22 STATE AGENCY COMMENTS

22 STATE AGENCY COMMENTS (Part 1)

Submission 1376 (Sean Allen, California Department of Fish and Wildlife, May 27, 2020)

San Jose - Merced - RECORD #1376 DETAIL

Status	Action Pending
Record Date	6/16/2020
Submission Date	5/27/2020
Interest As	State Agency
First Name	Sean
Last Name	Allen

Stakeholder Comments/Issues

MR. ALLEN: Yes. My name is Sean Allen; S-E-A-N A-L-L-E-N. I am with the California Department of Fish and Wildlife. And I am the manager of the Los Banos and Volta Wildlife areas.

1376-145 My comments are as follows. I also believe with several of the other commenters earlier this evening that the comment period should be expanded until the end of June. Also have several comments regarding the wildlife areas and the impacts of the high-speed rail to those areas. Both of those areas are historical areas. This area was founded in 1929 and it has been a hub for all types of recreation throughout the years. Certainly we have everything from nature study, environmental education, hunting, fishing, nature study, birdwatching, photography, dog trials, a litany of recreation that occurs here on the wildlife area. We are directly across from the path of the train as it goes through the grasslands of Marbella area and we feel there will be significant impacts.

1376-146 We also feel that we have not been fully evaluated under the Section 4F. We do believe that many of the activities that do incur here do deserve that consideration. We also believe there will be economic impacts to the wildlife area and the Department of Fish and Wildlife as we do generate funds by having recreational opportunities here and at Volta Wildlife area in addition to the direct impacts to our user and the serenity that is often found in these areas.

1376-147 We also have grave concerns about the train bisecting of this incredible area and the amount of wildlife and wildfowl in particular that use it. The train bisects the north and the south grasslands and we are afraid of the impacts of that train's movement east and west. We believe that there needs to be much deeper and more complete information relating to noise and light as projected upward from the train and how that affects the migration and the corridor that is so valuable, the (indiscernible) corridor, the rail has put forth to the various stakeholder groups that they were looking into a tunnel or a aboveground containment tube to mitigate these effects. We have not seen anything lately and our --

MR. GOLDMAN: Pardon for my interruption. You have 30 seconds remaining for your comment.

MR. ALLEN: Very well. Thank you.

In conclusion, we believe the high-speed rail needs to extend the comment period so more public will be involved and that they have to consider far more of the impacts to the local wildlife areas as well as the local recreation that surrounds the grasslands environmental area.

Response to Submission 1376 (Sean Allen, California Department of Fish and Wildlife, May 27, 2020)

1376-145

The Authority appreciates your comments on the Draft EIR/EIS. In subsequent individual comments, you provided specific suggestions regarding Los Banos Wildlife Area and Volta Wildlife Area. Each of these specific comments is addressed below.

1376-146

The comment noted that the Draft EIR/EIS does not fully evaluate impacts on CDFW's properties under Section 4(f). Please refer to Table 4-3 in Section 4.5.1, Parks, Recreation, and Wildlife and Waterfowl Refuges, of the Draft EIR/EIS for the CDFW-owned properties that are included in this analysis. In addition, please see Sections 4.6.1.27, Volta Wildlife Area Use Assessment (Resource #41), and 4.6.1.28, Los Banos Wildlife Area Use Assessment (Resource #47), of the Draft EIR/EIS for the Section 4(f) use assessments for Los Banos Wildlife Area and Volta Wildlife Area. These use assessments fully evaluate the potential effects on Los Banos Wildlife Area and Volta Wildlife Area by examining the potential for permanent use, temporary occupancy, and constructive use. Lastly, economic effects are not a consideration under Section 4(f) and are not discussed in Chapter 4, Section 4(f)/6(f) Evaluation, of the Draft EIR/EIS; however, economic effects are discussed in Section 3.12, Socioeconomics and Communities, of the Draft EIR/EIS.

1376-147

The Authority appreciates CDFW’s comments on the Draft EIR/EIS. In subsequent individual comments, CDFW provided specific suggestions regarding wildlife movement, special-status species, mitigation measures, and habitat. Please see responses to specific issues below.

Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020)

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

June 23, 2020

Mark McLoughlin
Director of Environmental Services
California High-Speed Rail Authority
770 L Street, Suite 620 MS1
Sacramento, California 95814

Subject: California High-Speed Rail Project, San Jose to Merced Section (Project)
Draft Environmental Impact Report/Environmental Impact Study (DEIR/EIS)
SCH No. 2009022083

Dear Mr. McLoughlin:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a DEIR/EIS from the High-Speed Rail Authority (Authority) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] CDFW previously commented on related environmental documents including:

- Proposed California High-Speed Train System EIR/EIS on August 31, 2004.
- Bay Area to Central Valley Program Draft EIR/EIS on September 25, 2007.
- Bay Area to Central Valley Program Final EIR/EIS on July 7, 2008.
- CDFW Response to the NOP of a Project EIR/EIS for San Jose to Merced High-Speed Train System through Pacheco Pass on April 8, 2009.
- Draft Project EIR/EIS for the Fresno to Bakersfield Section on October 13, 2011.
- Draft Project EIR/EIS for the Merced to Fresno and Section 4(f) Statement on October 13, 2011.
- Revised Draft Environmental Impact Report (DEIR)/Supplemental Draft Environmental Impact Statement (DEIS) and the Biological Resources and Wetlands Technical Report for the Fresno to Bakersfield Section on September 26, 2012.
- Draft Supplemental EIR/EIS for the Fresno to Bakersfield Section on January 16, 2018.
- Draft Supplemental EIR/EIS for the Merced to Fresno Section on June 19, 2019.

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

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- Staff Recommended Preferred Alternative (Alternative 4) San Jose to Merced on August 22, 2019.
- ADEIR/EIS Cooperating Agency review of the Bakersfield to Palmdale Section on November 18, 2019.
- ADEIR/EIS Cooperating Agency review of the San Jose to Merced Section on December 23, 2019 and February 13, 2020.
- Revised Draft Supplemental EIR/EIS for the Merced to Fresno on April 27, 2020.
- Draft EIR/EIS for the Bakersfield to Palmdale Section on April 28, 2020.

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 Fish and Game Code.

CDFW ROLE

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

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects hat 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.), related authorization as provided by the Fish and Game Code will be required.

Nesting Birds: 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, heir 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).

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Water Pollution: Pursuant to Fish and Game Code section 5650, it is unlawful to deposit in, permit to pass into, or place where it can pass into "Waters of the State" any substance or material deleterious to fish, plant life, or bird life, including non-native species. It is possible that without mitigation measures implementation of the Project could result in pollution of Waters of the State from storm water runoff or construction-related erosion. Potential impacts to the wildlife resources that utilize these watercourses include the following: increased sediment input from road or structure runoff; toxic runoff associated with development activities and implementation; and/or impairment of wildlife movement along riparian corridors. The Regional Water Quality Control Board and United States Army Corps of Engineers also have jurisdiction regarding discharge and pollution to Waters of the State.

In this role, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA) and in providing early consultation during the preparation of the EIR, focusing specifically on project activities that have the potential to adversely affect fish and wildlife resources.

PROJECT DESCRIPTION SUMMARY

Proponent: The Authority

Objective: The San Jose to Merced Project Section (Project Section) would provide High-Speed Rail (HSR) service from Scott Boulevard, just north of the San Jose Diridon Station, to a station in downtown Merced. The Project Section consists of three separate portions: San Jose to Central Valley Wye, Central Valley Wye, and Ranch Road to Merced. The portion of the Project Section analyzed in the *San Jose to Merced Project Section Draft Environmental Impact Report (DEIR)/Environmental Impact Statement (EIS)* is from Scott Boulevard, just north of San Jose Diridon Station, to Carlucci Road. This is referred to as the San Jose to Central Valley Wye Project Extent (Project or Project Extent). It would extend approximately 90 miles, passing through Santa Clara, San Benito, and Merced Counties and the cities of Santa Clara, San Jose, Morgan Hill, Gilroy, and Los Banos.

The approximately 90-mile project extent of the 145-mile-long Project Section comprises mostly dedicated HSR system infrastructure, HSR station locations at San Jose Diridon and Gilroy, a maintenance of way facility (MOWF) either sou h or southeast of Gilroy, and a maintenance of way siding (MOWS) west of Turner Island Road in the Central Valley. HSR stations at San Jose Diridon and Gilroy would provide links with regional and local mass transit services as well as connectivity to the Santa Clara County and Central Valley highway network. The Project Extent comprises the following five subsections: 1) San Jose Diridon Station Approach—Extends approximately 6 miles from north of San Jose Diridon Station at Scott Boulevard in Santa Clara to West Alma Avenue in San Jose. This subsection includes the San Jose Diridon Station. 2) Monterey Corridor—Extends approximately 9 miles from West Alma

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Avenue to Bernal Way in the community of South San Jose. This subsection is entirely within the city of San Jose. 3) Morgan Hill and Gilroy—Extends approximately 30 miles from Bernal Way in the community of South San Jose to Casa de Fruta Parkway/State Route (SR) 152 in Santa Clara County. 4) Pacheco Pass—Extends approximately 25 miles from Casa de Fruta Parkway/SR 152 to east of Interstate (I-) 5 in unincorporated Merced County. 5) San Joaquin Valley—Extends approximately 20 miles from I-5 to Carlucci Road in unincorporated Merced County.

There are four end-to-end project alternatives (Alternative 1 to 4), including stations. The Authority's Preferred Alternative under National Environmental Policy Act (NEPA), which serves as the proposed project for CEQA, is Alternative 4. It includes two stations (San Jose Diridon and Downtown Gilroy), MOWF, MOWS, two tunnels and attraction power facilities.

Location: The Proposed San Jose to Merced Project Section is located in Santa Clara, San Benito, and Merced Counties near the cities of Santa Clara, San Jose, Morgan Hill, Gilroy, and Los Banos. The project extends from Scott Boulevard in Santa Clara County (lat/long 37° 21' 48.996 "N/121° 57' 36"W) to Carlucci Road in Merced County (lat/long 37° 5' 28.716"N/120° 40' 15.6"W). The nearest major state highways are SR 33, SR 85, SR 87, SR 89, SR 152 165, U.S. Highways 10, I-5, I-280, and I-880.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the California High-Speed Rail Authority 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.

2070-1618

Construction and operation of the HSR will create barriers to wildlife movement, which may result in potentially significant impacts, impacts to hunting and public use, impacts to wildlife habitat linkages, and impacts to a multitude of waterfowl that travel the Pacific Flyway. Additionally, the proposed Project may significantly impact CDFW owned and managed lands, sensitive and listed species, and rare habitats. The construction and operation of the HSR through the Grassland Ecological Area (GEA) and CDFW-owned lands is incompa ible with the public trust uses for which these lands were acquired by both the State of California and through its Federal partnership.

Currently, the DEIR/EIS indicates hat the Project's impacts would be less than significant with the implementation of mitiga ion measures described in the DEIR/EIS. However, as currently drafted, it is unclear whether the mitigation measures will be enforceable or sufficient in reducing impacts to a level that is less than significant.

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2070-1619

CDFW is concerned regarding these project impacts and the adequacy of the proposed mitiga ion measures for special-status species including, but not limited to the State and Federally Endangered Fresno kangaroo rat (*Dipodomys nitratoides exilis*); State Threatened and Federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); State and Federally Threatened California tiger salamander (*Ambystoma californiense*) and giant garter snake (*Thamnophis gigas*); State Threatened Swainson's hawk (*Buteo Swainsonii*), tricolored blackbird (*Agelaius tricolor);* State Endangered/State Fully Protected and Federal Threatened California condor (*Gymnogyps californianus*); State Threatened/Fully Protected greater sandhill crane (*Grus canadensis tabida*); State Endangered/Fully Protected and Federally Endangered blunt-nosed leopard lizard (*Gambelia sila*); State Endangered/Fully Protected bald eagle (*Haliaeetus leucocephalus*); State Fully Protected American Peregrine falcon (*Falco peregrinus anatum*), ringtail (*Bassariscus astutus*), white-tailed kite (*Elanus leucurus*), and golden eagle (*Aquila chrysaetos*); State Species of Concern and Federally Threatened California red-legged frog (*Rana draytonii*); State Species of Concern Western pond turtle (*Emys marmorata pallida*), and San Francisco dusty-footed woodrat; and the State Candidate Species for listing foothill yellow-legged frog (*Rana boylii*), mountain lion (*Puma concolor*) (Central Coast North/Central Coast Evolutionarily Significant Units), Crotch bumble bee (*Bombus crotchii*), and Western bumble bee (*Bombus occidentalis occidentalis*). These concerns are discussed in more detail below.

I. Mitigation Measure or Alternative and Related Impact Shortcoming

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or United States Fish and Wildlife Service (USFWS)?

2070-1620

COMMENT 1: Fully Protected Raptors

Section 3.7.8 BIO-MM#48: Conduct Pre-Construction Surveys for Eagles BIO-MM#49: Implement Avoidance Measures for Active Eagle Nests, BIO-MM#50: Provide Compensatory Mitigation for Loss of Eagle Nests, BIO-MM#51: Implement Avoidance Measures for California Condor page158-160and BIO-MM#83: Implement Removal of Carrion that May Attract Condors and Eagles Page 172

The State Fully Protected (SFP) white-tailed kite, golden eagle, bald eagle, American peregrine falcon, greater sandhill crane, and California condor and are known to occur within and in the vicinity of the Project footprint (CDFW 2020). The DEIR/EIS acknowledges the presence of suitable habitat for hese species within the Project area but does not present measures to minimize the Project's impacts on SFP birds and raptors. Without appropriate mitigation measures, Project activities conducted within occupied territories have the potential to significantly impact these species.

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2070-1620

The Project will remove potential nesting trees, foraging habitat, and we lands used extensively by these species. The Project will involve noise, groundwork, and use of heavy machinery that may occur directly adjacent to large trees with potential to serve as nest trees for SFP raptors. The electrical components of the train system (e.g., the overhead catenary system, upgraded power distribution poles, etc.) have the potential to result in electrocution and strike hazards. In addition, condor hazing as an avoidance/minimization measure to prevent habituation and scavenging has been suggested for use as a mitigation measure in the DEIR/EIS which could potentially constitute take as defined under Fish and Game Code section 86.

Because the DEIR/EIS identifies the potential for SFP birds and raptors to occur in the Project area, CDFW advises updating the DEIR/EIS to include the following measures, and that these measures be made Conditions of Approval for the Project. CDFW recommends quantitative and enforceable measures that will reduce the impacts to less than significant levels.

2070-1621

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to determine if the Project or the vicinity (within ½-miles) contains suitable habitat for SFP birds and raptors.

If suitable habitat is present, CDFW recommends that focused surveys be conducted at individual Project work areas prior to Project implementation. To avoid impacts to these species, CDFW recommends conducting these surveys in accordance with standard protocols (CDFG 2010 and USFWS 2010). If Project activities are to take place during the normal bird breeding season (March 1 through September 15), CDFW recommends that additional pre-construction surveys for active nests and habitat use be conducted by a qualified biologist no more than 10 days prior to the start of construction.

In the event that special-status bird and/or raptor species are found within ½ mile of Project sites, implementation of avoidance measures is warranted. CDFW recommends that a qualified biologist be on site during all ground-disturbing/construction-related activities and that a ½-mile no-disturbance buffer be implemented. If the ½-mile no-disturbance buffer cannot be implemented, consultation with CDFW to assist with additional avoidance measures is recommended. Completely addressing mitigation measures for SFP bird and raptor species in the DEIR/EIS for the Project is recommended.

2070-1622

To reduce he impact to special-status birds and raptors from electrical power lines and poles and the catenary system; CDFW advises sufficient spacing between conductors so birds cannot bridge conductors with their wingspan, designing poles to exclude closely spaced energized parts, and installing perch guards to deter birds from landing/resting.

2070-1623

To prevent nest abandonment and behavioral disturbance, CDFW recommends consultation prior to construction-related uses of helicopters. CDFW also recommends avoidance of nighttime construction activities and that all permanent lighting for

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2070-1623

long-term operation of the HSR be designed and installed such that it does not spill out from the HSR footprint and cause light pollution.

2070-1624

Lastly, it is advised that a measure be incorporated into the DEIR/EIS that dead and injured wildlife found in the right-of-way will be removed during construction and during ongoing operations when safe to do so, to prevent the threat of bird strikes should eagles and condors attempt to forage on carrion during operational periods.

2070-1625

COMMENT 2: Swainson's Hawk (SWHA)

Section 3.7.8 BIO-MM#54: Implement Avoidance and Minimization Measures for Swainson's Hawk Nests page 158 and BIO-MM#55-Provide Compensatory Mitigation Loss of Swainson's Hawk Nesting Trees and Habitat Page 159

SWHA are known to nest within and in the vicinity of the Project area and foraging habitat (grasslands and croplands) for SWHA also exists within and in the vicinity of the Project area. The California Natural Diversity Database (CNDDB) indicates SWHA occurrences throughout Merced, Santa Clara, and San Benito counties (CDFW 2020).

SWHA exhibit high nest-site fidelity year after year and lack of suitable nesting habitat in the San Joaquin Valley and Coyote Valley limits their local distribution and abundance (CDFW 2016). The Project as proposed will involve noise, groundwork, use of heavy machinery, and high levels of human activity that could affect nests and has the potential to result in nest abandonment, significantly impac ing nesting SWHA in the Project vicinity. Mature trees and agricultural fields in the Project footprint and vicinity provide suitable nesting and foraging habitat. CDFW considers removal of known bird-of-prey nest trees, even outside of the nesting season, a potentially significant impact under CEQA, and in the case of SWHA, it could also result in take under CESA. CDFW considers a SWHA nest site to be active if it was used at least once within the past five years and impacts to suitable habitat or individual birds within a 5-mile radius of an active nest as significant. Based on the foregoing, Project impacts would potentially substantially reduce the number and/or restrict the range of SWHA or contribute to the abandonment of an active nest and/or the loss of significant foraging habitat for a given nest territory and thus result in "take" as defined under CESA.

CDFW acknowledges that BIO-MM#53 requires a pre-activity survey for suitable SWHA nesting habitat. However, the DEIR/EIS should define the restrictive no-work buffer size, in BIO-MM#54, or provide provisions for consulting with CDFW on whether take avoidance can occur should implementation of the buffer not be feasible. These measures do not indicate what the no-work buffer for active nests will be but rather defers this mitigation measure to the Project Biologist to establish the buffer. If SWHA are detected and the implementation of a no-disturbance nest buffer is not feasible, consultation with CDFW is warranted to determine if the Project can avoid take.

2070-1626

BIO-MM#55 indicates that there will be no compensation for the removal of known nesting trees outside of the nesting season. For these reasons, as currently drafted, the

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2070-1626

provisions described in this measure may not be enforceable or adequate in minimizing impacts to SWHA to a level that is less than significant.

2070-1627

Because suitable habitat for SWHA is present throughout the Project area, CDFW recommends revising the DEIR/EIS to include the following measures and that these measures be made Conditions of Approval for the Project.

