements consistent with Public Resources Code section 25524.10, that:

1. Tri-Valley Haven for Women, an organization that provides services and other forms of assistance to survivors of sexual assault, victims of domestic violence, and homeless individuals and families, is a qualified community-based organization under Public Resources Code section 25545.10(a).

Conclusions

Based on the foregoing proposed findings, staff concludes upon executing an agreement with one or more of the identified entities, consistent with Public Resources Code section 25545.10, the applicant will have met this requirement and therefore, staff will be able to recommend the CEC adopt proposed findings and conclusions consistent with staff's recommendation based on the identified evidence in the administrative record.

In addition, staff proposes COC CBA-1 requiring reporting on compliance with the community benefits agreement requirement as set forth in this finding.

CBA-1 Community Benefits Agreement. The project owner shall provide progress reports on the implementation of the community benefits agreement with Tri Valley Haven for Women (TN 269549), and/or any additional community benefits agreements. The reports shall include:

1. **status on fulfillment of any donation and other obligations, commitments, or requirements set forth in its community benefits agreement, including the amount of any funding distributed to the community-based organization at the time of the report,**
2. **any relevant documentation demonstrating implementation and fulfillment such as an acknowledgement from the community-based organization verifying fulfillment,**

3. **any changes or updates to the community benefits agreement, including any additional community benefits agreements,**
4. **details of any issues or barriers regarding implementation, and**
5. **any other information the project developer deems relevant.**

Verification: The project owner shall include the required progress report starting in the first Monthly Compliance Report, as described in Section 9, Compliance Conditions and Compliance Monitoring Plan, then on a quarterly basis during construction. Following completion of construction, the project owner shall include the required progress report in each Annual Compliance Report until all obligations under the community benefits agreement, including donations, commitments, or requirements have been fully satisfied. The final progress report should summarize achievements from the initial to the last report. It should also include a narrative of any issues and complaints received, if applicable. Individuals and organizations do not need to be identified specifically, but a general statement of where the complaint originated from is required (e.g., local community member or business, out of area environmental organization, local or other State Department of Business Oversight, etc.) and whether the feedback is regarding the agreement or implementation of the agreement. Any information that the project owner requests to be maintained as confidential shall be submitted in accordance with COM-8 Confidential Information (see Section 9, Compliance Conditions and Compliance Monitoring Plan).

10.6 Identification of Public Agencies that Received Notice of the Application

Summary of Requirements

Consistent with Public Resources Code sections 25519 and 25545.8, CEC staff notified the following agencies of the Opt-In application: Alameda County (various departments), California Department of Fish and Wildlife, Region 3-Bay Delta, Fairfield, Department of Toxic Substances Control, Central Valley Regional Water Quality Control Board, Region 5, California Public Utilities Commission, California Attorney General, California Office of Emergency Services, Native American Heritage Commission, Governor's Office of Land Use and Climate Innovation, U.S. Army Corps of Engineers, California State Parks and Recreation, and U.S. Fish and Wildlife Service.

Additional agencies notified include, Airport Land Use Commission, Bay Area Air Quality Management District, California Office of Historic Preservation, California Independent System Operator (California ISO), California Division of Occupational Safety and Health (Cal OSHA) District Office (Bay Area), East Bay Municipal Utility District, U.S.

Environmental Protection Agency (EPA), California Department of Forestry and Fire Protection (CAL FIRE), California Department of Transportation (Cal Trans) District 4, California Air Resources Board (CARB), Central Valley Flood Protection Board, Department of Conservation, Delta Protection Commission, Delta Stewardship Council, Department of General Services, California Highway Patrol, California Natural Resources Agency (CNRA), California Department of Resources Recycling and Recovery (CalRecycle), State Lands Commission, State Water Resources Control Board (SWRCB), District 4 and Division of Drinking Water, Division of Water Quality, Division of Water Rights, Department of Water Resources.

10.7 Environmental Leadership Development Project Requirements

Summary of Requirements

An Opt-In application is deemed an environmental leadership development project certified by the Governor and eligible for streamlined procedures,¹¹ if the CEC verifies that the project meets the conditions under Public Resources Code section 21183 and mitigates greenhouse gas (GHG) impacts as required under Public Resources Code section 21183.6.¹²

Under Public Resources Code section 21183 the following conditions must be met:

1. The Project will result in a minimum investment of \$100,000,000 in California upon completion of construction.
2. The project creates high-wage, highly skilled jobs that pay prevailing wages and living wages, provides construction jobs and permanent jobs for Californians, helps reduce unemployment, and promotes apprenticeship training as defined in Public Resources Code section 21183.5.
3. For environmental leadership development projects¹³, the project does not result in any net additional emission of GHG, including GHG emissions from employee transportation, as determined by compliance with Public Resources Code section 21183.6.
4. The applicant demonstrates compliance with the requirements of recycling commercial solid waste and organic solid waste as required under Chapter 12.8 (commencing with Section 42649) and Chapter 12.9 (commencing with Section 42649.8) of Part 3 of Division 30, as applicable.
5. The applicant has entered into an agreement that all mitigation measures required to certify the project must be conditions of approval of the project. For

11 Pub. Resources Code, §§ 21178 et seq.

12 Cal. Code Regs., tit. 20, § 1877(h); Pub. Resources Code § 25545.13

13 Pub. Resources Code, § 21180(1), (2), and (3)

environmental mitigation measures, the applicant agrees that those measures will be monitored and enforced by the lead agency for the life of the obligation.

6. The applicant agrees to pay the costs of the trial court and the court of appeal in hearing and deciding any case challenging a lead agency's action on the certified project.
7. The applicant agrees to pay the costs of preparing the record of proceedings for the project concurrent with review and consideration of the project under this division.
8. The applicant demonstrates that the record of proceedings is being prepared in accordance with Public Resources Code section 21186.

Under Public Resources Code section 21183.6, quantification and mitigation of impacts of environmental leadership development projects¹⁴ from the impacts of GHG must be as follows:

1. The environmental baseline for GHG emissions be based on the physical environmental conditions in the vicinity of the project site at the time the application is submitted.¹⁵
2. The mitigation of the impacts resulting from the emissions of GHG must be achieved in accordance with the following priority:
 - a. Direct emissions reductions from the project that also reduce emissions of criteria air pollutants or toxic air contaminants through implementation of project features, project design, or other measures, including, but not limited to, energy efficiency, installation of renewable energy electricity generation, and reductions in vehicle miles traveled.
 - b. The remaining unmitigated impacts shall be mitigated by direct emissions reductions that also reduce emissions of criteria air pollutants or toxic air contaminants within the same air pollution control district or air quality management district in which the project is located.
 - c. The remaining unmitigated impacts shall be mitigated through the use of offsets that originate within the same air pollution control district or air quality management district in which the project is located, consistent with the Health and Safety Code¹⁶, including, the requirement that the offsets be real, permanent, quantifiable, verifiable, and enforceable, and shall be undertaken from sources in the community in which the project is located or in adjacent communities.
 - d. The remaining unmitigated impacts shall be mitigated using of offsets that originate from sources that provide a specific, quantifiable, and direct

¹⁴ Id.

¹⁵ Cal. Code Regs., tit. 14, § 15125

¹⁶ Pub. Resources Code, § 38500

environmental and public health benefit to the region in which the project is located.

Proposed Findings of Fact

Based on the information provided in the application, and additional evidence and information as described below and contained in the record of this proceeding, staff recommends the CEC make the following findings and conclusions because the record contains substantial evidence for their support.

Public Resources Code Section 21183 Required Proposed Findings

1. The project will result in a minimum investment of \$100,000,000 in California upon completion of construction.
2. The applicant has identified that construction of the project would generate employment. Project construction is estimated to directly generate an average of 24 full-time construction workers over the 18-month construction schedule, with an estimated peak of approximately 127 workers on-site during peak construction months. (Dudek 2025c).
 - a. The applicant has certified that these workers will be paid prevailing wages and living wages as evident by their employment agreements.
 - b. Operation of the Project would employ a full-time workforce of 18 employees and will therefore provide permanent jobs for Californians. The applicant certifies that it plans to promote apprenticeship training.
 - c. The proposed project is an energy storage facility and is therefore a qualified environmental leadership development project under Public Resources Code sections 25545.13 and 21183.
3. As described in the Air Quality and Greenhouse Gas Emissions sections, by displacing energy from natural gas powerplants, the project would not result in any net additional emissions of GHG. Therefore, the project complies with Public Resources Code section 21183.6.
4. In order to comply with recycling commercial solid waste and organic solid waste requirements under Public Resources Code sections 42649 and 42649.8, as applicable the applicant would ensure that recycling of commercial and organic waste are stipulations in the construction contractor's contract. Construction materials would be sorted on-site throughout construction and transported to appropriate waste management facilities. Recyclable materials would be separated from non-recyclable items and stored until they could be transported to a designated recycling facility. Recycling would be in accordance with applicable California state requirements. Wooden construction waste (such as wood from wood pallets) would be sold, recycled, or chipped and composted. Other compostable materials, such as vegetation, may also be composted off-site. Non-hazardous construction materials that cannot be reused or recycled would likely be disposed of

at a Class II/III landfill. Hazardous waste and electronic waste would not be placed in a landfill but rather would be stored onsite for less than 90 days and would be transported to a treatment, storage, and disposal facility by a licensed hazardous waste transporter. All contractors and workers would be educated about waste sorting, appropriate recycling storage areas, and how to reduce landfill waste. The potential waste streams that would be generated during construction and operation of the Project, the waste classifications, and disposal facilities in the vicinity of the Project are detailed in Section 5.11 Waste Management of the Opt-In Application package. Furthermore, the Project must comply with the California Green Building Standards Code, also known as CALGreen, which includes mandatory recycling. Code Section 5.408 requires that 65 percent of the nonhazardous waste be recycled or salvaged for reuse. Code Section 5.408.3 (excavated soil and land clearing debris) requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting from land clearing shall be reused or recycled.

5. Upon certification, the applicant will be subject to all mitigation measures in the form of conditions of certification. Those conditions will be fully enforceable by the CEC or another agency designated by the CEC. The CEC will monitor and enforce the mitigation measures for the lifetime of the project through its statutory authority to issue civil penalties for violations of conditions of certification.
6. The applicant has agreed to pay the potential costs of the trial court and the court of appeal in hearing and deciding any case challenging the CEC's action on the certified project.
7. The applicant has agreed to pay the costs of preparing the record of proceedings for the project concurrent with review and consideration of the project.
8. The preparation and certification of the record of proceedings for this project complies with Public Resources Code section 21186.

Public Resources Code Section 21183.6 Required Proposed Findings

1. The application demonstrates that the environmental baseline for greenhouse gas emissions was based on the physical environmental conditions in the vicinity of the project site when the application was submitted on November 7, 2023.
2. This document requires any and all mitigation measures resulting from the emissions of greenhouse gases to be in accordance with the priorities outlined in Public Resources Code section 21183.6.

Conclusions

Staff has verified and concluded that the record contains evidence to support a finding that the project meets the requirements of, and may be deemed, an environmental leadership development project under Public Resources Code section 21183. In addition, staff proposes COC **WASTE-1** and recommends Mitigation Measure **WASTE-1** (for the portion of the gen-tie transmission line to be built and operated by PG&E)

requiring compliance with solid waste management mitigation measures required to certify the project, as set forth in this proposed finding.

Staff has also verified and concluded that the record contains evidence to support a finding that the impacts of greenhouse gas emissions were quantified and mitigated in a manner consistent with Public Resources Code section 21183.6, and therefore staff recommends that the CEC may adopt this proposed finding and conclusion.

10.8 Potential for Restoring the Site if Application Rejected

Summary of Requirements

As part of the Opt-In application, the applicant must demonstrate the potential for restoring the site as necessary to protect the environment if the CEC denies approval of the application.¹⁷

Proposed Findings of Fact

Based on the information provided in the application, and additional evidence and information as described below and contained in the record of this proceeding, staff proposes the following findings:

1. Project site preparation and construction would not begin prior to application approval and thus restoration work would not be necessary.

Conclusions

Staff concludes that the applicant has sufficiently evaluated and identified the potential for restoring the project site as required under California Code of Regulations, title 20, section 1879(a)(3) and therefore staff recommends that the CEC may adopt this proposed finding and conclusion.

10.9 Minimum Standards of Efficiency

Summary of Requirements

The applicant must demonstrate compliance with the recommended minimum standards of efficiency for the operation of a new facility at a particular site that are technically and economically feasible, as required under Public Resources Code section 25402(d). The applicant must certify that standards recommended by the CEC have been considered, which certification shall include a statement specifying the extent to which conformance with the recommended standards will be achieved.¹⁸

¹⁷ Cal. Code Regs., tit. 20, § 1879(a)(3); Pub. Resources Code, § 25523(e)

¹⁸ Cal. Code Regs., tit. 20 § 1879(a)(1); Pub. Resources Code, § 25523(d)

Proposed Findings of Fact

Based on the information provided in the application, and additional evidence and information as described below and contained in the record of this proceeding, staff recommends the CEC make the following findings and conclusions because the record contains substantial evidence for their support:

The CEC has not recommended minimum standards of efficiency for the proposed project. The applicant is not required to demonstrate compliance with minimum efficiency standards, as no minimum efficiency standards have been applied to this project.

Conclusions

Based on the foregoing proposed findings, the applicant is not required to demonstrate compliance with minimum efficiency standards, as no efficiency standards apply to this project. Therefore, staff proposes the CEC may adopt this finding and conclusion as it is supported by substantial evidence in the record.

10.10 References

AMLGMN 2024ff – Allen Matkins Leck Gamble Mallory & Nats (TN 258039). Labor Certification. Docketed July 26, 2024. Accessed online at:
<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=24-OPT-04>

Section 4

Authors and Reviewers

4 Authors and Reviewers

Lead Agency—California Energy Commission

Section Authors

Staff	Section(s)
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Ellen LeFevre	Environmental Justice, Socioeconomics
Erika Giorgi, Barbara Borkowski	Mandatory Opt-In Requirements, Overrides WIP
Jacob Locsin	Facility Design, Noise and Vibration
James Ackerman	Solid Waste Management, Water Resources
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Julie Myrah, Chris Huntley	Biological Resources
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Appendix A

Bracketed Comment Letters and Transcript

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

In the matter of:

Potentia-Viridi Battery Energy)
Storage System CEC Staff)
Assessment Public Meeting)
) Docket No. 24-OPT-04
)
)
)
)
_____)

POTENTIA-VIRIDI BATTERY ENERGY STORAGE SYSTEM

REMOTE VIA ZOOM AND IN PERSON VIA ZOOM

In-person at:
Tracy Transit Center – Meeting Room 105
50 E. 60th Street
Tracy, California 95376

MONDAY, MARCH 2, 2026

1:00 P.M.

Reported by:

Niccole Shergill

APPEARANCES

COMMISSIONERS

Noemi Gallardo

CEC STAFF

Kaycee Chang, Supervisor, CEQA Project Management Unit

Drew Bohan, Executive Director

Ryan Young, Public Advisor

Eric Knight, Siting and Environmental Branch Manager

Erika Giorgi, Counsel

Susan Cochran, Counsel

PUBLIC COMMENT

Rebecca Frank

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P R O C E E D I N G S

1:03 p.m.

MONDAY, MARCH 2, 2026

MS. CHANG: Hello, everyone. Welcome, everyone. I am Kaycee Chang with the Siting Transmission and Environmental Protection Division, or as we like to say, STEP, and I supervise the STEP Division CEQA Project Managers. Thank you for attending the CEC-hosted meeting on our Staff Assessment for the Potential Viridi Battery Energy Source System. Next slide, please.

Commissioner Gallardo will now lead us in the Pledge of Allegiance.

COMMISSIONER GALLARDO: Please rise. The flag is behind us.

(WHEREUPON THE PLEDGE OF ALLEGIENCE IS RECITED.)

Thank you.

MS. CHANG: Thank you. Next slide, please.

We would like to go over a few meeting logistics. This meeting is hybrid with attendees in person at the Tracy Transit Center and virtual attendees on Zoom. Thank you for being here. We also thank our Spanish interpreters and court reporter for their assistance today.

For those attending virtually, Zoom closed captioning has been enabled. Attendees can use the service by clicking on the live transcript icon and then choosing either show subtitle

1 or view full transcript. The closed captioning service can be
 2 stopped by exiting out of the live transcript or selecting the
 3 hide subtitle icon. We have also enabled Spanish interpretation
 4 on Zoom.

5 For those participating in person, please be mindful
 6 of speaking slowly and clearly into the microphone for those
 7 participating online to hear our Spanish interpreters and the
 8 court reporter. Finally, this meeting is being recorded. The
 9 meeting recording will be available on the California Energy
 10 Commission's website. Next slide, please.

11 This slide provides an overview of today's agenda. We
 12 will be sharing information with the public and presenting our
 13 findings, which are detailed in the staff assessment. There will
 14 be plenty of opportunities for comments from California Native
 15 American tribes, government agencies, elected officials, and
 16 interested members of the public and parties. We also have
 17 agendas at the back of the room. Next slide.

18 We are fortunate to have with us today our Siting Lead
 19 Commissioner, Noemí Gallardo, who you'll hear from shortly. At
 20 the tables, we have CEC staff attorneys, Erika Giorgi and Susan
 21 Cochran, along with CEC's Public Advisor, Ryan Young. And now I
 22 would like to hand the mic over to our CEC Executive Director,
 23 Drew Bohan, for welcoming remarks.

24 EXECUTIVE DIRECTOR BOHAN: Thank you, Kaycee. I just
 25 want to say welcome to everyone who came here in the room. And I

1 understand we have about 40 people on the line. Thank you for
 2 joining us. I'll keep this very brief. I just want to say we're
 3 pleased to be recommending that this project go forward. That's
 4 what you will find in our staff assessment and the Commissioners,
 5 Commissioner Gallardo to my right, and will speak in a moment,
 6 but this will go to the Commission for a full vote in the next
 7 weeks. And we did find one significant unavoidable impact to
 8 visual resources, but found that on balance, that impact is
 9 outweighed by the benefits of the project. Thank you very much.

10 COMMISSIONER GALLARDO: All right. I'll go next.

11 Buenas tardes. Good afternoon, everyone. We appreciate folks
 12 taking the time to join us today, whether in the room or on Zoom.
 13 As Drew mentioned, there are 40 or so people on Zoom, so thank
 14 you for that. We are grateful to be back here in Tracy to discuss
 15 the Potentia-Viridi BESS project application. My name is Noemí
 16 Gallardo, and I am one of the five Commissioners at the
 17 California Energy Commission. As a reminder, the Commission
 18 assigns two Commissioners to each of our policy priority areas, a
 19 Lead Commissioner and an associate. I am the Lead Commissioner
 20 for the permitting and proposed thermal power plants and eligible
 21 clean energy facilities. And our chair, David Hochschild, is the
 22 associate Commissioner. He cannot be here today, unfortunately,
 23 but his advisor, Caroline Grey, is here on his behalf. Caroline's
 24 here at the table.

25 Both the Chair and I have been, and will continue to,

1 work with staff throughout their review and analysis of the
2 proposed Potentia-Viridi Project.

3 And ultimately, he and I will vote along with our
4 three other fellow Commissioners to approve or deny this project.
5 As a reminder, the Energy Commission was here in September of
6 last year for a site visit and the scoping and informational
7 meeting. That visit and the comments we received helped inform
8 the staff assessment that will be presented today. Over the last
9 five months or so, staff has taken information from various
10 sources, including information provided by the applicant, other
11 state and local agencies, local members of the community, and
12 staff's independent research, and conducted an independent
13 comprehensive review of the potential impacts of this proposed
14 project. And we know that every project has the potential to
15 impact local communities. At the same time, we must balance local
16 impacts against the very real, clean energy needs of California,
17 which includes every local community throughout the state. That's
18 why, as you may have noticed, the staff assessment is over a
19 thousand pages, including the appendices.

20 It's a reflection of the many hours that the staff
21 invest into conducting the thorough and comprehensive analysis.
22 So in a bit, staff will go through some of the most relevant
23 portions of its assessment and take your public comments about
24 that. We will also continue accepting written comments to our
25 docket until 5:00 p.m. on March 27th, 2026. We want to make sure

1 you have that date in mind.

2 And before I pass the mic, I'd like to express some
3 gratitude. First, I want to thank our Staff for their
4 contributions throughout this proceeding, specifically the STEP
5 Division who conduct the environmental analysis and this over a
6 thousand-page staff assessment. Our support offices as well,
7 including our Executive Director, who you just heard from, our
8 Chief Counsel's office, our Public Advisor and his team, our
9 media team, our IT specialist, and the Chair's Office. I'd also
10 like to thank the applicant, Clearway, and their team for their
11 collaboration to provide the Energy Commission with the
12 information needed to be able to complete this analysis.

13 That collaboration is extremely helpful. I also want
14 to say thanks to Tim Duffy, who is the landowner of the proposed
15 site. He couldn't join us today due to a medical situation, so we
16 wish him a full and fast recovery. Finally, on behalf of the
17 Energy Commission, I want to thank the County of Alameda and the
18 City of Tracy for welcoming us and sharing their insight and
19 input as we continue evaluating this application. We also
20 appreciate the staff of the Tracy Transit Center for enabling us
21 to hold the meeting at this very comfortable venue. And thank you
22 to our court reporter and our interpreters for enabling us to
23 make this meeting even more accessible.

24 I will now pass the mic to our public advisor, Ryan
25 Young, who will review the information and how to provide input

1 on this project. Ryan?

2 MR. YOUNG: Good afternoon. Thank you for joining us
3 today. I'm Ryan Briscoe Young, Public Advisor with the
4 Commission's Office of the Public Advisor, Energy, Equity and
5 Tribal Affairs.

6 Today we're going to have some presentations here from
7 government representatives and then have our main public comment
8 period. Just want to mention at the beginning of our time today,
9 a few instructions for later in the day, which I'll repeat again
10 later.

11 We ask that everyone in the room who would like to
12 make a comment, please turn in a blue card as soon as possible to
13 the Public Advisor's Table. Dorothy, can you hold up a blue card
14 for everyone to see? And if you represent a government entity
15 such as local, state, federal, legislature, or California Native
16 American tribes, please indicate that on your blue card. And
17 before I pass the mic to Kaycee, just a kind reminder to turn off
18 any cell phone ringers during this meeting.

19 Thank you.

20 Kaycee?

21 MS. CHANG: Thank you, Ryan.

22 Next slide, please.

23 The goal of today's CEC meeting is to present Staff's
24 assessment, which includes a draft Environmental Impact Report,
25 or EIR, of the Potentia-Viridi Battery Energy Storage System

1 project and encourage public participation to gather information
 2 and feedback before the public comment period closes at 5:00 p.m.
 3 on March 27th, 2026. You may provide comments today or in writing
 4 to our project docket. I will touch on that more in today's
 5 meeting. Next slide, please.

6 The application for the Potentia-Viridi Battery Energy
 7 Storage System, BESS, project was submitted to the CEC under the
 8 opt-in certification program created under AB 205 as part of the
 9 Warren-Alquist Act. The project proposes a Battery Energy Storage
 10 System, or BESS, on approximately 102 acres of a larger,
 11 approximately 236-acre parcel. The project site is in a rural
 12 eastern Alameda County in what is known as a Tri-Valley
 13 subregion.

