



State of California – Natural Resources Agency  
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**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



May 28, 2025

Dan Leavitt  
San Joaquin Joint Powers Authority  
949 East Channel Street  
Stockton, California 95202  
[info@maderastation.com](mailto:info@maderastation.com)

**Subject: Madera High-Speed Rail Station Full-Build Project Phase 3 (Project)  
Draft Environmental Impact Report (DEIR)  
SCH: 2023110616**

Dear Dan Leavitt:

The California Department of Fish and Wildlife (CDFW) received a DEIR from the San Joaquin Joint Powers Authority (SJJPA) for the Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

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

### **CDFW ROLE**

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

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

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projects and related activities that have the potential to adversely affect fish and wildlife resources.

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

**Other Special Status Species:** Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State or federal list to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for E, R, or T, as specified in the CEQA Guidelines section 15380, CDFW recommends it be fully considered in the environmental analysis for the Project.

**Bird Protection:** CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include sections 3503 (regarding unlawful take, possession, or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession, or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

## **PROJECT DESCRIPTION SUMMARY**

**Proponent:** San Joaquin Joint Powers Authority (SJJPA)

**Objective:** The proposed Project details the construction of the High-Speed Rail (HSR) Madera Station. The Project includes trackwork, platform construction, the overhead contact system construction, parking expansion, station expansion, culvert work, wildlife crossings and utility work. Additionally, the Project includes three new bridge structures: a new track bridge over Cottonwood Creek, a pedestrian bridge connecting the westside platform and eastside station, and a roadway bridge at Avenue 12. To accommodate additional HSR trains and express HSR services a second platform and second station siding track will be constructed along the west side of the station. The new layout will consist of four tracks with two through tracks in the middle and two siding tracks on either side. The Project also includes expanding the eastside platform to match the new westside platform.

**Location:** The Project site is located approximately 2 miles southeast of the City of Madera, centered near latitude 36.934722, longitude -119.985278 in the County of Madera.

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## COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist SJPPA 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 EIR prepared for the Project.

CDFW submitted a Notice of Preparation (NOP) comment letter to SJPPA for the Project on January 5, 2024, with recommendations for special-status species with the potential to be impacted by the Project. Currently, the DEIR acknowledges that the Project area is within the geographic range of several special-status animal species and proposes specific mitigation measures to reduce impacts to less than significant. CDFW has concerns about the ability of some of the proposed mitigation measures to reduce impacts to less than significant and avoid unauthorized take for several special-status animal species including the State threatened Swainson's hawk (*Buteo swainsoni*), the State candidate western burrowing owl (*Athene cunicularia hypugaea*) and Crotch's bumble bee (*Bombus crotchii*), and the State species of special concern American badger (*Taxidea taxus*), pallid bat (*Antrozous pallidus*) and western mastiff bat (*Eumops perotis californicus*).

### Swainson's Hawk

According to the DEIR Swainson's hawk (SWHA) nesting, and foraging habitats like annual grasslands will be impacted by the Project. The DEIR states, "There are eight CNDDDB occurrences documented within 10 miles of the Project study area. None of these occurrences have documented active nests within the last 5 years." However, CDFW has unpublished CNDDDB records and records from the California High Speed Rail Authority—produced under Incidental Take Permit (ITP) No. 2081-2013-025-04—of multiple active SWHA nests from the last five years within 10 miles of the Project site, with the closest SWHA nest approximately 0.09 miles away (CDFW 2025). SWHA exhibit high nest-site fidelity and will often return to the same territory year after year to nest (CDFW 2016). MM BIO-6 and MM BIO-7 are proposed to mitigate for potential impacts. However, MM BIO-7 proposes various no-disturbance buffers, none of which are sufficient to maintain full avoidance, along with a SWHA nest monitoring plan to utilize when construction activities must occur within 0.5 miles of an occupied SWHA nest tree. CDFW does not concur with these measures and instead recommends the following:

#### **Recommended Mitigation Measure 1: SWHA Surveys Prior to Construction**

Depending on the time between the initial survey efforts conducted in support of the DEIR and Project construction, CDFW recommends that additional surveys, following the survey methodology developed by the SWHA Technical Advisory Committee, be repeated the survey season immediately prior to construction.