CDFW recommends that a qualified biologist conduct a habitat assessment of Project areas in advance of Project implementation to determine if the Project area or Project vicinity contains suitable habitat for SWHA. If suitable habitat is present, in order to evaluate potential impacts, CDFW recommends that a qualified biologist conduct surveys for nesting SWHA following the survey methods developed by the Swainson's Hawk Technical Advisory Committee (SWHA TAC 2000) prior to Project activities.

The survey protocol includes early season surveys to assist the project proponent in implementing necessary avoidance and minimization measures, and in identifying active nest sites prior to initiating Project activities. If Project activities are to take place during the normal bird breeding season (March 1 through September 15), CDFW recommends that additional pre-construction surveys for active nests be conducted by a qualified biologist no more than 10 days prior to the start of construction.

If an active SWHA nest is found, CDFW recommends implementation of a minimum ½-mile no-disturbance buffer around active nests until he 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. If SWHA are detected and the ½-mile no-disturbance nest buffer is not feasible, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization through acquisition of an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b) is may be warranted to comply with CESA.

2070-1628

As stated above, SWHA exhibit high nest-site fidelity year after year and CDFW considers removal of known SWHA nest trees, even outside of the nes ing season, a potentially significant impact under CEQA. Non-native trees are used by SWHA for nesting therefore the value for compensation of a non-native nesting tree is the same as a native nesting tree species. Regardless of nesting status or tree species, if potential or known SWHA nest trees are removed, CDFW recommends they be replaced with an appropriate native tree species, planted at a ratio of 3:1, in an area that will be protected in perpetuity, to reduce impacts to SWHA from the loss of nes ing habitat.

2070-1629

If SWHA nests occur in or adjacent to the Project area, CDFW recommends compensation for the loss of SWHA foraging habitat as described in CDFW's Staff Report Regarding Mitigation for Impacts to SWHA (DFG 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:

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2070-1629

- For projects within 1 mile of an active nest tree, a minimum of one 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 0.75 acres 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 0.5 acres of HM land for each acre of development is advised.

2070-1630

COMMENT 3: Tricolored Blackbird (TRBL)

Section 3.7.8 BIO-MM#56: Conduct Surveys and Implement Avoidance Measures for Active Tricolored Blackbird Nest Colonies andBIO-MM#57: Provide Compensatory Mitigation for Impacts on Tricolored Blackbird Habitat pages 161-162

The DEIR/EIS acknowledges that TRBL have the potential to occur within or near the Project. The Project bisects habitat for TRBL and is adjacent to known TRBL colony locations in Merced, Santa Clara and San Benito counties that contains annual grasslands, dairies, pastures, wetlands, and field crops (CDFW 2020).

MM#56 proposes that to the extent practicable, a 300-foot no disturbance buffer will be implemented around nesting TRBL colonies. However, MM#56 goes on to state that the 300-foot buffer could be reduced in areas of dense forest, buildings, or other habitat features between the construction activities and the ac ive nest colony or where there is sufficient topographic relief to protect the colony. The measure also proposes that if a colony is established after the initiation of construction the Authority will establish buffers or sound curtains as determined by the Project Biologist. CDFW advises that such an activity has a high likelihood to result in take.

TRBL aggregate and nest colonially, forming colonies of up to 100,000 nests (Meese et al. 2014). Increasingly, TRBL are forming larger colonies that contain progressively larger proportions of the species' total population (Kelsey 2008). In 2008, for example, 55% of the species' global population nested in only two colonies, which were located in silage fields (Kelsey 2008). In 2017, approximately 30,000 TRBL were distributed among only sixteen colonies in Merced County (Meese 2017). Nesting can occur synchronously, wi h all eggs laid within one week (Orians 1961). For these reasons, depending on timing, disturbance to nes ing colonies can cause abandonment, significantly impacting TRBL populations (Meese et al. 2014). One of the largest colony populations (30,000 birds) to date was observed in the vicinity of the Project along Henry Miller Road.

Because the DEIR/EIS identifies the potential for TRBL to occur within Project, CDFW recommends conduc ing the following evaluation of the Project, updating the DEIR/EIS

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2070-1630

to include the following measures, and that these measures be made Conditions of Approval for the Project.

CDFW recommends that a qualified biologist conduct a habitat assessment of Project areas in advance of Project activities, to determine if the Project area or its vicinity contains suitable habitat for TRBL. It is advised that Project activities be timed to avoid the typical bird breeding season (February 1 through September 15). However, if Project activities must take place during that time, CDFW recommends that a qualified biologist conduct surveys for nesting TRBL no more than 10 days prior to the start of ground- or vegetation-disturbance to evaluate presence/absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

If an active TRBL nesting colony is found during pre-construction surveys, CDFW recommends implementation of a minimum 300-foot no-disturbance buffer in accordance with CDFW's "Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agricultural Fields in 2015" (CDFW 2015b). CDFW advises that this buffer remain in place until the breeding season has ended or until a qualified biologist has determined that nesting has ceased, the birds have fledged, and are no longer reliant upon he colony or parental care for survival. Further, TRBL colonies can expand over time and for this reason, the colony may need to be reassessed on a reoccurring basis to determine the extent of the breeding colony within 10 days of Project initiation.

In the event that a TRBL nesting colony is detected during surveys, consultation with CDFW is advised to discuss how to implement the Project and avoid take, or if avoidance is not feasible, acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b), would be warranted prior to any ground- or vegetation-disturbing activi ies.

2070-1631

COMMENT 4: Blunt-Nosed Leopard Lizard (BNLL)

Section 3.7.7.2 Impact BIO#12: Permanent Conversion or Degradation of Habitat and Direct Mortality of Blunt-Nosed Leopard Lizard Page 81 and Section 3.7.8 BIO-MM#39: Provide Compensatory Mitigation for Blunt-nosed Leopard lizard Habitat Page 155

The DEIR/EIS states, "While some protections would be implemented, the potential for physical harm and mortality of individuals would not be eliminated." CDFW recommends that the DEIR/EIS clearly articulate the avoidance and measures to be implemented so that no take of this SFP species would occur from Project construction and operation.

This DEIR/EIS also states, "If ground disturbing activities are scheduled during the non-active season, suitable burrows identified during the surveys will be avoided through establishment of 50-foot no work buffers. The Project Biologist may reduce the size of the no-work buffers if information indicates that the extent of the underground portion of burrows is less than 50 feet." CDFW is unclear how the Project Biologist will

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2070-1631

reliably determine that buffer reduction will have no impact on BNLL. Absent scientific demonstration that burrow avoidance of less than 50 feet can be implemented with a high level of assurance that BNLL will not be impacted, CDFW is concerned that reduction of the 50-foot no-work buffer increases the risk of take of this SFP species.

CDFW recommends that the Lead Agency not overlook that CDFW has jurisdiction over SFP species of birds, mammals, amphibians, reptiles, and fish pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take of any SFP species, including but not limited to BNLL, is prohibited and CDFW cannot authorize their take for any reason. Therefore, it would be prudent to develop a well thought out approach to maintaining avoidance of this species.

2070-1632

Prior to initiating ground- or vegetation-disturbing activities in areas with potentially suitable BNLL habitat, CDFW recommends conducting surveys in accordance with the "Approved Survey Methodology for the Blunt-nosed Leopard Lizard" (CDFW 2019b). This recommended survey protocol, designed to optimize BNLL detectability, reasonably assures CDFW that ground-disturbance will not result in take of this SFP species if such surveys do not detect any BNLL within or adjacent to the Project footprint.

CDFW advises completion of BNLL surveys no more than one year prior to initiation of ground disturbance. Please note that protocol-level surveys must be conducted on multiple dates during late spring, summer, and fall and that within these time periods there are specific protocol-level date, temperature, and time parameters which must be adhered to. As a result, protocol-level surveys for BNLL are not synonymous with 30-day "pre-construction surveys" often recommended for other wildlife species. Also, CDFW has not approved the use of conservation dogs for BNLL scat detection as a stand-alone survey effort to attempt to determine negative findings for the species.

BNLL detection during protocol level surveys or other means warrants consultation with CDFW to discuss how to implement Project activities and avoid take.

2070-1633

COMMENT 5: Garter Snake (GGS)

Section 3.7.8 BIO-MM#41: Conduct Pre-Construction Surveys and Implement Avoidance and Minimization Measures for Giant Garter Snake and BIO-MM#42: Provide Compensatory Mitigation for Impacts on Giant Garter Snake Habitat Page 156

As documented in the California Natural Diversity Database (CNDDB), GGS are known to occur in the San Joaquin River (SJR) and tributaries that feed into the SJR in Merced County (CDFW 2019). Potentially significant impacts associated with viaduct, bridge or culvert construction/replacement include burrow excavation and collapse, inadvertent entrapment, and direct mortality of individuals. Currently, GGS are isolated to only nine disjunct populations. At the time of the species listing in 1993 under the Federal

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2070-1633

Endangered Species Act (FESA), the USFWS recognized 13 popula ions. Since then, two populations have been determined extirpated (USFWS 2017b). Habitat loss and fragmentation are the primary threats to GGS. Only 5% of the species' historic wetland habitat acreage remains. In addition, Central Valley populations of GGS are also susceptible to roads, vehicular traffic, and non-native species impacts (USFWS 2017b). The species has specific seasonal habitat requirements. During summer mon hs, GGS require aquatic habitat for foraging and adjacent upland areas with emergent vegetation for basking (USFWS 2017b). During periods of inactivity, GGS require burrows in upland habitat as refugia for summer shelter and burrows in uplands for winter hibernation (Hansen et al. 2015). Construction of the HSR consists of ground-disturbing activities. These activities have the potential to result in excavation and collapse of GGS refugia and may result in a violation of CESA if GGS are present.

The DEIR/EIS identifies the potential for GGS to occur within the Project footprint, CDFW recommends conducting the following evaluation of the Project area, revising the DEIR/EIS to include the following measures, and that these measures be made Conditions of Approval for the Project.

CDFW recommends that a qualified biologist conduct a habitat assessment of Project areas in advance of Project activities, to determine if the Project area or its vicinity contains suitable habitat for GGS.

If suitable habitat is present, CDFW recommends, no more than 30 days prior to ground disturbing activi ies, a qualified biologist with GGS experience, survey the work area and a minimum 50-foot radius of the work area for burrows and crevices in which GGS could be present. It is advised that all potentially suitable burrows and crevices be flagged and avoided by a minimum 50-foot no-disturbance buffer. If a 50-foot radius buffer isn't feasible, consultation with CDFW is warranted to discuss how to implement the Project and avoid take of the species.

Capture and relocation of any species listed under CESA would require an ITP from CDFW, as capture (or attempt to do so) is defined as take under Fish and Game Code section 86. If take cannot be avoided, take authorization through acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) would be necessary to comply with CESA.

2070-1634

COMMENT 6: Foothill Yellow-Legged Frog (FYLF)

BIO-MM#34: Conduct Pre-Construction Surveys and Implement Avoidance and Minimization Measures for Foothill Yellow-Legged Frog and BIO-MM#35: Provide Compensatory Mitigation for Impacts on Foothill Yellow-Legged Frog Habitat page 154

On July 7, 2017, the Fish and Game Commission published its acceptance of a petition for consideration and designation of the FYLF as a candidate species. Pursuant to Fish and Game Code section 2074.6, CDFW has initiated a status review report to inform the

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2070-1634

Commission's decision on whether listing of FYLF, pursuant CESA, is warranted. During the candidacy period, consistent with CEQA Guidelines, Section 15380, the status of the FYLF as a threatened candidate species under CESA (Fish and G. Code, § 2050 et seq.) qualifies it as an endangered, rare, or threatened species under CEQA. Consequently, take of FYLF during the status review period is prohibited unless take authorization pursuant to Fish and Game Code section 2081 subdivision (b) is obtained. FYLF are found in the vicinity of streams in a variety of habitats (valley-foothill hardwood, valley-foothill hardwood-conifer, valley foothill riparian, coastal scrub, mixed chaparral, and wet meadow types). Potentially significant impacts associated with Project activities include inadvertent entrapment, destruction of eggs and oviposition (i.e., egg-laying) sites, degradation of water quality, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals. Land use changes that result in degradation or destruction of riparian habitat, road development and use, urbanization, and water diversion are among proximate factors contributing to local declines of FYLF (Thomson et al. 2016, USDA 2016). FYLF have been estimated to be extirpated from 45% of historically occupied locations in California in general (Jennings and Hayes 1994 *in* Thomson et al. 2016). A 2010 study of Upper Coyote Creek in Santa Clara County identified FYLF using Coyote Creek and its tributary for breeding and residency (Gonsolin 2010).

The DEIR/EIS lacks a mitigation measure that would require a habitat assessment for FYLF. CDFW recommends including the following measures, and that these measures be made Conditions of Approval for the Project.

CDFW recommends that a qualified biologist conduct a habitat assessment of the Project areas in advance of Project activities, to determine if the Project area or its vicinity contains suitable habitat for FYLF.

If it is determined though site assessment that habitat suitable to support FYLF is present within or near Project, CDFW recommends that focused visual encounter surveys be conducted by a qualified biologist during appropriate survey period(s) (April through October) in areas where potential habitat exists. CDFW advises that these surveys generally follow the methodology described in pages 5–7 of "*Considerations for Conserving the Foothill Yellow-Legged Frog"* (CDFW 2018a). In addition, CDFW advises surveyors to adhere to "*The Declining Amphibian Task Force Fieldwork Code of Practice*" (DAPTF 1998). CDFW recommends the full habitat assessment and survey results be submitted to CDFW when completed. If any life stage of FYLF is detected, consultation with CDFW is advised to determine if full avoidance for the species can be achieved or if acquisition of an ITP is necessary to comply with CESA.

2070-1635

COMMENT 7: California Red-Legged Frog (CRLF)

Section 3.7.8 BIO- BIO-MM#32: Conduct Pre-Construction Surveys and Implement Avoidance and Minimization Measures for California Red-Legged Frog

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and BIO-MM#33: Provide Compensatory Mitigation for Impacts on California Red-Legged Frog Habitat Pages 153-154

CRLF are known to occur within and in the vicinity of he Project area (CDFW 2020). CRLF require a variety of habitats including aqua ic breeding habitats and upland dispersal habitats. Breeding sites of the CRLF are in aquatic habitats including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds and lagoons. Additionally, CRLF frequently breed in artificial impoundments such as stock ponds (USFWS 2002). Breeding sites are generally found in deep, still or slow-moving water (> 2.5 feet) and can have a wide range of edge and emergent cover amounts. CRLF can breed at sites with dense shrubby riparian or emergent vegetation, such as cattails or overhanging willows, or can proliferate in ponds devoid of emergent vegetation (i.e., stock ponds). CRLF habitat includes nearly any area within one to two miles of a breeding site that stays moist and cool through the summer; this includes non-breeding aquatic habitat in pools of slow-moving streams, perennial or ephemeral ponds, and upland sheltering habitat such as rocks, small mammal burrows, logs, densely vegetated areas, and even man-made structures (i.e., culverts, livestock troughs, spring-boxes, and abandoned sheds) (USFWS 2017c). The DEIR/EIS acknowledge the potential for CRLF to occur in the Project area and the potential for impacts, however the extent of the impacts is insufficient.

CRLF populations throughout the State have experienced ongoing and drastic declines and many have been extirpated (Thomson et al. 2016). Habitat loss from growth of cities and suburbs, mining, overgrazing by cattle, invasion of nonnative plants, impoundments, water diversions, stream maintenance for flood control, degraded water quality, and introduced predators, such as bullfrogs are the primary threats to CRLF (Thomson et al. 2016, USFWS 2017c). Therefore, project activities have the potential to significantly impact CRLF.

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project activities, to determine if the Project area or immediate vicinities contain suitable habitat for CRLF. If suitable habitat is present, CDFW recommends that a qualified biologist conduct surveys for CRLF within 48 hours prior to commencing work (i.e., two night surveys immediately prior to construction or as otherwise required by the USFWS) in accordance with the "Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog" (USFWS, 2005) to determine if CRLF are within or adjacent to the Project.

If any CRLF are found during pre-construction surveys or at any time during construction, CDFW recommends that construction cease and that CDFW be contacted to discuss a relocation plan for CRLF by a qualified biologist.

2070-1636

CDFW recommends that initial ground-disturbing activities be timed to avoid the period when CRLF are most likely to be moving through upland areas (November 1 and March 31). When ground-disturbing activities must take place between November 1 and

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2070-1636

March 31, CDFW recommends that a qualified biologist conduct construction activity monitoring daily for CRLF.

2070-1637

Comment 8: California Tiger Salamander (CTS)

BIO-MM#29: Conduct Pre-Construction Surveys for California Tiger Salamander, BIO-MM#30: Implement Avoidance and Minimization Measures for California Tiger Salamander and BIO-MM#31: Provide Compensatory Mitigation for Impacts on California Tiger Salamander Habitat pages 152-153

CTS are known to occur in the Project footprint (CDFW 2020). The Project is within the range of CTS and suitable habitat (i.e., aquatic breeding habitat, grasslands interspersed with burrows) and the Project occurs within upland and breeding habitat. Due to the potential ground-disturbing activities, potential Project-related impacts include but are not limited to the following: collapse of small mammal burrows, inadvertent entrapment, loss of upland refugia, water quality impacts to breeding sites, reduced reproductive success, reduction in health, and direct mortality of individuals. Up to 75% of historic CTS habitat has been lost to development (Searcy et al. 2013). Loss, degradation, and fragmentation of habitat are the primary threats to CTS. Contaminants and vehicle strikes are also sources of mortality for the species (CDFW 2015a, USFWS 2017a). CTS have been determined to be physiologically capable of dispersing up to 1.5 miles from seasonally flooded wetlands (Searcy and Shaffer 2011). Given the presence of suitable habitat within and surrounding the Project, Project activities have the potential to significantly impact local populations of CTS.

Because suitable habitat for CTS is present throughout the Project area, CDFW recommends conduc ing the following evaluation of the Project area, revising the DEIR/EIS to include the following measures, and that these measures be made Conditions of Approval for the Project.

CDFW recommends that a qualified biologist assess the Project area to evaluate the potential for CTS. CDFW recommends the qualified biologist determine the impacts of Project-related activities to CTS upland and breeding habitat features within and/or adjacent to the construction footprint.

In all areas of the Project footprint where suitable breeding or upland refugia habitat is present, protocol-level surveys are advised to be 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). CDFW recommends that survey findings be submitted for review. In order for a negative finding for CTS to be accepted, CDFW must make a determination whether it will accept negative findings based on whether there has been sufficient rainfall. In addition, acceptance of a negative finding for CTS requires protocol-level surveys for two consecutive wet seasons.

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2070-1637

If surveys cannot be feasibly conducted as recommended in MM#29, CDFW advises that a minimum 50-foot no-disturbance buffer be delineated around all small mammal burrows in suitable habitat within and/or adjacent to the Project area. CDFW also recommends delinea ing a 250-foot no disturbance buffer around poten ial breeding pools and avoiding any impacts that could alter the hydrology or result in sedimentation of breeding pools. If avoidance is not feasible, consultation with CDFW is warranted to determine if the Project can avoid take.