14 The site proper is bordered on the south, southeast by
 15 Patterson Pass Road on a north by an existing private road on the
 16 west by open grazing land and on the east by the existing Tesla
 17 substation across Patterson Pass Road. Primary access to the site
 18 would be from the northern access road, which is northeast part
 19 of the site to be built from a private existing road. The
 20 (INDISCERNIBLE) line extends to the south, southeast across
 21 Patterson Pass Road and Patterson Run, a stream running parallel
 22 to Patterson Pass Road, providing an interconnection to the
 23 transmission infrastructure. The transmission line continues to
 24 the Tesla substation terminating near the southwest corner. The
 25 project elements include a 400 megawatt or 3,200 megawatt hour

1 BESS, a high voltage project substation, 34.5 to 500 kilovolts, a
2 500-kilovolt generation intertie line or gen-tie, a power
3 conversion system and medium voltage collection system,
4 enclosures containing the BESS units, a control building,
5 switchyard, and substation.

6 The power stored by the project would be conveyed to
7 the regional electrical grid through an interconnection with the
8 existing PG&E Tesla substation. Next slide, please.

9 The CEC received the project application on August
10 7th, 2024. The CEC staff reviewed the data submitted and
11 completed a series of requests for information before deeming the
12 application complete on August 29th, 2025. CEC staff then held a
13 public informational and environmental scoping meeting in Tracy,
14 California on September 18th, 2025. The CEC staff assessment was
15 filed on January 26th, 2026, opening the 60-day public comment
16 review period, which closes on March 27th, 2026.

17 Today, we will share information from the staff
18 assessment and hear any comments from agencies, governments,
19 California Native American tribes and interested members of the
20 public. No decisions are being made at this meeting. The CEC
21 staff will publish an updated staff assessment, which will
22 include a final recommendation on the proposed project no later
23 than April 24th, 2026.

24 This project and the CEC staff recommendation will be
25 presented at a Business Meeting on May 26th, 2026 for a formal

1 decision by the CEC. The business meeting will be formally
2 noticed. Next slide.

3 The staff assessment, which includes the draft EIR,
4 has been prepared by a team of CEC technical experts, including
5 biologists, mechanical engineers, air resources engineers,
6 archeologists, geologists, and more. CEC staff evaluated the
7 potential environmental effects of the construction and operation
8 of the proposed project in compliance with the California
9 Environmental Quality Act or CEQA, the CEQA guidelines, the
10 Warren Alquist Act, and California Code of Regulations, Title 20.
11 The topic areas shown on this slide, facility design, facility
12 reliability, transmission system engineering, and worker safety
13 and fire protection are not included in a typical EIR. These
14 engineering topics are required to be analyzed per the
15 requirements of the Warren-Alquist Act and in implementing
16 regulations in California Code of Regulations, Title 20.

17 CEC staff evaluated engineering aspects of the
18 proposed project and concluded that the construction and
19 operation of the project would conform with all applicable local,
20 state, and federal laws, ordinances, regulations, and standards
21 or laws and should the project be certified, it can be reliably
22 operated. For further specific details, we encourage you to
23 download the staff assessment from our CEC website. A slide later
24 in this presentation describes how to find project documents on
25 the website. Next slide, please.

1 This table summarizes staff's CEQA impact conclusions
 2 for the environmental topic areas and the project's conformance
 3 with laws, ordinances, regulations, and standards in these topic
 4 areas. CEC staff identified significant and unavoidable impacts
 5 on the environment and non-conformance with laws, ordinances,
 6 regulations, and standards in the area of visual resources. For
 7 land use, agriculture, and forestry, CEC staff notes non-
 8 conformance with laws, ordinances, regulations, and standards,
 9 which are the bolded rows.

10 Red means the project does not conform with laws
 11 and/or causes significant and unavoidable impacts. Next slide,
 12 please.

13 We will now begin our staff presentations on
 14 environmental topic areas of concern. I will pass it over to Eric
 15 Knight.

16 MR. KNIGHT: Thank you, Kaycee. Hello. My name is Eric
 17 Knight, Siting and Environmental Branch Manager. I will provide a
 18 brief overview of the baseline biological conditions that occur
 19 on the project site, the environmental considerations evaluated
 20 during the of impacts to special status plants, wildlife, and
 21 aquatic resources, our proposed mitigation measures, including
 22 conditions of certification, and how the project aligns with
 23 state and federal requirements, permitting requirements. Next
 24 slide, please. Next slide. Thank you.

25 The proposed project must comply with multiple

1 environmental regulations, including the Federal Endangered
 2 Species Act, the California Endangered Species Act, the Migratory
 3 Bird Treaty Act, the Clean Water Act, and the California Fish and
 4 Game Code. Regionally, the project is guided by the East Alameda
 5 County Conservation Strategy, which establishes conservation
 6 priorities for species such as California red legged frog,
 7 California Tiger Salamander, San Joaquin Kit Fox, and American
 8 Badger. The privately owned site is near the Altamont Pass at the
 9 northern edge of the San Joaquin Valley within a transition zone
 10 between the Diablo Range and the East Foothills.

11 The project site is dominated by non-native annual
 12 grasslands with Patterson Run Creek and ephemeral stream running
 13 through the area. While wetlands and special status plant
 14 communities are absent, the site provides upland and dispersal
 15 habitat for several listed species. Nearby stock ponds within 0.3
 16 miles offer high quality breeding habitat for the California red-
 17 legged frog and the California tiger salamander, and the site
 18 overlaps designated critical habitat for the California red-
 19 legged frog. Because of this, the project requires a
 20 comprehensive suite of mitigation measures to avoid, minimize,
 21 and fully mitigate impacts to biological resources. Next slide,
 22 please.

23 This figure shows the project study area and the
 24 results of the biological surveys conducted by the applicant. It
 25 outlines the project boundary and the surrounding grasslands, as

1 well as Patterson Run Creek, which crosses the site as a key
2 hydrological feature. The figure highlights areas identified as
3 high quality breeding habitat for California red-legged frog and
4 California tiger salamander, shown as P-1 and P-2 on the slide
5 there, as well as burrows and other features used by wildlife.

6 During multiple seasons of surveys, no state or
7 federally listed plants were detected and are not expected to
8 occur. However, one species, big taro plant, is present along the
9 gentile -- one (INDISCERNIBLE) of the species, excuse me. Next
10 slide, please.

11 Special status wildlife with the potential to occur
12 includes Crotch's bumble bee, California tiger salamander,
13 California red-legged frog, Golden Eagle, burrowing owl, and San
14 Joaquin Kit Fox. Sensitive birds observed or likely to occur
15 include Northern Harrier, white-tailed kite, loggerhead shrike,
16 tri-colored blackbird, prairie falcon, and bald eagle. Next
17 slide, please.

18 CEC staff's biological resources evaluation included
19 reviewing the applicant's data, conducting independent research
20 and literature reviews, coordinating with the United States Fish
21 and Wildlife Service and California Department of Fish and
22 Wildlife and verifying conditions during a site visit. Our
23 analysis evaluated two categories of impacts, those occurring
24 during construction and those occurring during long-term
25 operations of the facility. Based on the evaluation, staff

1 recommends -- staff developed and recommends 28 mitigation
 2 measures, including 15 species-specific measures, which are also
 3 referred to as (INDISCERNIBLE) conditions of certification. These
 4 measures include pre-construction surveys, construction
 5 monitoring, non-disturbance buffers, compensatory mitigation
 6 through approved conservation banks, reporting requirements,
 7 worker environmental awareness training, seasonal work windows,
 8 and habitat restoration.

9 If approved, these measures will be implemented by the
 10 project owner throughout the life of the project with compliance
 11 monitored under the oversight of the CEC staff, including the
 12 CEC's compliance project manager. Next slide, please.

13 Under state law, the CEC license would include
 14 Incidental Take Authorization under the California Endangered
 15 Species Act for the California Tiger Salamander, Western
 16 Burrowing Owl, San Joaquin Kit fox, and Crotch's Bumblebee. This
 17 Take Authorization allows lawful project activities that may
 18 otherwise result in take of a listed species provided the project
 19 implements measures to avoid, minimize, and fully mitigate
 20 impacts. Staff work closely with California Department of Fish
 21 and Wildlife to develop these measures. In addition, the CEC
 22 license would include the equivalent of a California Department
 23 of Fish and Wildlife Lake and Streambed Alteration Agreement for
 24 impacts the Patterson Run Creek. The applicant also submitted
 25 applications to the Army Corps of Engineers for Clean Water Act

1 Section 404 Nationwide permit for impacts to Patterson Run Creek
 2 and to the Central Valley Regional Water Quality Control Board
 3 for Clean Water Act Section 401 Water Quality Certification. The
 4 Army Corps of Engineers initiated Endangered VCs Act Section
 5 seven consultation with the US Fish and Wildlife Service for
 6 potential impacts to California red-legged frog, California Tiger
 7 Salamander, and the San Joaquin Kit Fox as part of the Clean
 8 Water Act Section 404 permitting process.

9 Staff concludes that impacts to sensitive plants and
 10 wildlife from the construction and operation of the proposed
 11 project will be reduced to less than significant levels with
 12 implementation of staff's recommended conditions of
 13 certification, and the project would comply with all applicable
 14 laws, ordinances, regulations, and standards, including the State
 15 and Federal Endangered Species Acts and Fish and Game Codes.

16 So that concludes the presentation on biological
 17 resources. I will now transition to visual resources, please.
 18 Next slide, please.

19 As discussed in the staff assessment, the proposed
 20 project would have significant effects under two of the CEQA
 21 questions, two of the CEQA guidelines, environmental checklist
 22 questions for visual resources, and would not conform with
 23 several local laws, ordinances, regulations, and standards
 24 pertaining to aesthetics and visual resources. There are four
 25 CEQA checklist questions for visual resources. The project would

1 have no impact for the two questions that address scenic
 2 resources and scenic vistas. This is because no scenic vistas or
 3 resources have been identified or the project is not within views
 4 from any locally designated visually sensitive bridge lines or
 5 view sheds. The project was found to have substantially -- was
 6 found to substantially degrade the existing visual character
 7 quality of the public views of the site and its surroundings.
 8 Staff's evaluation focused on project prominence and visual
 9 absorption capability. Project prominence measures the degree of
 10 visual contrast with the existing landscape, while visual
 11 absorption capability measures the ability of the existing
 12 landscape to absorb the visual contrast without resulting in
 13 substantial alteration to its visual character and quality.

14 Project induced visual change to the existing
 15 landscape's visual character was evaluated from four Key
 16 Observation Points or KOPs. The KOP is a represented point in a
 17 publicly accessible location where a public view of the project
 18 is analyzed and evaluated. For each of the KOPs, the applicant
 19 provided photographs showing the existing view and photo
 20 realistic simulations of how the proposed project components
 21 would appear from each KOP. On the next slide, I'll show before
 22 and after images from one of the KOPs as an example. Generally
 23 speaking, the undeveloped rural project site would be
 24 substantially modified as the project would introduce forms,
 25 lines, colors, and textures associated with the BESS facility,

1 the substation and associated infrastructure. They're not
 2 currently found in the existing landscape of the site and cannot
 3 be camouflaged, disguised, or screened or surface treated, nor
 4 setbacks employed that would mitigate the degradation of the
 5 existing visual character and quality of the site and the
 6 surroundings to less than significant levels.

7 The existing rural open space would be replaced with
 8 an inherent semi-industrial utilitarian landscape character, and
 9 after mitigation, the visual impacts would remain significant and
 10 unavoidable. Next slide, please.

11 So this slide shows images from figures 5.14-4A and 4B
 12 in the staff assessment. The image on the left is how the project
 13 site currently looks to travelers on eastbound Patterson Pass
 14 Road, looking north toward the site. The image on the right is
 15 the proposed project simulated to the view. The nearest project
 16 boundary to KOP2 would be approximately 470 feet to the north.
 17 Next slide, please.

18 The other CEQA checklist question in which the project
 19 would have a significant effect asks, would the project create a
 20 new source of substantial light or glare, which would adversely
 21 affect day or nighttime views in the area? Here, the impact was
 22 found to be less than significant with mitigation. The World
 23 Atlas Sky Brightness interactive map, which quantifies light
 24 pollution, shows the project site in an area where brightness is
 25 relatively high. I'll show this map on the next slide. Existing

1 nighttime lighting conditions vary throughout the area because no
 2 light sources currently exist on the project site, and the
 3 project has the potential to be a source of substantial
 4 artificial light into the nighttime environment from outdoor
 5 lighting for site and building access and security purposes, and
 6 glare and reflectance during daytime from project structures.

7 However, staff concludes that these impacts can be
 8 mitigated to less significant with effective implementation of
 9 stats proposed conditions of certification. Next slide, please.

10 This slide is from the World Atlas Night Sky
 11 Brightness Map. It shows the brightness at night emitted from the
 12 general project area and along Interstate 580 corridor and
 13 Eastern Alameda County, California. The site is in the area
 14 depicted by the orange color indicating suburban urban transition
 15 and area greater emitted illumination. Next slide, please.

16 The Staff assessment determined that the project's
 17 residual significant visual impacts pertaining to the degradation
 18 of existing visual character, quality of public views of the site
 19 and its surroundings would not conform with several principles
 20 and policies in the scenic route element of the Alameda County
 21 general plan and the East County area plan as it pertains to
 22 sensitive view sheds and scenic highways. So this concludes the
 23 presentation on visual resources. Next slide, please.

24 And we'll now transition to land use and agricultural
 25 and forestry. Next slide, please.

1 The land use, agricultural and forestry section of the
2 staff assessment addresses the project's potential to impact
3 significant, excuse me -- addresses the project's potential for
4 significant impacts to land use, agriculture, and forestry. Of
5 the six questions from the CEQA Appendix G checklist taken from
6 staff's analysis, I will focus on two.

7 One, would the project cause a significant impact due
8 to a conflict with any land use, law, ordinance, regulation, or
9 standard adopted for the purpose of avoiding or mitigating the
10 environmental effect? And two, would the project conflict with
11 existing zoning or agricultural use or Williamson Act contract?

12 The project is consistent with most laws, ordinances,
13 regulations, and standards, including the East County area plan,
14 land use designation of large parcel agriculture and the zoning
15 designation of agriculture combining B district. However, the
16 project conflicts with Alameda County's uniform rules and
17 procedures governing agricultural preserves and Williamson Act
18 contracts.

19 The project is not consistent with the 10/10 rule,
20 which states that compatible non-agricultural uses that do not
21 qualify as buildings shall be restricted to no more than 10
22 percent of the contracted property or 10 acres, whichever is
23 less. In this case, 10 acres is less and the project exceeds 10
24 acres.

25 Importantly, this LORS conflict is not a significant

1 impact because the project site is grazing land, not an important
 2 farmland category. California Department of Conservation does not
 3 classify the project site as having the BESS soil characteristics
 4 for agriculture. Important farmlands are lands designated as
 5 prime farmland, unique farmland, or farmland of statewide
 6 importance as designated by the California Department of
 7 Conservation. Department of Conservation designates two of the
 8 parcels, the ones with the BESS facility in that transmission
 9 line as grazing land while the PG&E Tesla substation parcel with
 10 the (INDISCERNIBLE) connection is designated as urban and built-
 11 up land. Grazing land and urban and built-up land do not have the
 12 soil characteristics that are optimal for agriculture and
 13 therefore are not important farmlands. Next slide, please.

14 In conclusion, while there is a LORS nonconformance
 15 with the 10/10 rule in Alameda County's uniform rules and
 16 procedures, governing agricultural preserves and Williamson Act
 17 contracts, the project would have less than significant impacts
 18 in the topic area of land use, agriculture, and forestry. While
 19 staff is recommending the CEC approve the project, despite the
 20 project conflicting with the 10/10 rule, CEC staff recommends the
 21 project applicant work with the landowner to seek Williamson Act
 22 contract modification through a partial cancellation within
 23 Alameda County following the requirements set forth in the
 24 government code. Such an action can occur after project
 25 certification and would harmonize the Williamson Act contract

1 with the future state of the project site, including the
2 certified project.

3 And that concludes the presentation on land use,
4 agricultural and forestry, and I'll pass the mic back to Kaycee
5 Chang.

6 MS. CHANG: Thanks, Eric. Next slide, please.

7 I will now go over the Opt-In requirements and the
8 next steps in the CEC process. Next slide, please.

9 As part of the opt-in certification program, there are
10 mandatory requirements that projects must meet. We are
11 highlighting three of particular interest for labor. CEC staff
12 concludes that the construction of the project is not a covered
13 project subject to public works. The applicant has committed to
14 provisions of the labor code to paying prevailing wages and to
15 using a skilled and trained workforce. Next slide, please.

16 Under public resources code, section 25545.9B, there
17 is a rebuttable presumption that the construction or operation of
18 the facility will have an overall net positive economic benefit
19 to Alameda County. The project would provide the following
20 economic benefits to Alameda County. One, project construction
21 would last 18 months and require an average of 97 workers per
22 month and have a peak workforce of 127 workers per month.

23 Two, the project operations would employ 18 full-time
24 employees, including one plant manager, two technicians for plant
25 operations, and 15 workers for BESS equipment and machinery

1 maintenance over the project's estimated 35-year operational
 2 life. And three, on a net present value basis, the proposed
 3 project would generate more than \$440 million of net positive
 4 economic value to Alameda County over the project's estimated
 5 operational life. This estimate of economic benefit does not
 6 include potential cost to Alameda County, such as for public
 7 services. Next slide, please. For the requirement that the
 8 applicant enter into one or more legally binding and enforceable
 9 agreements with or that benefit a community-based organization,
 10 the applicant submitted an executed agreement with Tri-Valley
 11 Haven, an organization providing services and assistance to
 12 survivors of sexual assault, victims of domestic abuse violence,
 13 and those experiencing homelessness. According to the applicant,
 14 the overall benefits package for the project will exceed \$1.1
 15 million over 20 years, involving at least one additional
 16 community organization, the status of which has not been made
 17 public yet. Next slide, please.

18 CEC staff evaluated the potential for the project to
 19 substantially degrade the existing visual character or quality of
 20 public views of the site and its surroundings. Staff concluded
 21 that this impact remains significant even after implementation of
 22 conditions of certification. While staff concludes there is a
 23 significant and unavoidable impact to visual resources, the
 24 project provides regional economic benefits, construction and
 25 engineering jobs, grid reliability benefits, support for

1 California's renewable energy and greenhouse gas emission
2 reduction goals, and displacement of fossil fuel generation and
3 corresponding air pollution.

4 Thus, staff concludes there's substantial and
5 compelling evidence in the record to support a CEC decision to
6 approve the project by issuing a statement of overwriting
7 considerations. Next slide, please.

8 Today, we will be taking oral comments on the staff
9 assessment. Written comments on the staff assessment can be
10 submitted to the project docket until 5:00 PM on March 27th,
11 2026. We will respond to all comments raising significant
12 environmental issues and make edits to the analysis if necessary
13 in the updated staff assessment, which will be filed on or prior
14 to day 240 on April 24th, 2026, along with the Executive
15 Director's recommendation. The CEC is planning to consider the
16 Potentia-Viridi BESS project's opt-in application at a business
17 meeting to be scheduled for May 26th, 2026.

18 Next, we would like to invite the applicant --
19 applicant representative, Julia Zuckerman to the podium for
20 applicant remarks. Next slide, please.

21 Can we get the next slide? Thank you.

22 MS. ZUCKERMAN: All right. Thank you. Good afternoon
23 and thank you so much for the opportunity to be here today and
24 say a few words.

25 I'm Julia Zuckerman with Clearway Energy Group, the

1 developer of the project. Clearway acquired the Potentia-Viridi
2 project this past November. And I'll say, since I know there are
3 people on Zoom, for anyone who's wondering about the name of the
4 project, it means Green Power in Latin. Clearway is going to
5 complete development and construction of the project and will be
6 the long-term owner / operator once the project is complete.

7 For introduction to Clearway, we're a California-based
8 company, one of the largest clean energy companies in the United
9 States. And we're proud to be a longtime partner in advancing
10 California's clean energy and reliability goals. Our projects
11 have been producing clean energy in state for more than 15 years.
12 Our portfolio currently has grown to six and a half gigawatts of
13 generation in storage, which is enough to power 1.2 million homes
14 in California.

15 We have more than 200 full-time employees in state, in
16 addition to supporting hundreds of union construction jobs that
17 are created by our projects. First, we would like to thank the
18 CEC staff for their thorough work on the staff assessment.
19 They've conducted a very comprehensive review of the project, and
20 we really appreciate their constructive engagement in Q&A with us
21 throughout the process. As reflected in the staff assessment, the
22 Potentia-Viridi Project is a great fit for the requirements and
23 goals of the AB-205 program. It will provide important
24 reliability benefits. It will help advance California's climate
25 and clean energy goals. The project site is surrounded by

1-1
continued

1 existing energy infrastructure, which limits its environmental
 2 impact. It will provide economic benefits, including as we're
 3 doing construction jobs, local property and sales tax revenues,
 4 and we've entered into a community benefit agreement as discussed
 5 with a great organization that serves local families in need and
 6 planning for a total community benefit package over a million
 7 dollars.

1-1
 continued

8 As the long-term owner / operator, also Clearway is
 9 part of the communities where we operate our projects, and so we
 10 will be present and participating and contributing to the
 11 community for decades to come. We've been in touch with local
 12 stakeholders and agencies since we took over development, and of
 13 course, we'll continue that coordination as the project moves
 14 forward. In terms of the timeline, if the permitting process
 15 stays on its current schedule, we anticipate that full
 16 mobilization for construction will start in the spring of 2027,
 17 and the project will reach commercial operation in late 2028.

18 We look forward to finalizing the mitigation measures
 19 and project conditions in the staff assessment and moving the
 20 project toward Commission approval. So thank you again for the
 21 opportunity to be here and our team is here and happy to answer
 22 questions.

23 MS. CHANG: Thank you, Julia.

24 Next, we invite Ryan Young, public advisor, to present
 25 on public participation.

1 MR. YOUNG: Good afternoon. Again, I'm Ryan Briscoe
2 Young, the Energy Commission's Public Advisor.

3 Today, I'm going to be presenting on how members of
4 the public, California Native American tribes, and others can
5 participate in this proceeding. Next slide, please.

6 Part of our office's mission is to facilitate public
7 and tribal engagement in CEC programs and policies. We are a free
8 resource available to anyone who wants to participate in CEC
9 proceedings, including the Potentia-Viridi proceeding. I'll be
10 sharing our contact information on a later slide. Next slide,
11 please.

12 Now I'll talk about the different ways to participate
13 in the Potentia-Viridi proceeding. There are multiple ways to
14 participate. The first is to follow the proceeding. Another is to
15 comment on the proceeding, and the third option open to
16 California Native American tribes is tribal consultation. Next
17 slide, please.

18 I'll now go into more detail on how to follow the
19 proceeding.

20 One of the most popular ways to participate in our
21 programs is to simply follow them. You can follow our proceedings
22 by reviewing materials we post on the website, signing up for
23 email updates, and by attending events like this one here today.
24 Our events are almost always hybrid or fully virtual via Zoom, so
25 the public can attend our events from just about anywhere. On

1 this slide, you'll see a snapshot of the CEC webpage for this
 2 program of this project, and it has information on the proposed
 3 project and project status. It also has a place where you can
 4 subscribe to free email updates. Under the subscribe section,
 5 there's also a link to submit written comments directly to the
 6 project docket and a link to the entire project docket itself. So
 7 what is the docket? The CEC has publicly available online dockets
 8 for its proceedings. This is basically a place where application
 9 materials, public comments, notices, agendas, and other documents
 10 are filed and available online.