#### **Recommended Mitigation Measure 2: SWHA Avoidance Buffer**

If Project-specific activities will take place during the SWHA nesting season (i.e., March 1 through September 15), and active SWHA nests are present, CDFW recommends a minimum ½-mile no-disturbance buffer be delineated and

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maintained around each nest, regardless of whether it was detected by surveys or observed incidentally. These buffers would remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, to prevent nest abandonment and other take of SWHA as a result of Project activities.

**Recommended Mitigation Measure 3: SWHA Take Authorization**

CDFW also recommends that in the event an active SWHA nest is detected, and a ½-mile no-disturbance buffer is not feasible, consultation with CDFW is warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

**Recommended Mitigation Measure 4: SWHA Foraging Habitat Mitigation**

Finally, CDFW recommends compensation for the loss of SWHA foraging habitat as described in CDFW's "Staff Report Regarding Mitigation for Impacts to Swainson's Hawks" (CDFG 1994) to reduce impacts to foraging habitat to less than significant. The Staff Report recommends that mitigation for habitat loss occur within a minimum distance of 10 miles from known nest sites. CDFW has the following recommendations based on the Staff Report:

For projects within 1 mile of an active nest tree, a minimum of 1 acre of habitat management (HM) land for each acre of development is advised.

For projects within 5 miles of an active nest but greater than 1 mile, a minimum of ¾ acre of HM land for each acre of development is advised.

For projects within 10 miles of an active nest tree but greater than 5 miles from an active nest tree, a minimum of ½ acre of HM land for each acre of development is advised.

**Western Burrowing Owl**

The DEIR notes western burrowing owl (BUOW) could potentially occur at the Project site or within the vicinity of the Project during both the non-breeding and breeding seasons. MM BIO-8 is provided to mitigate for potential impacts to BUOW. However, a variety of no disturbance buffers were proposed, none of which are sufficient for full avoidance for BUOW. Additionally, MM BIO-8 includes exclusion measures that could not be implemented absent acquisition of an Incidental Take Permit (ITP) pursuant to Fish and Game Code Section 2081(b) for the Project. As such, CDFW recommends the following measures:

**Recommended Mitigation Measure 5: BUOW Pre-construction Surveys**

CDFW recommends that focused surveys, following the 2012 Staff Report on Burrowing Owl Mitigation (2012 Staff Report) (CDFG 2012), be conducted the

survey season immediately prior to construction. Please note that this protocol necessitates multiple surveys prior to the initiation of construction.

**Recommended Mitigation Measure 6: BUOW Avoidance Buffer**

Should a BUOW or known BUOW den (active or inactive) be detected, either during pre-construction surveys or construction activities, CDFW recommends that no-disturbance buffers, as outlined in the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012), be implemented prior to and during any ground-disturbing activities. CDFW also recommends that these buffers be implemented for both wintering and breeding BUOW.

**Recommended Mitigation Measure 7: BUOW Take Authorization**

If a BUOW or known BUOW den (active or inactive) is detected, and the no-disturbance buffers outlined in the 2012 Staff Report on Burrowing Mitigation are not feasible, consultation with CDFW is warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, is necessary to comply with CESA.

**Crotch's bumble bee**

The DEIR states that suitable Crotch's bumble bee (CBB) habitat like annual grassland is present within the Project area. MM BIO-4 describes mitigation measures intended to minimize potential impacts to CBB. The measure utilizes habitat evaluation surveys to identify moderate to high quality foraging habitat within the Project study area. These areas of moderate to high quality habitat would then be surveyed within 1 year prior to the start of construction. The proposed survey methods describe four evenly spaced surveys during the flight season, however, if during the initial survey the qualified biologist determines that habitat is nonexistent or low quality, the remaining surveys would not be required. If surveys identify occupied CBB habitat then additional preconstruction surveys no more than 30 days prior to any initial ground disturbance are required between March and September. Additionally, MM BIO-3 states identified active nest and floral resources outside the permanent impact area that could be avoided would be given a no-work buffer. The size and configuration of the no-work buffer would be based on the judgement of the biologist; however, the buffer would be a minimum of 20 feet. CDFW does not concur that the described surveys and no-work buffer listed in MM BIO-4 are sufficient to adequately mitigate, minimize, or avoid potential impacts to CBB. CDFW recommends the following measures:

**Recommended Mitigation Measure 8: CBB Habitat Assessment**

CDFW recommends a qualified biologist conduct a habitat assessment to determine if the entire Project site and the immediate surrounding vicinity contain habitat suitable to support CBB. Potential nesting sites, which include all small mammal burrows, perennial bunch grasses, thatched annual grasses, brush piles, old bird nests, dead trees, and hollow logs would need to be documented as part of the assessment.

**Recommended Mitigation Measure 9: CBB Surveys Prior to Construction**

If potentially suitable habitat is identified, regardless of what time of year Project activities will be conducted, CDFW recommends that a qualified biologist conduct

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focused surveys for CBB and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023).

**Recommended Mitigation Measure 10: CBB Avoidance**

If CBB is detected, CDFW recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. Any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take.

**Recommended Mitigation Measure 11: CBB Take Authorization**

If take cannot be avoided, take authorization through the acquisition of an ITP is necessary to comply with CESA.

**American Badger**

The DEIR states the Project could potentially impact American badger (AMBA) and includes MM BIO-12 to mitigate for potential impacts by implementing preconstruction surveys. BIO-12 states, “If an active den is detected in the work area, SJJPA will establish a suitable buffer distance, and the den will be avoided until the biologist determines that the den is no longer active through direct monitoring, wildlife cameras, or a camera probe.” CDFW recommends a 50-foot avoidance buffer for any active AMBA dens. Additionally, CDFW does not recommend the use of a camera probe to determine if a den is active, given the infeasibility of evaluating the entirety of the burrow complex, as well as because there is potential for direct impacts to an animal when inside the burrow at the time the probe is utilized.

**Special-Status Bat Species**

The DEIR acknowledges that the Project site contains features like a box culvert, the Cottonwood Creek Bridge, and the Avenue 13 overpass that have the potential to support roosting bats. However, no measures were proposed to mitigate for potential Project related impacts to bats. CDFW has received recent reports of roosting bats from the California High Speed Rail Authority—delivered under Master Streambed Alteration Agreement 1600-2013-0060-R4—within 2.5 miles of the Project site. Project activities have the potential to affect individual bats and their roosting habitat. Since both the western mastiff bat and the pallid bat have the potential to occur within the Project site or Project vicinity, CDFW recommends the following measures to avoid, minimize, and mitigate for potential Project related impacts.

**Recommended Mitigation Measure 12: Special-Status Bat Surveys**

CDFW recommends the project proponent conduct focused surveys to establish species usage and seasonal usage. Focused survey methodology is advised to include visual surveys of bats (observation of presence of bats during foraging period), inspection for suitable habitat or bat sign (guano), and use of ultrasonic

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detectors (Anabat, Sonobat, etc.) during all dusk emergence and pre-dawn re-entry. To maximize detectability, each survey needs to be conducted within one 24-hour period.

### **Recommended Mitigation Measure 13: Bat Roost Disturbance Avoidance and Minimization**

If bats are present, CDFW recommends that a 100-foot no-disturbance buffer be placed around the roost and installing new roost sites to be in place prior to the initiation of Project related activities to allow enough time for bats to relocate. If a bat roost is identified and work is planned to occur during the breeding season, CDFW recommends that no disturbance to maternity roosts occur and that CDFW be consulted to determine measures to prevent breeding disruption or failure.