If hrough surveys it is determined that CTS are occupying or have the potential to occupy the Project area and take of the species cannot be avoided as recommended, take authorization through acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) would be necessary to comply with CESA. Alternatively, in the absence of protocol surveys, presence of CTS can be assumed within the Project footprint and an ITP from CDFW can be obtained prior to initiation of vegetation- or ground-disturbing Project activities.

2070-1638

COMMENT9: Crotch Bumble Bee (CBB) and Western Bumble Bee (WBB)

Section 3.7.7.2 Impact BIO#5: Permanent Conversion or Degradation of Habitat for and Mortality of Crotch Bumble Bee Page 223 and Section 3.7.8 BIO-MM#23 Conduct Surveys and Implement Avoidance Measures for Crotch Bumble Bee and BIO-MM# 24 Provide Compensatory Mitigation for Impacts on Crotch Bumble Bee Pages 149-150

In June, 2019, the Fish and Game Commission published findings of its decision to advance CBB and WBB to candidacy as endangered. Pursuant to Fish and Game Code section 2074.6, CDFW has initiated a status review report to inform the Commission's decision on whether listing of CBB and WBB, pursuant to CESA, is warranted. During the candidacy period, consistent with CEQA Guidelines, section 15380, the status of the CBB and WBB as an endangered candidate species under CESA (Fish & G. Code, § 2050 et seq.) qualifies it as an endangered, rare, or threatened species under CEQA. Consequently, take of CBB or WBB during the status review period is prohibited unless authorization pursuant to CESA is obtained. The Project falls within the northern range of the CBB, and there are also historic observations of CBB in both Santa Clara and Merced Counties. Habitat is present for overwintering, nesting and foraging and impacts to this species and its habitat is recommended to be analyzed. Similarly, CNDDB records of WBB have been reported adjacent to the Project footprint (CDFW 2020) and impacts to this species and its habitat should be analyzed as the species was not included in the DEIR/EIS. Potentially significant impacts associated with HSR activities include removal of nest sites, floral resources for foraging and removal of overwintering sites.

CBB have been documented to occur within the vicinity of the Project area (CDFW 2020). Suitable CBB habitat includes areas of grasslands and upland scrub that contain requisite habitat elements, such as small mammal burrows. CBB primarily nest in late

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2070-1638

February through late October underground in abandoned small mammal burrows, but may also nest under perennial bunch grasses or thatched annual grasses, under brush piles, in old bird nests, and in dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2015). Overwintering sites utilized by CBB mated queens include soft, disturbed soil (Goulson 2010), or under leaf litter or other debris (Williams et al. 2014). Therefore, ground disturbance and vegetation removal associated with Project implementation has the potential to significantly impact local CBB populations.

The WBB nests, forages, and overwinters in meadows and grasslands with abundant floral resources and may be found in some natural areas within urban environments (Williams et al, 2014). CDFW recommends language describing the life history and habitat requirements of the WBB, and information regarding the field evaluation of suitable habitat within and adjacent to the Project area. Disclosure of habitat requirements and the presence or lack of habitat within and adjacent to the Project area enables adequate evaluation of the impact of construction and operations of the HSR on the species.

The Authority proposes using general guidelines and best practices for bumblebee surveys would follow USFWS' "Survey Protocols for the Rusty Patched Bumble Bee (*Bombus affinis*)" (USFWS 2019). MM#23 indicate using non-lethal netting method to capture CBB. Netting is a form of capture which is a form of take under CESA; therefore, acquisitions of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b), is required for conducting surveys under this method. To evaluate potential impacts to CBB and WBB associated with the Project, CDFW recommends implementing the following mitigation measure as a Condition of Approval for the Project.

CDFW advises 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 or WBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take.

2070-1639

COMMENT 10: Fresno Kangaroo Rat (FKR)

3.7.8 BIO-MM#62: Implement Avoidance and Minimization Measures for Fresno Kangaroo Rat and BIO-MM#63: Provide Compensatory Mitigation for Impacts on Fresno Kangaroo Rat Page 163

While there has not been a confirmed FKR observation since 1992 (USFWS 1998c), CDFW does not consider this species to be extirpated and the Project is within historical range for this species. Habitat for this species is described as sands and saline sandy soils in chenopod scrub and annual grassland communities on the valley floor and large acreages of functionally suitable habitat for the species occur within he Project area. The project area is not only considered to contain historical habitat for this species, but

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2070-1639

it is also thought to have the highest potential for containing an extant population of Fresno kangaroo rat (U.S. Fish and Wildlife Service 1998). If this species is detected during surveys, consultation with CDFW is warranted. Any occupied habitat should be completely avoided to preclude the potential for a jeopardy analysis and the occupied habitat should be permanently protected (USFWS 1998a). This would be consistent with Fresno kangaroo rat Recovery Action 6 of the Recovery Plan for Upland Species of the San Joaquin Valley, which is to conserve natural lands in western Madera and Merced Counties and acquire fee title or easement to appropriate parcels from willing sellers (U.S. Fish and Wildlife Service 1998). Further, any impacts to habitat or the potential for this species to be impacted need to be fully analyzed and should be discussed in the in the DEIR/EIS.

BIO-MM#62 indicates that live trapping would be used to survey areas within the footprint where these species may occur. Typical kangaroo rat home ranges are much smaller than 1 acre and because good quality functional habitat within the Project footprint may still support this possibly extinct sub-species, CDFW advises that protocol-level surveys with all night trapping (with checks every 3 hours) be conducted by a qualified biologist that is permitted to do so by CDFW and USFWS in advance of any ground-disturbing activities will impact kangaroo rat burrows. CDFW also advises that survey results be submitted to CDFW and USFWS for review. If this species is detected within the Project area either during protocol-level or pre-construction surveys or during construction activities, all Project activities should cease and consultation with CDFW commence to determine if full avoidance can occur. If full avoidance is not feasible, acquisition of an ITP pursuant to Fish and Game Code section 2081 subdivision (b) would be warranted and relocation efforts to minimize the impact of the taking would be required along with compensatory mitigation to fully mitigate for the species. However, for the reasons stated above full avoidance of the species should be implemented.

2070-1640

MM#63 indicates mitigation for the species is expected to occur at a minimum 1:1 ratio for potentially suitable habitat. CDFW does not concur that this minimum ratio is adequate to fully mitigate for this species.

2070-1641

When describing trapping, exclusion fencing, vegetation trimming, and relocating CESA-listed species in the mitigation measures, please state that these activities will likely result in take (as defined in Fish and G. Code § 86) and that prior to implementation of these measures acquisition of an ITP pursuant to Fish and Game Code section 2081 subdivision (b) is warranted.

2070-1642

COMMENT 11: San Joaquin Kit Fox (SJKF)

Section 3.7.8 BIO-MM#60-Implement San Joaquin Kit Fox Avoidance and Minimization Measures and BIO-MM#61: Provide Compensatory Mitigation for impacts on San Joaquin Kit fox habitat Pages 160-161

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2070-1642

MM#60 indicates disturbance of all SJKF dens would be avoided to the extent feasible and if detected in the work site, the Project Biologist would request approval from USFW and CDFW to capture and relocate the SJKF if it does not leave by its own volition. If SJKF cannot be avoided and there is a need for capture and relocation, an ITP would be warranted. This measure also proposes installation of artificial dens that would be located on parcels owned by the Authority or at locations where access is available. CDFW requests addi ional information on the monitoring requirement of the artificial dens and if they would be managed in perpetuity.

The DEIR/EIS proposes habitat will be replaced at a minimum ra io of 1:1 for high- or moderate-value suitable habitat (natural lands) and at a ratio of 0.5:1 for low-value suitable habitat (urban or agricultural lands), unless a higher ratio is required by regulatory authorizations issued under the FESA and CESA. Please note, mitigation ratios, and/or other measures for CESA-listed species will need to meet the full mitiga ion requirement pursuant to section 2081(b)(2) of Fish and Game Code, the details of which will be determined though the ITP process.

2070-1643

Finally, CDFW is concerned all four alternatives would result in significant and irreversible impacts to SJKF by impacting the entire northern range of the species. The Project would create a significant movement barrier between the southern and northern range of SJKF populations. The Santa Nella area has been identified by CDFW and the United States Fish and Wildlife Service (USFWS) as a narrow band in the connectivity between the northern and southern populations of San Joaquin kit fox (USFWS 2010). There is a very narrow area remaining in the Santa Nella vicinity that is usable for San Joaquin kit fox north-south movement, and the Project would sever this remaining movement area. The HSR Project also has he potential to isolate the Los Banos Valley core SJKF population from the northern population of San Joaquin kit fox. The ability of individuals from the Los Banos Valley to breed with members of more northern SJKF populations is thought to be critical to the continued existence and genetic diversity of the northern SJKF population. Maintaining SJKF movement corridors will be essential to permit the proposed project pursuant to CESA.

2070-1644

In addition, there are several movement corridors and habitat lands protected in perpetuity as mitigation for impacts to SJKF movement and habitat resultant of other projects in the Santa Nella area. As proposed, the HSR alignment would sever one or more of these SJKF mitigation areas and render them ineffective in serving their mitiga ion purpose.

2070-1645

COMMENT 12: Mountain Lion

On June 25, 2019, a petition to list the mountain lion (*Puma concolor*), Southern California/Central Coast Evolutionarily Significant Unit (ESU) in Southern and Central California as Threatened or Endangered pursuant to CESA (Fish & G. Code §§ 2050 et seq.) was submitted to the California Fish and Game Commission. Specifically, the

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2070-1645

petitioners requested listing as a “threatened species” for the ESU comprised of the following recognized mountain lion subpopulations: 1) Santa Ana Mountains; 2) Eastern Peninsular Range; 3) San Gabriel/San Bernardino Mountains; 4) Central Coast South (Santa Monica Mountains); 5) Central Coast North (Santa Cruz Mountains); and 6) Central Coast Central. On April 16, 2020 the Fish and Game Commission determined that the petitioned action “may be warranted” and established mountain lion within the proposed ESU as a candidate species under CESA. As a candidate species, mountain lion within the proposed ESU now has all he protections afforded to an endangered species under CESA.

CDFW advises including and referencing recent linkage studies on mountain lion that includes these six subpopulations of mountain lions in California. Mountain lion were observed crossing under SR 152 in the Pacheco Pass and within the Pacheco Creek Reserve in a February 2020 Wildlife Permeability SR-152 Study conducted by the Pathways for Wildlife for the SCVHA. The Project alignment transects the Southern California ESU and two of the genetically distinct mountain lion subpopulations (Central Coast North and Central Coast). Therefore, CDFW advises analyzing Project impacts to the subpopulations, including issues with connectivity and fragmentation of habitat which would be furthered impaired through the construction and operation of the Project. Based on this analysis, CDFW recommends the DEIR/EIS be revised to include robust feasible avoidance, minimiza ion, and mitigation measures to reduce impacts to mountain lion to less than significant.

2070-1646

Comment 13: Oak Tree Woodland and Sycamore Alluvial Woodland Habitat

Section 3.7.7.4 Impact BIO#35: Permanent Conversion or Degradation of Special-Status Plant Communities page 103 and Impact BIO#36: Intermittent Disturbance or Degradation of Special-Status Plant Communities during Operations page 103 and Section 3.7.7.6 Impact BIO#40: Removal or Mortality of Trees Protected under Municipal Tree Policies or Ordinances Page 109, Section 3.7.7.9 Impact BIO#53: Conflict with Santa Clara Valley Habitat Plan (SCVHP) page 124-126

Section 3.7.8 BIO-MM#72: Provide Compensatory Mitigation for Permanent Impacts on Riparian Habitat page and BIO-MM#85: Provide Compensatory Mitigation for Impacts on California Sycamore Woodland at the Pacheco Creek Reserve 172-173

The Project will (1) permanently impact approximately 9.4 acres and temporarily impact 3.2 acres of California sycamore (dominated by *Platanus racemosa*) alluvial woodland habitat and (2) will permanently impact approximately 398 acres and temporarily impact 115.7 acres of oak (*Quercus spp.*) woodland habitat resulting in a net loss of two valuable habitat types. Sycamore alluvial woodland and oak woodland are considered a California Native Plant Society S3 ranked rare vegetation community that has limited distribution in California. Project implementation would result in a substantial adverse impact, either directly or through habitat modifications. The Project crosses over and

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2070-1646

runs parallel to Pacheco Creek which supports one of the few extant populations of sycamore alluvial woodland, a very rare habitat type designated as G1 and S1.1 (Critically Imperiled) under the ranking system used in the CNDDB. This natural community is currently experiencing a die back as a result of unknown factors; highlighting the need to avoid addi ional stressors from new impacts.

The Project bisects the Pacheco Creek Reserve with a viaduct in Pacheco Creek and tunnel portal openings in the vicinity of the Pacheco Creek Reserve. These Reserve lands are protected by a permanent conserva ion easement and implementation of the Project will further fragment the Sycamore Alluvial woodland potentially impacting recruitment, reproduction, and expansion in the Pacheco Creek Reserve. Furthermore, there is a conflict wi h the Santa Clara Valley Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) and implementation of the compensatory mitiga ion for the removal of California sycamore woodland. Impact BIO#53 states, "Consequently, meeting the combined mitigation needs for the SCVHP and HSR is feasible and there is no conflict between the Santa Clara Valley Habitat Agency (SCVHA) and the Authority in terms of the limited availability of California sycamore woodland for preservation." CDFW does not concur and is concerned hat the conflict will not be resolved and that the lack of availability of remaining sycamore alluvial woodlands will potentially preclude the ability of the SCVHA and he Authority in fulfilling both combined compensatory mitigation needs.

2070-1647

MM#85 states the following, "To offset permanent impacts at the Pacheco Creek Reserve and alleviate conflict with the SCVHP, the Authority would provide compensatory mitigation at a 1:1 ratio." CDFW does not concur that the proposed ratio will sufficiently reduce the level of significance of the permanent and temporary impacts to Sycamore Alluvial Woodlands through the implementation of the Project. The proposed mitigation ratio does not take into consideration that temporary impacts and fragmentation of the Pacheco Creek Reserve could potentially reduce the long term viability of the Sycamore Alluvial woodlands within the Reserve.

2070-1648

The DEIR/EIS lacks analysis and mitigation for the temporal loss off sycamore alluvial woodland and oak woodland habitat and does not include a specific and enforceable avoidance buffer for oak and sycamore trees. It is unclear how Project impacts would be reduced to less than significant without specific and enforceable avoidance, minimization, or mitigation measures identified in the DEIR/EIS.

2070-1649

CDFW recommends avoiding any sensitive natural communities found on or adjacent to the Project. If avoidance is not feasible, CDFW recommends mitigating at a ratio of no less than 5:1 for impacts to S3 ranked communities and 7:1 for S2 communities. This ratio is for the acreage and the individual plants that comprise each unique community.

2070-1650

CDFW recommends the DEIR/EIS be revised to reflect a 4-inch diameter at breast height when considering which oak trees, and trees in general, require mitigation. More

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2070-1650

importantly, oak woodlands needs to be considered in its entirety when considering mitiga ion to replicate the habitat function. This would require a combination of preservation and possibly restoration. In the case of proposed restoration, CDFW recommends revising the mitigation measures to require monitoring oak trees/oak woodlands for a minimum of 15 years and up to 20 years to determine success. To reestablish oak woodlands, CDFW recommends three planting seasons. The first planting season, year 0, being the acorn and sun tolerate ground covers; the second planting season occurring at approximately year 5, introducing sun/shade tolerate species; and the third planting season at year 10 with the introduction of more shade tolerate understory species. To determine the appropriate species and density of the oak woodlands, three representative oak woodland sites need to be analyzed for species composition, density, and richness. The created sites, once established, need to reflect the representative sites.

2070-1651

These sycamore alluvial and oak woodland mitigation areas should be protected against anthropogenic impacts for the life of the project. CDFW recommends mitigation lands be permanently preserved through a conservation easement and adequate funding set aside in an endowment to ensure the mitigation lands are managed in perpetuity. The proposed specific mitigation location should be identified in order to ensure that mitigation is not deferred until some future time.

2070-1652

COMMENT 14: Special-Status plants

Section 3.7.7.2-Section 3.7.8 BIO-MM# 7 Conduct Botanical Field Surveys for Special-Status Plant Species and Special-Status Plant Communities and BIO-MM# 8 Prepare and Implement Plan for Salvage and Relocation, and/or Propagation of Special-Status Plant Species Page 138

Several special-status plant species have been documented to occur in the vicinity of the Project area (CDFW 2020). As stated in the DEIR/EIS, the Project area contains habitat suitable to support numerous special-status plant species meeting the definition of rare or endangered under CEQA Section 15380 including Alkaline wetlands support varied plant communities, sometimes including rare plants such as saline clover (*Trifolium depauperatum* var. *hydrophilum*) which was thought to be extinct until it was recently rediscovered. Alkaline wetlands are known to occur in Santa Clara and Merced Counties and might be present in adjacent counties.

The DEIR/EIS reconnaissance surveys were conducted in 2016 in which qualitative information on vegetation was collected. The DEIR/EIS acknowledges that access for significant portions of the Project footprint were not available and that no protocol level surveys presence-absence surveys were conducted; therefore, CDFW recommends mapping areas to show where field work was conducted versus areas which were analyzed through non-field work methods.

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2070-1652

Although the DEIR/EIS requires a buffer around special-status plants, it does not specify the protocol to be used or the extent of the no-disturbance buffer to be implemented if a State-listed plant species is detected and cannot be avoided. MM#8 also states hat the mitigation plan has the potential to include plant relocation or seed collection, which would be considered take, pursuant to Fish and Game Code section 1908. Therefore, the measures in the DEIR/EIS may not be adequate to reduce impacts to a level that is less than significant and may themselves result in take.

CDFW recommends that a qualified botanist conduct a habitat assessment in advance of project activities to determine if the Project or the immediate vicinity contain suitable habitat for special-status plant species and special status plant communities. If suitable habitat is present, CDFW recommends that the Project area be surveyed for special-status plants by a qualified botanist following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (CDFW 2018). This protocol, which is intended to maximize detectability, includes the identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period. In the absence of protocol-level surveys being performed, additional surveys may be necessary.

2070-1653

CDFW recommends that special-status plant species be avoided whenever possible by delineating and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special-status plant species. If buffers cannot be maintained, then consultation with CDFW is warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

2070-1654

If a plant species listed pursuant to CESA or he Na ive Plant Protection Act is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization prior to any ground-disturbing activities may be warranted through acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b).

2070-1655

Please note, mitigation ratios, and/or other measures for CESA-listed plant species will need to meet the full mitigation requirement pursuant to section 2081(b)(2) of Fish and Game Code, the details of which would be determined though the ITP process.