11 On this slide, the image -- Excuse me. I don't have my
 12 mouse today. The image on the right is of the docket for the
 13 proposed Potentia-Viridi battery energy storage system. And with
 14 few exceptions, all materials in the docket are linked and
 15 available for anyone to download and view for free. Next slide,
 16 please.

17 Another way to participate is to comment. As in all
 18 the CEC programs and policies, any person can comment verbally at
 19 a CEC event or in writing. Please note that comments will become
 20 part of the public record with access available via search
 21 engine. To comment verbally, just attend the event and wait for
 22 your instructions during the public comment period to make a
 23 comment. For our hybrid events, you can comment in person or via
 24 Zoom, online, or by phone. Coming up on our agenda is just such a
 25 public comment period. We also welcome written comments.

1 As I stated before, on the CEC website, we have what's
 2 called a docket for each proceeding. Written comments can be
 3 submitted to the docket just about any time, but the most
 4 effective time to do so is during announced public comment
 5 periods. On our website, we can submit a comment electronically
 6 by typing it into our e-comment page or by uploading a document
 7 such as a letter. We also have email and paper options to submit
 8 comments that are detailed in the notices for today's event. If
 9 you need assistance commenting, you can contact our office and
 10 we'll have, again, the contact information on the last slide.
 11 Next slide, please.

12 The CEC has invited tribal consultation and this and
 13 other opt-in proceedings. Patrick Reardon from the CEC site
 14 division is available for inquiries. Thank you for attending this
 15 meeting and your interest in this proceeding. We're here to serve
 16 the state of California and your participation is a big part of
 17 this process.

18 Here's the contact information for the Office of
 19 Public Advisor, Energy Equity and Tribal Affairs. My office is
 20 available to assist you and participate. Just a reminder to turn
 21 in your blue cards if you wish to make a public comment. I'm now
 22 going to transition to public comment itself.

23 The Energy Commission welcomes public comment at this
 24 time. Before we move to the general public comment, we're going
 25 to begin with comments from government entities, including local,

1 state, and federal agencies and California and Native American
 2 tribes. If you represent such an entity, please go ahead and come
 3 up to the podium, or if you're on Zoom, click on the raised hand
 4 feature. It looks like an open palm at the bottom of your screen.
 5 If you're joining us by phone, you're going to press star nine to
 6 raise your hand. We'll start with commenters in the room, and
 7 then we'll transition online.

8 COMMISSIONER GALLARDO: Before we start with the
 9 comments, I just wanted to make a clarification. Again Noemí
 10 Gallardo, Commissioner -- Lead Commissioner for Permitting
 11 Siting. We realize that at this point there may be folks on the
 12 line or in the room who have questions about what's in the staff
 13 assessment. And so if you do have a question, we are going to try
 14 to answer the question. There might be questions, procedural ones
 15 that are easier to answer than let's say technical, very
 16 detailed, nuanced questions. And we do have a lot of the folks
 17 who did the staff assessment here, but there might be some of
 18 those experts who are not available. And so whichever the
 19 questions we're able to answer, we will try to do so. And if we
 20 can't, we will record your question and take it into
 21 consideration when the updated staff assessment is being
 22 conducted. So just wanted to make that clarification for folks.

23 And we won't have an exchange during public comment of
 24 Q&A. We will try to answer questions at the very end of the
 25 public comment, that way we enable everyone who is willing and

1 wanting to make a public comment to have the time to do so. If
 2 there's any confusion when you go up for public comment, whether
 3 it's online or in the room, let us know and we will clarify
 4 again.

5 MR. YOUNG: Great. Thank you. Just a reminder, we are
 6 hearing from government entities first. So if you represent such
 7 an entity, please raise your hand on Zoom or come up to the
 8 podium at this time. And we will open the floor to general public
 9 comment afterwards. So seeing none in the room, I'm going to
 10 transition to Zoom. And Commissioner, I'm not seeing any on Zoom,
 11 so I'm going to transition to general public comment. So again,
 12 if you're joining us in the in-person location, please fill out
 13 and turn in the blue card at the public advisors table. And if
 14 you're joining us on Zoom, please use the raise hand feature or
 15 press star nine coming from the phone. All right. I'm not seeing
 16 any raised hands in the room and I will then transition to Zoom.

17 All right. This appears to conclude public comment and
 18 I'll pass it back to you, Kaycee.

19 COMMISSIONER GALLARDO: All right. Let's do one more
 20 call out.

21 MR. YOUNG: Yeah. One more. Anyone who wants to make a
 22 public comment, again, press either star nine if you're joining
 23 us by phone, or if you are on Zoom, please use the raised hand
 24 feature and we'll call you up to comment. Seeing none. Thanks
 25 again.

1 COMMISSIONER GALLARDO: Did the applicant have any
2 comments or questions? I know you had your opportunity to speak.
3 Just want to make sure it was also open to you, making that
4 clear.

5 SPEAKER: Okay.

6 COMMISSIONER GALLARDO: Okay. Applicant says no.

7 MS. CHANG: All right. Thank you. Next slide, please.
8 Next slide, please.

9 All right. Thank you everyone for being here. Written
10 comments can be submitted to the project docket until 5:00 p.m.
11 on March 27th, 2026. We will respond to all comments raising
12 significant environmental issues and make edits to the analysis
13 if necessary in the updated staff assessment, which will be filed
14 by April 24th, 2026, along with the Executive Director's
15 recommendation. The CEC is planning to consider the Potential
16 Viridi of battery energy storage system project's Opt-In
17 application at the business meeting to be scheduled for May 26th,
18 2026. Next slide, please. Before we close, I'll pass it over to
19 Ryan.

20 MR. YOUNG: Hello again, everyone. I just wanted to
21 make one more effort to see if anyone wanted to have any public
22 comments. Again, if you are on Zoom, please use the raise hand
23 feature and if you're joining us by phone, please press star
24 nine. We don't appear to have any taker -- Oh, we might have a
25 taker.

1 Rebecca Frank, I'm going to unmute your line. Please
2 unmute on your end. Sorry, I'm having a little difficulty here.

3 MS. FRANK: Hi, just a quick question on the community
4 benefits. Just wanted to verify the amount and how and when it
5 would be distributed to the two organizations that are listed in
6 the report.

1-2

7 MR. YOUNG: Thank you. Do you want to take that now,
8 Commissioner, given that we don't have any more public comments?

9 COMMISSIONER GALLARDO: Would the applicant like to
10 respond to that one otherwise? Yes. Okay. The applicant will go
11 to the podium to respond. And I want to make clear too, I hope I
12 didn't confuse anyone online or in the room. You do not have to
13 have a question to make a public comment. You can just make a
14 public comment. It does not need to be in a format of a question.

15 MS. ZUCKERMAN: Sure. So the community benefit
16 agreement with Tri-Valley Haven is for 15 years.

17 COMMISSIONER GALLARDO: I apologize. Can you state
18 your name just to be clear on the record?

19 MS. ZUCKERMAN: Yes. Sorry about that. Julia Zuckerman
20 with Clearway Energy Group. The community benefit agreement that
21 we've signed is with Tri-Valley Haven for Women. It goes for 15
22 years. It starts once the project's operational. So there's an
23 initial contribution when the project is complete and then an
24 annual contribution thereafter. As was said during the
25 presentation, we do plan to sign at least one more community

1 benefit agreement. And what we're planning for is for a total
2 community benefit package that will be over \$1.1 million over 20
3 years. So that will include the additional community benefit
4 agreement. It also includes Clearway's community engagement,
5 community benefit program that we carry out for all of our
6 projects in operation, where we have annual contributions that
7 are directed by our local site team. Those won't be part of the
8 formalized community benefits agreement, but those are part of
9 what we're planning for as part of the overall package.

10 So as we move forward in the process, hope to have
11 more specifics to share.

12 COMMISSIONER GALLARDO: Julia, to clarify for me, my
13 benefit, you said \$1.1 million over how many years?

14 MS. ZUCKERMAN: That's over 20 years.

15 COMMISSIONER GALLARDO: Twenty years. Okay.

16 MR. YOUNG: There are no other public comments.

17 MS. CHANG: Thank you, everyone. Now we would like to
18 invite Commissioner Gallardo to make closing comments.

19 COMMISSIONER GALLARDO: All right. Well, I'd like to
20 end with gratitude. As we started at the beginning, really
21 grateful for the Tracy Transit Center here, enabling us to hold
22 the meeting, helping us set up and to all the staff for all the
23 diligence in getting to this point of the proceeding. This is a
24 major milestone. We still have a bit more to go, but I'm very
25 grateful that we have conducted all this diligence. And again,

1 thank you to the applicant for being here, also responding to
2 questions and for your collaboration. And with that, we will
3 adjourn. Thank you so much, everybody.

4 (WHEREUPON THE PROCEEDING CONCLUDED AT 1:51 P.M.)

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CERTIFICATE OF REPORTER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 31st day of March, 2026.



NICCOLE SHERGIRLL
CER**1829
CET**2352

CERTIFICATE OF TRANSCRIBER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.



MARTHA L. NELSON, CERT**367

March 31, 2026



ALAMEDA COUNTY COMMUNITY DEVELOPMENT AGENCY

PLANNING DEPARTMENT

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Agency Director

Albert Lopez
Planning Director

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March 11, 2026

California Energy Commission

Project#: **24-OPT-04 / Potentia-Viridi Battery Energy Storage System**

Via email and e-filing

The following comments are submitted in response to the Staff Assessment for the above listed project located in unincorporated Alameda County. The local Planning Department has been following the application process for the past several months and most recently reviewed the staff assessment prepared pursuant to CEQA.

Local Planning staff appreciates the opportunity to provide comments on the Draft EIR, specifically the section related to Land Use and impacts to local ordinances regulations and standards (LORS). Local staff believes the CEC staff has accurately portrayed the project in light of current LORS affecting the project. Like many jurisdictions, a BESS project is a new land use type that does not have a long project review history like other alternative energy systems. That said, the County has adopted policies for BESS that anticipates more interest in this land use type, and that the unincorporated East (and rural) County is geographically located attractive to new BESS developments.

Specific to the **Potentia-Viridi** project, the County was early to identify that compliance with our local Williamson Act program was a concern given our Uniform Rules which does limit projects on Williamson Act contracted lands. Table 1-1 of the Staff Assessment correctly identifies Land Use as one of the topic areas where there is a LORS compliance concern, as well as Visual Resources. Local staff is aware that CEC staff has concluded there is a significant and unavoidable impact to visual resources, and that CEC staff concludes there is substantial and compelling evidence in the record to support a CEC decision to approve the project by issuing a statement of overriding considerations.

2-1

Relative to the Williamson Act, the CEC staff assessment goes into detail about the County's local WA program, as well as the policies the County has adopted to regulate, and ostensibly allow for, electrical facilities such as a BESS project [See **§5.8 Land Use, Agriculture, and Forestry**]. The County's 10/10 rule (compatible use limited to 10% of the parcel or ten acres, whichever is less) is mentioned several times in the staff assessment, and determines the conflict to be minor given the project site is not prime agricultural land.

2-2

The Policies for Commercial Solar and Battery Storage adopted by our Board of Supervisors in 2022 acknowledges that BESS projects are likely to be located in the East County Area Plan (ECAP), and are best suited in the Large Parcel Agriculture designation of the Plan area. As the project is located in Large Parcel Agriculture, staff concurs with the conclusions of CEC staff. Also, County agrees with the interpretation

of Policy 13 in ECAP which does allow for infrastructure to be located beyond a two-acre building envelope. There is discussion of public and quasi-public uses and utility corridors which is also consistent with the County prior analysis for electrical related projects.

County staff acknowledges this project is the first of its kind to be approved through the Opt-In process, and had a local land use permit be required, it would be a Conditional Use Permit (CUP) approved by our East County Board of Zoning Adjustments. Since the CEC Opt-in process assumes jurisdiction over land use with the current project, Staff notes on page 5.8-10 that the staff assessment believes the findings for a CUP could be made if the County held local control, and there is detail about the findings therein. Staff appreciates the analysis provided on the County's Uniform Rules, and acknowledges that **Condition of Certification (COC) Land-2** is being required to address a LORS nonconformance, and does provide mitigation for inconsistencies with the County's WA program.

2-2
continued

As it relates to **Visual Resources**, staff understands there are three Key Observation Point (KOP) Locations where there is a substantial impact, described as a substantial degradation from existing conditions at the project site. County staff has not used the KOP analysis completed by CEC staff for the project, and is not qualified to determine its completeness or conclusions. However, the statement on page 11-1 states:

While CEC staff concludes there is a significant and unavoidable impact to visual resources, staff concludes there is substantial and compelling evidence in the record to support a CEC decision to approve the project by issuing a statement of overriding considerations.

2-3

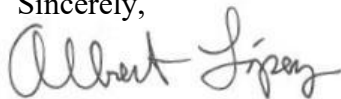
County staff agrees that impacts to visual resources can be deemed substantial, given there is no effective way to screen such a large energy project. Given the general land use visual theme in the area is utility related, the statement above from CEC staff does not seem unreasonable or faulty.

Section **11.2 CEC's Authority to Approve Projects that are Inconsistent with Local and State Laws** provides the conclusory analysis and statements that lie at the heart of the CEC opt-in process and form the basis for approving the project. Given the CEC sole authority in this area, County staff does not second-guess or disagree with the conclusions reached in this section.

2-4

This concludes the County's comment on the Staff Assessment for **24-OPT-04 / Potentia-Viridi Battery Energy Storage System** project.

Sincerely,



Albert Lopez
Planning Director



STATE OF CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE

GAVIN NEWSOM, Governor
MEGHAN HERTEL, Director

Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
wildlife.ca.gov

March 25, 2026

Ann Crisp, Project Manager
California Energy Commission
715 P Street, MS 40
Sacramento, CA 95814
Ann.Crisp@energy.ca.gov

Subject: Potentia-Viridi Battery Energy Storage System Project, Notice of Preparation of a Draft Environmental Impact Report, SCH No. 2025090227, Alameda County

Dear Ann Crisp:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a Draft Environmental Impact Report (EIR) from the California Energy Commission (CEC) for the Potentia-Viridi Battery Energy Storage System Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹ CDFW previously submitted comments to the CEC in a letter dated October 6, 2025 in response to the Notice of Preparation of the draft EIR.

CDFW is taking this opportunity to provide comments and recommendations regarding proposed Project activities that may affect fish and wildlife resources.

CDFW ROLE

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

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

Ann Crisp, Project Manager
California Energy Commission
March 25, 2026
Page 2

The proposed Project would ordinarily require one or more discretionary approvals by CDFW because it may result in substantial adverse impacts to fish and wildlife resources such as Lake and Streambed Alteration (LSA) (Fish & G. Code, § 1602); and incidental take of species protected under the California Endangered Species Act (CESA). (*Id.*, § 2081, subds. (b)-(c).) CDFW would typically submit comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) However, because the Project proponent opted into the Assembly Bill (AB) 205 certification process, the CEC has exclusive jurisdiction over the proposed Project and is responsible for ensuring any certification of the proposed Project includes all conditions necessary to ensure compliance with the Fish and Game Code and its implementing regulations found in Title 14 of the California Code of Regulations. (Pub. Resources Code, §§ 25545.1, subd. (b), & 25545.5, subd. (a).) Thus, CDFW does not have a direct permitting role in the process that would ordinarily trigger a Responsible Agency role. CDFW instead submits these comments as a Trustee Agency under CEQA.

Pursuant to AB 205, the CEC and CDFW developed a coordination plan through a Memorandum of Understanding (MOU) to ensure that all potential impacts to fish, wildlife, and plant resources, and the habitats upon which they depend, including, but not limited to incidental take of species protected under CESA, are consistent with the Fish and Game Code and its implementing regulations found in Title 14 of the California Code of Regulations. (Pub. Resources Code, § 25545.5, subd. (a).) The MOU also ensures timely and effective consultation between the CEC and CDFW with respect to any proposed CEC findings and actions regarding potential impacts to fish, wildlife, and plant resources. (*Ibid.*) CDFW is thus also submitting these comments in its **consultation role** under AB 205 and the MOU.

PROJECT DESCRIPTION AND LOCATION SUMMARY

Proponent: Levy Alameda, LLC, a wholly owned subsidiary of Obra Maestra Renewables, LLC

Objective: The Project proposes to construct a 400-megawatt (MW) Battery Energy Storage System (BESS) facility on approximately 102 acres of mostly annual grasslands. Primary components of the proposed BESS facility include an Operations and Maintenance (O&M) building, a project substation, a 500-kilovolt overhead intertie transmission (gen-tie) line, and interconnection facilities within the Pacific Gas and Electric Company (PG&E) owned and operated Tesla Substation. The BESS would have an energy storage capacity of up to 3,200 MW-hours.

Location: The proposed Project is located at 17257 Patterson Pass Road, approximately 2.5 miles southwest of the City of Tracy in Alameda County; southwest of Interstate 580 and Interstate 205, within Assessor's Parcel Number (APN) 99B-7890-002-04; latitude 37.711434, longitude -121.573156. The Project's gen-tie line would run approximately 2,500 feet, extending southeast from the Project substation, crossing Patterson Pass Road, and then

Ann Crisp, Project Manager
California Energy Commission
March 25, 2026
Page 3

proceeding east to the Point of Interconnection at the Tesla Substation, approximately 500 feet east of the Project site. The gen-tie would be located on APNs 99B-7890-2-4, 99B-7890-2-6 and 99B-7885-12.

Timeframe: The Project is anticipated to be built over an approximately 15 to 18-month period from late 2026 through 2028.

Consultation with CDFW: CDFW appreciates the opportunity to have engaged with CEC staff and/or the Project proponent in numerous meetings, phone calls and other communications for the Project, including a pre-filing meeting on March 22, 2024, and meetings following CEC's notice to CDFW of receipt of the Opt-in Application on August 8, 2024. CDFW and CEC met frequently to discuss the Project's data requests until the application was deemed complete by the CEC on August 29, 2025. CDFW also participated in the public informational and scoping meeting on September 18, 2025 and the public meeting on the Staff Assessment for the proposed Project on March 2, 2026. CDFW provided recommended avoidance, minimization, and mitigation measures to the CEC for preparation of the draft EIR in October 2025 and provided a comment letter on the Notice of Preparation for the draft EIR on October 6, 2025. CDFW will continue to collaborate with, and provide support to, the CEC throughout the AB 205 certification process.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the CEC 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.

COMMENT 1: Proposed Mitigation Ratios for Animal Species Protected under the California Endangered Species Act

The draft EIR states that the proposed mitigation ratio for 60.7 acres of permanent impacts and 6.7 acres of temporary impacts to habitat for Crotch's bumble bee (*Bombus crotchii*), California tiger salamander (*Ambystoma californiense*), western burrowing owl (*Athene cunicularia hypugaea*), and San Joaquin kit fox (*Vulpes macrotis mutica*) is 3:1 (pages 5.2-73, 5.2-79, 5.2-101 and 5.2-105, respectively and Condition of Certification [COC] BIO-26. However, the draft EIR also states that the Project will offset the total permanent impacts and temporary impacts to habitat for Crotch's bumble bee, western burrowing owl and San Joaquin kit fox by mitigating with a total of 188.8 acres of mitigation lands (or equivalent mitigation bank credits). For California tiger salamander, the draft EIR indicates that the 6.7 acres of temporary impacts would be restored but does not include compensatory mitigation for those impacts.

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Please clarify in the EIR the specific calculations for determining the 188.8 acres of compensatory mitigation for both the permanent and temporary impacts. For example, 188.8 acres of mitigation could result from a 3:1 mitigation ratio for 60.7 acres of permanent impacts and a 1:1 ratio for 6.7 acres of temporary impacts.

3-1
continued

COMMENT 2: Proposed Compensatory Mitigation for Impacts to Wetland, Riparian, and Streambed Habitat

Pages 5.2-119 and 5.2-120 of the draft EIR state that the Project will mitigate for impacts to wetland, riparian, and streambed habitat with compensatory mitigation including 0.12 acre for impacts identified in consultation with the Central Valley Regional Water Quality Control Board, 2.80 acres for impacts identified in an Army Corps of Engineers Nationwide Permit application, and 2,100 square feet for impacts to ephemeral streambed identified in consultation with CDFW. However, the draft EIR does not clarify whether mitigation for impacts to these habitat types overlap and whether this mitigation is required in addition to compensatory mitigation required for permanent and temporary impacts to habitat for special-status animal species. On page 5.2-120, the draft EIR states that “[m]itigation shall include permanent protection of habitat through placement of a conservation easement and funding of an endowment for long-term management of the mitigation site as outlined in COC BIO-26”. The draft EIR also states that COC BIO-26 “would offset the permanent loss of and degradation to jurisdictional waters, including riparian habitat, by mitigating at a 3:1 ratio”. However, COC BIO-26 specifies a mitigation land area of 188.8 acres, which corresponds to the amount proposed to mitigate for impacts to animal species protected under CESA as discussed in Comment 1 above.

3-2

CDFW typically does not accept compensatory mitigation that uses the same area to mitigate for different permits (i.e., for LSA and CESA Incidental Take Permits), unless the mitigation is addressing the same project impacts and the proposed compensatory mitigation lands have sufficient habitat values and protections to meet both CESA and LSA mitigation standards.

CDFW recommends that the EIR include a detailed description of impact amounts (both permanent and temporary) to stream and wetland habitat and required compensatory mitigation for each type of habitat impact. The EIR should also clearly describe any overlapping mitigation areas, explain how any overlapping mitigation areas will meet applicable CESA, LSA, and CEQA mitigation requirements, and describe the total combined area of compensatory mitigation land proposed to offset these impacts.

The draft EIR states on page 5.2-115 that no riparian habitat is present on-site but also states that COC BIO-26 would “offset the permanent loss of and degradation to jurisdictional waters, including riparian habitat”. Please clarify whether the Project area supports riparian habitat and avoid conflicting information in the EIR. If riparian habitat is present, please describe the specific impacts to that habitat type and related mitigation.

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Page 5.2-120 states that impacts to 2,100 square feet of stream habitat resulting from placement of rip rap at the outfall structure and installation of the low water crossing will be mitigated at a 1:1 ratio. Please note that CDFW evaluates mitigation necessary to meet LSA requirements on a project by project basis and may require a higher ratio than 1:1 (for example, a 2:1 or 3:1 ratio) for streambed and other habitat impacts such as wetlands in LSA Agreements in order to account for project-specific factors such as temporal loss of habitat, distance between impact areas and mitigation areas, and indirect impacts. However, a 1:1 mitigation ratio may be considered on a project by project basis if the proposed mitigation is significantly ecologically superior to the impacted habitat. CDFW recommends that the EIR provide a detailed justification for a 1:1 mitigation ratio for sensitive habitat types such as streambed and wetlands or consider a higher mitigation ratio such as 3:1 similar to the required mitigation in the draft EIR for riparian habitat if appropriate based on project-specific factors including, but not limited to, temporal loss of habitat and habitat value of the proposed mitigation compared to the habitat being impacted.

3-2

continued

COMMENT 3: Special-Status Plant Avoidance Measures

COC BIO-9.2 (page 5.2-153) states that, if avoidance of special-status plants is not feasible, the Project proponent will provide compensatory mitigation at a ratio of 3:1 for "any state or federally listed plants and CRPR [California Rare Plant Rank] 1 or 2 ranked species" or 2:1 for "CRPR 1 or 2 ranked species". However, the draft EIR does not clarify which mitigation ratio will apply to a plant that is not state or federally listed but is a CRPR 1 or 2 ranked species would fall into. CDFW recommends revising COC BIO-9.2 to clarify the mitigation ratio that will apply to CRPR 1 and 2 ranked species that are not state or federally listed.