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

**Project Lighting:** The northern portion of the Project intersects Cottonwood Creek, and other sensitive habitats like seasonal wetlands are also located within the Project area. According to the Project Description, the construction schedule has yet to be determined for this Project and it is unclear if nightwork will be needed. Additionally, the Project may install permanent outdoor artificial lighting. Installation of outdoor artificial night lighting would likely disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication, determining when to begin foraging, thermoregulation behavior, and migration (Longcore and Rich 2004, Miller 2006, Nightingale et al. 2006, Perry et al. 2008, Stone et al. 2009). Phototaxis, a phenomenon which results in attraction and movement towards light, can disorient, entrap, and temporarily blind wildlife species that experience it (Longcore and Rich 2004). Project activities could result in disruption of wildlife behavior, inadvertent injury, or mortality. CDFW recommends the Project include feasible mitigation measures to decrease the impacts of artificial outdoor lighting on wildlife species. Potentially feasible mitigation measures include use of motion sensitive lighting; mounting light fixtures as low as possible to minimize light trespass; use of light fittings that direct and confine the spread of light downward; and use of long-wavelength light sources. In addition, CDFW recommends that lighting not be installed in or adjacent to ecologically sensitive areas (e.g., streams, wetlands, wildlife crossings, and habitat used by special-status species, such as nesting/roosting sites and riparian corridors), and the use of the white/blue wavelengths of the light spectrum be avoided.

**Riparian Habitat and Wetlands:** The DEIR states that Cottonwood Creek does not support a riparian natural community, which is not accurate. Cottonwood Creek is known to support nesting SWHA and other nesting birds and portions of Cottonwood Creek supports riparian vegetation. Additionally, no formal stream or wetland delineation appears to have been conducted to inform the DEIR of the extent and boundaries of potential stream, wetland, and riparian habitat boundaries. As such, CDFW recommends delineating and implementing an adequate buffer to protect wetlands, riparian vegetation, and associated wildlife, including State- and federally listed species. CDFW recommends delineating wetlands, vernal pools, and swales with

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an appropriate no-disturbance buffer. In addition, CDFW recommends delineation from surface water channels and waterways that have no riparian vegetation to avoid impacts. Further, a wetland delineation may need to be conducted and submitted to the United States Army Corps of Engineers (ACOE) for verification.

**Cumulative Impacts:** CDFW recommends that a cumulative impact analysis be conducted for all biological resources that will either be significantly or potentially significantly impacted by implementation of the Project, including those whose impacts are determined to be less than significant with mitigation incorporated or for those resources that are rare or in poor or declining health and will be impacted by the project, even if those impacts are relatively small (i.e., less than significant). CDFW recommends cumulative impacts be analyzed using an acceptable methodology to evaluate the impacts of past, present, and reasonably foreseeable future projects on resources and be focused specifically on the resource, not the Project. An appropriate resource study area identified and utilized for this analysis is advised. CDFW staff is available for consultation in support of cumulative impacts analyses as a trustee and responsible agency under CEQA.

**Bird Protection:** Please note that the CDFW recommended timing for preconstruction surveys and the CDFW recommended no-disturbance buffers for both active nests of non-listed bird species and active nests of non-listed raptors are different from what was proposed in MM BIO-13. CDFW does not concur that MM BIO-13 is sufficient to mitigate for potential impacts to nesting birds and recommends the following.

CDFW encourages that Project ground-disturbing activities occur during the bird non-nesting season; however, if ground-disturbing or vegetation-disturbing activities must occur during the nesting season (February 1st through September 15th), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Code sections as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified biologist conduct a pre-construction survey for active nests no more than 10 days prior to the start of ground or vegetation disturbance to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the Project site to identify nests and determine their status. A sufficient area means any area potentially affected, either directly or indirectly, by the Project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. CDFW recommends that a qualified biologist establish a behavioral baseline of all identified nests. Once Project activities begin, CDFW recommends having a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends halting the work causing that change and consulting with CDFW for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of

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non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined the birds have fledged and are no longer reliant upon the nest or on-site parental care for survival. Variance from these no-disturbance buffers is possible when there is a compelling biological or ecological reason to do so, such as when the Project site would be concealed from a nest site by topography. CDFW recommends that a qualified biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