2070-1656

Comment 15: South-Central California Coast (S-CCC) Evolutionarily Significant Unit (ESU) steelhead (*Oncorhynchus mykiss irideus*)

BIO-MM#26: Prepare and Implement a Cofferdam Fish Rescue Plan, BIO-MM#27: Prepare and Implement an Underwater Sound Control Plan, BIO-MM#28: Provide Compensatory Mitigation for Permanent Impacts on Steelhead Habitat and Essential Fish Habitat (EFH) for Pacific Coast Salmon Pages 150-152

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2070-1656

During normal and wet years, Pacheco Creek can support a run of South-Central California Coast (S-CCC) Evolutionarily Significant Unit (ESU) steelhead (*Oncorhynchus mykiss irideus*). Impact #6 indicates, "The impact under CEQA would be significant for all four alternatives because the project could have a substantial adverse effect, through both direct mortality and habitat modification, on steelhead, Pacific lamprey, and EFH for Pacific Coast salmon." However, BIO-MM#28 defers mitiga ion through plans, "Conservation options developed to offset impacts to steelhead habitat and EFH would be considered in the development of the Compensatory Mitigation Plan (BIO-MM#10), Restoration and Revegetation Plan (BIO-MM#1) and Flood Protection Plan (HYD-IAMF#2).

The Pacheco run is very tenuous due to historic conditions (the run was likely episodic rather than yearly) and current water operations from Pacheco Reservoir. Due to the current condition of the run and its significance, it is critical that care be taken to avoid impacts entirely to Pacheco Creek.

2070-1657

COMMENT 16: Section 3.7.2 Laws, Regulations and Orders Pages 7-11

Missing from this section is he Omnibus Public Land Management Act of 2009 (16 U.S.C. §§ 10001-10203). The Omnibus Public Land Management Act (Public Law 111-11) was signed into law by President Obama on March 30, 2009, and includes the San Joaquin River Restoration Settlement Act (16 U.S.C. §§ 10001-10011), which authorizes implementation of the San Joaquin River Restoration Settlement (*Natural Resources Defense Council, et al., v. Kirk Rodgers, et al. Settlement Agreement* (Settlement)). The San Joaquin River Restoration Program (SJRRP) was initiated in accordance with the terms and conditions of the Settlement. The SJRRP is a comprehensive long-term effort to restore flows to a 153-mile- long portion of he San Joaquin River from Friant Dam to the confluence of the Merced River. The SJRRP goals are to restore a self-sustaining Chinook salmon fishery while reducing or avoiding adverse water supply effects from restoration flows. The implementing agencies of the SJRRP include the U.S. Bureau of Reclamation (USBR); USFWS; National Marine Fisheries Service (NMFS); California Department of Water Resources (DWR); and CDFW. CDFW advises including this law as well as addressing impacts to the SJRRP area and potential conflicts with its goals.

2070-1658

Comment 17: Section 3.7.8 BIO-MM#3 Establish Environmentally Sensitive Areas and Non-disturbance Zones Page 135

This measure lacks the specifics indicating the no disturbance buffers/distance from the resource for placement of the exclusionary fencing and ESAs. It should also be noted that implementing such a measure for special status-species (TCBL, SJKF, GGS, CTS, and FKR) could result in take in the form of capture and warrants acquisition of an ITP from CDFW prior to the use of exclusion fence in all areas with potentially suitable habitat for the above species.

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2070-1659

Comment 18: Section 3.7.7.2 BIO-MM#66 Conduct Pre-Construction Surveys for San Francisco Dusky-Footed Woodrat and San Francisco Dusky-Footed Woodrat Den Sites and Implement Avoidance Measures Page 164

CDFW recommends that the avoidance buffer be a minimum of 50 feet from he edge of the San Francisco dusky-footed woodrat nest. If implementation of this buffer is not feasible, removal of stick houses should not occur during the nesting season and all stick nest removal should be completed by hand.

2070-1660

COMMENT 19: Section 3.7.8 BIO-MM#67 Conduct Pre-Construction Surveys for Special-Status Bats

To minimize potential Project-related impacts to bat species, CDFW recommends the Authority conduct pre-construction surveys to establish areas of occupancy the year prior to the start of construction and that surveys be conducted by a minimum of two CDFW-qualified biologists and consist of:

- Two spring surveys (April through June) and two winter surveys (November through January). Each survey consists of one dusk emergence survey (start one hour before sunset and last for three hours), followed by one pre-dawn re-entry survey (start one hour before sunrise and last for two hours), and one daytime visual inspection of all potential roosting habitat on the Project site. Conduct each survey within one 24-hour period. Focus visual inspections on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering). Use bat detectors, bat call analysis and visual observations during all dusk emergence and pre-dawn re-entry surveys.
- Data collection for each survey (whether bats are, or have been, present on the Project site) would assemblage of species using the site. Frequency of site use (including seasonal changes). Type of roost (i.e., maternity roost, day roost, night roost, feeding perch, mating roost, satellite roost, transitional roost or winter hibernaculum). Location, ambient temperature, internal dimensions and the aspect and orientation of the roost. Spatial and temporal distribution of bat activity. Flight paths, exit and entrance points. Intensity of bat usage (i.e., number of bats, time and duration of use). Identification of any survey constraints.

2070-1661

Comment 20: Section 3.7.8 BIO-MM#68 Implement Bat Avoidance and Relocation Measures pages 164-165

If bats are found to occupy the Project footprint, CDFW recommends the general bat avoidance, minimization and mitigation measures outlined below.

- Avoid direct and indirect impacts to roosting sites by establishing a no-disturbance buffer of 300 feet around roost sites.

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2070-1661

- Prohibit clearing and grubbing adjacent to the roost site and lighting use near the roost site where it would shine on the roost or interfere with bats entering or leaving the roost. Prohibit the operation of internal combustion equipment, such as generators, pumps and vehicles within 300 feet of the roost site. Prohibit the use of bird netting.
- If avoidance of roost sites is infeasible, maintain portions of the features that provide naturalized habitat to the greatest extent possible and improve existing roost sites and/or provide new roost sites on buildings or on the Project site. Implement these measures only after consultation with CDFW.
- New roost sites must be in place prior to the initiation of Project-related activities to allow enough time for bats to relocate.
- Design and locate new and enhanced roost sites to be compatible with the bats' search image and habitat requirements (i.e., thermal regulation, interior size, ventilation, etc.). Design new and enhanced roost sites in consultation with CDFW.
- Exclude bats from directly affected work areas selectively and only to the extent necessary to prevent morbidity or mortality to the colony. Use one-way bat exclusion devices, installed in a bat-safe way, to exclude bats and then use expandable foam, steel wool or other method to block the entrance, after the bats have gone. Exclude bats only after consultation with CDFW, at a time that is compatible with the species' normal behavior patterns (i.e., breeding, feeding, hibernating, etc.). In general, exclusions shall not occur during the maternity/pup-rearing season nor during the hibernation season, as determined by conditions at the Project area.

2070-1662

Comment 21: Section 3.7.8 BIO-MM#69 Implement Bat Exclusionary and Deterrence Measures Page 165

CDFW recommends that the bat roost reloca ion plan be submitted for CDFW review prior to construction activities.

2070-1663

Comment 22: Section 3.8 Hydrology and Water Resources (HWR)

Section 3.8 General Comments:

The DEIR/EIS and the HWR Technical Report acknowledge that surface waterbodies (e.g., streams, rivers, springs, lakes, etc.) along portions of the alignment may be at risk of dewatering during tunnel construction and other areas where deep foundations or excavations are necessary, and that no surface or subsurface data was collected along the tunnel alignments because of private property access issues. Section 3.8 and the HWR Technical Report rely on existing geologic mapping and experiences from past

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2070-1663

tunneling projects to conclude that tunneling impacts to surface waterbodies are likely. While this past experience is valuable for evaluating expected conditions, it is no replacement for site-specific studies to confirm hydrogeologic conditions along the project alignment and with no site-specific data collected at this point in the Project and because some of the rock formations that the tunnel will pass through (i.e., Franciscan Formation) have properties that change rapidly and are hard to predict the analysis contained in the DEIR/EIS is insufficient to determine Project impacts.

2070-1664

The discussion of streams on Page 5-85 of HWR Technical Report and Section 3.8 of the DEIR/EIS Page 3.8-87 erroneously lumps intermittent streams wi h ephemeral streams as receiving no groundwater contributions to their flow regimes. Please note that a distinguishing characteristic of intermittent streams is that they receive inputs of groundwater for some period of time during the year when the groundwater table is seasonally high; however, lowering of the groundwater table during the summer months causes baseflow contributions to cease. For ephemeral streams, the groundwater table does not intersect the stream channel at any time during the year, and all streamflow is in direct response to rainfall. Intermittent streams and the role of a seasonally high-water table is important when evaluating the effects of the Project on groundwater dependent ecosystems. The failure to acknowledge the role of the groundwater table in intermittent streams appears to have led to the incorrect conclusion that the manifestation of surface hydrology effects from the project are less likely along intermittent streams than perennial streams. There is an equal to greater chance of surface hydrology impacts for intermittent streams compared with perennial stream. Water table declines to a position at or near the bottom of the channel in an intermittent stream reach, such that the rate of evapotranspiration exceeds the seepage rate of groundwater into the channel. Further lowering of the water table by project activities could have a greater impact on groundwater dependent ecosystems than for a perennial stream with ample baseflow. CDFW advises that the role of the groundwater table in intermittent streams be addressed appropriately in the environmental analysis.

2070-1665

The DEIR/EIS describes that direct temporary and permanent impacts to surface waterbodies are likely along above-ground portions of the route, including tunnel portal areas that will be constructed using cut-and-cover methods. Some of these areas of disturbance likely will be rather large; however, large or small, there will be direct and lasting impacts on numerous surface waterbodies where these surface-disturbing construction areas occur. Although the DEIR/EIS acknowledge the need for LSA Agreements, the extent of water bodies in the document is based on existing hydrographic datasets that show streams as a single line without acknowledging their full extent. Additionally, the use of existing data does not appear to have captured all small drainage lines that exist along the alignment, such as some first-order streams. CDFW advises that the DEIR/EIS acknowledge the full extent of all surface waterbodies. Streams may have perennial, intermittent, or ephemeral flow.

2070-1666

The DEIR/EIS and HWR Technical Report did not acknowledge the possibility of surface deformations above some portions of tunnels where overburden may be

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2070-1666

relatively thin, depending on actual geologic conditions/rock mass characteristics. The possibility of surface deformations may be more likely along portions of the tunnel that are close to portals. The DEIR/EIS should take this possibility into considera ion and propose mitigation measures, if needed. It is advisable to include a measure to monitor any sensitive ecosystems that may exist above portions of the tunnel with relatively thin overburden.

2070-1667

The DEIR/EIS and HWR Technical Report acknowledge that construction and operations will permanently impact surface water hydrology by altering drainage patterns, affecting stormwater runoff rates and volumes, and changing sediment transport/yields. The project will propose a stormwater treatment and management plan that includes flow-control devices to maintain pre-project hydrology and prevent substantial increases in runoff and sediment yields. For unimpaired waterways, the plan should strive to have a goal of no-net increase or decrease in sediment yields and a post-project hydrograph that matches the pre-project hydrograph in its timing, magnitude and duration. For impaired waterways, the Project should strive to ameliorate degraded conditions to the extent practical to offset project impacts. Where culverts and bridges will span watercourses, he Project should strive to minimize impacts on fish and wildlife passage by including structure designs that fully span the bankfull channel.

2070-1668

BIO-IAMF#5 Page 2-E-6

The contents of the Biological Resource Management Plan (BRMP) should explicitly include measures for protection and maintenance of water quality and quan ity for special status species throughout and following construction until the hydrologic systems have stabilized and returned to pre-project conditions.

2070-1669

3.8.4.1 Definition of Resource Study Areas Page 3.8-11

The definition provided for the Groundwater Study Area appears to be limited to DWR Bulletin 118 basins and subbasins. Affects to groundwater within this area could affect the hydrology of springs, seeps and streams and the wildlife that depends upon those features. The analysis should include potential affects to groundwater through the Pacheco Pass segment.

2070-1670

Comment 23: Hydrological and Water Resources Technical Report Pages 5-79

The Project proposes to fill data gaps in the understanding of hydrogeologic conditions with geotechnical data. While some of the proposed geotechnical data will help develop an understanding of the hydrogeologic environment along the tunnel, it will not allow the Project to develop an adequate understanding of fracture-flow groundwater systems to the extent necessary to evaluate impacts to surface water bodies along the tunnel alignment. Fracture-flow groundwater systems typically are complex and require a different approach of exploration than for a geotechnical study along a tunnel alignment. The Project should not rely on the geotechnical study as the sole means of evaluating

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2070-1670

impacts on the fracture-flow groundwater systems, which may in turn impact surface waterbodies and to the extent possible, the geomorphic floodplain of the waterbody.

2070-1671

Comment 24: Biological Resources Technical Report (BARTR) Comments and Recommendations:

It should be noted that CDWF along with the public did not have the accessibility to Section 3.7 as they apply to this technical report in regards to the IAMFs, species information, laws and regulations, methodologies, and mitigation measures as well as Chapter 2; along with other technical reports unless requested via email or phone call. The technical reports were not downloadable from the CHSRA's website which poses an issue of transparency and allowing for an appropriate analysis and review of the DEIR/EIS by the public, because the Technical Reports are supporting documentation to claims made in the DEIR/EIS.

II. Editorial Comments and/or Suggestions

2070-1672

Nesting birds: CDFW encourages initiation of Project-related ground disturbing activities occur during the bird non-nesting season. However, if ground-disturbing or vegetation-disturbing activities must occur during the breeding season (February through mid-September), the Project's 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 Codes as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground- or vegetation-disturbance to maximize the probability that nests hat 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 by the Project. In addition to direct impacts (i.e., nest destruc ion), noise, vibration, high levels of human activity, and movement of equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends the work causing that change cease and that CDFW be consulted 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 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 that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Smaller

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2070-1672

no-disturbance buffers may still be adequately protective when there is compelling biological or ecological reason for a modified buffer, such as when the construction area would be concealed from a nest site by topography.

2070-1673

Lake and Streambed Alteration: Project-related activities have the potential to substantially change the bed, bank, and channel of wetlands and waterways on site, which are subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq., therefore, notification is warranted. Fish and Game Code section 1602 requires an entity 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 (including the removal of riparian vegetation): (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 episodic, ephemeral, or intermittent as well as those that are perennial. This includes ephemeral streams and watercourses with subsurface flow. It may also apply to work undertaken within the floodplain of a body of water.

CDFW recommends that additional delineation work (aerial interpretation, field surveys, imagery processing) be conducted to update the results incorporated to provide a more accurate representation of baseline aquatic resources to provide a robust impact analysis. CDFW recommends including an updated inventory of aquatic features, analysis of upstream/downstream impacts and isolation, hydrologic connectively between aquatic features and project features to maintain hydrology with and adjacent to the Project footprint.

2070-1674

CDFW finds that the definition provided in the DEIR/EIS does not encompass all streams that may be impacted within the Project footprint; therefore, CDFW advises the definition of stream in the DEIR/EIS be modified to incorporate sufficient parameters that these waterways will be captured by the definition and concurrently included in the analysis of impacts to features subject to 1602 jurisdiction. As currently analyzed in the DEIR/EIS, CDFW has concerns that stream acreage and biological resources are vastly under-estimated. CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement (Agreement); therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts, a subsequent CEQA analysis may be necessary for Agreement issuance. CDFW advises to be conservative with the estimate of impacts subject to 1602 jurisdiction. If this amount turns out to be greatly underestimated and thus the analysis of impacts potentially inaccurate it could pose significant issues and possible delays for permit issuance.

2070-1675

Finally, to minimize impacts to areas subject to 1602 jurisdiction and to maintain hydrological function upstream/downstream of he proposed alignment, CDFW recommends that features which allow movement of water from rainfall events and other hydrologic sources be incorporated into the Project. These features can be a combination of culverts and bridges based on the extent of the hydrological features,

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2070-1675

and in some cases extension of viaducts currently proposed. In addition, the features to allow hydrologic passage should also be designed to allow wildlife passage where possible.

2070-1676

Wildlife Habitat Linkages
The cross-valley corridor, from he Diablo Range to the Santa Cruz Mountains in Coyote Valley, has been identified as one of only two remaining areas where linkage occurs between the San Francisco Peninsula and the rest of the State. This corridor is under significant threat from existing and planned development, including heavily used transportation infrastructure, and would be further degraded by building the HSR alignment across it. The Project has he potential to impact the three most important wildlife habitat linkages in the area as recognized in the Santa Clara HCP/NCCP. The first habitat linkage occurs in the area of Metcalf Road south of San Jose to just north of Morgan Hill. It is the northernmost habitat linkage area sou h of San Francisco Bay and is one of a very limited number of areas currently providing connectivity between Santa Clara and points west and the San Francisco Peninsula.

Additionally, it is the only connection between he southern end of the San Francisco Bay and the Pajaro River. There is ample evidence that this area remains a viable but highly impacted connection area. It is critical that connectivity through this area not be further reduced. The second habitat linkage occurs from Gilroy to Pacheco Pass and is essentially unblocked with the exception of SR 152. The third habitat linkage occurs in the area from the Diablo foothills to Gilroy which traverses the valley floor nor h of the Pajaro River. The area is crucial for steelhead passage and connectivity between watersheds in the Diablo Range, the Gabilan Range, and the Santa Cruz Mountains. These important connectivity areas identified in the Santa Clara HCP/NCCP are planned for study, enhancement and possible protection over the next 44 years. CDFW is concerned about impacts to upland and aquatic habitat near the Santa Clara Valley HCP/NCCP, as well as potential conflicts between the impacts of the HSR and the goals of the Santa Clara HCP/NCCP. CDFW recommends amphibian habitat creation/enhancement/preservation opportunities on the valley floor for mitigation to enable usable habitat that will facilitate effective gene flow between populations in the Santa Cruz Mountains and Diablo Range.

2070-1677

Wildlife Corridor Movement: The DEIR/EIS asserts, "Wildlife would be able to cross the alignment between at-grade segments where the HSR would be elevated on a viaduct or an underground tunnel." This statement assumes that the viaduct locations will remain in place; however, as with other HSR segments currently under construction, these viaduct locations could later be redesigned to be fenced at-grade and impermeable to wildlife. CDFW advises that a stronger design criterion should be developed and included into the DEIR/EIS to ensure that areas of planned viaduct cannot be changed to less permeable features by the Design-Build contractor.

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2070-1678

As CDFW has discussed during early consultation and in previous comment letters to the Authority, the single biggest potential biological impact arising from construction of the HSR project is the impact on regional movements of wildlife and connections between habitats. The HSR has the poten ial to disrupt wildlife movement corridors that are already hindered with existing obstacles, create long stretches of impediments, and further narrow areas of low or compromised permeability, many of which are already threatening the continued viability of several species. Construction of access-controlled rail lines may create barriers to the movement of wildlife, thereby cutting them off from important food, shelter, and breeding areas. Resulting isolation of subpopulations limits the exchange of genetic material and puts populations at risk of local extirpation through genetic and environmental factors. Barriers can prevent the re-colonization of suitable habitat following natural population expansions, ultimately putting the species at risk of extinction.