The draft EIR does not state that the Project proponent is requesting take authorization for any state-listed plant species as part of the AB 205 certification process. If the Project proponent is not seeking take coverage for any plant species as part of the AB 205 certification process, the Project may not legally take any state-listed plant species unless later take authorization is obtained through amendment to the certification or take is otherwise authorized under the Fish and Game Code. However, COCs BIO-9.2 through BIO-9.9 describe compensatory mitigation measures that will be taken should a state-listed plant species be found on the Project site and avoidance of the plant species is not feasible. CDFW recommends that COC BIO-9.2 clarify that the Project proponent will demonstrate compliance with CESA, either by completely avoiding take or by obtaining incidental take authorization, in the event a state-listed plant species is found on or near the Project site.

3-3

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COMMENT 4: Golden Eagle

On page 5.2-97, the draft EIR discusses potential direct impacts to golden eagle (*Aquila chrysaetos*), including loss of foraging habitat and disturbance of nesting, and states that COCs BIO-1 through BIO-7 and BIO-17 would avoid or reduce impacts to golden eagle. The draft EIR also mentions on page 5.2-99 that Project activities during operations could affect nesting golden eagle. BIO-17 appears to require full avoidance of golden eagle nests, but it is not stated explicitly that this is the case.

3-4

CDFW recommends that COC BIO-17 explicitly state that take of golden eagle and their nests must be fully avoided. CDFW also recommends that COC BIO-17 include language clarifying whether nesting surveys and buffers will be implemented and maintained during operations, and if not, how disturbance of nesting golden eagle will be avoided.

In addition, MM BIO-11 requires pre-construction surveys within 30 days prior to the start of ground disturbance and coordination with the U.S. Fish and Wildlife Service on a mitigation plan if the species or active nests are found within a 1-mile radius of the Project site. Because golden eagle is a fully protected species (Fish & G. Code § 3511(b)(5)), CDFW recommends that MM BIO-11 also require consultation with CDFW and full avoidance of take.

3-5

COMMENT 5: Project Conformance with Applicable Laws, Ordinances, Regulations, and Standards

Table 5.2-8: Conformance With Applicable Laws, Ordinances, Regulations, and Standards (LORS) includes CEC's determination regarding the Project's compliance with CESA in the section for compliance with the Federal Endangered Species Act (16 USC §§ 1531 et seq. and 50 CFR part 17.1 et seq.). CDFW recommends correcting this error in the EIR.

3-6

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>.

3-7

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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.)

3-8

CONCLUSION

CDFW appreciates the opportunity to comment on the draft EIR to assist the CEC in identifying, analyzing, and mitigating Project impacts on biological resources.

If you have any questions regarding this letter, please contact Gabriele Quillman, Senior Environmental Scientist (Specialist), at (707) 815-9867 or Gabriele.Quillman@wildlife.ca.gov; or Brenda Blinn, Senior Environmental Scientist (Supervisory) at (707) 339-0334 or Brenda.Blinn@wildlife.ca.gov.

Sincerely,

DocuSigned by:

Erin Chappell

B77E9A6211EF486...

Erin Chappell

Regional Manager
Bay Delta Region

ec: Office of Land Use and Climate Innovation (SCH No. 2025090227)
Melissa Farinha, CDFW Bay Delta Region – Melissa.Farinha@wildlife.ca.gov

*Comment Received From: Sierra Club
Submitted On: 3/27/2026
Docket Number: 24-OPT-04*

Sierra Club Comment on Potentia-Viridi Battery ES 3.27.26

Additional submitted attachment is included below.



Eric Veerkamp
CEC Project Manager
Potentia-Viridi Battery Energy Storage System Project

Dear Mr. Veerkamp:

Thank you for the opportunity to comment on the Staff Assessment (SA), including the Draft Environmental Impact Report (DEIR), for the Potentia-Viridi Battery Energy Storage Project (Project). Sierra Club is a national nonprofit organization, dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and resources; and to educating and enlisting humanity to protect and restore the quality of the natural and human environment. Comments included in this letter are submitted by Sierra Club on behalf of its many members and supporters in California.

Sierra Club supports the transition to renewable energy and protection of natural ecosystems, biodiversity, and human communities. Encouraging the rapid development of well-sited, appropriately designed and managed renewable energy projects and infrastructure will allow us to replace fossil fuels with renewable energy while ensuring we meet the Sierra Club's and California's goal of protecting 30% of our lands and waters by 2030. With proper siting and design to avoid, minimize or mitigate impacts to the biological resources, air quality, public health, and the environment, we can successfully build out the renewable energy system that is an essential part of the change needed to avert the existential crisis of climate change.

Project description

The Project consists of a 400-megawatt (MW), 3,200 MW-hour (MWh) Battery Energy Storage System (BESS) on a 70-acre leased portion of approximately 102 acres in rural eastern Alameda County. The Alameda County General Plan – East County Area Plan designates the project site primarily as Large Parcel Agriculture (LPA). This area is also within the Altamont Pass Wind Resource Area (APWRA). Of the 32 acres evaluated for the overhead, generation intertie (gen-tie) line study area, 1.9 acres are expected to be permanently disturbed for installation of the transmission and interconnecting facilities, with 6.7 acres temporary disturbance, yielding a total of 60.7 acres within the approximately 102-acre project area to be permanently disturbed as part of project implementation. The project includes a proposed 1,600-foot segment of 500 kv gen-tie line connecting to an approximately 1,300-foot gen-tie segment and other infrastructure to be constructed and owned by Pacific Gas and Electric Company (PG&E).



Serving Alameda, Contra Costa, Marin and San Francisco counties

Land uses in the immediate vicinity of the project include undeveloped rural agricultural lands suitable for grazing, multiple high-voltage transmission lines and electrical substations, rural roads, and railroad lines. The nearest municipality to the project site is the city of Tracy approximately 2.5 miles to the northeast. There are a few single-family residences near the existing PG&E substation's southern and eastern boundaries. The nearest residence is about 1,500 feet southeast of the project site and 560 feet south of the proposed gen-tie line; it is owned by the same landowner leasing the lands for the project. The project location was selected because the site is large enough to support development of the project, and because of its proximity to existing electrical infrastructure and PG&E's Tesla Substation, thereby minimizing length of the proposed gen-tie line, and because it is immediately adjacent to existing roadways for construction and O&M access.

Comments

Sierra Club submits the following comments for the proposed Project:

- Sierra Club prefers siting renewable energy facilities on structures or lands which have already been converted from their natural state and remain impacted, disturbed, or degraded by human activities, and which are near existing electrical infrastructure. As described above and in the SA, the proposed Project site currently consists of fallowed annual grasslands near an existing substation, and is generally consistent with Sierra Club's preferences.

4-1
- Battery storage facilities are critical for displacing gas plants in California. The Sierra Club understands both the urgent need for additional BESS on the grid and concerns about the safety of batteries. Accordingly, the Club appreciates that this project, as described in the SA, complies with strict fire safety standards, including the National Fire Protections Association (NFPA) 855 Standard for the Installation of Stationary Energy Storage Systems. Part of the NFPA 855 requirements include UL 9540A. This standard requires tests for fire suppression and explosion control to ensure that BESS facilities can prevent battery explosions and the spread of battery fires between units, as well as tests for whether a sample unit (a group of batteries housed together) of the battery system can experience thermal runaway, and whether a BESS facility's fire suppression system responds effectively. Additional standards created since the fire at Moss Landing have added new safety standards for the maintenance and operation of battery energy storage systems, and require battery storage facility owners to develop emergency response and emergency action plans.

4-2



Serving Alameda, Contra Costa, Marin and San Francisco counties

- It was anticipated that project construction and operation could have a potentially significant impact on certain species, especially the California red-legged frog and California tiger salamander. The mitigation measures described in the draft EIR appear to adequately address these concerns.

4-3

Sierra Club supports certification by the California Energy Commission of the Potentia-Veridi Project.

We thank the CEC for its detailed and transparent evaluation of the proposed Project, for its outreach to community and Tribal interests, and for this opportunity to comment on the SA for the Project.

Sincerely,

Rebecca Franke, Energy and Climate Committee Chair
Sierra Club, San Francisco Bay Chapter

Comment Received From: Levy Alameda LLC (Clearway Energy Group)
Submitted On: 3/27/2026
Docket Number: 24-OPT-04

**Applicant Comments on Staff Assessment for Potentia-Viridi
Battery Energy Storage System**

Additional submitted attachment is included below.

Clearway Energy Group
100 California St, Suite 650
San Francisco, CA 94111



March 27, 2026

Eric W. Veerkamp
Project Manager
California Energy Commission
715 P Street
Sacramento, CA 95814

**RE: Review of Staff Assessment for Potentia-Viridi Battery Energy Storage System
(Docket 24-OPT-04)**

Dear Mr. Veerkamp,

Levy Alameda LLC ("Applicant"), a wholly owned subsidiary of Clearway Energy Group LLC ("Clearway"), appreciates the opportunity to submit comments on the Draft Staff Assessment published on January 26, 2026. Clearway would like to thank the California Energy Commission (CEC) staff for their thorough work on the draft Staff Assessment, which includes a comprehensive review of the Potentia-Viridi Battery Energy Storage System ("Project"). We appreciate the constructive engagement with the CEC throughout the process, as well as the time, effort and thorough analysis that the CEC and all partner agencies took in preparation of this Draft Staff Assessment.

Clearway is a California-based company and one of the largest clean energy companies in the United States, with 13 GW of projects in operations across 27 states, including 6.5 GW operating or under construction in California. If approved, Potentia-Viridi will be Clearway's first project approved via the CEC Opt-in process and will play an important role in increasing grid reliability and advancing California's clean energy goals.

This document provides Clearway's recommended revisions to the Conditions of Certification (COCs) for Biological Resources, Land Use, and compliance-related conditions for the Project. The purpose of these recommendations is to ensure that these requirements are clear, feasible to implement, and consistent with current regulatory practices. The intent is to support a legally defensible, efficient set of COCs that uphold environmental protections while enabling timely project development under the CEC's jurisdiction.

Proposed Design Changes

Based on engagement with local government and utility representatives as the Project has progressed in development, Applicant is proposing three design options for the Project that may result in minor amendments to the Project Description:

- 1) After engaging with Alameda County Department of Environmental Health (ACDEH), Regional Water Quality Control Board and Zone 7 Water Agency, Applicant is proposing optionality regarding septic systems for the project, whereby in the final project design we may elect to use either septic holding tanks (as proposed in the current Application) or a septic system with leachfield, as recommended by the Water Board. Leachfields are a standard low-maintenance design for O&M buildings at projects of this scale and would reduce costs by avoiding pumping septic holding tanks over the life of the project. Applicant will select an option and submit it in the compliance docket for review and approval of ACDEH, Zone 7, the Water Board, and the CEC prior to start of on-site construction.
- 2) Diesel backup emergency generators could be avoided if 12kV electric distribution service from PG&E is brought to the Project substation from Patterson Pass Road. Applicant would like the option to pursue either backup emergency generators (as proposed in the current Application) or 12kV commercial service from PG&E in order to meet the backup energy needs of the Project. New 12kV service would require up to 8 new utility poles to extend PG&E distribution service to the Project substation but would result in minimal additional temporary disturbance area because the majority of the distribution line would be kept within permanent disturbance areas of the project. Such 12kV lines would be constructed and owned by PG&E as part of their distribution system.
- 3) Use of additional construction laydown areas outside of the project footprint for temporary parking and staging may be helpful, but not necessary, during construction. As included in the Project Description, up to four (4) laydown areas are identified within the project footprint totaling fourteen (14) acres. Additional existing laydown areas, located south of the project on Mulqueeney Ranch Road, have been discussed with the landowner, Mulqueeney Ranch Properties, LLC, for temporary use during construction. These existing laydown areas are already disturbed and developed as parking lots and staging areas for construction of a nearby wind farm, therefore no environmental impacts are anticipated should these additional laydown areas be utilized by the Applicant during construction.

5-1
continued

1 Land Use

1.1 LAND-1

- **COC LAND-1** requires the Applicant to seek review by Alameda County of the final project site plan to ensure compliance with local zoning standards. We believe this is an unnecessary step that will cause avoidable delays. Given the many confirmations in the record that the project complies with the County's zoning requirements, requiring a post-certification review of plans by the County should not be required. These confirmations include the following:
 - Under the "Existing Zoning" heading on page 5.8-13, the Staff Assessment affirms that the project is fully consistent with the site's agricultural zoning;
 - Under the "Existing Zoning" heading on page 5.8-13, the Staff Assessment affirms that the conditional use permit findings required by Alameda County can be made,

5-2

and the project satisfies all development standards related to lot size, height of structures and setbacks.

- On page 5.8-25, the Staff Assessment again confirms that the project complies with the Alameda County Zoning Code, noting that all structures maintain setbacks of at least 100 feet, which is what the zoning district requires.
- The CEC has invited the County to provide comments on the project's consistency with County zoning requirements and, to date, the County has not indicated there are any inconsistencies.
- Given this record, requiring the applicant to submit project plans to the County after approval of the project by the CEC introduces an unnecessary additional layer of review not required by law and reintroduces the very delays AB 205 was enacted to eliminate for qualifying projects.

5-2
continued

As such, we recommend that LAND-1 be deleted as follows:

~~**LAND-1** Prior to any grading or development for the permanent project facilities under CEC jurisdiction, the project owner shall develop a site plan and submit it to the Alameda County Planning Department for comment to ensure compliance with local regulations. The project owner shall adhere to CPM approved site plans and ensure that local regulations are complied with during construction and operation.~~

~~Verification: At least 60 days prior to any grading or development for permanent project facilities under CEC jurisdiction, the project owner shall submit proposed site plans for these facilities to the Alameda County Planning Department for review and comment, and to the CPM for approval. The project owner shall provide any review comments from Alameda County to the CPM at least 30 days prior to any grading or development for these permanent project facilities.~~

Alternatively, we recommend that the requirement for the Applicant to submit the site plan for review by the Alameda County Planning Department be modified such that, if no comments are received within 10 days of submission, it is assumed that the site plan conforms to County zoning regulations. As such, we recommend that LAND-1 be revised as follows:

LAND-1 Prior to any grading or development for the permanent project facilities under CEC jurisdiction, the project owner shall develop a site plan and submit it to the Alameda County Planning Department for comment to ensure compliance with local regulations. If no comments are received from the County within 10 days of submission, it shall be presumed that site plan is in compliance with Alameda County zoning regulations. The project owner shall adhere to CPM-approved site plans and ensure that local regulations are complied with during construction and operation.

Verification: At least 30 ~~60~~ days prior to any grading or development for permanent project facilities under CEC jurisdiction, the project owner shall submit proposed site plans for these facilities to the Alameda County Planning Department for review and comment, and to the CPM

for approval. The project owner shall provide ~~any~~ review comments from Alameda County, if any are received within the 10-day period, to the CPM. The CPM shall have five (5) days to incorporate the County's comments into its approval of the site plans and return them to the project owner. ~~at least 30 days prior to any grading or development for these permanent project facilities.~~

5-2
continued

1.2 LAND-2

- **COC LAND-2** would require the project owner to conserve agricultural land in an amount equivalent to the Grazing Land displaced by project development. This includes options such as establishing conservation easements with the Tri-Valley Conservancy or California Rangeland Trust, or paying agricultural conservation fees. However, the Staff Assessment's other conclusions indicate that such a requirement is not warranted. Under the Conclusions and Recommendations section on page 5.8-26, the CEC acknowledges that although the project may technically conflict with the County's 10/10 Rule, this conflict does not constitute an environmental impact because the Department of Conservation classifies the site as non-prime Grazing Land, which is not an Important Farmland category. Since no significant environmental impact results from this policy conflict, imposing environmental mitigation for the conversion of this grazing land is inappropriate and unsupported as there is no impact to mitigate.

5-3

The CEQA Guidelines are clear that mitigation must be tied to a significant environmental impact. Under CEQA Guidelines Section 15126.4(a)(1), mitigation measures must be designed to avoid or substantially lessen a significant environmental effect. This means mitigation must be tied to an identified significant impact and cannot be imposed where no such impact exists. Similarly, Section 15126.4(a)(4)(A through B) incorporates the Nollan/Dolan constitutional standards, requiring an essential nexus between the mitigation and the project impact and ensuring rough proportionality between the extent of the measure and the nature of the impact. When a project impact is absent, as the Staff Assessment confirms, there can be no nexus or proportionality justification for off-site agricultural conservation requirements.

Provisions of the Williamson Act also do not justify this condition. Here, the CEC has determined that this project is not consistent with the 10/10 rule and, thus, is not consistent with the Williamson Act contract. The CEC has therefore recommended cancellation of the contract. Contract cancellation requires the payment of fees. The Williamson Act does not authorize conservation requirements for cancellation. Further, the Staff Assessment's reference to Government Code section 51238.1 and Alameda County Williamson Act Uniform Rules and Procedures – Section III.B.4 are not applicable here. Those sections provide a mechanism for local agencies to determine that a project meets compatibility principles under specific conditions. But where, as here, a project has been determined incompatible with the contract, Government Code section 51238.1 (to which the County's Uniform Rules refer) does not apply. Thus, the CEC may not rely on Government Code section 51238.1 to impose a conservation requirement.

As such, the agricultural conservation obligations required in COC LAND-2 exceed what CEQA and the Williamson Act allow. The measure attempts to mitigate an impact that the record establishes does not exist, and therefore cannot be considered proportionate, effective, or required under CEQA or the Williamson Act.

As such, we recommend that LAND-2 be deleted, as follows:

~~**LAND-2** Prior to any grading or development for the permanent project facilities under CEC jurisdiction, the project owner shall conserve agricultural land at an amount equivalent to the Grazing and lost to project development. Options include conservation easements with the Tri-Valley Conservancy or California Rangeland Trust, or other arrangements, including fees for agricultural conservation.~~

~~**Verification:** At least 60 days prior to any project grading or building, the project owner shall provide documentation to the CPM verifying implementation of the selected options(s) and acceptance by Alameda County.~~

5-3
continued

2 Biological Resources

2.1 BIO-1 Designated Biologist Selection

Revisions are proposed to BIO-1 Designated Biologist Selection below to clarify Qualification 3, specifying that an individual who has previously served as a Designated Biologist (DB) or has implemented any CDFW Incidental Take Permit (ITP) would meet the requirement. Limiting eligibility only to individuals who have served as a DB specifically for Crotch's bumble bee or burrowing owl—or who have implemented an ITP for those species—would be overly restrictive and potentially infeasible, given the very small number of ITPs issued for these species to date, and would significantly impact the ability to start construction on-time.

5-4

Proposed Revision:

For work related to Crotch's bumble bee and/or burrowing owl, the above qualifications shall also apply. In addition, the DB(s) must meet the following minimum qualifications:

3. Demonstrable experience implementing conditions of a CDFW Incidental Take Permit or acting as a DB for any species, or other experience implementing a CDFW Incidental Take Permit as a Biological Monitor.

2.2 BIO-2 Designated Biologist Duties

Revisions are proposed to BIO-2 Designated Biologist Duties subparagraph #2 to clarify that the DB's reporting responsibilities for the Conditions of Approval (COCs) are limited to biological resources. The DB is not responsible for implementing or reporting on non-biological COCs, ensuring their duties remain aligned with their technical expertise.

5-5

Subparagraph #6 is also proposed for revision to clarify that notification should not be required for species for which petitions for listing have been submitted, but only for species that have achieved candidate status. Being petitioned for candidate status requires no discretionary agency action and does not convey any protections for the species.

Proposed Revisions:

The Designated Biologist Duties shall include the following:

2. Ensure that all biological resource conditions of certification are met and that all reporting standards for each biological resource COC are completed and submitted to the CPM and any other regulatory agencies in compliance with specified timelines;
6. Notify the CPM and CDFW of any observation of an unanticipated sensitive biological resource(s) encountered during all phases of the project. Unanticipated resources include sensitive species not addressed in the environmental document because of a perceived low potential to occur, species that are known to occur but have ~~been proposed as a~~ become candidates for state ~~or federal~~ listing as threatened or endangered, or ~~proposed for federal listing as threatened or endangered~~ after the approval of the project, and common species whose range is unexpected in the project area. Notifications shall occur immediately and no later than the following morning, or Monday morning in the case of a weekend, or the next business day in the case of a state or federal holiday. The initial notification shall be followed by a formal written notification submitted to the CPM and CDFW within 48 hours of the observation;

5-5
continued

2.3 BIO-3 Biological Monitor Selection

Revisions to BIO-3 Biological Monitor Selection are recommended to expedite selection of biological monitors. Establishing this timeline is essential, as the absence of a defined response period could delay or hinder project construction.

Proposed Revision:

The project owner's CPM-approved DB shall submit the resume, at least three references, and contact information of the proposed Biological Monitor(s) to the CPM for approval and CDFW for review and comment. If CDFW does not respond in 30 days, the Biological Monitor(s) can be approved by the CPM without further consultation with CDFW, and CPM's determination shall occur no later than 45 days after submission of the resume. The resume shall demonstrate, to the satisfaction of the CPM, the appropriate education and experience to accomplish the assigned biological resource tasks.

5-6

2.4 BIO-6 Biological Resources Mitigation Implementation and Monitoring Plan

5-7

BIO-6 Biological Resources Mitigation Implementation and Monitoring Plan is recommended for revision as follows because other text in the conditions requires a final accounting of impacted acreage which cannot be provided in the initial BRMIMP.

Proposed Revision:

The BRMIMP shall be prepared in consultation with the DB and shall include the following:

9. In a final version of the BRMIMP, provide a final accounting of the before/after whole acreages and a determination of whether more or less habitat compensation is necessary.

2.5 BIO-7 General Impact Avoidance and Minimization Measures

5-8

BIO-7 General Impact Avoidance and Minimization Measures, subparagraph #4, is recommended for revision to specify a 2:1 slope. The previously recommended 3:1 slope can be impractical in constrained construction areas, whereas the 2:1 slope remains both feasible and appropriate for the species present within the project site, per CDFW's guidelines which cite 2:1 as the appropriate maximum slope for escape ramps for western spadefoot toads and California tiger salamander. Additionally, the reference to "(protected: impacted)" appeared to be a copy and paste error and has been corrected to read "horizontal: vertical."

Subparagraph #5 has been revised to clarify that the concern is for vertical pipes and similar features that prevent animals from escaping. Entrapment issues for other types of stored materials are addressed in other species measures.

Proposed Revisions:

4. Inspect Pipes and Trenches. At the end of each workday, the DB, Biological Monitor, and/or site personnel (approved and trained by the DB, as described under **BIO-2**) shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled. If site personnel are inspecting trenches, bores, and other excavations and wildlife is trapped, they shall immediately notify the DB and/or Biological Monitor. If backfilling is not feasible, all trenches, bores, and other excavations shall be covered to prevent wildlife entrapment or sloped at a 2:1 (horizontal: vertical) ~~3:1 (protected: impacted)~~ ratio at the ends to provide wildlife escape ramps.