**Lake and Streambed Alteration:** Fish and Game Code section 1600 states that, “the protection and conservation of the fish and wildlife resources of this state are of the utmost public interest.” Fish and Game Code section 1602 requires the Project proponent to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake; or (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. “Any river, stream, or lake” includes those that are ephemeral or intermittent as well as those that are perennial in nature. Project activities described at Cottonwood Creek include pile driving, stabilization of exposed drainage banks, restoration to encourage vegetation re-establishment to pre-project conditions to reduce the effects of erosion, removal of any trees, shrubs, debris, or soils deposited below the ordinary high-water mark and restricting in-stream construction in the ordinary high-water mark to the low-flow period. These activities are subject to notification under Fish and Game Code section 1602. Ultimately, if a Lake or Streambed Alteration (LSA) Agreement is needed, CDFW is required to comply with CEQA in the issuance of an LSA Agreement. For additional information on notification requirements, please contact CDFW staff in the HSR Program at [RRR.R4@wildlife.ca.gov](mailto:RRR.R4@wildlife.ca.gov).

**CNDDB Positive Submission of Data:** Please note that the California Natural Diversity Database (CNDDB) is populated by voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDB but where there is suitable habitat and features capable of supporting species. A lack of an occurrence record, or lack of recent occurrence records, in the CNDDB does not mean that a species is not present. In order to adequately assess any potential Project-related impacts to biological resources, surveys conducted by a qualified biologist during the appropriate survey period(s) and using the appropriate protocol survey methodology are warranted in order to determine whether or not any special-status species are present at or near the Project site.

## 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 CNDDB. The CNDDB field survey form can be filled out and submitted online at the following link:

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<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>.

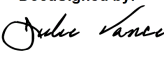
## FILING FEES

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

## CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR to assist SJJPA in identifying and mitigating Project impacts on biological resources. Please see the enclosed Mitigation Monitoring and Reporting Program table which corresponds with recommended mitigation measures in this comment letter. More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>). Questions regarding this letter or further coordination should be directed to Rebecca Orta, Environmental Scientist, at (559) 341-4633 or [rebecca.orta@wildlife.ca.gov](mailto:rebecca.orta@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
FA83F09FE08945A...  
Julie A. Vance  
Regional Manager

## Attachment

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## REFERENCES

- California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo Swainsoni*) in the Central Valley of California. Sacramento, California, USA.
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**Attachment 1**

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
 RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM**

**PROJECT: Madera High-Speed Rail Station Full-Build Project Phase 3**

**SCH No.: 2023110616**

<b>RECOMMENDED MITIGATION MEASURE</b>	<b>STATUS/DATE/INITIALS</b>
<b><i>Before Disturbing Soil or Vegetation</i></b>	
Swainsons hawk	
<b>Recommended Mitigation Measure 1:</b> SWHA Surveys Prior to Construction	
<b>Recommended Mitigation Measure 3:</b> SWHA Take Authorization	
<b>Recommended Mitigation Measure 4:</b> SWHA Foraging Habitat Mitigation	
Western burrowing owl	
<b>Recommended Mitigation Measure 5:</b> BUOW Pre-construction Surveys	
<b>Recommended Mitigation Measure 7:</b> BUOW Take Authorization	
Crotch's bumble bee	
<b>Recommended Mitigation Measure 8:</b> CBB Habitat Assessment	
<b>Recommended Mitigation Measure 9:</b> CBB Surveys Prior to Construction	
<b>Recommended Mitigation Measure 11:</b> CBB Take Authorization	
Special status bats	
<b>Recommended Mitigation Measure 12:</b> Special-Status Bat Surveys	
<b><i>During Construction</i></b>	
Swainsons hawk	
<b>Recommended Mitigation Measure 2:</b> SWHA Avoidance Buffer	
Western burrowing owl	
<b>Recommended Mitigation Measure 6:</b> BUOW Avoidance Buffer	
Crotch's bumble bee	
<b>Recommended Mitigation Measure 10:</b> CBB Avoidance	
Special status bats	
<b>Recommended Mitigation Measure 13:</b> Bat Roost Disturbance, Avoidance and Minimization	