The construction and operation of the HSR will severely inhibit north-south as well as east-west wildlife movement along the San Jose to Merced segment. While the Authority suggests it will examine the feasibility of implementing a variety of wildlife passages to aid animal movement along both sides of the rail alignment, it is unclear where and at what intervals these will be placed. This is a concern, especially considering recent design changes in the Fresno to Bakersfield segment of the Project where originally designed elevated structures are being changed to an at-grade design and elevated structures over waterways are being significantly reduced in leng h, narrowing the available space for wildlife passage.

2070-1679

In addition, CDFW is concerned that any changes in crossing design or location due to significant build changes with the alignment during the interim between environmental review and 80 to 90 percent (%) engineering, creates delays and impediments to ensuring functional permeability for all focal species. This could limit the ability of species such as SJKF, Tule elk, and mountain lion to move unhindered throughout their historic range. Work by James Thorne and others from the University of California, Davis, in 2002 and 2006, tracking data from mountain lion and Tule elk research and work associated with the Santa Clara Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP) has specifically iden ified 17 corridors in Santa Clara County of significant importance. Therefore, crossing locations and design are advised to be provided and fully disclosed in the CEQA document so that CDFW can analyze the potential effectiveness of maintaining the wildlife corridors.

2070-1680

Elevated railways are critical in areas where the movement of wildlife is already reduced due to existing and/or proposed geographic transportation infrastructure and structural barriers such as those that exist in western Merced County near the intersections of SR 152, SR 33 and I-5.

2070-1681

Potential future design changes that could result in reduced wildlife permeability and increased wildlife impacts need to either be considered in the DEIR/EIS, or somehow precluded from occurring at the construction phase. An elevated or below ground rail

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2070-1681

design could reduce the impacts that the HSR system would have on animal movement and migration, by allowing wildlife to pass unimpeded underneath or over the top of he entire length of the railway while providing access-controlled tracks. Elevated or below ground railways would be more effective in facilitating animal movement than the proposed wildlife underpasses and overpasses, which are not always effective or have untested efficacy for most taxa. Because wildlife would be more likely to move underneath an elevated rail, or over a below ground rail, as opposed to using a tunnel or vegetated overpass, CDFW advises the at-grade embankment described in the DEIR/EIS be thoroughly analyzed as a barrier to movement, gene flow, reproductive success, loss of colonization opportunities, and to discuss this in the context of frequency, design, and location of planned wildlife crossings.

2070-1682

CDFW recommends considering the following for design features for dedicated wildlife crossings: minimize lengths (entry to exit) of dedicated wildlife crossings for certain species guilds and/or incorporate designs (grates, shelving, terracing, etc.) that still allow light penetration, maximize heights of crossings or add bridges for larger species guilds, provide natural cover types to encourage use, incorporate bench designs to allow use of the crossings during flooding, and provide smaller animal escape within or adjacent to the dedicated wildlife crossings.

2070-1683

If wildlife passage structures will be used instead of elevated or below ground rail, CDFW continues to recommend that an extensive evaluation be conducted before final wildlife passage locations are selected to determine the appropriate and most effective locations and number and types of such wildlife passage structures. As was recommended in previous correspondence, methods to determine best locations of wildlife passage structures or avoidance should include things such as: 1) track station surveys; 2) ditch and canal crossing surveys; 3) monitoring trails with infrared or Trailmaster cameras; and 4) geographic information system (GIS) habitat modeling to identify likely wildlife travel corridors and anthropogenic barriers (such as highways, canals, reservoirs) at the landscape level. In addition, wildlife habitat passage structures, such as underpasses, overpasses, elevating or placing below grade the alignment and tunnels, may not be suitable for all species and locations and would need to be evaluated carefully. Dedicated wildlife crossing structures should ensure permeability, be evaluated on a species-specific basis, and required to meet specific minimum dimensions for increased probability of wildlife utilizing these structures for crossing opportunities.

2070-1684

Specific care should be afforded to ensure that any wildlife crossing structure design incorporates generous openness and clear line of sight from entry to exit to maximize detection of the crossing by species at the time of encounter and to ensure use. Currently, the DEIR/EIS does not provide specific dimensions listed for the openness, what constitutes a “slight grade of approaches to prevent flooding”, and the number of crossings that would ensure permeability for such a long linear feature. Without these specifics and other relevant assumptions, it is not possible to determine if the effectiveness of this mitigation measure will reduce the level of significance. CDFW recommends that wildlife crossing locations, configurations, and demonstrated efficacy

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2070-1684

for target species use (e.g., mountain lion, tule elk, SJKF, etc.) be a requirement of the final design.

2070-1685

Finally, the DEIR/EIS does not analyze the impact of design elements, such as the Intrusion Protection Barriers (IPBs) and Access Restriction (AR) fencing, in terms of impacts to wildlife corridor movements and/or the reduction of effectiveness of wildlife crossings compounded by the additional fencing infrastructure. The DEIR/EIS includes information that the at-grade segments of the project would be entirely fenced or walled and thereby eliminate adverse interactions with wildlife, including direct strikes. While this may be true in some instances at the individual or localized level, the total length and linear nature of the project's fencing/walls, along with other projects in the area, may cause site-specific and cumulative impacts involving species habitat fragmentation and impediments to wildlife movement. CDFW agrees that inclusion of proper placement and design of the dedicated wildlife crossings will be a very important component of the environmental planning process for the project. CDFW also agrees that wildlife movement areas (open connectivity) are also important for plant species.

2070-1686

Cumulative Impacts: Multiple non-transportation and transportation projects have been proposed within the, Santa Clara, San Benito, and Merced, counties as well as the Cities of Santa Clara, San Jose, Morgan Hill, Gilroy, and Los Banos projects with similar impacts to biological resources. General impacts from hese projects include habitat fragmentation, degradation, habitat loss, and potential loss of individuals to the population. The DEIR/EIS assessed area projects dated from 2016-2019, however it is unclear if the listed projects have been completed based on project status/ timing. CDFW recommends the Authority consider referencing updated sources of all approved and future projects and indicate if completed when determining impact significance to biological resources.

2070-1687

Use of Modeling for Impact Analysis

CDFW has previously expressed its reservations, in writing, with using current predictive models for the impact analysis necessary for CDFW to issue an ITP without having site-specific surveys to supplement the modeling effort. CDFW is concerned that the lack of current, site-specific information to accurately quantify the magnitude of impact to CESA-listed species may cause delays in issuance of an ITP. CDFW is also concerned how the modeled output is proposed to be used for areas where there are no occurrence data. As a reminder, CNDDB captures voluntarily reported detections only; areas without records should not be treated as areas where species do not occur (unless they have been surveyed recen ly with negative findings). Our primary concerns with using modeling without site-specific protocol surveys to assess and quantify impacts for purposes of CESA include the following:

- Modeling alone may not capture the full extent of species occurrences and habitat suitability due to data sources, timing of surveys, limited access to significant portions of the alignments, and he inherent accuracy issues

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associated wi h using regionally-based data to determine site-specific impacts without a reliable verification method (e.g., protocol surveys). Using predictive modeling only to evaluate species presence/absence and to quantify project-specific impacts (acreages) could miss marginal or atypical habitat usage, especially by high mobile species, and impose a risk of unauthorized take in areas not covered by the ITP or grossly underestimates the basic level of take coverage in the ITP necessary to complete the project. In addition, some areas not ranked as suitable have not been surveyed recently or have never been surveyed.

- Due to the stochasticity and cryptic nature of some species, it is very difficult to accurately "detect" species and determine mitigation requirements using modeling. Some species are unpredictable due to variables the modeling may not or cannot adequately capture, habitat requirements that are constantly evolving over time or space and/or have distributions that can be analyzed statistically but not be predicted precisely. For example, opportunistic species can have dynamic ranges and use areas not ranked at all by the model based on its current parameters.

- As an estimation of reality, the current model includes a defined range of species and conditions (using the rules selected) based on a snapshot of time and may not accurately capture use by all species when impacts occur and/or translate down to the site-specific (e.g., footprint) level. Modeling alone can provide a statistically significant underrepresentation of habitats potentially occupied by State-listed species. For example, some listed plants may only occur at specific times of the year under certain conditions and only be adequately evaluated with protocol surveys within the project footprint at the appropriate time. Likewise, some State fully protected bird species not known to nest or breed in the project area (e.g., white-tailed kite, peregrine falcon and bald eagle) could be transient to the area at certain times of the year.

CDFW continues to emphasize that although the current modeling can be a helpful tool for the Authority's own preliminary evalua ion, as well as for compensatory mitigation planning, it will not be a substitute for our analysis when it comes to CESA permitting. CDFW will need to conclude whether listed species will be impacted by the Project. If predictive modeling is used in lieu of biological surveys by the Authority, CDFW's ITP related analysis we will need to err on the side of assuming presence in the Project footprint. Our impact and take analysis and required minimization and mitigation measures will be reflective of this assumption.

2070-1688

Use of Model for Identifying Mitigation

We understand that the Authority intends to use model output to develop a compensatory mitigation program to address permanent impacts to State-listed species. CDFW acknowledges that modeling can be very useful to identify regionally important

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areas where conservation could be targeted for general (i.e., non-mitigation) purposes and also to help focus where additional information is needed to accurately determine site-specific impacts and appropriate mitigation. Mitigation based primarily on regional modeling may not fit individual species requirements under CESA very well, especially if protocol surveys have not been conducted (and are not planned) for the impacted area and/or the proposed mitigation lands. Regionally based approaches for CESA mitigation typically occur in NCCPs, where site-specific surveys and management, monitoring and reporting requirements for habitat and species are built into the program. Because CESA requires that impacts be fully mitigated, mi igation for impacts to habitat occupied by State-listed species should include occupied habitat. For example, it is our understanding that for some species the current approach is to mitigate for multiple species simultaneously. This approach may not be acceptable unless presence for both species is adequately documented on the proposed mitigation lands and the take for each species is fully mitigated.

2070-1689

Department Owned and Managed Lands

CDFW Wildlife Areas are acquired for the protec ion and enhancement of habitat for a wide variety of species and are open to the public for wildlife viewing, hiking, hunting, fishing, and nature tours. The construction and operation of HSR within or near CDFW lands could severely limit the wildlife and public use values of these lands as well as alter the way these lands are managed by CDFW. Most Wildlife Areas depend on visitor fees for operation, maintenance and management. CDFW has concerns that the HSR may negatively impact the number of visitors to Wildlife Areas resulting in reduced revenues; thereby reducing or eliminating the future enhancement of public recreational opportunities and wildlife habitat provided by these areas.

Specific CDFW-owned lands that are adjacent to, bisected by, or occur within 1 mile of the San Jose to Merced alignment include Cottonwood Creek Wildlife Area (Upper and Lower), San Luis Reservoir Wildlife Area, O'Neill Forebay Wildlife Area, Volta Wildlife Area, Los Banos Wildlife Area, Grasslands Wildlife Area, and Cañada de los Osos Ecological Reserve.

Moreover, this section lacks analysis of indirect impacts to conservation plans and conservation easements (CE). The alignment will go through the Mud Slough CE and other CE lands purchased for conservation of San Joaquin kit fox and other special-status species by the State of California and other entities. The impacts to the values set forth in CEs were not evaluated and analyzed. CDFW recommends this be analyzed and included in the DEIR/EIS, including the legal mechanism that the HSRA would utilize to condemn or o herwise impact lands permanently conserved by the State of California. As indicated previously during early consultation, CDFW recommends that an alternative location for that portion of the Project alignment be identified to avoid impacts to permanently conserved lands and the associated legal implications.

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2070-1690

Los Banos Wildlife Area (LBWA)- The LBWA is adjacent to the north side of Henry Miller Road. The Project would have both direct and indirect impacts to LBWA and its wildlife use. In addition, the route could also impact public hunting and fishing opportunities in the area by affecting wildlife distribution and public access. Similar impacts to public use of wildlife resources could also occur on private lands near the proposed route. The proximity of the HSR to areas used by the public for waterfowl, upland, and big game hunting should also be addressed in construction impacts and in intermittent operational impact.

CDFW advises the Au hority to consider the total number of visitors and their use of LBWA in assessing the Project. Visitors participate in various activities (dog training, dog trials, fishing, interpretive walks (hiking/walking), nature study, hun ing, sightseeing, etc.), at LBWA. The number of overall visitors to LBWA ranges from 16,000 to 20,000 visitors per year which generates significant revenue for CDFW. Junior hunt experience at LBWA could be affected by the audio/visual disturbances during the construction and ongoing operation of the HSR. The consequence of his may prevent youth from future hunt participation on these CDFW owned lands and impact recruitment of youth into the sport of hunting impac ing the CDFW Recruitment, Retention and Reactivation Action Plan initiative. The above referenced usage on CDFW-owned and -managed lands will be substantially impacted due to noise, resulting changes in wildlife behavior, and he loss of an undisturbed wildland experience. Revenue impacts to CDFW were not addressed in the DEIR/EIS. CDFW is concerned that revenue generated during the years of construction of the HSR Project and during the long-term operation and maintenance of the HSR would likely be less. There would be diminished funding to CDFW's Wildlife Program and the operating budget for CDFW during construction (up to a 5-year period or more) of the HSR Project and on-going fiscal impacts once the HSR Project is complete.

2070-1691

The Grassland Environmental Educational Center (GEEC)- Visitors to the GEEC come from local areas such as San Joaquin County/Lodi, Stockton, Manteca-Stanislaus County/Turlock, Ceres, Modesto, Knight's Ferry- Merced County/Los Banos, Dos Palos, Merced, Gustine, Atwater, Ballico-Cressey, El Nido- Fresno County/Clovis. The annual average number of visitors are 6,317. The GEEC is visited by local area school children for educa ional outreach and enrichment and in some cases is the only outdoors educational experience in their area. The alignment alternatives are within 1,000 feet of the GEEC, thus the value and experience to its visitors will be impacted during construction and long-term operation and maintenance of the HSR. All four alternatives proposed in the DEIR/EIS will have the same impact to the GEEC; CDFW advises consideration of another alignment or alternative.

2070-1692

Cottonwood Creek Wildlife Area (CCWA)- The Project bisects the western half of the Upper Cottonwood Creek Wildlife Area (UCCWA) north of SR 152. While the use of anticipated subterranean tunnels for the HSR to cross he UCCWA may reduce surface

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biological impacts. CDFW is concerned over tunnel portals, the access and maintenance required for he construction of the tunnel and long-term maintenance of the tunnel and the above or below ground access to the infrastructure (Automatic Train Control (ATC) and Traction Power Facilities (TPF)) will be an impact to elk and deer that use this wildlife area and other areas adjacent to the HSR. Any impacts to deer herd movement and behavior could reduce public hunting opportunities and hunt experience throughout CDFW-owned or -managed lands and reduce the public use values of these public lands. State Route 152 already poses a significant movement barrier impact to the elk herd in the area and limits the movement of elk into and out of lands on the north side of the highway. The Project would add an additional movement barrier and further restrict the movement of elk in the region. Naturally occurring springs are located on UCCWA that are adjacent to (within 200 feet) and in the vicinity of the Project. The construction of the tunnels has the poten ial to impact hydrology of these springs and potentially impact wildlife which rely on these springs for watering and forage of the vegetation supported by year-round surface waters.

The Secretary of Transportation may approve a project requiring the use of publicly owned land of a wildlife and waterfowl refuge ***only*** if there is no prudent and feasible alternative to using that land; and the project includes ***all*** possible planning to minimize harm to the wildlife and waterfowl refuges from the use. "Use" includes substantial impacts to wildlife resources due to close proximity of a transportation project (Department of Transportation Act 49 U.S.C. Section 303, formerly Section 4[f]). All four alternatives considered, and the Project alignment will have significant impacts to State owned wildlife areas. To date, CDFW has not been provided a comprehensive analysis of impacts to CDFW-owned land and therefore cannot agree with the Authority's assumption that a Section 4(f) is warranted. CDFW is advising the Authority to formulate other feasible alternatives that avoid these lands because CDFW cannot agree that a Section 4(f) is a reasonable supposition in planning the HSR alignment.

2070-1693

Section 3.7.8 BIO-MM#81: Minimize Permanent Intermittent Impacts on Terrestrial Species Wildlife Movement Pages 171-172: CDFW recommends including jump out exit features for elk and deer in areas of Upper Cottonwood Wildlife Area and San Luis Reservoir Wildlife Area and jump outs for deer from Volta Wildlife Area through Mud Slough CE. CDFW also recommends that fencing in these areas be at a minimum of 15 feet high.

2070-1694

Mud Slough Conservation Easement
The alignment of all alternatives will go hrough Mud Slough, a Unit managed by CDFW's LBWA. Construction of the alternatives would result in construction and placement of an elevated structure over the property, requiring that multiple piles be built on the property and relocation of two irrigation ditches that serve the property. The property is protected by a conservation easement (CE) for which CDFW is grantee. CDFW is concerned that the potential impacts of the HSR Project will impact he

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2070-1694

biological values, the continued management, and potentially violate the conditions of the CE. The CE has terms of conditions that preserve the natural character and maintain in perpetuity the habitat values set forth in the required site-specific management plan for waterfowl habitat value and/or waterfowl use. Activities such as the placement of any new structures on the CE land other than hunt blinds and water control structures would be a diminution of the value of the property.

2070-1695

Grasslands Ecological Area (GEA)
The GEA is a 230,000-acre complex of State and Federal refuges and privately owned wetlands. The GEA boundary is a non-jurisdictional boundary which has been designated by the USFWS as a priority area for protection and enhancement. The GEA is comprised of wetlands, riparian woodlands, native grasslands, vernal pools, and other habitats which support abundant and diverse wildlife, including numerous threatened and endangered plants and animals. The GEA also provides critically important wintering and breeding habitat for migratory water birds utilizing the Pacific flyway. Joseph P. Fleskes' 1992 study of female northern pintails (*Anas acuta*) north-south flight path in the GEA identified an important flight path for daytime roost sites in the north to nocturnal feeding sites in the south part of the GEA. This flight pattern is representative of other waterfowl species movement patterns. All four alternatives will bisect this important flight path. CDFW recommends that the Authority analyze the impacts of eliminating connectivity between the wetland areas of the north and south GEA and further recommends the Authority consider another alternative/alignment that would avoid eliminating this important wetland and waterbird connectivity corridor.

2070-1696

The DEIR/EIS should analyze he direct and indirect impacts to the Pacific flyway. CDFW recommends considering and addressing the project impacts (e.g., noise, vibration, bisection of habitats, fragmentation, bird strikes, lighting, etc.) to the Pacific flyway and incorporating necessary avoidance, minimization, and mitigation measures. The Authority has presented to the GEA stakeholders the option of a tubular enclosure for the elevated structure of rail segment through the GEA. However, CDFW is concerned that the proposed length of rail that would be enclosed is inadequate and is not an enforceable design requirement. CDFW also advises including bird strike frequency monitoring as well as monitoring the effectiveness of the deterrent used in the mitiga ion measure

2070-1697

The DEIR/EIS fails to correctly identify, describe, and classify the GEA. These mistakes result in an improperly narrow analysis and a significant underestimation of environmental impacts. The boundary of the GEA generally aligns with the federally designated Grasslands Wildlife Management Area (GWMA). The GWMA was established in 1979, and expanded in 2005, under the Migratory Bird Conservation Act, 16 U.S.C. §715 *et seq*. This federal designation authorizes USFWS to acquire and manage habitat, including CEs, on farmland and open space deemed necessary for the conservation of migratory birds. Approximately 131,000 acres within the GWMA are

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2070-1697

protected in federal or State ownership or CEs, and tens of thousands of acres remain eligible under federal law for future protection.