Should wildlife become trapped, the DB or Biological Monitor shall remove and relocate the animal to a safe location. Any wildlife encountered during construction shall not be harassed

and shall be allowed to leave the construction area unharmed. If needed, a qualified biologist possessing the appropriate state and federal scientific collecting permits may guide, handle, or capture an individual non-CESA-listed wildlife species to move it to a nearby safe location within nearby refugium, or it shall be allowed to leave the project area of its own volition. Capture methods may include hand, dip net, lizard lasso, snake tongs and snake hook.

5-8
continued

5. Prevent Wildlife Entrapment. All vertical openings to pipes, tubes, ducting, or other cavities, 2 inches or greater, shall be capped to prevent wildlife entrapment. Portable toilets shall require vent pipes to be screened to prevent cavity using birds from becoming trapped in the pipe.

2.6 BIO-8 Vegetation Restoration and Enhancement Plan

BIO-8 Vegetation Restoration and Enhancement Plan subparagraph #2 under Monitoring and Maintenance is recommended for revision to clarify that the requirements outlined in the second paragraph apply specifically to the annual monitoring reports. These requirements do not pertain to the initial six-month report described in the first paragraph.

Proposed Revision:

- 2 Monitoring and Maintenance. The project owner is responsible for monitoring and maintaining the restored areas for a period of three years or until the Restoration Plan success criteria have been met, whichever is longer. Following the initial six-month period after restoration activities conclude, the project owner shall submit a brief monitoring report (10 pages or less, not including figures) to the CPM. This report detailing vegetation establishment, percent invasive plant cover, and other observations regarding restoration success.

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The annual reports shall include the following: i) monitoring results (including methods and a discussion of modifications since the previous monitoring period, if applicable); ii) evaluation of conditions relative to success criteria; iii) remedial measures identified and implemented following the previous monitoring period; and iv) overall site progress. Any proposed changes to the performance criteria or timelines shall require the CPM's written approval. The report shall include photos from designated photo stations at the mitigations site. Annual reports must be submitted thereafter.

2.7 BIO-9 Special-Status Plant Avoidance Measures

BIO-9 Special-Status Plant Avoidance Measures is recommended for revision to acknowledge the results of protocol level surveys from 2023 and 2024. These surveys identified one special status species—big tarplant—which will serve as the primary focus for detection and avoidance efforts within the primary project area. Since repeated protocol-level botanical surveys were conducted in 2023 and 2024, it is unnecessary to

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conduct repetitive annual surveys when special-status plants have already been identified and mapped on the site. Furthermore, additional floristic surveys are proposed for those areas that were not covered in the 2023 and 2024 surveys.

In the *Compensatory Mitigation* section, the description of compensation lands for occupied habitat is recommended for revision to remove duplicative references to CRPR 1- or 2 ranked species and to incorporate the correct mitigation ratio for the affected resources. This revision provides clearer guidance on the appropriate level of compensatory mitigation required.

We also recommend revisions to the *Monitoring* section of this COC to clarify that the annual report prepared for salvaged plants may be combined with the annual restoration monitoring report. This revision streamlines reporting requirements while maintaining consistency in documentation.

Proposed Revisions:

The DB and/or Biological Monitor(s) shall conduct ~~focused floristic~~ pre-construction surveys for ~~special-status plants~~ big tarplant (*Blepharizonia plumosa ssp. plumosa*) prior to the start of ground or vegetation disturbing project activities, including site mobilization or construction. Surveys shall be conducted with the appropriate protocols approved by the CPM during the appropriate season in all suitable habitat within the project disturbance areas and access roads and within 100 feet of disturbance areas, where accessible. Surveys shall be conducted by qualified botanists or biologists approved by the CPM, pursuant to BIO-1 and/or BIO-3. Other rare plants observed during the focused surveys shall be documented and reported to the CPM. For areas directly disturbed during the construction of the generation tie-line that were not surveyed in 2023 and 2024, floristic protocol surveys shall be conducted consistent with current CDFW botanical field survey protocol (CDFW 2018) and are required for areas that have not previously been surveyed by the project owner to date. The field surveys and reporting shall be consistent with current CDFW botanical field survey protocol (CDFW 2018) or more recent updates. With respect to areas potentially directly disturbed during the construction of the generation tie-line, protocol surveys shall be consistent with current CDFW botanical field survey protocol (CDFW 2018) and are required for areas that have not previously been surveyed by the project owner to date. The survey plan shall identify proposed survey areas and the rationale for any areas not proposed for surveys. The survey plan shall include maps, at an approved scale, clearly defining each proposed survey area. Surveys shall be conducted by qualified botanists or biologists approved by the CPM, pursuant to BIO-1 and/or BIO-3.

During either the focused survey of the full project area or the floristic protocol-level survey of the generation-tie area, any special-status plant species (including state and federally listed threatened or endangered species, candidates for listing, and all CRPR 1A, 1B, 2, 3, and 4 ranked species) detected shall be documented in the pre-construction survey reports. The results shall be submitted to CPM for review and approval, as well as CDFW and USFWS (should federally listed plants be discovered). The reports shall describe any conditions that may have prevented target species from being located or identified, even if they are present as dormant seeds or below-ground root stock (e.g., poor rainfall, disturbance, or wildfire). In some cases following detection of previously unknown locations of special-status plants, follow-up surveys may be necessary to adequately evaluate

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impacts. Pre-construction field survey reports shall include maps, at an approved scale, showing locations of survey areas, reference populations, and special-status plants.

The results of these surveys would inform the implementation of appropriate avoidance and minimization measures, as outlined below:

2. Compensatory Mitigation. If avoidance is not feasible, the project owner shall mitigate impacts to any state or federally listed plants that are subject to disturbance from project activities. Should a State listed plant be subject to disturbance the project owner would be required to implement standard categories of mitigation applicable for take coverage through CESA which includes seed salvage, propagation, and the preservation of lands occupied by the species. The measures shall be subject to approval from the CPM, in consultation with CDFW. In addition, the project owner shall provide compensatory mitigation for CRPR 1 or 2 ranked species if project activities result in the loss of more than 10 percent of a defined occurrence due to direct or indirect impacts to soils, vegetation, or water transport that could affect the species' viability.

An occurrence, or local population, shall be defined as the number of individuals occurring on the project site or all plants within a 0.25-mile buffer.

- a. For perennial species, percent avoidance shall be based on population size or number of individuals avoided.
- b. For annuals, avoidance shall be based on occupied habitat, which include habitat containing the species' micro-habitat preferences (e.g., such as "soil types and moist depressions").

Occupied habitat shall be calculated on both the project site and compensation lands as including each special status plant occurrence and a surrounding 100-foot buffer area to account for seed bank. The project owner shall provide compensation lands at the following minimum ratios:

- a. 3:1 (protected: impacted) for any state or federally listed plants ~~and CRPR 1 or 2 ranked species~~; and
 - b. 2:1 (protected: impacted) ratio for CRPR 1 or 2 ranked species.
8. Monitoring. Annual monitoring and documentation of salvaged plants shall include, but not be limited to, details of plants salvaged, stored, and transplanted (salvage and transplanting locations, species, number, size, condition, etc.); adaptive management efforts implemented (date, location, type of treatment, results, etc.); and evaluation of success of transplantation. Transplanted species may not be placed in areas subject to future land disturbance and must be protected by a conservation easement that prohibits disturbance and ensures conservation of the site in perpetuity. Conservation lands would be acquired consistent with the specifications identified above under Section b. Title /Conveyance. Annual monitoring shall occur for a minimum of three years post-relocation to ensure the plants become

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established and are not at risk from weeds or other impacts, unless approved by the CPM. The results of annual monitoring shall be reported in an Annual Monitoring Report specific to salvage of propagated plants for a minimum of three years of annual reports. This annual monitoring report can be combined with the annual report for project restoration. Additional monitoring may be necessary if determined upon review of the annual reports by the CPM that the success criteria are not met. Success criteria shall include maintaining habitat occupied by the impacted species at the identified ratios and number of plants for any occupied habitat affected by the project.

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2.8 BIO-10 Crotch's Bumble Bee Measures for Take

BIO-10 Crotch's Bumble Bee Measures for Take is proposed for revision as follows based on the lack of species found during focused CBB habitat assessments in 2023 and 2024 and the absence of CNDDDB records for the species within 5 miles of the Project. The Project does assume potential presence of the species due to the suitable foraging floral resources detected during the habitat assessment.

Language has been clarified throughout the COC that routine mowing is not considered "vegetation removal" for the purposes of survey triggers during operations unless the CPM determines otherwise.

The "Pre Construction Survey and Observation Submittal" section should be revised to provide a complete, coherent description of the submittal requirements, as proposed below: namely, that the project owner shall submit the Item 3 (Colony Active Period) or Item 2 (Overwintering Season) survey results to the CPM no more than 10 days prior to initiating or resuming project activities in each work area, unless an alternative is approved. Additionally, the Overwintering Site Buffer needs a clear mechanism for removal once the biological risk has passed, stating that the 50-foot buffer may be lifted upon CPM approval when the DB confirms the overwintering individual has departed or the hibernaculum is no longer occupied, or if a nest has been appropriately relocated.

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Proposed Revisions:

The project owner shall implement the following measures to avoid, minimize and offset impacts to Crotch's bumble bee during site mobilization, construction, and operation:

The DB and/or Biological Monitor(s) shall conduct preconstruction surveys and monitoring for Crotch's bumble bee. Surveys shall be conducted by a qualified entomologist(s) or biologist(s) familiar with the life history and ecology of Crotch's bumble bee. All proposed surveyors shall be approved by the CPM, in coordination with the CDFW, pursuant to BIO-1 and/or BIO-3.

Surveys shall cover all project work areas, including staging and parking areas. Surveys shall follow the non-invasive protocols established by CDFW in "Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species" or more recent CDFW-approved methods, as available (CDFW 2023).

2. Overwintering Season Surveys (Pre-Construction and During Operation). If initial ground disturbing construction activities in any given work area occurs during the overwintering season (November 1 through January 31), the CPM approved DB(s) and/or Biological Monitor(s) shall conduct overwintering season surveys described below within areas of suitable habitat (i.e., where suitable vegetation and floral resources occur) in each area planned for project activities no more than 10 days in advance of vegetation removal (exclusive of mowing) or ground disturbance in that area of the project site. If ground disturbing activities during operation occur within areas of suitable habitat (~~i.e., where vegetation and floral resources occur~~) during the overwintering season, the CPM-approved DB(s) shall conduct overwintering season surveys described below throughout the project site in areas planned for ground disturbance no more than 10 days in advance of ground or vegetation removal activities (exclusive of mowing), unless approved by the CPM.

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Overwintering season surveys shall look for potential Crotch's bumble bee overwintering queens and hibernacula such as leaf litter, logs, and rodent burrows. If overwintering queens or other Crotch's bumble bee are found utilizing hibernacula during surveys, the project owner shall implement the Overwintering Site Buffer (see Item 5, below).

3. Colony Active Period Season (Pre-Construction and Pre-Maintenance). If initial ground disturbing construction activities, including site mobilization, in any given work area occur during the Colony Active Period (February 1 to October 31), the CPM-approved DB(s) and/or Biological Monitor(s) shall search for Crotch's bumble bee throughout the area planned for project activities in accordance with the Crotch's Bumble Bee Mortality Reduction and Relocation Plan.

Survey efforts for each area shall include at least two visual surveys consisting of meandering transects occurring no more than 10 days prior to the start of ground and vegetation disturbing activities in that area. The CPM approved DB(s) and/or Biological Monitor(s) shall conduct the surveys at least four days apart, with the second survey occurring within two days prior to starting ground and/or vegetation removal activities in that area. The survey duration shall be appropriate to the size of the area planned for project activities plus 50 feet based on the metric of a minimum of one person-hour of searching per three acres of suitable habitat. The CPM approved DB(s) and/or Biological Monitor(s) shall conduct surveys between 7:00 AM and 6:00 PM (Pacific Time) on sunny days between 55- and 95-degrees Fahrenheit with sustained wind speeds measuring less than 10 miles per hour. Survey efforts are further detailed in the Crotch's Bumble Bee Mortality Reduction and Relocation Plan, and any variances to the Survey Protocol, including variances to survey temperatures or timing, shall be submitted to the CPM for review and approval prior to implementation.

If ground disturbing activities (exclusive of vegetation management) occur during operation within areas of suitable habitat during the colony active period, the CPM-approved DB(s) and/or Biological Monitor(s) shall search for Crotch's bumble bee throughout the areas planned for ground disturbance in accordance with the Crotch's Bumble Bee Mortality Reduction and Relocation Plan.

If ground disturbing activities are halted for longer than three days within a work area supporting suitable habitat during the Queen Flight Season (February 1 through March 31), the CPM approved DB(s) and/or Biological Monitor(s) shall perform a minimum of one additional survey in the work area in accordance with the Crotch's Bumble Bee Mortality Reduction and Relocation Plan prior to reinitiating project activities in the work area.

If a Crotch's bumble bee nest is detected during project surveys or any project activities, the project owner shall implement the Crotch's Bumble Bee Mortality Reduction and Relocation Plan unless the nest can be avoided per the Crotch's Bumble Bee Nest Site Buffer measures (Item 6).

4. Pre-Construction Survey and Observation Submittal (Construction and Operation). The project owner shall provide the Colony Active Period Season- Pre-Construction Survey (Item 3) results or Overwintering Survey Results to the CPM no more than ten days prior to initiating project activities in each work area or resuming (Item 2), if initial disturbance not complete, ~~project activities in each work area~~, unless alternate timing is approved by the CPM. The CPM-approved DB(s) and/or Biological Monitor(s) shall notify the CPM if an overwintering individual and/or nest is observed within 100 feet of the project site during site mobilization, construction, or operation. Pre-construction surveys and observational submittals shall include a Keyhole Markup Language (KML) map, or KML-Zipped (KMZ) map, and Geographic Information System (GIS) shapefiles of all Crotch's bumble bee detections and/or nests found during survey efforts or during any incidental observations, and photographs of the individual or nest. The map shall include an outline of the project site, and any distinct work area(s) surveyed within the project site, title, north arrow, scale bar, and legend.
5. Overwintering Site Buffer (Construction and Operation). If any overwintering Crotch's bumble bee are found during focused overwintering surveys, during ground and/or vegetation disturbing activities (exclusive of mowing), including site mobilization or construction activities, or during operation of the project, the project owner, in consultation with the CPM approved DB(s) and/or Biological Monitor(s) shall immediately stop and prohibit all ground disturbing activities within 50 feet of the queen and/or hibernaculum. The project owner shall delineate the 50-foot buffer and notify all workers not to enter the environmentally sensitive area. This buffer may be adjusted with the approval of the CPM based on project activities and potential to disturb the nest. Buffers shall remain in place until the nest has senesced, project activities are complete, or the nest has been relocated in accordance with the Crotch's Bumble Bee Mortality Reduction and Relocation Plan. This buffer may be adjusted with the approval of the CPM based on project activities and potential to disturb the nest.

If an overwintering queen is exposed, the CPM approved DB(s) shall implement the Crotch's Bumble Bee Mortality Reduction and Relocation Plan. The CPM-approved DB(s) and/or Biological Monitor(s) shall record the queen's location with a GPS (including datum and horizontal accuracy in feet) and include photographs and a map of the queen's location as detailed in Item 4 (Pre-Construction Survey and Observation Submittal). Upon notice from

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the CPM, the project owner shall increase the size and modify the environmentally sensitive area buffer accordingly.

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2.9 BIO-11 California Tiger Salamander Measures for Take

Subparagraph #1d: is proposed for revision to qualify the requirement to cover/cap stored materials. Not all materials are accessible to California tiger salamander (CTS) (i.e. items stacked on pallets with vertical surfaces that CTS cannot climb).

Subparagraph #2c: A 3:1 slope can be impractical in constrained construction areas, whereas the 2:1 slope remains both feasible and appropriate for the species present within the project site, per CDFW's guidelines which cite 2:1 as the appropriate maximum slope for escape ramps for California tiger salamander.

Subparagraph #3 has been moved to Bullet #4 as specifications to the Relocation Plan, rather than its own item, for clarity.

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Subparagraph #4 and 5 having DB as the only person who can handle CTS if found could be challenging because they may not always be onsite and ignores the potential for other biologists with federal and state authorizations to safely and adequately handle in compliance with state and federal law.

Proposed revisions to subparagraph #7 are to clarify that the CTS exclusion fencing is intended to remain intact during construction and would not be maintained through project operation.

Subparagraph #8 is recommended for revision in regards to the DB handling requirement above and to acknowledge that 8:00 AM may not be feasible to check coverboards every day because of site conditions. Also removed the requirement to handle CTS on the outside of the fence (refugia along fence), as it places unnecessary stress on the CTS unless they are at risk of desiccation or predation and is better left to the discretion of the biologist.

Subparagraph #12 is recommended for revision to specify daytime humidity, as daytime and overnight humidity are very different values.

Subparagraph #14 The survey is assumed to be a clearance survey, so specification was added to include the full work area and areas underneath cover of all types.

Proposed Revisions:

The project owner shall implement the following measures to avoid, minimize and offset impacts to breeding and foraging California tiger salamander during site mobilization, construction, and operation:

1. Inspections. The following inspections shall be implemented to prevent injury or mortality of California tiger salamander during ground-disturbing or other construction activities:

- a. Daily Morning Inspections: Before the start of work each morning, the DB and/or Biological Monitor shall inspect all vehicles, heavy equipment, materials, and other suitable hiding locations within the project site, per **BIO-2**, Item 7.
 - b. Equipment Moving: All workers shall inspect beneath vehicles and equipment immediately prior to movement. If a California tiger salamander is discovered, work must stop immediately, and the DB and/or Biological Monitor must be notified.
 - c. Excavation and Spoils Inspection: All ruts, holes, and trenches shall be inspected by the DB and/or Biological Monitor prior to and during excavation or backfill activities.
 - d. Stored Materials: Any pipes, structures, or containers (including battery storage containers) with a diameter or opening of 2 inches or greater that are stored overnight in the project site and accessible to the California tiger salamander (i.e., are stored at ground level or within 2 inches of the ground) must be securely capped before storage. See also, **BIO-7**, Item 5.
2. Open Excavations. To prevent inadvertent entrapment of California tiger salamander during construction, the DB and/or Biological Monitor shall implement the following measures for all open excavations (including open holes and trenches more than 6 inches deep):
- a. Daily Morning inspections: All open excavations shall be thoroughly inspected for trapped animals each day no later than 9:00 a.m.
 - b. Inspections During Workday: Before any open trenches or holes are filled, the DB and/or Biological Monitor shall thoroughly inspect them.
 - c. Daily Securing of Excavations: At the close of each working day, all open excavations shall be secured by providing one or more escape ramps constructed of earthen fill or wooden planks with a slope of ~~3~~²:1 or less; or covering the excavations with boards or metal plates placed flush to the ground, with the edges overlaid by loose dirt to ensure no gaps remain for species entry. If any open holes, trenches or other excavations greater than 6-inches deep cannot be covered or fitted with escape ramps as described above, then temporary exclusion fence shall be installed around these trenches, holes, or other excavations to prevent California tiger salamander from becoming trapped.
3. ~~Relocations~~. ~~The DB shall relocate any California tiger salamander found within the project site to an active rodent burrow system located no more than 300 feet outside of the project site unless otherwise approved by the CPM in writing. The DB shall document both the capture and relocation areas by photographs and GPS positions. The California tiger salamander shall be photographed and measured in millimeters (snout-vent) for identification purposes prior to relocation. All documentation shall be provided to the CPM within 24 hours of relocation.~~

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4. Relocation Plan. The DB shall prepare a California Tiger Salamander Relocation Plan (Plan). The Plan shall include, but not be limited to, an identification of the survey and hand excavation, capture, handling, and relocation methods, and identification of where the individuals would be relocated to. The DB and/or Biological Monitor(s) shall relocate any California tiger salamander found within the project site to an active rodent burrow system located no more than 300 feet outside of the project site unless otherwise approved by the CPM in writing. The DB shall document both the capture and relocation areas by photographs and GPS positions. The California tiger salamander shall be photographed and measured in millimeters (snout-vent) for identification purposes prior to relocation. All documentation shall be provided to the CPM within 24 hours of relocation. Relocation areas shall be identified by the DB based upon best suitable habitat available and time of year and approved by the CPM prior to the start of site mobilization. The Relocation Plan shall be submitted to the CPM for approval prior to the beginning of project activities. Project activities anywhere within the project site may not proceed until the Relocation Plan is approved in writing by the CPM. Only the approved DB and Biological Monitor(s) with appropriate state and federal authorizations shall is authorized to capture and handle California tiger salamander.

5. Handling and Injury. California tiger salamander shall be handled and assessed according to the Restraint and Handling of Live Amphibians USGS, National Wildlife Health Center (D. Earl Greene, ARMI SOP NO. 100; 16 February 2001) or most recent guidance. If an injured California tiger salamander is found, the individual shall be evaluated by the DB and/or authorized Biological Monitor(s) who shall then immediately contact the CPM, and the CDFW Regional Representative, via email and telephone, to discuss the next steps. If the CPM or the CDFW Regional Representative cannot be contacted immediately, the injured California tiger salamander shall be placed in a shaded container and kept moist. If the CPM or CDFW Regional Representative is not available or has not responded within 15 minutes of initial attempts, then the following steps shall be taken by the DB:
 - a. If the injury is minor or healing and the California tiger salamander is likely to survive, the salamander shall be released immediately in accordance with Item 3.
 - b. If it is determined that the California tiger salamander has major or serious injuries as a result of project-related activities, the DB shall immediately take it to the Lindsay Wildlife Experience or another CDFW- approved facility.
 - c. If taken into captivity, the individual shall remain in captivity and not be released into the wild unless it has been kept in quarantine and the release is authorized by the CPM, CDFW and U.S. Fish and Wildlife Service.
 - d. The project owner shall bear any costs associated with the care or treatment of such injured California tiger salamander. The project owner shall document the circumstances of the injury, the procedure followed, and the final disposition of the injured animal in a written incident report as described in Item 3.

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7. Temporary Exclusion Fencing. Prior to commencing construction activities, the project owner shall install temporary exclusion fencing appropriate for exclusion of California tiger salamander according to the approved Temporary Exclusion Fence Plan (Item 8) to prevent California tiger salamanders from dispersing into the project site. Within each project construction phase, the project owner shall ensure that temporary exclusion fencing is installed around the footprint of all planned vegetation- and ground-disturbing activities, including but not limited to disking and seeding involved with restoration. The project owner shall ensure that exclusion fencing remains in place throughout construction until project owner has completed the related vegetation- and/or ground-disturbing activities and removed related equipment from that footprint. The project owner shall remove temporary exclusion fencing at the culmination of related construction activities. To limit barriers to California tiger salamander movement imposed by temporary exclusion fencing, exclusion fencing may be installed and removed in stages (enclosed subsets of fencing) as vegetation- and ground-disturbing activities progress across the project site during construction. This option may not be available outside the dry season work window, as specified under Temporary Exclusion Fence Plan for California Tiger Salamander.

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9. Temporary Exclusion Fence Plan for California Tiger Salamander. The project owner shall submit to the CPM a Temporary Exclusion Fence Plan (Fence Plan) for review and approval prior to the start of construction activities. The Fence Plan shall describe the location and design of the temporary exclusion fencing and refugia, and survey method to inspect refugia. The project owner shall design temporary exclusion fencing to allow California tiger salamanders to leave the project site through one-way funnels or another method approved by the CPM. The project owner shall provide refuge opportunities such as coverboards (2-foot x 3-foot or larger plywood) ~~or pitfall traps~~ along both sides of the exclusion fence. ~~If the project owner chooses to use pitfall traps, these shall be placed on the interior of the fence only and coverboards shall be placed on the exterior of the fence.~~ The DB or Biological Monitor shall inspect the temporary exclusion fencing for damage each day. The DB and/or Biological Monitor shall inspect under cover boards for California tiger salamander by 8:00 AM during and after rain events. If site or safety conditions preclude inspection by 8:00 AM, inspections shall occur as soon as conditions allow and before construction activities begin.