2070-1698

Noise and Vibration
The potential for significant noise and vibration impacts to wildlife include but are not limited to nest abandonment by birds nesting near train tracks, flushing of waterfowl, disturbance that induces activity outside of normal behavioral patterns leaving species vulnerable to predation or reducing health and vigor, and abandonment of habitat in a species historical range. In the case of the State threatened SWHA, which is known to nest in trees along Henry Miller Road, nest abandonment caused by HSR travel could be a significant impact. Noise and vibration will likely have impacts to "sensitive land uses" including CDFW's Wildlife Areas, and other conservation lands. These areas should be considered "sensitive land uses" to be evaluated within a minimum 1,000-foot study area. CDFW recommends that a noise and vibration impact study be developed that includes noise and vibra ion ranges expected to impact wildlife. A noise and vibration impact study is necessary to provide sufficient informa ion for a robust and meaningful analysis of the proposed project by CDFW. The study should examine noise, below surface vibration, and surface vibration impacts on wildlife. The study design should be approved by the CDFW and USFWS. Vibration (frequency levels) impacts to fish migration needs to be evaluated as well.

By narrowing the area of analysis to exclude several large areas in both the western and eastern portions of the GEA, impacts are not accurately identified, disclosed, or mitigated.

2070-1699

Use of Pre-Construction/Modified Protocol Surveys

CDFW recognizes that the Au hority proposes to use additional surveys for certain species to supplement the modeling results and to refine the impact analysis. It is important to acknowledge that pre-construction or modified surveys are not equivalent to protocol surveys that are designed for maximum detectability. Unless these supplemental surveys are conducted at the appropriate time of year/conditions and sufficiently in advance of construction, their utility for use as "negative" surveys may be limited. Problems that may occur with the use of these types of surveys include the following:

- If they are conducted in a drought period, plant populations may not be detected or adequately characterized and could cause construction delays of the Project. Having at least two years of site-specific surveys (e.g., spring of 2016 and 2017) would greatly enhance the reliability of the modeling and related impact analyses;
- Scheduling surveys too early or too late can allow for situations to develop and delay construction (e.g., establishment of pre-natal dens, detection of unexpected plant populations).

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2070-1699

Because CDFW must determine an estimate of take and impact analysis for State-listed species to issue an ITP, we recommend a two-pronged survey approach that consists of protocol then pre-construction verification surveys at appropriate times for a given species. We recommend that his approach be discussed and incorporated where appropriate in the DEIR/EIS. CDFW recommends he use of protocol surveys for all State-listed species in appropriate habitat features, once project right-of-way is secured by the Authority. CDFW is available to meet to discuss what types of surveys are acceptable for State-listed species. Alternatively, the Authority can assume presence of State listed species in all suitable habitat features.

2070-1700

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 CNDDB. The CNDDB field survey form can be found at: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

2070-1701

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be 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 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).

CDFW appreciates the opportunity to comment on the Project to assist the Authority in identifying and mitigating the Project's impacts on biological resources.

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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). Please see the enclosed Mitigation Monitoring (MMRP) table which corresponds with recommended mitigation measures in this comment letter. If you have any questions, please contact Ms. Primavera Parker, Senior Environmental Scientist (Specialist), at the address provided on this letterhead, by e-mail at Primavera.Parker@wildlife.ca gov.

Sincerely,

DocuSigned by:
Annee Ferranti
5A1A7...

Julie A. Vance
Regional Manager

Attachment 1

cc: See

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Attachment 1

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

PROJECT: **California High-Speed Rail Project, San Jose to Merced Section**

SCH No.: 2009022083

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
Mitigation Measure 1: State Fully Protected Raptor Habitat Assessment	
Mitigation Measure 2: State Fully Protected Raptor Surveys	
Mitigation Measure 3: SWHA Habitat Assessment	
Mitigation Measure 4: SWHA Surveys	
Mitigation Measure 5: SWHA Avoidance	
Mitigation Measure 6: SWHA Nest Tree Mitigation	
Mitigation Measure 7: SWHA Compensation for Loss of Foraging Habitat	
Mitigation Measure 8: SWHA Take Authorization	
Mitigation Measure 9: TRBL Habitat Assessment	
Mitigation Measure 10: TRBL Surveys	
Mitigation Measure 11: TRBL Avoidance	
Mitigation Measure 12: TRBL Take Authorization	
Mitigation Measure 13: BNLL Surveys	
Mitigation Measure 14: BNLL Avoidance	
Mitigation Measure 15: GGS Habitat Assessment	
Mitigation Measure 16: GGS Surveys and Avoidance	
Mitigation Measure 17: GGS Take Authorization	
Mitigation Measure 18: CRLF Habitat Assessment	
Mitigation Measure 19: CRLF Avoidance	
Mitigation Measure 20: CTS Site Assessment and Survey	
Mitigation Measure 21: CTS Take Authorization	
Mitigation Measure 24: CBB & WBB Habitat Assessment	
Mitigation Measure 25: CBB & WBB Surveys	
Mitigation Measure 26: CBB & WBB Take Avoidance	
Mitigation Measure 27: FKR Surveys	
Mitigation Measure 28: FKR Avoidance	
Mitigation Measure 29: FKR Take Authorization	
Mitigation Measure 30: SJKF Avoidance	
Mitigation Measure 31: SJFK Habitat Compensation	
Mitigation Measure 32: Mountain Lion Avoidance	
Mitigation Measure 33: Mountain Lion Compensation	
Mitigation Measure 34: Mountain Lion Take Authorization	
Mitigation Measure 35: Oak Tree & Sycamore Alluvial Woodland Habitat Assessment	
Mitigation Measure 36: Oak Tree & Sycamore Alluvial Woodland Habitat Mitigation	
Mitigation Measure 37: Oak Tree & Sycamore Alluvial Woodland Habitat Preservation	
Mitigation Measure 38: Special-Status Plant Assessment	
Mitigation Measure 39: Special-Status Plant Avoidance	
Mitigation Measure 40: Special-Status Plant Take Authorization	
During Construction	
Mitigation Measure 5: SWHA Avoidance	
Mitigation Measure 12: TRBL Avoidance	
Mitigation Measure 15: BNLL Avoidance	
Mitigation Measure 17: GGS Surveys and Avoidance	

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Mitigation Measure 20: CRLF Avoidance	
Mitigation Measure 22: CTS Avoidance	
Mitigation Measure 26: CBB &WBB Take Avoidance	
Mitigation Measure 28: FKR Avoidance	
Mitigation Measure 30: SJKF Avoidance	
Mitigation Measure 32: Mountain Lion Avoidance	
Mitigation Measure 39: Special-Status Plant Avoidance	

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2070-1618

The Authority has included numerous mitigation measures that contain enough specificity to be effective and enforceable. Examples of such specificity include references to specific CDFW and other agency species survey protocols, specific survey periods and avoidance buffers, and specific monitoring and reporting requirements under various mitigation measures. Ultimately, the contract with the design-build contractor and the associated implementing manual will ensure common interpretation of the mitigation requirements so that they are fully and effectively implemented. Additionally, as noted in Table 2-18 of the Draft EIR/EIS, the Authority expects that numerous state and federal permits will also be required to construct the project. Each of these permits will also have implementation and reporting requirements, including requirements under a Section 2081 ITP and a Section 1600 et. seq. Streambed Alteration Agreement with CDFW, to ensure the successful implementation of mitigation measures. Additionally, the Authority also notes that there are multiple levels of enforcement and accountability related to the implementation of mitigation measures. With respect to impact to wildlife movement and the Pacific Flyway, the Authority notes that Section 3.7.6.2 of the Draft EIR/EIS discusses waterfowl and the Pacific Flyway. Impact BIO#44 in the Draft EIR/EIS also discusses impacts on waterfowl within the Pacific Flyway. Responses to CDFW's specific comments related to wildlife movement, CDFW-owned lands, sensitive and listed species, and rare habitats are discussed individually below.

2070-1619

The Authority appreciates the CDFW's comments on the Draft EIR/EIS. In subsequent individual comments, the CDFW provided specific suggestions regarding special-status species, other biological resources, and permitting considerations as well as recommended revisions to specific mitigation measures or additional mitigation measures to avoid, minimize, or mitigate effects. The Authority has determined that the extensive mitigation measures developed for biological and aquatic resources, which in some instances have been revised in response to the comments of CDFW or other stakeholders, are adequate. Each of the CDFW's specific comments are addressed below.

2070-1620

The CDFW notes that the Draft EIR/EIS does not present measures to avoid impacts on fully protected birds and raptors. Specific comments on this issue are provided by CDFW in subsequent comments, and responses to each of those specific comments is provided. The Draft EIR/EIS contains appropriate measures to avoid and minimize impacts on State Fully Protected birds and raptors and their habitat. See response to submission SJM-2070, comment 1621. Mitigation measure BIO-MM#52 in the Final EIR/EIS provides protection for nesting raptors, including fully protected raptors, as well as specific survey timing and buffers. Under BIO-MM#52, surveys for fully protected raptor species would be conducted within 0.5 mile of the project footprint, as suggested by the CDFW, and 0.5-mile buffers would be used for fully protected raptors to avoid impacts.

2070-1621

The Authority has modified BIO-MM#52 in the Final EIR/EIS to be similar to the measures proposed by CDFW. It provides protection for nesting raptors, including fully protected raptors, as well as specific survey timing and buffers. Under BIO-MM#52, surveys for fully protected raptor species would be conducted within 0.5 mile of the project footprint, as suggested by the CDFW, and 0.5-mile buffers would be used for fully protected raptors.

2070-1622

The Authority has already committed to reducing potential effects on avian species from electrical systems through careful design. Appendix 2-E, Project Impact Avoidance and Minimization Features, of the Draft EIR/EIS includes BIO-IAMF#12. This design feature of the project commits the Authority to ensuring that sufficient spacing of electrical components is present to prevent bird electrocution. Additionally, numerous other design considerations are included such as the use of perch guards to discourage avian use of structures, specific pole designs to minimize perching or nesting opportunities, and other appropriate design measures to reduce potential impacts on avian species.

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2070-1623

Refer to Standard Response SJM-Response-BIO-5: Lighting Impacts to Wildlife.

The use of helicopters is not specifically proposed or described in Chapter 2, Alternatives of the EIR/EIS. However, if helicopters were used during construction, mitigation measures to avoid and minimize impacts on nesting birds, including nest abandonment, would apply.

2070-1624

Mitigation measure BIO-MM#83 in the Draft EIR/EIS already requires the Authority to monitor and detect animal carcasses (carrion) within the right-of-way, and to remove it when the train is not in operation to prevent the attraction of condors or eagles.

2070-1625

CDFW's comments focus on the identification of an established distance for no-work buffers, in the event an active Swainson's hawk nest is identified. The Authority notes that BIO-MM#54 requires the establishment of no-work buffers around active nests consistent with CDFW's own guidance, the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (CDFG 1994, as cited in Section 3.7 of the Draft EIR/EIS). These guidelines recommend the establishment of buffers to specific distances (0.25 mile to 0.5 mile) depending on the location of the nest relative to its presence near urban development. Consequently, the Authority disagrees with CDFW on their assertion that the measure defers a determination of the buffer distance; the distance is clearly outlined in CDFW's guidance. CDFW also notes that consultation with CDFW will be necessary if take cannot be avoided. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities will be covered by the Section 2081 ITP will be made in coordination with CDFW at the time of the permit application.

2070-1626

To address this comment, mitigation measure BIO-MM#55 has been revised in the Final EIR/EIS to clarify that compensatory mitigation would be required for active and inactive Swainson's hawk nest trees.

2070-1627

CDFW's comments focus on the procedures that would be used to identify suitable habitat and nest sites, as well as measures that would be implemented to reduce the potential for impacts on nesting birds. The Authority notes that mitigation measures in the Draft EIR/EIS are substantially similar to the recommendations of CDFW. Specifically, BIO-MM#53 requires surveys for Swainson's hawk nests following the Swainson's Hawk Technical Advisory Committee guidance. BIO-MM#54 requires the establishment of no-disturbance buffers of active nests, consistent with CDFW's recommendations in the Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California. Please refer to response to submission SJM-2070, comment 1625 for more information regarding buffer distances. Lastly, CDFW notes that if take cannot be avoided, take authorization under Section 2081 of the Fish and Game Code would be required. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities will be covered by the Section 2081 ITP will be made in coordination with CDFW at the time of the permit application.

2070-1628

The Authority appreciates the comment and notes that mitigation measure BIO-MM#55 has been revised in the Final EIR/EIS to clarify that compensatory mitigation would be required for active and inactive Swainson's hawk nest trees.

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2070-1629

CDFW's comment provides recommendations regarding compensatory mitigation for the loss of Swainson's hawk nests and foraging habitat. BIO-MM#55 already provides this mitigation. Although the language does not correspond exactly to what the CDFW has suggested, it ensures replacement of both nesting tree opportunities and adjacent foraging habitat. For this measure, impacts within active primary foraging habitat are defined as impacts within 1 mile of an active nest tree, impacts within active secondary foraging habitat are impacts within 5 miles but more than 1 mile from an active nest tree, and impacts within active tertiary foraging habitat are impacts within 10 miles but more than 5 miles from an active nest tree. The distances and mitigation ratios are identical to those recommended by CDFW.

2070-1630

CDFW suggests the addition of tricolored blackbird–specific mitigation measures, such as habitat assessments and surveys, establishment of a 300-foot no-work buffer for occupied areas during the breeding season, and requirements for survey timing. BIO-MM#56 already requires the Authority to conduct surveys in suitable habitat within 300 feet of proposed construction, including three surveys within 15 days of construction (and one survey within 5 days of construction). The measures also require implementation of avoidance measures for active tricolored blackbird nest colonies, including establishment of 300-foot buffers. Together, the measures in the Draft EIR/EIS are equally or more protective of tricolored blackbird than those recommended by CDFW. Lastly, CDFW recommends a take permit under Section 2081 of the Fish and Game Code if take cannot be avoided. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP would be made in coordination with the CDFW at the time of the permit application.

2070-1631

CDFW notes that the blunt-nosed leopard lizard is a fully protected species and that the Draft EIR/EIS states that some potential for physical harm and mortality of individuals would not be eliminated. This conclusion in the Draft EIR/EIS is prior to the implementation of mitigation measures. The Authority has clarified in the Final EIR/EIS that with the implementation of additional mitigation measures, the take of this fully protected species would be avoided. Mitigation measures BIO-MM#38 and BIO-MM#39 outline the survey and avoidance strategy to avoid the take of blunt-nosed leopard lizard. Lastly, CDFW notes that reduction of 50-foot no work buffers, as may be allowed under the supervision of the Project Biologist, may not be feas ble to avoid effects on blunt-nosed leopard lizard. The Authority notes that mitigation measure BIO-MM#39 does allow for the reduction of buffers, but only if information obtained during the surveys required under BIO-MM#38 indicates that the extent of underground burrows is less than 50 feet.

2070-1632

CDFW notes that surveys should be conducted in accordance with the "Approved Survey Methodology for the Blunt-nosed Leopard Lizard". The Authority agrees, and mitigation measure BIO-MM#38 already specifies the use of this survey protocol. With respect to CDFW's comment that the use of conservation dogs for blunt-nosed leopard lizard scat detection as a stand-alone survey effort is not sufficient to support a negative finding for the species, the Authority notes that the use of conservation dogs is not proposed for this species under BIO-MM#38.

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2070-1633

CDFW's comment focuses on two suggested mitigation measures for giant garter snake. The first suggested measure is a habitat assessment to determine where pre-construction surveys should be conducted. Please refer to Section 3.7.5.3, Methods for Impact Analysis, of the Draft EIR/EIS for a description of methods used to assess potentially suitable habitat. These methods included the development of species habitat models, developed in consideration of CDFW and other regulatory agency comments. Because the species models include all potentially suitable habitat, regardless of any site-specific factors, the Authority believes that the models likely overestimate the amount of occupied habitat that occurs within the project footprint. Mitigation measure BIO-MM#41 in the Draft EIR/EIS requires pre-construction surveys for giant garter snake in all suitable habitat. Because surveys would include all potentially suitable habitats, the measure would have the same effect as an assessment of suitable habitat, or better. CDFW's second suggested measure focuses on pre-construction surveys and avoidance. Surveys would occur in all potentially suitable habitats as outlined in Mitigation measure BIO-MM#41. This measure requires pre-construction surveys for giant garter snake within 200 feet of suitable habitat, and no earlier than 24 hours before construction activities. Each of these standards exceeds CDFW's recommendations of 50 feet and no more than 30 days for pre-construction surveys. CDFW's remaining comments on giant garter snake descr be activities that CDFW notes would require an ITP under CESA, if take cannot be avoided. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP would be made in coordination with CDFW at the time of the permit application.

2070-1634

CDFW's comment on foothill yellow-legged frog focus on the designation of the species as a candidate for listing under CESA, also noting that this status qualifies it as an endangered, rare, or threatened species under CEQA. CDFW also notes that take of a candidate species must be authorized under CESA. The Authority agrees and the Draft EIR/EIS already lists foothill yellow-legged frog as a candidate for listing under CESA in Table 2, Appendix 3.7-A, Special-Status Species Subject to Project Impacts. Furthermore, the Draft EIR/EIS already notes in Section 3.7.2.2, that CESA proh bits the take of candidate species unless authorized under Section 2081 of the California Fish and Game Code. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP would be made in coordination with the CDFW at the time of the permit application. CDFW's remaining comments regarding foothill yellow-legged frog focus on recommendations for a habitat assessment, survey requirements, and a recommendation for consultation with CDFW if full avoidance of impacts is not possible. The methods used to assess potentially suitable habitat are descr bed in Section 3.7.5.3, Methods for Impact Analysis, of the Draft EIR/EIS. These methods included the development of species habitat models, developed in consideration of CDFW and other regulatory agency comments. Because the species models include all potentially suitable habitat, regardless of any site specific factors, the Authority believes that the models likely overestimate the amount of occupied habitat that occurs within the project footprint. Mitigation measure BIO-MM#34 in the Draft EIR/EIS requires pre-construction surveys for foothill yellow-legged frog in all suitable habitat. Because surveys would include all potentially suitable habitats, the measure would have the same effect as an assessment of suitable habitat, or better. CDFW recommends a survey methodology for the mitigation measure as outlined in "Considerations for Conserving the Foothill Yellow-legged frog". The survey methods in the recommended document reference the survey protocol from Peek et al. (2017, as cited in Section 3.7 of the Draft EIR/EIS), already descr bed in mitigation measure BIO-MM#34 in the Draft EIR/EIS. However, in order to make the mitigation measure as comprehensive as poss ble, mitigation measure BIO-MM#34 has been revised slightly to include the suggested methodology document. Lastly, CDFW recommends that surveys adhere to the “The Declining Amph bian Task Force Fieldwork Code of Practice” (DAPTF 1998). Peek et al. (2017, as cited in Section

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2070-1634

3.7 of the Draft EIR/EIS) as well as the recommended survey methods provided by CDFW already recommend adherence to these practices, or similar practices, during surveys and consequently, they are already addressed in the mitigation measure.