The DB shall relocate animals found within the interior fence ~~or in refugia along the fence~~ to a pre-determined location outside the fence line no more than 300 feet from the project boundary per the Relocation Plan described in Item 4. The project owner shall maintain and repair the temporary exclusion fencing immediately to ensure that it is functional and without defects. If initial site grading and restoration of temporary impacts is not completed in the project site by October 31, then temporary exclusion fencing shall be installed between any ungraded and graded portions of the planned grading footprint. Temporary exclusion fencing in place between November 1 and April 30 shall be considered a semi-permanent impact because it may impede potential California tiger salamander movement to breeding ponds. If temporary exclusion fencing is in place between November 1 and April 30, the project owner shall adjust impacts assessment in consultation with the CPM.

- If work is approved by the CPM outside of the dry season work window required in Item 11, the following shall apply: Any work site located within 2,000 feet of potential California tiger salamander breeding habitat, including where equipment would be stored overnight, shall be completely fenced with wildlife exclusion fencing. All construction work shall take place within the fenced area. Installation of exclusion fencing does not apply to graveled or well-traveled roads.
10. Roads. The project owner shall construct roadways such that there are no steep curbs, berms, straw wattles, or dikes that could prevent California tiger salamander from crossing or exiting the roadway. If curbs, berms, and/or straw wattles are necessary for safety and/or surface runoff, the project owner shall design and construct them to allow California tiger salamander to walk over them. If steep dikes are required, the project owner shall design and construct them to include over-side drains or curb/dike breaks spaced at intervals of 16.4 to 32.8 feet to allow California tiger salamander passage. If the project owner cannot feasibly comply with any of the road construction requirements, alternative designs for road curbs, straw wattles, dikes, and drains that allow for California tiger salamander passage may be used with prior approval by CPM.
 12. Dry Season Work Restriction. During the Dry Season of May 1 to October 31 of each year, the project owner shall limit activities involving ground disturbance and heavy equipment use (including but not limited to excavation, grading, contouring, or disking) to periods of low rainfall (less than 0.10 inches per 24-hour period). If rain exceeds 0.10 inches during a 24-hour period, work shall cease. Construction may resume 24 hours after the rain ceases when there is a less than 40 percent chance of precipitation in the National Weather Service 24-hour forecast for the project area, and daytime humidity, as measured locally on-site at 8:00 am or later, under the supervision of the DB, has fallen below 75 percent. Both rainfall and humidity records shall be kept on-site and subject to inspection.
 14. Seasonal Work Window Extension. Activities involving ground disturbing and heavy equipment use (including but not limited to excavation, grading, contouring, and disking) during November 1 to April 30 (Wet Season) shall be subject to written approval of the CPM. The project owner shall submit request for extension to the CPM at least 14 days prior to the desired Wet Season start date of activities. If the CPM approves Wet Season work, the project owner shall monitor the National Weather Service 48-hour hourly forecast for the project area and shall ensure that activities involving ground- disturbing activities and heavy equipment cease 24 hours prior to a 40- percent or greater forecast of precipitation. Activities may resume 24 hours after the precipitation ceases if there is less than a 40 percent chance of precipitation in the 24-hour forecast for the project area. If the CPM approves wet-season work, the DB shall conduct a clearance survey of the full project area and underneath potential cover, including all vehicles, heavy equipment, materials, and other suitable hiding locations within the project site each day precipitation is forecast and the morning after all precipitation events.
- If work during the wet season delays restoration of temporarily disturbed areas past December 31 of the year of impact, the project owner shall recategorize these areas as semi-

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permanent or permanent impacts depending on the timing of restoration and achievement of performance standards. In this circumstance, the project owner shall adjust impacts assessment in consultation with the CPM.

15. Daily Work Window. The project owner shall terminate all activities 30 minutes before sunset and shall not resume activities until 30 minutes after sunrise during California tiger salamander migration/active season from November 1 to June 15 until the exclusion fencing has been installed. The project owner shall use sunrise and sunset times established by the U.S. Naval Observatory Astronomical Applications Department for the geographic area where the project is located to determine when activities shall terminate and resume.

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2.10 BIO-12 California Red-Legged Frog Measures for Take

For BIO-12 California Red-Legged Frog Measures for Take, subparagraph #1 is proposed for revision to reflect the fact that a protocol-level habitat assessment was conducted for this species in 2023, and additional habitat assessment is not necessary.

Subparagraph #2 is proposed for revision to remove duplicative language within the measure regarding notification.

Subparagraph #3 is proposed for revision to allow potential for relocation by other individuals with appropriate federal and state authorizations.

Subparagraph #4 is proposed for revision to clarify that specific stored materials which should be capped to avoid entrapment.

Subparagraph #5 is proposed for revision to focus on the timing of work start rather than time of day.

Subparagraph #6 is recommended for revision to make the relocation measure appropriate for the species; before it appears to be appropriate for California tiger salamander but not necessarily California red-legged frog.

Subparagraph #10 is recommended for revision to clarify that a single Fence Plan could be prepared for all species, and to remove reference to installation of pitfall traps because these have a greater potential for incidental take. Also revised to add flexibility on inspection if site conditions do not allow access.

Verification was revised to clarify the type of survey results provided within 7 days, and full reporting at 60 days.

Proposed Revisions:

The project owner shall implement the following measures to avoid, minimize and offset impacts to breeding and foraging California red-legged frogs during site mobilization, construction, and operation:

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1. The DB and/or Biological Monitor(s) shall conduct pre-construction avoidance surveys for California red-legged frogs. Surveys shall be conducted by qualified biologists approved by the CPM, in coordination with CDFW, pursuant to **BIO-1** and/or **BIO-3**. These measures shall be included in the BRMIMP and implemented. Pre-construction avoidance surveys for California red-legged frogs shall be conducted within ~~a 500-foot radius of~~ 50 feet of all project disturbance areas, ~~where legal access is granted,~~ to detect individuals that may be present and suitable habitat features. ~~Habitat features include both aquatic habitat such as plunge pools and ponds and terrestrial habitat such as burrows.~~ Surveys shall be conducted no more than 14 days prior to the start of project activities and include one survey conducted within 48 hours of site mobilization. Surveys shall include diurnal and nocturnal surveys. The project owner may elect to conduct additional surveys to map and detect potential areas this species may occur on or near disturbance areas.

~~The results of the habitat feature assessment shall be submitted to the CPM for written acceptance prior to starting project activities.~~ Habitat features identified in previous protocol-level habitat assessments shall be flagged for avoidance to the extent feasible.

2. If Detected. ~~If a California red-legged frog is encountered or the DB believes that California red-legged frog is likely to occur in the project area, the project owner shall notify the CPM immediately.~~ If California red-legged frogs are encountered ~~during the assessment or during project activities,~~ all work shall cease until the frog is moved out of the construction area, following the requirements in the Relocation Plan, to a USFWS/CDFW approved relocation site and the CPM shall be notified immediately.
3. Relocation Plan. The project owner shall prepare a California Red-legged Frog Relocation Plan that includes all the conservation measures outlined in the Formal Consultation on the Potentia Viridi Battery Storage System, Alameda County, California (Corps File Number: SPK-2024-00486) (TN264538). The Plan shall include, but not be limited to, an identification of the survey and hand excavation, capture, handling, and relocation methods, and identification of where the individuals would be relocated to. Relocation areas shall be identified by the DB based upon best suitable habitat available and time of year and approved by the CPM and USFWS prior to the start of site mobilization. The Relocation Plan shall be submitted to the CPM and USFWS for approval at least 30 days ~~and no less than 14 days~~ prior to the beginning of project activities. Project activities anywhere within the project site may not proceed until the Relocation Plan is approved in writing by the CPM. Only the approved DB or another appropriately permitted biologist is authorized to capture and handle California red-legged frogs.
4. Inspections. The following inspections shall be implemented to prevent injury or mortality of California red-legged frogs during ground-disturbing or other construction activities:
 - a. Daily Morning Inspections: Before the start of work each morning, the DB and/or Biological Monitor shall inspect all vehicles, heavy equipment, materials, and other suitable hiding locations within the project site, per **BIO-2**, Item 7.

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continued

- b. Equipment Moving: All workers shall inspect beneath vehicles and equipment immediately prior to movement. If a California red-legged frog is discovered, work must stop immediately, and the DB and/or Biological Monitor must be notified.
 - c. Excavation and Spoils Inspection: All ruts, holes, and trenches shall be inspected by the DB and/or Biological Monitor prior to and during excavation or backfill activities.
 - d. Stored Materials: Any pipes, structures, or containers (including battery storage containers) with a diameter or opening of 23 inches or greater that are stored overnight in the project site and are accessible to California red-legged frog (i.e., are stored on or within 12 inches of the ground) must be securely capped before storage. See also, **BIO-7**, Item 5.
5. Open Excavations. To prevent inadvertent entrapment of California red-legged frogs during construction, the DB and/or Biological Monitor shall implement the following measures for all open excavations (including open holes and trenches more than 6 inches deep):
 - a. Daily Morning inspections: Before the start of work each day, all open excavations shall be thoroughly inspected for trapped animals. ~~each day no later than 9:00 a.m.~~
 - b. Inspections During Workday: Before any open trenches or holes are filled, the DB and/or Biological Monitor shall thoroughly inspect them.
 - c. Daily Securing of Excavations: At the close of each working day, all open excavations shall be secured by providing one or more escape ramps constructed of earthen fill or wooden planks with a slope of 32:1 or less; or covering the excavations with boards or metal plates placed flush to the ground, with the edges overlaid by loose dirt to ensure no gaps remain for species entry. If any open holes, trenches or other excavations greater than 6-inches deep cannot be covered or fitted with escape ramps as described above, then temporary exclusion fence shall be installed around these trenches, holes, or other excavations to prevent California red-legged frogs from becoming trapped.
6. Relocations. Pursuant to the approved Recovery Relocation Plan in Item 3, the DB and/or Biological Monitor shall relocate any California red-legged frogs found within the project site to the nearest stream or pond downstream of the project site and within the same watershed, an active rodent burrow system located no more than 300 feet outside of the project site unless otherwise approved by the CPM and USFWS in writing. The DB and/or Biological Monitor shall document both the capture and relocation areas by photographs and GPS positions. The California red-legged frog shall be photographed for identification purposes prior to relocation. All documentation shall be provided to the CPM and USFWS within 24 hours of relocation.
10. Temporary Exclusion Fence Plan for California Red-legged Frog. The project owner shall submit to the CPM a Temporary Exclusion Fence Plan (Fence Plan) for review and approval prior to the start of activities. This Fence Plan may be combined with those required for

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continued

other species as appropriate. The Fence Plan shall describe the location and design of the temporary exclusion fencing and refugia, and survey method to inspect refugia. The project owner shall design temporary exclusion fencing to allow California red-legged frogs to leave the project site through one-way funnels or another method approved by the CPM. The project owner shall provide refuge opportunities such as coverboards (2-foot x 3-foot or larger plywood) ~~or pitfall traps~~ along both sides of the exclusion fence. ~~If the project owner chooses to use pitfall traps, these shall be placed on the interior of the fence only and coverboards shall be placed on the exterior of the fence.~~ The DB shall inspect the temporary exclusion fencing for damage each day. The DB and/or Biological Monitor shall inspect under cover boards for California red-legged frogs ~~California tiger salamander~~ by 8:00 AM during and after rain events. If site or safety conditions preclude inspection by 8:00 AM, inspections shall occur as soon as conditions allow access.

The DB shall relocate animals found within the interior fence or in refugia along the fence to a pre-determined location outside the fence line no more than 300 feet from the project boundary per the Relocation Plan described in Items 3 and 5. The project owner shall maintain and repair the temporary exclusion fencing immediately to ensure that it is functional and without defects. If initial site grading and restoration of temporary impacts is not completed in the project site by October 31, then temporary exclusion fencing shall be installed between any ungraded and graded portions of the planned grading footprint. Temporary exclusion fencing in place between November 1 and April 30 shall be considered a semi-permanent impact because it may impede potential California red-legged frog movement to breeding ponds or other aquatic habitat. If temporary exclusion fencing is in place between November 1 and April 30, the project owner shall adjust impacts assessment in consultation with the CPM.

~~Any work site located within 2,000 feet of potential California red-legged frog aestivation or dispersal habitat,~~ including where equipment will be stored overnight, shall be completely fenced with wildlife exclusion fencing. All construction work shall take place within the fenced area. Installation of exclusion fencing does not apply to graveled or well-traveled roads.

Verification: The project owner shall submit a California Red-legged Frog Relocation Plan to the CPM for review and approval 30 days prior to the start of site mobilization activities. The project owner shall submit to the CPM for review and approval a Temporary Exclusion Fence Plan no less than 15 days prior to the start of site mobilization activities. The project owner shall submit a Detention Basin Permanent Barrier Plan to the CPM for review and approval no later than 15 days prior to the start of site mobilization activities. The project owner shall submit the preliminary results of the California red-legged frog pre-construction surveys to the CPM for review and approval no later than 7 days after the survey has been completed, followed by a results report no later than 60 days after the surveys have been completed.

5-13
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2.11 BIO-13 Western Spadefoot

For BIO-13 Western Spadefoot, modifications are proposed to the pre-construction survey timing from 48 hours prior to one week prior to allow more chance detecting movement during rain or higher humidity events. Verification was revised to clarify the type of survey results provided within 7 days, and full reporting at 60 days.

Proposed Revisions:

If work will be conducted within or near western spadefoot breeding habitat (e.g. vernal pools, ephemeral rain pools, wetlands, and similar features) and would commence during breeding season (approximately February 1 through March 30), the DB and/or Biological Monitor shall complete a pre-construction survey within one week ~~48 hours~~ prior to any site mobilization and/or construction activities. Surveys shall be conducted by qualified biologists approved by the CPM pursuant to BIO-1 and/or BIO-3. The DB shall submit the results of the survey to the CPM prior to start of site mobilization and/or construction. These measures shall be included in the BRMIMP and implemented.

5-14

If western spadefoots are found within vernal pools or other wetland areas that cannot be avoided, the DB shall develop a relocation plan and submit it to the CPM for review and approval. Western spadefoots shall be relocated to the nearest available suitable habitat at least 250 feet away from the project site to minimize the potential for spreading disease. The DB shall secure all appropriate handling permits prior to relocating the species.

Verification: The project owner shall submit the preliminary results of the western spadefoot pre-construction survey to the CPM for review and approval no later than 7 days after the survey has been completed, followed by a results report no later than 60 days after the surveys have been completed. In the event relocation is necessary, the project owner shall submit a relocation plan to the CPM for review and approval.

2.12 BIO-14 Western Pond Turtle

The pre-construction survey timing is proposed for modification from 48 hours prior to one week prior to allow for scheduling of appropriately qualified staff and to allow for variations in weather that may limit when it is appropriate to conduct surveys (i.e., for sunny weather). In addition, the original COC does not include a protocol. This COC has been revised to include a protocol because this species is difficult to detect when in uplands and their nests are cryptic. Given that there is no requirement to submit methods ahead of time, there is a risk that CPM or CDFW could reject the findings and require a re-survey. Removed language referring to the BRMIMP since they appear out of place and not necessary.

5-15

Also added specification that turtles can only be moved out of harm's way as long as they are not nesting, as relocating nesting individuals could interfere with nesting behavior and reduce reproductive success.

The verification has also been revised to clarify the type of reporting expected within 7 days of survey completion and to allow sufficient time to compile a complete report of survey results.

Proposed Revisions:

Within one week ~~48 hours~~ prior to initiation of site mobilization and/or construction, the DB and/or Biological Monitor shall survey the project site for western pond turtles and their nests. Surveys shall be conducted by qualified biologists approved by the CPM pursuant to BIO-1 and/or BIO-3. Surveys shall consist of visual encounter surveys for western pond turtle individuals, nests, or evidence of nesting prior to any ground disturbance within 656 feet (200 meters) of aquatic habitats. Surveys shall be conducted on sunny days between the hours of 8:00am and 12:00pm to maximize likelihood of observation of individual turtles during basking events in nearby aquatic habitats. If western pond turtles are found in the work area, work shall not commence until the DB contacts the CPM for approval. ~~These measures shall be included in the BRMIMP and implemented.~~

5-15
continued

If a nest is found, work within 50 feet of the nest shall be stopped and the DB and/or Biological Monitor shall prepare a nest protection plan, to be reviewed and approved by the CPM, in coordination with CDFW, to ensure the nest is protected until it is no longer active. Turtles may be moved "out of harm's way" to the nearest safe and suitable habitat at least 250 feet away from the project site by the DB and/or Biological Monitor with all appropriate permits if turtles are not nesting.

Verification: The project owner shall submit the preliminary results of the pre-construction survey results to the CPM for review and approval within 7 days after the survey has been completed, followed by a results report no later than 60 days after the surveys have been completed. If required, the project owner shall submit a draft nest protection plan to the CPM for review and approval and to CDFW for review and comment. A final nest protection plan shall be submitted prior to implementation.

2.13 BIO-15 Coast Horned Lizard and San Joaquin Coachwhip

BIO-15 Coast Horned Lizard and San Joaquin Coachwhip is proposed for revision to extend the 48-hour prior survey requirement to one week to allow for scheduling of appropriately qualified staff and to allow for variations in weather that may limit when it is appropriate to conduct surveys (i.e., for sunny weather when reptiles are more likely to be detected). The verification has also been revised to clarify the type of reporting expected within 7 days of survey completion and to allow sufficient time to compile a complete report of survey results (60 days).

5-16

Proposed Revisions:

The DB and/or Biological Monitor shall survey the construction site for coast horned lizard and San Joaquin coachwhip, including any and all rock outcrops and mammal burrows and any other potential habitat features. Surveys shall be conducted by qualified biologists approved by the CPM pursuant to BIO-1 and/or BIO-3.

Surveys shall occur within one week ~~48 hours~~ prior to site mobilization and/or construction. These measures shall be included in the BRMIMP and implemented.

If coast horned lizards and/or San Joaquin coachwhips are found, they shall be allowed to leave the site before construction begins. Coast horned lizards and/or San Joaquin coachwhips may be moved "out of harm's way" to the nearest safe and suitable habitat at least 250 feet away from the project site by the DB and/or Biological Monitor with appropriate scientific collecting permits.

Verification: The project owner shall submit the results of the pre-construction survey(s) to the CPM for review and approval within 7 days after the survey has been completed, followed by a results report no later than 60 days after the surveys have been completed.

5-16
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2.14 BIO-16 Nesting Birds and Bird Buffers

All birds with dedicated COCs (golden eagles, western burrowing owls, Swainson's hawks, white-tailed kits, and California condors) are addressed in in COC BIO-17, BIO-18, BIO-19, BIO-20, and BIO-21, respectively. This COC is proposed for revision to stipulate that their respective measures take precedence over the general NBMP because these listed or otherwise protected species have specific requirements for survey methods, buffers, and reporting and we wish to avoid any potential conflicts or confusion.

The nesting bird season is proposed for modification from January to February to accurately reflect the typical California nesting season when golden eagles are not included, and a single end time has been provided since "to September" and "until August 31" are essentially the same time.

5-17

Under subparagraph #1. Survey Requirements, eagles are proposed for removal to reflect above changes in regards to species-specific COC.

Under subparagraph #2. Survey Schedules, survey repetition is proposed for has been removal for redundancy, as it is addressed in #3, below.

In subparagraph #3, Nest and Avian Monitoring and Surveys During Construction, the survey area is proposed to be clarified because ground-nesting birds within the project site are the primary concern during lapses in construction.

In subparagraph #4 text is proposed for revision regarding the ability to adjust a nest buffer so that it was not tied to a default NBMP buffer since that is the purpose of the adjustment.

Under subparagraph #7 nest deterrents, the content was moved under subparagraph #6, NBMP content, because it describes a requirement of the NBMP rather than anything separate.

Proposed Revisions:

The project owner shall develop and implement a Nesting Bird Management Plan (NBMP) in coordination with the DB and submit to the CPM for review and approval. The project owner shall submit the resumes of avian monitors under BIO-1 and/or BIO-3 prior to site mobilization and/or construction, if these activities are planned to occur during the breeding season. The NBMP shall describe methods to minimize potential project effects to nesting birds and avoid any potential for unauthorized take of special status birds without incidental take authorization. Where scheduling allows, the project owner shall clear or remove any vegetation, conduct site preparation in open or barren areas, or other project-related activities that may adversely affect breeding birds outside the nesting season. The NBMP would be applicable throughout the nesting season.

The NBMP applies to general nesting birds; however, golden eagles, western burrowing owls, Swainson's hawks, white-tailed kites, and California condors are addressed in COC BIO-17, BIO-18, BIO-19, BIO-20, and BIO-21, respectively. Species-specific measures shall take precedence over the general NBMP.

Pre-construction nest surveys shall be conducted during the breeding season for local and migratory birds and would be timed to account for seasonal variation that occurs in the project area (February to September for raptors and January February 1 to August 31 for other species).

1. Survey Requirements. Surveys shall cover all potential nesting habitat and substrates within the project area and areas surrounding the project area within 500 feet of the project boundary for sensitive passerines (e.g. shrikes) and raptors and within 2-mile line of sight for eagles, unless otherwise prohibited due to legal access or safety issues, upon approval from the CPM. The NBMP shall describe each of the survey methodologies proposed to ensure that common and special status birds (except for golden eagles, western burrowing owls, Swainson's hawks, white-tailed kites, and California condors addressed in COC BIO-17, BIO-18, BIO-19, BIO-20, and BIO-21, respectively) that have the potential to occur in the project area are detected. Surveys shall be repeated during all phases of site mobilization through construction.
2. Survey Schedules. At least two pre-construction surveys shall be conducted, separated by a minimum 10-day interval. Pre-construction surveys shall be conducted no more than 14 days prior to initiation of construction activity. One survey needs to be conducted within the 3-day period preceding initiation of site mobilization, brush clearing, ground disturbance, or construction activity. ~~Surveys shall be repeated throughout site mobilization and construction phases to ensure that birds are not nesting on equipment or have moved into an area after the initial vegetation clearance has been completed.~~
3. Nest and Avian Monitoring and Surveys During Construction. Additional follow-up surveys within the project area for ground-nesting birds shall be required if periods of construction inactivity exceed three weeks during January 1 through September 30 ~~in any given area~~, an interval during which birds may establish a nesting territory and initiate egg laying and incubation.

5-17
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4. Nest Detection. If active nests are detected during surveys, a no-disturbance buffer zone (protected area surrounding the nest) shall be established around each nest. Fencing and/or flagging would be used to delineate the no-activity zone. To minimize the potential to affect the reproductive success of the nesting pair, the extent of the no-activity zone shall be based on several factors, including the distance of the activity to the nest, the type and extent of the proposed activity, the duration and timing of the activity, the sensitivity and habituation of the species, and the dissimilarity of the proposed activity to background activities. The no-activities zone shall be large enough to avoid nest abandonment. Specific buffers shall also be proposed for any shrike caches should they be detected during construction.

The NBMP shall define species-specific or guild-specific default buffers to be applied if an active nest is encountered. These buffer distances shall be reviewed and approved by the CPM, in consultation with CDFW. The default buffers may be modified in the NBMP, with CPM approval. For special-status species, if an active nest is identified, the size of each buffer zone shall be determined by the DB in consultation with the CPM (or as described in conditions of certification specific for those species). Nest locations shall be mapped using GPS technology.

The plan shall include a table outlining default buffer distances for specific avian groups during construction, detailing the avian groups, species potentially nesting within the project limits and survey area, and corresponding horizontal buffer distances based on disturbance level (DL) in feet, unless alternative table format is approved by the CPM. Typical default buffer distances are 500 feet for most raptors and 250 feet for most passerines, as well as other species or guild-specific buffers.

Nest buffers shall be delineated using the following process:

- a. Upon discovery of an active nest the default buffer identified in the NBMP shall be applied.
 - b. The DB(s) and/or Biological Monitor(s) with avian experience may adjust the buffer based on nest location characteristics (e.g. natural barriers), type and extent of project disturbance, and observed bird behavior. The nest buffer would be sufficiently large to avoid disturbance to the nesting birds ~~and based on the default buffers included in the approved NBMP.~~
 - c. Nest buffer reductions for special status species shall be requested in writing via email to the CPM for review and approval.
6. ~~Active Nest Protection~~. ~~If active nests are detected during the survey, the DB(s) or Biological Monitor(s) shall monitor all nests with buffers at least once per week, to determine whether birds are being disturbed. If signs of disturbance or distress are observed, the DB(s) or Biological Monitor(s) shall immediately implement adaptive measures to reduce disturbance, in coordination with the CPM. These measures could include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until~~

5-17
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~~fledging is confirmed, or placement of visual screens or sound dampening structures between the nest and construction activity. The DB(s) or Biological Monitor(s) shall monitor the nest until it is determined that nestlings have fledged and dispersed or the nest is no longer active. Activities that might, in the opinion of the DB(s) or Biological Monitor, disturb nesting activities (e.g., exposure to exhaust), shall be prohibited within the buffer zone until such a determination is made. Any nest buffer reduction would require full time monitoring if reduced from the levels identified in the approved NBMP.~~

7. NBMP Content. The NBMP shall include:

- a. definitions of default nest avoidance buffers for each species or group of species, depending on characteristics and conservation status for each species and the nature of planned project activities in the vicinity;
- b. a notification procedure for buffer distance reductions should they become necessary;
- c. a pre-construction survey protocol (surveys no longer than 3 days prior to starting work activity at any site);
- d. a monitoring protocol, to be implemented until adjacent construction activities are completed or the nest is no longer active, including qualifications of monitors, monitoring schedule, and field methods, to ensure that any project-related effects to nesting birds shall be minimized;
- e. a protocol for documenting and reporting any inadvertent contact with or effects to birds or nests;
- f. Specify the responsibilities of construction workers and site personnel with regard to nests and nest issues and specify a direct communication protocol to the Biological Monitor and/or DB;
- g. Specify a procedure to be implemented following accidental disturbance of nests, including wildlife rehabilitation options; and
- h. Specify a procedure for removal of inactive nests, including verification that the nest is inactive and a notification/approval process.
- i. Describe any proposed measures or deterrents to prevent or reduce bird nesting activity on project equipment or facilities, such as buoys, visual or auditory hazing devices, bird repellents, securing of materials, and netting of materials, vehicles, and equipment. It shall also include timing for installation of nest deterrents and field confirmation to prevent effects to any active nest; guidance for the contractor to install, maintain, and remove nest deterrents according to product specifications; and periodic monitoring of nest deterrents to ensure proper installation and functioning and prevent injury or entrapment of birds or other animals. If an active nest is located on project facilities, materials or equipment, the project owner shall avoid disturbance or

5-17
continued

use of the facilities, materials or equipment (e.g., by red-tag) until the nest is no longer active.

The NBMP would be applicable throughout the nesting season (from January 1 through September 30).

8. ~~Nest deterrents.~~ The NBMP shall describe any proposed measures or deterrents to prevent or reduce bird nesting activity on project equipment or facilities, such as buoys, visual or auditory hazing devices, bird repellents, securing of materials, and netting of materials, vehicles, and equipment.

5-17
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~~It shall also include timing for installation of nest deterrents and field confirmation to prevent effects to any active nest; guidance for the contractor to install, maintain, and remove nest deterrents according to product specifications; and periodic monitoring of nest deterrents to ensure proper installation and functioning and prevent injury or entrapment of birds or other animals.~~

~~If an active nest is located on project facilities, materials or equipment, the project owner shall avoid disturbance or use of the facilities, materials or equipment (e.g., by red-tag) until the nest is no longer active.~~

2.15 BIO-18 Burrowing Owl Impact Avoidance, Minimization, and Mitigation Measures for Take

Subparagraph #1 is recommended for revision to remove mention of artificial burrow construction. The Burrowing Owl Burrow Replacement Plan requires the creation of artificial burrows, which is double mitigation, as the project is already applying for a take permit and securing offsite mitigation. Further, eight protocol-level survey passes for burrowing owl in 2024 and 2025 did not detect any existing populations on site or in the immediate vicinity.

5-18

Subparagraph #2 Burrowing Owl Burrow Replacement Plan is recommended for revision to remove for similar reasoning as under Bullet #1, that negative results from protocol-level surveys.

Subparagraph #6 is recommended for revision to change how "potential" burrows found during preconstruction surveys are treated if they show no sign of occupation or use by burrowing owls. This subparagraph was also revised to provide a mechanism by which the buffer assigned to a "potential" nesting burrow can be reduced if monitoring demonstrates nesting is not occurring.

Bullet #11 is recommended for revision to clarify the DB response during daytime hours versus nighttime hours, that it applies only if active burrowing owl burrows are present, and that it excludes routine mowing activities

Proposed Revisions:

The project owner shall implement the following measures to avoid, minimize and offset impacts to breeding and foraging burrowing owls during site mobilization, construction, operation, and decommissioning:

1. Burrowing Owl Mortality Reduction Plan. The project owner shall submit a Burrowing Owl Mortality Reduction Plan prepared the DB(s) for review and approval to the CPM, and CDFW for review and comment, prior to beginning any project activities including site mobilization, surveying, fencing, or ground disturbance. Burrow exclusion, burrow excavation, monitoring, reducing predator subsidies, ~~artificial burrow construction~~, and other relocation activities shall not proceed until this plan has been approved in writing by the CPM in coordination with the CDFW.

5-18
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The Burrowing Owl Mortality Reduction Plan shall include, but not be limited to detailed description of survey methodology; detailed burrow exclusion and excavation methods; project activities that may be performed within burrowing owl avoidance buffers; identification of a wildlife rehabilitation center or veterinary facility capable of and willing to treat injured burrowing owl or care for at-risk burrowing owl, burrowing owl eggs, and/or burrowing owl chicks; and procedure for collection and storage of burrowing owl carcasses. Only CPM approved DB(s), or personnel following directions from and under the supervision of the DB(s), are authorized to handle and transport injured burrowing owl for treatment or impacted burrowing owl eggs for salvage. All other burrowing owl handling is prohibited.

Once the Burrowing Owl Mortality Reduction Plan is approved in writing by the CPM, it shall be used for the duration of the project unless updated by request of the CPM to reflect best available science, or to update mitigation and conservation strategies. If any updates are required, the CPM would contact the project owner to discuss potential updates. Any proposed changes to the Burrowing Owl Mortality Reduction Plan shall be submitted, in writing, to the CPM for review and approval and the CDFW for review and comment in writing prior to the implementation of any proposed modifications.

- ~~2. Burrowing Owl Burrow Replacement Plan. The project owner shall replace each known burrowing owl burrow (as defined below under Burrow Avoidance) that cannot be avoided within the project site with an artificial burrow to compensate for the loss of important shelter used by burrowing owls for protection, reproduction, and escape from predators. The project owner shall submit a Burrowing Owl Burrow Replacement Plan prepared by an approved DB(s) to the CPM. The artificial burrows shall be placed within 328 feet of displaced burrows to facilitate detection by displaced owls. Implementation of the Burrowing Owl Burrow Replacement Plan shall not proceed until this plan has been approved in writing by the CPM in coordination with the CDFW. The Burrowing Owl Burrow Replacement Plan shall include, but not be limited to: a discussion and map of potential artificial burrow replacement locations; description of the replacement burrow design and dimensions (e.g., depth and width of burrow, width of burrow entrance, orientation of burrow entrance, number and placement of entrances to natal burrows); artificial burrow installation methods; long-term~~

~~artificial burrow protection and maintenance methods; and timing of burrowing owl burrow installation/construction.~~

~~Once the burrowing owl Burrow Replacement Plan is approved in writing by the CPM, it shall be used for the duration of the project unless it is updated by the CPM to reflect best available science, or to update mitigation and conservation strategies in which case the CPM would contact the project owner to discuss needed updates. If any updates are required, the CPM would contact the project owner to discuss potential updates. Any proposed changes to the Burrowing Owl Mortality Reduction Plan shall be submitted, in writing, to the CPM for review and approval and the CDFW for review and concurrence in writing prior to the implementation of any proposed modifications.~~

6. Burrowing Owl Burrow Avoidance. The DB shall establish no-disturbance buffer zones around ~~potential~~, known and nesting burrowing owl burrows according to the following guidelines:
 - a. If a potential burrowing owl burrow (any subterranean hole three inches or larger for which no evidence is present to conclude that the burrow is being used or any past use by a burrowing owl) is discovered, ~~the DB shall establish a minimum 50-foot no-disturbance~~ no buffer around the burrow shall be necessary unless there is new evidence of occupation that occurs during project implementation.
 - b. If a known burrowing owl burrow (a burrow that is known to have been used or shows evidence of current or past use) or an "atypical" burrow (e.g., a pipe, culvert, buckled concrete, etc.) showing signs of occupancy (e.g. burrowing owl presence, whitewash, pellets, prey remains, etc.) is discovered, the DB(s) shall establish a minimum no-disturbance buffer of at least 100 feet around the burrow. An initial no-disturbance buffer of at least 656 feet shall be established around known burrowing owl burrows currently occupied by burrowing owl during the nesting season (typically February 1 to August 31 in this area). If monitoring indicates that burrowing owls are not nesting and only non-breeding individuals are present, the buffer may be reduced to the 100-foot minimum buffer noted above with approval by the CPM. Additional nest buffer reductions are described below.
 - c. If a nesting burrowing owl burrow (e.g. known burrowing owl burrow with indications of the presence of eggs, chicks, dependent young, and/or brooding or egg incubation) is discovered within or immediately adjacent to the project site, the project owner and/or DB shall notify the CPM and CDFW immediately through email. A no-disturbance buffer of at least 656 feet shall be established around the nest burrow. A no-disturbance buffer of at least 656 feet shall be established around known burrowing owl burrows currently occupied by burrowing owl during the nesting season (February 1 to August 31).
 - d. If burrowing owl burrows cannot be avoided as described above, then the project owner shall follow Item 6 (Burrowing Owl Burrow Blockage), and Item 7 (Burrowing Owl Burrow Excavation), and Item 1 (Burrowing Owl Mortality Reduction Plan), as appropriate. If the approved DB determines burrowing owl are visibly stressed by project activities or by

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workers in the vicinity after these no-disturbance buffers the DB shall immediately increase the non-disturbance buffer to a distance where the visible stress is no longer observed. The increased no-disturbance buffers would be reviewed and approved by the CPM, in coordination with CDFW, based on the DB's ~~their~~ behavioral observations of the affected burrowing owl.

The buffers prescribed above shall not be reduced or otherwise modified without prior written approval from the CPM, in coordination with the CDFW. If the approved DB(s) determines that specific project activities are not likely to affect the burrowing owl using known or nesting burrowing owl burrows due to the nature of the specific project activities, or due to objects or topography that might reduce potential noise disturbance and obstruct view of the project activities from the nest, then the CPM approved DB(s) may email a written request to the CPM to reduce the buffer distance with documented observational data (Buffer Reduction Request). The CPM will review each Buffer Reduction Request on a case-by-case basis and provide a determination in response to each Buffer Reduction Request in writing. The CPM may request additional and ongoing biological monitoring prior to approving a Buffer Reduction Request.

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11. Operation Activities DB On-site. The approved DB(s) shall be onsite during all ground and vegetation disturbing activities during the day (excluding mowing) if there are active burrowing owl burrows. The approved DB(s) shall be on-site during all non-emergency ground and vegetation disturbing project activities performed at night if there are active burrowing owl burrows.

2.16 BIO-19 Swainson's Hawk Surveys and Avoidance

BIO-19 Swainson's Hawk Surveys and Avoidance is recommended for revision to clarify that surveys would only happen during construction. The buffers mentioned are only focused around construction, which implies but does not expressly state that surveys would occur only during construction.

Proposed Revisions:

If project activities, including site mobilization and construction, are scheduled during the nesting season for Swainson's hawks (March 1 to September 15), prior to beginning work on the project, the DB shall conduct surveys during construction according to the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (SHTA 2000) and prepare a report documenting the survey results. The project owner shall obtain the CPM's written approval of the Designated Biological and/or Biological Monitor, per BIO-1 and/or BIO-3. The survey report shall be submitted prior to starting project activities between March 1 and September 15. Survey methods shall be closely followed by starting early in the nesting season (late March to early April) to maximize the likelihood of detecting an active nest (nests, adults, and chicks are more difficult to detect later in the growing season because trees become less transparent as vegetation increases).

5-19

Surveys shall be conducted: 1) within a minimum 0.5-mile radius of the project site or a larger area if needed to identify potentially impacted active nests, unless otherwise approved by the CPM in writing, and 2) for at least the two survey periods immediately prior to initiating project-related construction activities. Surveys shall occur annually for the duration of the project construction.

5-19
continued

2.17 BIO-20 White-Tailed Kite Nesting Preconstruction Surveys and Nest Protection Buffers

BIO-20 White-Tailed Kite Nesting Preconstruction Surveys and Nest Protection Buffers is recommended for revision to specify the nesting season time, which is currently vague (months) compared to other species (days). Under Nest Protection Buffers, the text has been revised to at-least 0.25 miles because it was assumed to be missing text. The requirement for baseline monitoring was removed. It is an unusual requirement not included for any other species, the species may not be accessible for monitoring if they are off-site, and they are relatively tolerant of human presence compared to many other raptor species.

5-20

Proposed Revisions:

If project activities occur during the white-tailed kite nesting season (January 20 to October 1 with peak nesting occurring from February to August), no more than thirty (30) days prior to activities commencing, including heavy equipment use and staging, the DB shall survey all accessible areas within 0.25-mile of the project site for white-tailed kite nests. The DB shall report white-tailed kite nests to the CPM within 24 hours.

Nest Protection Buffers. The DB shall establish appropriate nest protection buffers of at least 0.25-mile for white-tailed kite during project construction-related activities. The DB and/or Biological Monitor may expand or reduce the buffer, with the CPM approval, if deemed necessary based on specific site conditions, or in instances there is sufficient topographic relief to protect the nest(s) from excessive noise or visual disturbance between the activities and the active nest(s). Depending on site characteristics, the sensitivity of the nest, and surrounding land uses, the DB and/or Biological Monitor may increase the buffer zone to prevent disturbance at the active nest site from construction activities.

~~The DB and/or Biological Monitor shall monitor any white-tailed kite nests for the first two days prior to any construction activities to establish a behavioral baseline of the adults and any nestlings. In addition to direct impacts, such as nest destruction, nesting birds might be affected by noise, vibration, odors and movement of workers or equipment.~~

2.18 BIO-21 California Condor

BIO-21 California Condor is recommended for revision to specifically exclude overflights (where California condors may fly or soar above the project site but not land or interact with any ground-based features) as this species would not be affected by ground-level activities during soaring flight.

5-21

Proposed Revision:

The DB and/or Biological Monitor shall temporarily halt project activities if any California condors are observed within the project area prior to the start of work. Overflights of California condors, where birds are above the height of the tallest equipment or landscape features on site and do not land within the project site, would not require work stoppage. The DB and/or Biological Monitor shall allow the California condors to depart on their own before project activities resume. The DB and/or Biological Monitor shall immediately inform the CPM, CDFW and USFWS should any California condor-related work stoppages take place. These measures shall be included in the BRMIMP and implemented.

5-21
continued

2.19 BIO-23 American Badger Avoidance and Minimization Measures

BIO-23 American Badger Avoidance and Minimization Measures is recommended for revision to allow sufficient time to identify badger dens. The 48-hour requirement would be difficult to achieve and unnecessary, as preconstruction surveys for the American Badger are often combined with San Joaquin Kit Fox clearance surveys for more efficient use of time for qualified personnel, and burrow construction time is unlikely to differ substantially between the two species.

5-22

Proposed Revisions:

The DB and/or Biological Monitor(s) shall conduct pre-construction surveys for American badger.

Surveys shall be conducted by qualified biologists approved by the CPM, in coordination with CDFW, pursuant to **BIO-1** and/or **BIO-3**. These measures shall be included in the BRMIMP and implemented.

1. DB(s) and/or Biological Monitor(s) shall perform preconstruction surveys within ~~48 hours~~ of 15 days prior to ground disturbance to identify badger dens in the project disturbance area, including a 250-foot buffer zone within suitable habitat. If surveys need to be conducted more than ~~48 hours~~ 15 days before construction, approval must be obtained from the CPM.

2.20 BIO-25 Lake and Streambed Equivalency Conditions

Subparagraph 4g is recommended for revision to insert a missing word.

Proposed Revisions:

5-23

4. Best Management Practices. The project owner shall comply with the following conditions to protect drainages near the project disturbance area:
 - g. Storage and Stationary Equipment. Stationary equipment such as motors, pumps, generators, compressors and welders, located within or adjacent to the stream, shall be

positioned over drip pans. Stationary heavy equipment shall have suitable containment to handle a catastrophic spill/leak.

5-23
continued

2.21 BIO-26 Habitat Management Land Acquisition for Crotch's Bumble Bee, Western Burrowing Owl, California Tiger Salamander and San Joaquin Kit Fox

BIO-26 Habitat Management Land Acquisition for Crotch's Bumble Bee, Western Burrowing Owl, California Tiger Salamander and San Joaquin Kit Fox COC has been revised to align compensatory mitigation requirements with the EACCS. As discussed in application materials and in accordance with mitigation ratios in the EACCS, compensatory mitigation of 182.1 acres is proposed. The mitigation requirements of the EACCS that have been applied to the Project exceed those typically imposed for these species, especially considering the low likelihood of occurrence for San Joaquin kit fox in this region, and that no burrowing owls or Crotch's bumble bee were detected within the Project footprint. Approximately 6.7 acres of lands would be temporarily disturbed; however, because this land would be restored and revegetated, and returned to pre-construction conditions following construction, full recovery of ecological function is anticipated. Due to the relatively short period of disturbance and the higher permanent impact mitigation requirements set by the EACCS, CDFW's fully mitigated standard has been met and the Project requests that compensatory offsite mitigation requirements align with what is being required by USFWS in the Biological Opinion for the Project. Additional edits remove unnecessary specificity that may conflict with requirements of the ITP and associated mitigation for all Covered Species.

5-24

Mitigation lands for the project have already been identified, as included in the application. In lieu of security amounts as estimated by CDFW, we propose that the security amount be set at the full value of the mitigation lands purchase agreement, which includes the long-term management plan for the mitigation lands.

Proposed Revisions:

BIO-26 Habitat Management Land Acquisition for Crotch's Bumble Bee, Western Burrowing Owl, California Tiger Salamander and San Joaquin Kit Fox. To mitigate for impacts to Crotch's Bumble Bee, Western Burrowing Owl, California Tiger Salamander and San Joaquin Kit Fox the project owner shall prepare a Habitat Lands Acquisition Plan to fulfill the following requirements:

The project owner shall either 1) purchase 182.1 acres of Covered Species credits from a CDFW-approved mitigation or conservation bank pursuant to Item 2 below within the East Alameda County Conservation Strategy (EACCS) CTS North mitigation area (Chapter 3, Figure 3-10, dated October 2010), 2) shall provide for the permanent protection and management of 182.1 acres of Habitat Management (HM) lands for Covered Species pursuant to Item 3 below and the calculation and deposit of the management funds pursuant to Item 5 below, or 3) shall complete mitigation obligations for 182.1 acres of covered species habitat using a combination of purchasing covered species credits and providing for the permanent protection and management of habitat.

The HM lands for California tiger salamander habitat, San Joaquin kit fox habitat, Crotch's bumble bee habitat and western burrowing owl habitat may be combined if the habitat is suitable for all four Covered Species and approved by the CPM in coordination with CDFW.

Additional credits or HM lands may be required if the CDFW-approved conservation bank site or HM lands site is outside of the EACCS CTS North mitigation area described above. Additional credits may also be required if the project is not within the Service Area of the CDFW-approved conservation bank. The project owner shall provide the CPM with a copy of the credit purchase agreement for the required credits prior to commencing Covered Activities.

Purchase of Covered Species credits at a CDFW-approved conservation bank or permanent protection and funding for perpetual management of HM lands must be complete ~~before starting~~ prior to initiation of Covered Activities, or within 18 months of the effective date of this certification. ~~If Security is provided pursuant to Item 12 below for all uncompleted obligations, such Security shall be secured prior to initiation of Covered Activities, and if the project owner is unable to purchase credits or provide permanent protection and funding for perpetual management of HM lands within the allowed timeframe, an Amendment to this certification may be required.~~

12. Security: The project owner may proceed with project activities only after the project owner has ensured funding (Security) to complete any activity required by Item 3 (Habitat Management Land Acquisition and Protection) that has not been completed before project activities begin. The project owner shall provide Security as follows:

a. Security Amount. The Security shall be in the amount of \$5,256,850.00 or in the amount identified in Item 1 (Cost Estimates) specific to the obligation that has not been completed. This amount is determined by the CPM and is based on cost estimates identified in Item 1 above, sufficient for the CEC or its contractors to complete land acquisition, property enhancement, startup costs, initial management, long-term management, and monitoring. In lieu of cost estimate provided in item 1 above, Applicant may provide a cost estimate based on a Purchase and Sale Agreement for mitigation land that covers land acquisition costs, start-up costs, interim management costs, long term management funding, restoration costs and any costs associated with fee title, recordation and other similar administrative costs.

2.22 BIO-27 Post BESS Fire Monitoring and Management Plan

BIO-27 Post BESS Fire Monitoring and Management Plan should be significantly revised to ensure that the plan is based on best practices for analysis of BESS fires and accounts for site-specific characteristics. The Post BESS Fire Monitoring and Management Plan (PBFMMP) should prescribe a testing regime that would be implemented after an event, with testing protocols tailored to the location, duration and extent of the event and based on industry standard analytical methods and best available science. For example, post-fire testing should be targeted based on the results of an industry standard plume analysis, accounting for actual wind

5-24
continued

5-25

direction and speed, emergency and operational stormwater BMPs, and the direction and amount of water run-off. The plume analysis will be used to develop the PBFMMP, as well as methodology for sampling and determining the radius of potential impacts, based on the specific modeling for the site.