2070-1635

The comment suggests that the extent of the impacts as descr bed in the Draft EIR/EIS is insufficient. The Authority respectfully disagrees. Qualified biologists conducted extensive literature reviews to support the characterization of the existing environmental setting, using widely recognized sources, as described in the Draft EIR/EIS in Section 3.7.5.3, Methods for Impact Analysis. Where access was unavailable (the majority of the study area), biologists relied on high-resolution aerial photo interpretation and image processing techniques to map habitat and aquatic resources. The assessment ultimately assumed that all potential habitat for special-status species, including California red-legged frog, could be occupied. This broad landcover–based modeling approach most likely overestimated the amount of occupied habitat for species within the project area. (Not all potentially suitable habitat is occupied.)
Consequently, the assessment of impacts on California red-legged frog is most l kely overestimated. Regarding CDFW's additional survey recommendations, BIO-MM#32 already requires surveys consistent with the guidelines suggested by CDFW, the Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog (or other more recent guidelines if available). Lastly, CDFW suggests that relocation plans for individuals encountered during surveys should be developed in consultation with CDFW. BIO-MM#32 requires the Authority to implement measures including moving individuals, consistent with authorizations obtained under FESA. Consequently, the relocation of individuals would be addressed for this federally listed species through consultation with USFWS.

2070-1636

The Authority cannot commit to limiting construction activities between November 1 and March 31. to a certain timing. However, BIO-MM#32 does require the Authority to conduct pre-construction surveys for California red-legged frog and to implement appropriate avoidance and minimization measures, including moving individuals, or other appropriate measures, consistent with authorizations issued under FESA.

2070-1637

The comment focuses on identification of suitable habitat, pre-construction survey recommendations, and consultation with CDFW to determine if an ITP under Section 2081 of the California Fish and Game Code would be required. As descr bed in response to submission SJM-2070, comment 1635, the Authority modeled habitat for special-status species using extensive literature reviews to support the characterization of the existing environmental setting, using widely recognized sources, as descr bed in the Draft EIR/EIS in Section 3.7.5.3, Methods for Impact Analysis. Where access was unavailable (the majority of the study area), biologists relied on high-resolution aerial photo interpretation and image processing techniques to map habitat and aquatic resources. The assessment ultimately assumed that all potential habitat for special-status species, including California tiger salamander, could be occupied. This broad landcover–based modeling approach most likely overestimated the amount of occupied habitat for species within the project area. (Not all potentially suitable habitat is occupied.) Consequently, the assessment of impacts on California tiger salamander is most likely overestimated. The Authority notes that BIO-MM#29 already requires surveys consistent with the guidelines suggested by CDFW, the Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (or other more recent guidelines if available). CDFW also recommends that buffers of 50 feet around burrows be implemented if surveys cannot be conducted. Surveys are required under BIO-MM#29, and therefore this additional measure will not be necessary. CDFW also recommends a 250-foot buffer around breeding habitat. BIO-MM#30 requires the Authority to avoid construction activities within 250 feet of breeding habitat during the rainy season. Lastly, CDFW notes that an ITP under Section 2081 of the California Fish and Game Code may be required if take cannot be avoided. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP would be made in coordination with the CDFW at the time of the permit application.

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2070-1638

CDFW notes that western bumble bee, a candidate for listing under CESA, should also be considered in the Draft EIR/EIS. The Authority did consider this species for inclusion in the Draft EIR/EIS; however, based on the current range and available information from the CESA listing petition, CNDDB, and iNaturalist, the species' range does not currently overlap with the project and impacts on this species are not expected. Additional clarification regarding western bumble bee potential to occur has been added to the Final EIR/EIS in Appendix 3.7-A, Special-Status Species Subject to Project Impacts. CDFW also provides recommendations for mitigation for the Crotch bumble bee, which the Draft EIR/EIS describes as being potentially affected by the project, and notes that netting is a form of capture, which is considered take under CESA necessitating an ITP under Section 2081 of the California Fish and Game Code. The Authority has modified BIO-MM#23 to increase the no-disturbance buffer size from 20 feet to 50 feet as suggested by CDFW. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP would be made in coordination with CDFW at the time of the permit application.

2070-1639

The CDFW summarizes the status of Fresno kangaroo rat and important considerations for recovery of the species and provides suggested revisions to mitigation measures in the Draft EIR/EIS. BIO-MM#62 in the Draft EIR/EIS proposes to avoid impacts on occupied habitat through the construction of WEF should occupancy be determined through pre-construction and protocol-level surveys. BIO-MM#62 has been updated in the Final EIR/EIS, as suggested by CDFW, to specify that protocol-level trapping surveys will conform to the USFWS's Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats (USFWS 2013b, as cited in Section 3.7, Biological and Aquatic Resources, of the Final EIR/EIS). CDFW also notes that, if full avoidance is not feasible, acquisition of an ITP pursuant to Fish and Game Code Section 2081(b) would also be required. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section2081 ITP would be made in coordination with CDFW at the time of the permit application.

2070-1640

Mitigation measure BIO-MM#63 states that 1:1 is the minimum ratio that would be implemented to mitigate impacts on Fresno kangaroo rat. The Authority recognizes also understands CDFW's comment that the requirement to standard to fully mitigate impacts to this species under CESA, which could require additional mitigation, and has revised mitigation measure BIO-MM#63 in the Final EIR/EIS to note that impacts would be mitigated in accordance with authorizations issued under CESA.

2070-1641

The Authority understands that activities, including those listed, can result in the take of CESA-listed species. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP would be made in coordination with CDFW at the time of the permit application.

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2070-1642

The CDFW requested clarification on BIO-MM#60 with respect to the long-term management of artificial dens. The Authority notes that there is no monitoring requirement for the artificial dens, as they will be temporary and located outside of the work areas for the purpose of minimizing temporary disturbances to kit fox movement during construction. BIO-MM#60 has been updated in the Final EIR/EIS to clarify that these artificial dens will be used to provide cover to San Joaquin kit fox during construction outside of work areas and will be removed once construction is complete. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP, as well as the mitigation required to meet the fully mitigated standard under CESA, would be made in coordination with the CDFW at the time of the permit application. The Authority believes that the compensatory mitigation and the mitigation ratios outlined in BIO-MM#61 would fully mitigate impacts on San Joaquin kit fox.

2070-1643

Based on the project design and mitigation measures, the Authority disagrees that the project would create a significant movement barrier between the southern and northern range of the San Joaquin kit fox populations. The principal barriers to north-south San Joaquin kitfox movement in the Santa Nella area are the San Luis Reservoir, the O'Neill Forebay, Santa Nella itself, and several major roadways. The proposed alignment is several miles north of these barriers. Following construction, the project would pose little barrier to movement through this area because: (1) much of the alignment would be on viaduct, through which foxes can readily pass; (2) portions of the alignment not on viaduct would provide wildlife crossings at approximately 0.3-mile intervals, designed to be suitable for San Joaquin kit fox passage; (3) train noise and activity would occupy only a small amount of time each day, with minimal activity during the midnight to 6 a.m. period when San Joaquin kit foxes are most active; and (4) the viaduct in the least-cost San Joaquin kit fox movement corridor, along the California Aqueduct, would have a noise barrier wall to further reduce any potential noise and visual impacts on San Joaquin kit fox. This supplemental analysis has been incorporated into the Final EIR/EIS as Appendix 3.7-E. Impacts on San Joaquin kit fox movement would be significant, and mitigation is required in the form of BIO-MM#80, which, as noted in item (4) above, would install a noise barrier at the viaduct crossing of the California Aqueduct, the principal route for kit fox transit beneath the rail alignment. With this mitigation, impacts would be less than significant.

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2070-1644

As cited in Section 3.7, Biological and Aquatic Resources, in the Draft EIR/EIS, the Authority prepared a WCA (Appendix C of Authority2020a) to assess impacts on movement corridors and permeability for wildlife movement along the project alignment alternatives. Dedicated crossings and viaducts were incorporated into the design to maintain wildlife movement opportunities following construction of the project. With respect to habitat lands protected in perpetuity, the Authority reviewed protected lands databases as descr bed in Section 3.7.5.3, Methods for Impact Analysis, of the Draft EIR/EIS to identify protected lands that may be affected or bisected by the project alternatives. No protected lands or conservation easements in the Santa Nella area (besides Romero Ranch to the west) were identified at that time.

In response to this comment received on the Draft EIR/EIS, the Authority conducted an additional review of protected lands and conservation easement databases when preparing the Final EIR/EIS. The databases included several updates located in Santa Clara County, and one very small area within the Santa Nella region under a conservation easement, referred to as the Sequoia Riverlands Trust Conservation Easement. The easement partially overlaps with the proposed project footprint. Table 3.7-22 in the Final EIR/EIS has been updated to reflect updates to the easements located in Santa Clara County, as well as the small easement located within the Santa Nella region. Therefore, the Authority finds that the assessment of effects on protected lands and conservation easements is correct, as updated in the Final EIR/EIS.

2070-1645

The Authority notes that the Draft EIR/EIS was modified and recirculated for public review following the listing of the mountain lion as a candidate under the California Endangered Species Act in mid-2020. Section 3.7, Biological and Aquatic Resources, in the Final EIR/EIS incorporates additional analysis and additional mitigation related to mountain lion impacts.

2070-1646

The comment indicates that CDFW does not concur with the findings of Impact BIO#53 related to conflicts with the SCVHP and associated mitigation for California sycamore alluvial woodland. Specifically, CDFW expresses concern that there may not be sufficient unprotected sycamore alluvial woodland habitat available for both SCVHA and the Authority to complete mitigation. Based on an extensive investigation into existing habitat, however, the Authority has concluded that there is more than enough of this habitat type available for preservation or enhancement. Impact BIO#53 in the Draft EIR/EIS descr bes that, based on modeling conducted by the Authority and other independent sources, there are 2,544 acres of unprotected lands with opportunity for California sycamore woodland preservation and enhancement. The combined mitigation need for the SCVHP and HSR is approximately 80 acres, or approximately 3 percent of potential unprotected lands. Consequently, the Authority has concluded the project would not conflict with the ability of the SCVHP and the Authority to meet their goals and mitigation requirements.

2070-1647

The CDFW notes that the compensatory mitigation for impacts at the Pacheco Creek Reserve under BIO-MM#85 is not sufficient to mitigate the effects on sycamore alluvial woodland. The Authority notes that BIO-MM#72 requires a 4:1 mitigation ratio for temporary and permanent impacts by preserving off-site sycamore alluvial woodlands. The 1:1 ratio proposed in BIO-MM#85 is to offset the potential conflict with implementation of the SCVHP. Both measures require the Authority to preserve sycamore alluvial woodland habitat in perpetuity. As such, the sycamore alluvial woodland within the preserve would be mitigated at a combined ratio of 5:1.

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2070-1648

The Draft EIR/EIS, Impact BIO#40, assumes that within permanent impact areas, the loss of sycamore alluvial woodland and oak woodland habitat would be permanent. Within temporarily disturbed areas, the loss (including trimming or removal) of protected trees is also described under Impact BIO#40. These impacts are considered significant and the Authority has incorporated mitigation measureBIO-MM#75 to address these effects. BIO-MM#75 includes avoidance measures for protected trees including the establishment of ESAs around trees that may be affected, but that do not require full removal. Additionally, BIO-MM#75 has been revised and expanded in the Final EIR/EIS to clarify that the mitigation for oak woodlands requires a replacement ratio of 6:1 for native oak trees to address permanent and temporal impacts. Additionally, BIO-MM#72 also provides for compensatory mitigation for impacts on California sycamore woodland habitat, requiring a 4:1 ratio (acres of impacts to acres of mitigation) to address both permanent and temporal loss of this important community. As such, the Draft EIR/EIS does contain specific enforceable measures related to the temporal loss of sycamore woodland and oak woodland habitats.

2070-1649

The Draft EIR/EIS includes mitigation for permanent impacts on aquatic resources, riparian habitats, and special-status species habitat at ratios sufficient to reduce those impacts to a less-than-significant level. Each type of impact, whether on aquatic resources, riparian habitats, or other sensitive natural community, is assessed individually in the Draft EIR/EIS, and mitigation is applied based on common practice, the rarity of the resource in the region, the specific biological factors of the resource in question, and the judgement of the Authority. This approach yields different mitigation requirements for difference resources considering all these factors. For example, BIO-MM#75, as modified in the Final EIR/EIS, requires the Authority to replace oak trees lost in oak woodlands at a 6:1 ratio. BIO-MM#72 requires compensatory mitigation for riparian habitat at a 2:1 ratio, while the rarer California sycamore woodland type requires mitigation at a 4:1 ratio. Additionally, the Authority notes that mitigation for various species and species habitats described under BIO-MM#10 would also provide benefits related to the mitigation of impacts on sensitive natural communities. Lastly, the Draft EIR/EIS acknowledges that agencies with regulatory jurisdictions over these resources may require higher ratios.

2070-1650

The Draft EIR/EIS adheres to city and county ordinances for the species and sizes of protected trees (Volume 2, Appendix 2-J, Regional and Local Plans and Policies) so the 4-inch dbh was not applied (BIO-MM#75). For riparian habitat (which includes valley oak trees), tree dbh is not relevant because mitigation is based on the acreage of the habitat rather than individual trees (BIO-MM#72). However, to address this comment, BIO-MM#75 has been updated to include an oak tree mitigation plan that includes reference sites, management, success criteria, monitoring, remedial actions, and financial assurances.

2070-1651

The mitigation options in the Draft EIR/EIS for California sycamore woodland include an option for permanent land protection. BIO-MM#72 states that permanent impacts on riparian habitat, which includes California sycamore woodland, may be offsetoccur through habitat restoration, the acquisition of credits from an approved mitigation bank, participation in an in-lieu fee program or habitat preservation or enhancement at a permittee respons ble mitigation site. Similarly, impacts on California sycamore woodland at the Pacheco Creek Reserve may be accomplished through preservation, enhancement, restoration, or a combination thereof. BIO-MM#75 has been updated to include a oak tree mitigation plan that will descr be protections for the mitigation lands and the funding mechanism. The Authority disagrees that the specific location of the mitigation should be identified now. It is sufficient that these measures defer mitigation because they have committed to mitigating the significant impacts of the project at a specific ratio relative to the habitat lost and contain other criteria and performance standards.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1652

The CDFW provides comments related to potential impacts on special-status plants, including appropriate buffers and requirements for take permits under Section 2081 of the Fish and Game Code. The Authority believes that mitigation measures, as revised in the Final EIR/EIS, address CDFW's comments. Per BIO-MM#7, botanical surveys will be conducted consistent with Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018c, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS) and Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (USFWS 2000, as cited in Section 3.7 of the Draft EIR/EIS) in all potentially suitable habitats (based on the special-status species modeling conducted for the Draft EIR/EIS) prior to any ground-disturbing activity in work areas. As such, these protocol-level surveys will occur in areas modeled as suitable habitat in advance of project activities. BIO-MM#7 has been updated in the Final EIR/EIS to specify a 50-foot buffer around special-status plant species occurrences, where poss ble. Lastly, as noted in Table 2-18 in Chapter 2, Alternatives, of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP would be made in coordination with CDFW at the time of the permit application.

2070-1653

In response to this comment, a 50-foot buffer requirement has been added to BIO-MM#7 in the Final EIR/EIS.

2070-1654

As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP would be made in coordination with CDFW at the time of the permit application.

2070-1655

As noted in Table 2-18 in Chapter 2, Alternatives, of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP and the mitigation necessary would be made in coordination with CDFW at the time of the permit application. The Authority believes that the compensatory mitigation and the mitigation ratios outlined in BIO-MM#12 would fully mitigate impacts on listed plant species.

2070-1656

The Authority disagrees that Mitigation Measure BIO-MM#28 improperly defers the development of mitigation because it relies on a future plan. The mitigation measure descr bing the plan clearly defines what is required and states that permanent impacts on steelhead habitat and EFH will be mitigated at ratios relative to the amount of habitat lost and specifically requires the conservation option to be NMFS-approved, including an option to purchase habitat credits at an NMFS-approved anadromous fish conservation bank. The measure also includes a list of specific criteria that will be taken into account when selecting the conservation option.

2070-1657

The area subject to the SJRRP extends along the San Joaquin River (including several bypasses) from Friant Dam, downstream to the confluence with the Merced River near Newman. The project extent analyzed in the Draft EIR/EIS begins at Carlucci Road and proceeds to the west. Carlucci Road is located approximately 5.5 miles west of the San Joaquin River. Consequently, no impacts on the SJRRP from the proposed project are anticipated. Therefore, the requested legal citations mentioned in the comment have not been added.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1658

There are no buffer distances required for ESAs or exclusionary fencing. As stated in BIO-MM#3, exclusionary fencing would be installed at the boundary of the work area and the location of the ESAs would be based on the results of habitat mapping or modeling and any pre-construction surveys. That is, the location of ESAs and non-disturbance zone will be based on the location of the special-status species or sensitive habitat. The ESA will enclose the special-status species or sensitive habitat to be avoided. BIO-MM#3 has been updated in the Final EIR/EIS to clarify the purposes of the exclusionary fencing and the ESA fencing.

2070-1659

The Authority appreciates the comment and has modified mitigation measure BIO-MM#66 in the Final EIR/EIS to increase the avoidance buffer to 50 feet. Mitigation measure BIO-MM#66 already includes a requirement to remove houses outside of the breeding season and by hand.

2070-1660

The comment from CDFW provides recommendations regarding pre-construction surveys for special-status bats. CDFW recommends that data collection on bat usage of the project site be collected, consisting of four surveys (two spring surveys and two winter surveys) by a minimum of two qualified biologists, and that bat detectors be used if bats are present or potentially present. BIO-MM#67 already requires the surveys suggested by CDFW, including visual emergence and using bat detectors in order to collect data on bat usage and presence within the project area (i.e., species present, frequency of use, and type of roost). The number of biologists needed to conduct the surveys will ultimately be determined by the Project Biologist. With respect to the timing of the surveys, BIO-MM#67 requires the surveys to be conducted no more than 1 year before the construction activities, with the goal of detecting bat species that may be present at the time of construction so that additional bat avoidance, relocation, exclusion, or deterrence measures can be implemented. Consequently, either a spring or a winter survey will be required, but not both, at the discretion of the Project Biologist inconsideration of the site specific factors. Lastly, the Authority believes that the mitigation measures for bat surveys are largely consistent with those recommended by CDFW and that they are adequate to inform the implementation of additional avoidance, relocation, exclusion, and deterrence measures.