Many of the specific provisions recommended in BIO-27 raise substantial concerns about effectiveness and implementation. Subparagraphs # 1 through 6 should be revised as proposed below to better define post-fire monitoring triggers, monitoring design elements, decontamination measures, and restoration requirements associated with the PBFMMP. The revisions also clarify that geographical scope, application of toxicity thresholds, and verification timing should be based on project-specific analysis. These updates improve clarity and enforceability while maintaining the biological resource protection intent of the COC. Given the range of ongoing activities within five miles of the project – including a substation, a major roadway, warehouses and industrial facilities, and another BESS facility – a simple comparison of “before” and “after” data would not be useful to evaluate impacts of a fire. We have also proposed a clarification that this plan would be specific to a fire that originates within the BESS modules, which appears to be the intent of this COC but is not clearly stated.

5-25
continued

Proposed Revisions:

The project owner shall develop a Post BESS Fire Monitoring and Management Plan (PBFMMP), which is to be implemented in the event of a ‘BESS Fire’, defined as a confirmed thermal runaway within a battery module of the Project that results in sustained combustion or open flame. The project owner shall provide the draft PBFMMP to the CPM for review and approval. No site mobilization or construction activities may occur prior to approval of the final PBFMMP by the CPM. The PBFMMP shall be prepared in consultation with the DB and shall include the following:

1. Baseline Data. ~~The development of pre-operation sediment sampling locations should be determined as a result of specific plume analysis performed for the project and approved by the CMP, within a two-mile radius of the Project that could reasonably be affected by a BESS Fire event.~~ The sampling shall include a test for the expected post fire constituents, as identified in the BESS manufacturer’s Large Scale Fire Test Report. In addition, known seeps and springs within a ~~five-mile~~ radius of the Project that could reasonably be affected by a BESS Fire event, are publicly accessible, and that support habitat of a special status species ~~that could be used by special status species, as approved by the CPM,~~ shall be sampled for water quality and chemical constituents. ~~Identify locations along the major drainages downstream of the project site where chemicals could become concentrated after rainfall;~~
2. Toxicity Thresholds. Identify the established regulatory or peer-reviewed toxicity thresholds for toxicity for each chemical constituent of concern to vegetation and wildlife. Where thresholds are not established, the PBFMMP shall identify a scientifically defensible evaluation framework in consultation with the CPM and appropriate resource agencies;
3. Post Fire Monitoring Protocols. Include post fire monitoring requirements including an initial assessment within 2-weeks of the fire and a program of quarterly testing of the same locations used for baseline data collection, as feasible, for the first year then annually for 3-5 years if battery-related contaminants ~~(HF, heavy metals)~~ are detected above established

baseline levels or toxicity threshold levels in water or sediment and are determined to result from the BESS Fire and not from unrelated activities in the area. Conduct additional monitoring if invasive species spread or species decline or patterns of habitat use are detected;

4. Species Specific Monitoring Protocols. Describe post fire monitoring to evaluate potential impacts to sensitive vegetation and wildlife that are attributed to the BESS Fire. The monitoring design should ~~E~~evaluate burn severity and chemical contamination; track vegetation recovery and if there are any increases in non-native vegetation; document species presence and health post fire include observations of changes in nesting behavior or use of habitat; assess soil erosion and soil stability in any areas subject to remediation. The monitoring design should also include ~~Conduct~~ surveys for special status species, including burrowing owls. Include protocols for ~~and include~~ health checks of wildlife where possible and provide mechanisms to provide veterinarian care for injured wildlife;
5. Habitat Recovery Metrics and Decontamination Methods. The PBFMMP should ~~P~~provide a detailed description of the measures and metrics that would be used to assess health impacts to plants and wildlife, evaluate impacts to important foraging habitat and what decontamination methods shall be taken to avoid or mitigate impacts on each special-status species potentially impacted by a BESS fire. The decontamination methods should ~~include methods to~~ containment of contaminated storm and firefighting waste water;
6. Restoration, Additional Mitigation, and Adaptive Management. If impacts to plants and wildlife are confirmed and attributed to the BESS Fire, ~~i~~identify methods for restoration and post fire mitigation ~~restoration~~ if needed outside of areas already subject to approved mitigation ratios, including the acquisition of additional habitat at a 1:1 ratio should soils be contaminated above threshold limits and/or become unavailable to state and/or federally protected wildlife after the fire, or as otherwise approved in collaboration with CDFW, USFWS, and CPM. Include methods for collaborating with CDFW, USFWS, and CPM during these activities; and

Verification: The project owner shall submit the draft PBFMMP to the CPM for review and approval at least ~~45~~90 days prior to start of the delivery of any BESS battery components. The project owner shall provide the final PBFMMP to the CPM at least ~~40~~30 days prior to start of the delivery of any BESS battery components.

5-25
continued

TO: CALIFORNIA ENERGY COMMISSION

SUBJECT: REVIEW OF STAFF ASSESSMENT FOR POTENTIA-VIRIDI BATTERY ENERGY STORAGE SYSTEM

2.23 WORKERS SAFETY-1, WORKERS SAFETY-2, WORKERS SAFETY-7, WORKERS SAFETY-8, HAZ-6, HAZ-8, HAZ-9, HAZ-10, TRANS-1, TRANS-2, VIS-1, VIS-2, VIS-3

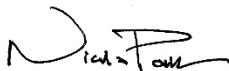
All compliance-related COCs which require review and/or comment and/or review of revisions by Alameda County, Alameda County Fire Department or other Alameda County departments should be revised such that if no comments are received from the County within ten (10) days of receipt of the relevant submission, it shall be presumed that the relevant plan under review is in compliance with relevant Alameda County regulations. This will ensure that review and comment periods do not result in delays to the Project which are inconsistent with the intent of AB205. Should a response not be received by the County within 10 days, the CPM and DCBO are able to proceed without waiting for further County review. The CPM shall have five (5) days to incorporate the County's comments into its approval of the relevant plans and return them to the project owner for a total of fifteen (15) days.

5-26

We thank the California Energy Commission for its consideration and evaluation of our comments on the Staff Assessment. We look forward to working with the CEC to complete the permitting process and commence construction in 2027 on this important battery storage project for California.

If you have any questions or require additional information, please contact me at (949) 439-3349 or by email at Nicola.Park@clearwayenergy.com.

Sincerely,



Nicola Park
Director, Development
Clearway Energy Group LLC

Comment Received From: Carol Silva

Submitted On: 3/27/2026

Docket Number: 24-OPT-04

Comments on Environmental Risks and Protection, & Biological Resources - Potentia (SCH 2025090227)

Additional submitted attachment is included below.

March 27, 2026

Subject: Comments on Environmental Risks and Protection, and Biological Resources – Potentia-Viridi Battery Energy Storage System (BESS), Staff Assessment (SCH #2025090227)

Dear Mr. Eric Veerkamp,
CEC Project Manager

Thank you for the opportunity to comment on the Staff Assessment for the proposed Potentia-Viridi BESS. Given the project’s location within a conservation planning area and the presence of environmental risks and sensitive species, I recommend strengthening several aspects of the analysis and mitigation framework.

Cumulative, Indirect, and Environmental Risks

Additional analysis is warranted for indirect and cumulative impacts, including habitat fragmentation, lighting, and disturbance. Also, the EIR should strengthen evaluation of the following:

6-1

- High winds, including fire behavior, smoke dispersion, and dust emissions under very windy conditions
- Extreme heat, ensuring cooling systems remain effective during prolonged heat waves
- Flooding and stormwater, including resilience to extreme storm events
- Seismic risk, especially cascading scenarios (earthquake leading to equipment failure and fire)

Fire Safety and Transparency

In-depth analysis should be provided to address responses, both from naming agencies and their expected response times, and the expectant time for alert responses from the project site, when emergency personnel are needed. Further analysis is warranted on the materials used to suppress fires. Given the scale of the facility, final vendor-specific safety documentation (i.e. UL 9540A testing, hazard mitigation analysis, and emergency response plans should be completed and made publicly available prior to approval of the project.

6-2

Wildlife Connectivity and Mitigation Effectiveness

The project site contributes to regional wildlife movement, including for the San Joaquin kit fox. While a 3:1 mitigation ratio is proposed, the EIR does not ensure that the mitigation will maintain local connectivity. Mitigation lands should be located within the same ecological region, prioritize connectivity, and include clear habitat quality and performance standards. A formal connectivity analysis and post-construction monitoring should be required.

6-3

Habitat Avoidance and Species Protection

The DEIR emphasizes minimization rather than avoidance. The project should avoid high-value habitat features (e.i. dens, riparian areas) to the maximum extent feasible and include species-specific management plans with seasonal restrictions and clear protocols.

6-4

Long-Term Monitoring and Adaptive Management

Mitigation should include multi-year monitoring of flora and fauna species presence, habitat condition, and movement, along with adaptive management requirements if performance standards are not met.

6-5

Alternatives

Alternative sites in the area of the Tesla Substation were evaluated and rejected. Further explanations were not provided for seeking another substation in California, which would have less environmental impacts and be safer for the public and for fauna and flora, as a viable generation tie lines route for a battery energy storage system.

6-6

Accountability and Oversight

Were elected officials and the public, from the cities of Tracy, Livermore, and Mountain House, given proper notification and sufficient time to review this lengthy DEIR? Independent monitoring, public reporting, and clear enforcement mechanisms should be required to ensure mitigation measures are fully implemented and effective over time.

6-7

In summary, this site warrants a stronger emphasis on avoidance, connectivity, resilience, and long-term performance. Strengthening these elements would improve protection of sensitive species and ensure more robust environmental outcomes.

Sincerely,

Carol Silva

Comment Received From: Bernard M Cabanne
Submitted On: 3/27/2026
Docket Number: 24-OPT-04

Comments for Potentia-Viridi BESS Project

March 27,2026

Mr. Eric Veerkamp
 CEC Project Manger
 Potentia-Viridi BESS Project

Dear Mr. Veerkamp:

Thank you for the opportunity to comment on the Staff Assessment and the Draft EIR (DEIR) for the Potentia-Viridi Project. The document provides a lengthy review; however, the proposed location is within a conservation planning area home to many sensitive and endangered species. Furthermore, the location and the design pose many potential environmental and public health risks. I respectfully request further analysis of several areas of the DEIR and strengthening of possible mitigations.

7-1

I. Incomplete Project Description of Battery Technology to be utilized.

1.The DEIR states" a specific manufacturer and model is undetermined...the CEC staff expects potential environmental impacts that would be similar, or less than, those analyzed" (section 3-8 project description) This is not an acceptable premise. The project is utility scale and will use hundreds of LFP batteries; the impacts could vary considerably depending on the specific manufacturer and specifications relating to the batteries---past safety record, use in high heat, etc. Given the scale of the facility, final vendor safety documentation should be completed and made available to the public for comment.

7-2

Without more information, the public cannot make informed comments as required by CEQA.

II. Public Health and Safety

1. Utility-based BESS failures in California (4.4 -19-26)

The DEIR states that " utility scale BESS failure rate has sharply decreased BUT---- BESS failure rate incident data and transparency is limited because there is no publicly disclosed data that links incidents by cause of failure." According to the DEIR, the lack of information is due to "industry reticence to disclose failures and the prevalence of non-disclosure agreements." This is an unacceptable and illogical premise.

7-3

2. How can one arrive at the conclusion that the failure rate has sharply decreased while stating data supporting that conclusion is limited ??? Could a car manufacturer refuse to release data about a faulty brake system? The public is being asked to accept

7-4

a large scale battery facility without enough information to reasonably assess and comment on its safety to the surrounding community. The public a has right to know; CEQA requires access to critical information.

7-4
continued

3. The DEIR briefly describes 8 recent utility scale BESS failures that have occurred in California since 2024, the most recent occurring in August 2025. (don't know why Moss Landing was not on the list but very briefly described)

According to the CEC staff, at least three of these incidents were caused by thermal runaway which is very concerning; many incidents forced evacuations. The Staff provides data from a document written by Electric Power Research Institute which concludes that " lessons learned from early failures have been incorporated into the latest designs and best practices. "

7-5

a. What are the latest designs ??

b. What are the best practices ?

c. How and where have these best practices been utilized?

d. How is the public able to comment on whether these so-called best practices are sufficient to reduce the impact to less than a significant level?

4. Please provide further information and analysis about the Moss Landing BESS failure where 1,500 to 1,700 residents were forced to evacuate and where surrounding wildlife and habitat incurred serious impacts.

7-6

5.The DEIR states a battery fire can last from" an hour to 13 hours or longer " and that fire suppression requires " proper training and an appropriate fire water supply infrastructure."

a. This is problematic as the site is in a rural area---no fire hydrants, etc. There will be limited water on site, water will be trucked in during construction and operations. The closest fire station is 7 miles away.

b. Will all workers and fire fighters in the area receive extensive training for fire suppression involving a battery fire?

c. Will materials other than water (dry chemicals, fire retardants, possible materials using PFAS, etc.) need to be used for battery fire suppression and will these materials be on-site?

d. What specific plans could be devised to prevent or reduce fire propagation in an area that routinely experiences wind speeds of 50 to 70 miles per hour?

7-7

6. Transportation Safety Concerns

a. The DEIR briefly describes two of many transportation accidents involving Li-ion batteries on trucks--some very serious. This is concerning as the proposed site is located near Patterson Pass Road which is widely used by commuters between San Joaquin and Alameda Counties. The site is also close to I-580 and 205, major freeways used by commuters and large commercial trucks.

b. Is reducing the state of charge (SOC) to less than 30 percent adequate to prevent release of hazardous materials during a freeway accident? Please analyze further and provide data.

c. Could safety be improved significantly by transporting batteries during non-commute

7-8

hours?

d. How can the owner ensure the SOC is less than 30% during transport? Will it be verified?

7-8
continued

7. Please provide detailed information about emergency response and emergency action plans including possible shelter in place and evacuation routes for nearby residents, residents in Tracy and residents in Mountain House?

III. Air Quality

1. The DEIR concludes that with mitigation, air quality impacts can be reduced to less than significant levels during construction and operations Please provide more information and data to support this conclusion.

a. The consultant used the CalEEMod 2022 air model for air quality data. Is that the most recent model? Does a CalEEMod for 2024, 2025 exist?

Please use the most recent CalEEMod air model data to analyze air quality impacts.

b. The Tri-Valley Air Quality Community Alliance (TVAQCA), is a non-profit Alameda County Agency, that monitors air quality in the Tri-Valley on a daily basis. Was the TVAQCA contacted to analyze or provide air quality data? If not, please explain.

7-9

c. Please add and consider the following air quality information that was not included in the staff assessment:

The Bay Area Air Quality Management District (BAAQMD) has adopted more rigorous standards with the Clean Air Act of 2017. The proposed site is located in a non-attainment air basin for federal PM_{2.5} and ambient air quality standards (AAQS). Livermore and Tracy have the worst air quality in the summer (smog) and winter. Livermore exceeded federal and state standards for PM 2.5 with a record number of 14.8 days in 2018. (BAAQMD/Tri-Valley Air Quality Climate Alliance)
Livermore experienced 46 Spare the Air Days in 2018, and 58 Spare the Air Days in 2020. (BAAQMD/TVAQCA)
A record number of Spare the Air days were also recorded in the Tri-Valley area and Tracy in 2021 and 2022.

2. Particulate matter, especially PM_{2.5}, generated by diesel trucks and diesel construction vehicles, gets deep in the lungs and even enters the bloodstream and organs.(TVAQCA December 2021/ American Lung Association) This results in increased cancer rates and long term health issues too numerous to list. Please further analyze the NO_x emissions and other particulate matter emissions that could be generated by the project during construction.

7-10

3. Will these emissions exceed the applicable BAAQMD threshold of significance? Please do not use averages.

7-11

4 .Please further analyze and explain how suggested best practices for a construction site in a non-attainment air basins would be sufficient .

7-12

5. Please further analyze fugitive dust issues during construction relating to air quality and the health of workers and nearby residents.

7-13

6. Please analyze the exposure of workers to TAC emissions during construction and post construction.	7-14
7. Construction at the site is projected to last 18 months--Diesel powered construction machinery emits pollution even when not in use. (TVAQCA packet and website) Could electric construction machinery be used during construction?	7-15
8. Please justify or consider strengthening proposed air quality mitigations; reducing truck idling at the site is insufficient-- and will be difficult to monitor or enforce.	7-16

IV. Green House Gas Emissions

1. Please consider other existing air polluting factors in the area that cannot be reduced.	
a. The Altamont Landfill, near the project, is the third highest Green House Gas (GHG) emitting landfill in the state, after Puente Hills in LA county and Kiefer Landfill in Sacramento. The landfill was granted a permit extension until 2075. (Altamont Community Monitor report January 2020).	
b. The nearby Vasco Road landfill, also generates significant GHG emissions, and has received a permit extension until 2051.	7-17
c. The nearby large Jesse Ranch Road Biosolids (dried fecal matter) facility also produces significant amounts of methane and GHG emissions.	
d. The GHG emissions of these existing facilities cannot be reduced for decades.	
e. Please further analyze GHG emissions in air quality impacts and in cumulative impacts.	

V. Hydrology and Water Quality

a. Flooding	
During the heavy rains of Winter 22-23, this area experienced 12 back to back atmospheric rivers that caused significant flooding. The intensity of rain overwhelmed drainage systems built for 100 yr. storms.	7-18
b. Please further analyze how proposed drainage systems for cooling water, operations or retention ponds would perform under numerous back to back atmospheric rain storms.	
c. Please analyze what possible hazardous materials could be released into storm drains during the suppression of a battery fire.	

VI. Hazardous Materials

a. Please provide a list of possible hazardous materials that could be released at the site during a battery unit malfunction and/or a thermal runaway incident.	7-19
b. Please provide a list and analyze what chemicals and hazardous materials might be used for battery fire suppression.	

VII. Wildlife Connectivity and Mitigation Effectiveness

1.The project site contributes to regional wildlife movement, including for the San Joaquin kit fox. While a 3:1 mitigation ratio is proposed, the EIR does not ensure that mitigation will maintain local connectivity.	7-20
2. Mitigation lands should be located as close to the site as possible, should prioritize	

connectivity, and include clear habitat quality and performance standards. A formal connectivity analysis and post-construction monitoring should be required.	7-20 continued
VIII. Habitat Avoidance and Species Protection 1. The EIR emphasizes minimization rather than avoidance. The project should avoid high-value habitat features (e.g., dens, riparian areas) to the maximum extent feasible and include species-specific management plans with seasonal restrictions and clear protocols.	7-21
IX. Long-Term Monitoring and Adaptive Management 1. Mitigation should include multi-year monitoring of species presence, habitat condition, and movement, along with adaptive management requirements if performance standards are not met.	7-22
X. Indirect, Cumulative, and Environmental Risks Additional analysis is warranted for indirect and cumulative impacts, including habitat fragmentation, lighting, and disturbance.	7-23
XI. The EIR should also strengthen evaluation of: 1. Stormwater and flooding, including resilience to extreme storm events. 2. Seismic risk, particularly cascading scenarios (earthquake leading to equipment failure and fire) 3. Extreme heat, ensuring cooling systems remain effective during prolonged heat waves 4. High winds, including dust emissions, fire behavior, and smoke dispersion under windy conditions	7-24
XII. Fire Safety and Transparency 1. Given the scale of the facility, final vendor-specific safety documentation (e.g., UL 9540A testing, hazard mitigation analysis, and emergency response plans) should be completed and made publicly available prior to approval.	7-25
XIII. Oversight and Accountability 1. Independent monitoring, public reporting, and clear enforcement mechanisms should be required to ensure mitigation measures are fully implemented and effective over time.	7-26
XIV. Insufficient Range of Alternative Projects a. Please describe and analyze other viable BESS projects even if the staff believes the alternatives are inferior. b. Please provide an adequate range of alternatives--at least three.	7-27
XV. Violations of Williamson Act 1. The loss of farm, and grazing land is critical in Alameda County. There has been a significant loss of agricultural land in the last ten years. Please provide data concerning this loss of land---not just prime farmland--and analyze	7-28

how the loss of 60 permanently disturbed acres will affect this ongoing problem.
2. Please explain how the CEC Opt-In program for BESS projects could further accelerate and exacerbate the loss of agricultural lands.

7-29

XVI. List of approved and projected projects in the site area.

1. Please complete a more in-depth analysis of how these projects would affect the area in terms of safety, public health, and air impacts.

7-30

XVII. Add to mailing list

1. Please notice the Mayor of Mountain House, the City Council of Mountain House and the principals of schools in Mountain House for all subsequent hearings, notices and mailings about the BESS Project.

7-31

In summary, while the proposed mitigation measures are substantial, the ecological and environmental context of this site warrants a stronger emphasis on avoidance, connectivity, resilience, and long-term performance as well as concerns in other areas. A more in-depth analysis of concerns and the strengthening of possible mitigations would ensure greater safety, better public health, more robust environmental outcomes.

Please confirm receipt of comments

Thank you for your consideration

Donna Cabanne

40 year resident of Livermore, member of Center for Biological Diversity, member of Tri-Valley Air Quality Community Alliance, a member of Alameda Creek Alliance.

Comment Received From: Kate Blumberg
Submitted On: 3/27/2026
Docket Number: 24-OPT-04

Comments on Emergency Planning and Wildlife Connectivity â€“ Potentia-Viridi BESS Staff Assessment (SCH #2025090227)

Dear Commissioners,

Thank you for the opportunity to comment on the Staff Assessment for the proposed Potentia-Viridi Battery Energy Storage System. Iâ€™m excited about this technology and the project location near the substation seems nearly ideal. However, I respectfully recommend strengthening several aspects of the analysis and mitigation framework to help guard against environmental risks and negative impacts on sensitive species.

Wildlife Connectivity and Mitigation Effectiveness

The project site contributes to regional wildlife movement, including for the San Joaquin kit fox. While a 3:1 mitigation ratio is proposed, the EIR does not ensure that mitigation will maintain local connectivity. Mitigation lands should be located within the same ecological region, prioritize connectivity, and include clear habitat quality and performance standards. A formal connectivity analysis and post-construction monitoring should be required.

8-1

Habitat Avoidance and Species Protection

The EIR emphasizes minimization rather than avoidance. The project should avoid high-value habitat features (e.g., dens, riparian areas) to the maximum extent feasible and include species-specific management plans with seasonal restrictions and clear protocols.

8-2

Long-Term Monitoring and Adaptive Management

Mitigation should include multi-year monitoring of species presence, habitat condition, and movement, along with adaptive management requirements if performance standards are not met.

8-3

Indirect, Cumulative, and Environmental Risks

Additional analysis is warranted for indirect and cumulative impacts, including habitat fragmentation, lighting, and disturbance.

8-4

The EIR should also strengthen evaluation of:

Stormwater and flooding, including resilience to extreme storm events
 Seismic risk, particularly cascading scenarios (earthquake leading to equipment failure and fire)
 Extreme heat, ensuring cooling systems remain effective during prolonged heat waves
 High winds, including dust emissions, fire behavior, and smoke dispersion under windy conditions

8-5

Fire Safety and Transparency

Given the scale of the facility, final vendor-specific safety documentation (e.g., UL 9540A testing, hazard mitigation analysis, and emergency response plans) should be completed and made publicly available prior to approval.

8-6

Oversight and Accountability

Independent monitoring, public reporting, and clear enforcement mechanisms should be required to ensure mitigation measures are fully implemented and effective over time.

8-7

In summary, while the proposed mitigation measures are substantial, the ecological and environmental context of this site warrants a stronger emphasis on avoidance, connectivity, resilience, and long-term performance. Strengthening these elements would improve protection of sensitive species and ensure more robust environmental outcomes.

Thank you for your consideration.

Sincerely,

Kate Blumberg