2070-1661

In response to this comment, the Authority has added a requirement to BIO-MM#68 in the Final EIR/EIS to note that the relocation plan would be provided to CDFW for review and input.

2070-1662

The Authority has added a requirement to BIO-MM#68 in the Final EIR/EIS to note that the relocation plan would be provided to CDFW for review and input.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1663

The project's impacts on streamflow and groundwater conditions as a result of tunneling are qualitatively analyzed and described in Section 3.8, Impact HYD#10. The qualitative analysis presented in Section 3.8 used the best information available from other tunneling projects constructed in close proximity and in the same geologic units as the project as well as other tunnels constructed in California. As descr bed in Section 3.8, Hydrology much of the land overlying the proposed tunnels is privately owned, and these areas were inaccess ble for field surveys and preliminary investigations into hydrologic and groundwater conditions during preparation of this environmental document. The Authority attempted to gain access to these areas to investigate these conditions during the environmental phase of the project, but the property owners did not grant permission to enter. Even assuming the Authority received permission to enter privately owned property overlying the tunnel without going through eminent domain, and these investigations could be performed as part of the environmental phase prior to completing the NEPA/CEQA process, it would result in a delay of the entire project of approximately 3 years. Such delays would result in substantial cost increases in terms of construction costs due to escalation as well as costs associated with delayed operation of HSR service within the project extent. (Authority 2020, as cited in Section 3.8 of the Draft EIR/EIS).

The extent and duration of impact can be generally understood based on the available data to characterize the environmental consequences., The analysis performed enabled the Authority to identify appropriate measures to minimize and mitigate impacts from tunneling. These measures would require the Authority to conduct site-specific investigations to confirm hydrogeologic conditions along the tunnel alignment prior to construction, and then use that information to prepare a hydrogeologic model to identify locations where monitoring would need to be performed during and after construction to either provide supplemental water or compensate for unavoidable impacts on aquatic and biological resources. Refer to HYD-IAMF#5 in Appendix 2-E, HYD-MM#1 in Section 3.8.7, and BIO-MM#9 in Section 3.7.7 for the proposed minimization and mitigation measures associated with tunneling.

2070-1664

Thank you for the clarification. Revisions were made to the text of Impact HYD#10 in Section 3.8 to acknowledge the role of groundwater inputs into intermittent streams. Although there may be some differences in the potential to affect intermittent vs. perennial streams, the Draft EIR/EIS concludes that there is a potential to affect intermittent streams (depending on their hydrologic connection to groundwater), The analysis performed enabled the Authority to generally characterize the potential character and extent of the impacts of tunnelling and to identify appropriate measures to minimize and mitigate impacts on perennial, intermittent, and ephemeral streams from tunneling. Site-specific investigations will be conducted to confirm hydrologic conditions of streams (including ephemeral, intermittent, and perennial streams) along the tunnel alignment and hydrogeologic modeling will be performed to identify likely locations and extents of tunneling impacts prior to construction in order to provide sufficient mitigation for stream flows. Refer to HYD-IAMF#5 in Appendix 2-E, HYD-MM#1 in Section 3.8.7, and BIO-MM#9 in Section 3.7.7 for the proposed minimization and mitigation measures associated with tunneling. As such, the EIR/EIS does consider potential impacts to intermittent streams and includes mitigation to control those effects.

2070-1665

The Authority disagrees with CDFW's assertion that not all waterbodies are identified or depicted to their full extent and that the identification of these surface features was solely on the basis of existing hydrologic datasets. As described in the Draft EIR/EIS, Section 3.7.5.3, Methods for Impact Analysis, aquatic resources were initially identified using existing datasets, but were supplemented with extensive aerial photography interpretation and limited field work where access was possible. The result of this effort is a map of all aquatic resources within the study area that was then used to inform the impacts assessment in the Draft EIR/EIS. Consequently, the Authority believes that the full extent of all surface waterbodies is correct and revisions and additional analysis are not necessary.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1666

The Authority believes the proposed mitigation measures regarding impacts on groundwater/hydrology and aquatic resources from tunneling (HYD-MM#1 in Section 3.8.7 and BIO-MM#9 in Section 3.7.7) as well as the mitigation measure that would compensate for permanent impacts on aquatic resources (BIO-MM#74 in Section 3.7) adequately address impacts on sensitive ecosystems and aquatic resources from tunneling and construction of tunnel portals. Large cut slopes would be required near each of the proposed tunnel portals, and these cut slopes would extend in the uphill direction from each tunnel portal and in the same general direction as the tunnel alignment. These cut slopes overlap with the areas in which surface deformations from tunneling are most likely to occur (i.e., where CDFW notes that overburden may be relatively thin), and these areas were accounted for as permanent impacts in Section 3.7.7.5, Aquatic Resources. The aforementioned mitigation measures would require the Authority to compensate for permanent impacts on aquatic resources as well as tunneling impacts on wetlands, creeks, ponds, springs, riparian vegetation, special-status plant and wildlife species, and protected trees. Therefore, the potential impact referenced by CDFW was considered and addressed and nothe Authority is not proposing to incorporate additional mitigation measures are requiredinto the Final EIR/EIS.

2070-1667

The Authority appreciates CDFW's comment on the proposed stormwater design requirements. The stormwater treatment and management plan will comply with all stormwater treatment requirements in applicable regional/local municipal separate storm sewer system (MS4) permits, Construction General Permit, conditions of the 401 Water Quality Certification, and TMDL requirements to ensure discharges from the Authority's right-of-way maintain high water quality in receiving waterbodies. Within the Authority's right-of-way, the design of stormwater management facilities will comply with the Phase II MS4 permit. This permit will require the project to treat runoff from all added impervious areas at a minimum. Additionally, this permit also requires hydromodification management measures to be designed for the 85th percentile storm according to the flow or volume-based BMPs to minimize changes in downstream hydrology. Where the project crosses large waterways, aerial structures may be utilized to cross the entirety of the channel to minimize impediments to streamflow and ensure safety of passengers. However, smaller waterways would be crossed with a culvert or bridge structure designed according to the Authority's hydrologic and hydraulic design criteria.

2070-1668

As noted in BIO-IAMF#5, the BRMP is intended to serve as a compilation of all biological resources avoidance and minimization measures, as well as all other biological resources plans, and is intended to aid in the implementation of these measures. Although the BRMP is not intended to provide additional measures that are not contained in the mitigation measures or permits to address maintenance of water quality issues, those issues are already assessed in the Draft EIR/EIS. The Authority points CDFW to the impact avoidance minimization features, such as HYD-IAMF#1, which requires the Authority to manage stormwater runoff; HYD-IAMF#3, which requires preparation and implementation of a SWPPP during construction; and HYD-IAMF#4, which requires an industrial SWPPP during operations, for the protection and maintenance of water quality. Lastly, the Authority notes that mitigation measure BIO-MM#9, Prepare and Implement a Groundwater Adaptive Management and Monitoring Plan, addresses the need to monitor water quality and quantity during construction and to provide supplemental water if necessary. BIO-MM#9 also requires post-construction monitoring of water levels, monitoring of effects, and the implementation of post-construction compensation if necessary.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1669

The groundwater RSA extends through the Pacheco Pass subsection even though no DWR basins or subbasins are present in this area. Where no DWR basins or subbasins are present, the RSA includes all areas within1-mile of the project footprint. Utilizing information from the aquatic resources delineation technical report and the National Hydrography Dataset, the project's impacts on springs, seeps, and streams in the Pacheco Pass subsection are qualitatively analyzed and described in Section 3.8, Impact HYD#10.The analysis performed enabled the Authority to identify appropriate measures to minimize and mitigate impacts on seeps, springs, and streams from tunneling, including those resources that may not have been accounted in existing datasets (i.e., National Hydrography Dataset).Refer to HYD-IAMF#5 in Appendix 2-E and HYD-MM#1 in Section 3.8.7 for the proposed minimization and mitigation measures associated with tunneling.

2070-1670

Site-specific investigations will be conducted to confirm hydrogeologic conditions along the tunnel alignment prior to construction. In addition to data generated from the geotechnical investigation, the Authority would initiate field studies aimed at investigating the existing hydrologic conditions along the tunnel alignment as well as perform quantitative hydrogeologic modeling to identify likely extents, durations, and severity of impacts along the tunnel alignments. Extensive hydrology monitoring would be performed prior to, during and after construction to rectify any changes in stream and seep hydrology associated with tunneling. Refer to HYD-IAMF#5 in Appendix 2-E, HYD-MM#1 in Section 3.8.7, and BIO-MM#9 in Section 3.7.7 for the proposed minimization and mitigation measures associated with tunneling.

2070-1671

Technical reports, such as the Biological and Aquatic Resources Technical Report (Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS), were clearly noted on the Authority's webpage as being available if requested.

2070-1672

The Draft EIR/EIS includes several measures designed to protect nesting birds from construction disturbance. BIO-MM#43 and BIO-MM#52 require surveys for nesting birds during the breeding season, consistent with CDFW's recommendations.BIO-MM#43 has been modified in the Final EIR/EIS to note that surveys must be conducted no more than 10 days prior to construction, consistent with CDFW's recommendation. BIO-MM#43 has also been modified in the Final EIR/EIS to note that the Project Biologist would monitor the nests for disturbance. CDFW recommends a 250 foot no-work buffer for non-listed bird species (non-raptors) and a 500 foot no-work buffer for non-listed raptor species. BIO-MM#43 has been clarified in the Final EIR/EIS to note that a no-work buffer of 75 feet is required, which the Authority has determined is sufficient to protect non-raptor species in most situations; however, the buffer may be increased if required by the Project Biologist to ensure that the nest is not disturbed. Lastly, BIO-MM#52 has been modified in the Final EIR/EIS to clarify that surveys for non-listed (and listed) raptors and buffers of 500 feet for non-listed raptors and 0.5 mile for listed or fully protected raptors are required. Similar to BIO-MM#43, the buffers for raptors can be adjusted if allowed by the Project Biologist. Monitoring of nests would be conducted; however continuous monitoring would not necessarily be conducted as suggested by CDFW because adequate no-disturbance buffers are being used to avoid effects on nests.

2070-1673

The Authority disagrees with CDFW's assertion that identification of waters potentially subject to Fish and Game Code Section 1602 are inaccurate or incomplete. All rivers, streams, or lakes, including those determined to be ephemeral, intermittent, or perennial, as well as natural watercourses or those modified or constructed, were delineated and mapped and are characterized in the Draft EIR/EIS. Impact BIO#38 in the Draft EIR/EIS identifies and quantifies potential impacts on resources subject to regulation under California Fish and Game Code Section 1600 et seq. Additionally, the Authority has worked with CDFW to obtain streambed alteration agreements on other HSR project sections using similar methods. Consequently, the Authority finds that the assessment in the Draft EIR/EIS is sufficient.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1674

The Draft EIR/EIS, Section 3.7.2.2, defines areas subject to regulation under Section 1600 et seq. of the California Fish and Game Code. The Authority believes the definition provided is consistent with Section 1600 et. seq. of the California Fish and Game Code. Furthermore, the definition of “stream” (including creeks and rivers) is consistent with California Code of Regulations (14 CCR §1.72). With respect to the analysis of features subject to Section 1602, the Authority believes that it has applied the definition correctly and completed the analysis correctly and the amounts of resources affected are not underestimated.

2070-1675

The CDFW provides a general comment regarding hydrological impacts from the proposed project. Please refer to Section 3.8, Hydrology and Water Resources, for a complete description and analysis of hydrological impacts of the proposed project. CDFW also notes that hydrologic features should also be designed to allow wildlife passage where possible. Features facilitating the flow of waters may not provide for wildlife movement at all times and/or may not be located in the most appropriate locations. Consequently, the Authority has analyzed wildlife movement as descr bed in the WCA (Appendix C of Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS), and has incorporated wildlife crossings into the project design. As required under BIO-MM#77a, the Authority would design wildlife crossings to facilitate wildlife movement as suggested by CDFW, using designs such as earthen bottoms, avoidance of metal walls, and incorporation of openness and clear line of sight, among other design features.

2070-1676

Refer to Standard Response SJM-Response-BIO-1: Wildlife Connectivity in Coyote Valley and Pacheco Pass, SJM-Response-BIO-3: Coyote Valley Wildlife Crossings, SJM-Response-BIO-7: Clarifications Regarding Project Conflicts with the Santa Clara Valley Habitat Plan.

Additionally, the Authority notes that additional information regarding wildlife habitat linkages and movement are addressed extensively in responses to CDFW’s other detailed comments on this topic.

2070-1677

The Authority recognizes that changes during the design/build process have occurred on other HSR project sections and the Authority is therefore making efforts to improve the design/build contracting process. Specific contractual requirements would be included in future design/build contracts related to viaduct and other wildlife crossings so that the design/build process does not eliminate or change these aspects of the project. Another specific way the Authority is ensuring that appropriate wildlife movement designs are ultimately constructed are outlined in modified BIO-MM#77a in the Final EIR/EIS, which requires the Authority to work with agency and stakeholder partners to validate and optimize wildlife crossing locations at the 75 to 90 percent design phase. With these changes and contractual requirements, the potential for changes between design and build are expected to be minimized and the functionality of crossings after construction to be maximized.

2070-1678

To address wildlife movement tThe Authority has included wildlife crossings and significant viaduct sections into the project's design, along with other mitigation measures to address wildlife movement. The extent of the at-grade, trenched, and embankment sections of the project and the wildlife crossings can viewed in the engineering drawings. Considering these designcomponents, of the project and mitigation that would be applied to the project, the projectHSR would not significantly degrade east/west and north/south wildlife movement below the existing condition (which is already degraded). The Authority has included wildlife crossings in the rail design through the extent of the at-grade, trenched, and embankment sections of the project and these crossings can viewed in the engineering drawings. The analysis used to determine the need and placement for wildlife crossings are in Appendix C, Wildlife Corridor Assessment Report, of the Biological and Aquatic Resources Technical Report (Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS). Please refer to the response to submission SJM-2070, comment 1677 for the measures being implemented to reduce the potential for change during the design/build process.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1679

All crossing locations and dimensions (length, width and height) were/are provided for review in the engineering drawings and in the WCA (Appendix C of Authority2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS). BIO-MM#77a in the Final EIR/EIS also requires certain design criteria (e.g., earthen bottoms, vegetative cover) to be met within the crossing as well as just outside the entrances and exits of crossings. To minimize the potential for changes during the design/build phase, additional measures were added toBIO-MM#77a in the Final EIR/EIS to allow agency and stakeholder review of crossing locations and dimensions at the 75-90% design stage. Lastly, new measure BIO-MM#77b in the Final EIR/EIS requires monitoring of wildlife crossings for effectiveness and adaptive management if necessary to facilitate their use by wildlife.

2070-1680

As noted in Section 3.7.5.3, Methods for Impact Analysis of the Draft EIR/EIS, the Authority has carefully evaluated wildlife movement effects from the proposed project and has incorporated elevated sections in some locations as well as numerous wildlife crossings. The detailed assessment was included in a WCA (Appendix C of Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS) incorporated by reference into the Draft EIR/EIS and available for review upon request, with the Draft EIR/EIS.

2070-1681

Please see the response to submission SJM-2070, comment 1677, which descr bes the efforts and measures that would be used by the Authority to prevent future design changes that result in reduced wildlife permeability.

2070-1682

The wildlife undercrossings were designed, to the maximum extent feas ble, to minimize length and maximize height and width in the locations where the local permeability analysis, wildlife movement studies, and local stakeholders indicated crossings were needed. That is, structural designs were optimized after the most advantageous locations for crossings were selected in Coyote Valley. Features to add light penetration into longer crossings were added in Coyote Valley because it was feasible in these locations. BIO-MM#77a outlines the internal design requirements for crossings (e.g., earthen bottom, cover for smaller animals) and entrances and exits (e.g., vegetative cover).

2070-1683

The locations and dimensions for wildlife crossings were developed as part of an extensive evaluation outlined in Appendix C, Wildlife Corridor Assessment Report, to the Biological and Aquatic Resources Technical Report (Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS).In addition, an extensive stakeholder evaluation process was implemented to refine crossing siting and design in Coyote Valley, Soap Lake, and western Pacheco Pass (a summary of which can be seen in the WCA, Appendix C of Authority2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS). To provide assurance that the crossing locations and dimensions currently included in the project's engineering design will remain through the design/build process, BIO-MM#77a was revised in the Final EIR/EIS to include agency and stakeholder review at the 75-90% design phase. The WCA utilized the best, publicly available information including: GIS-based habitat models, camera trapping data, existing barriers to movement, roadkill data, radio collar data, existing modeled movement corridors and linkages, methods used and vetted by expert GIS movement modelers, agency and stakeholder planning docs, government reports, and published literature. Each crossing was designed to meet, where possible, minimum or recommended dimensions for identified movement guilds represented by selected focal species. The minimum and recommended crossing dimensions used to guide crossing design were informed by agency and transportation wildlife movement guidance documents and are summarized in Table7-1 of the WCA.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1684

The engineering drawings and the WCA (Appendix C of Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS) include all of the information described and requested in this comment. The assumptions about design and potential for use for each movement guild focal species are outlined in Table 7-1 of the WCA. See responses to submission SJM-2070, comments 1679 and 1682.

2070-1685

The EIR/EIS does evaluate the impacts of the IPBs and access restriction fencing. These features, among others, are included as complete barriers to movement in the "with project scenario" of the local permeability analysis which is detailed in Appendix C, Wildlife Corridor Assessment Report, to the Biology and Aquatic Resources Technical Report (Authority 2020a, as cited in Section3.7, Biological and Aquatic Resources, of the Draft EIR/EIS). The noise barriers required in Soap Lake and the GEA as part of BIO-MM#80 are largely on viaduct, but because the at-grade sections have a number of wildlife undercrossings underneath them to offset restriction fencing, the noise barriers do not pose any additional barriers to movement when they are along at-grade sections.

2070-1686

The status of projects listed in Appendix 3.19-A, Cumulative Nontransportation Plans and Projects Lists and Appendix 3.19-B,Cumulative Transportation Projects Lists (located in Volume 2, Technical Appendices), have been updated in the Final EIR/EIS.

2070-1687

The CDFW suggests that the approach used to model impacts on CESA-listed species may be inadequate for properly analyzing the potential occurrence of these species. The Authority respectfully disagrees. Qualified biologists conducted extensive literature reviews to support the characterization of the existing setting, using widely recognized sources, as described in the Draft EIR/EIS in Section3.7.5.3, Methods for Impact Analysis. Additionally, the Authority met with CDFW, USFWS, and NMFS multiple times to discuss each of the models in detail, incorporating agency input to the best of our ability. The assessment assumed that all potential habitat for special-status species could be occupied. This broad-based approach most likely overestimates the amount of occupied habitat for species within the project area (not all potentially suitable habitat is occupied). Consequently, the assessment of impacts on special-status species is mostly overestimated. The models do not treat areas without CNDDB occurrence records as areas where the species do not occur. In fact, model output identifies the potential presence of species in substantial areas that do not have reported occurrence data. Lastly, the Authority notes that the Draft EIR/EIS includes numerous mitigation measures requiring site-specific protocol surveys for species prior to construction, which would help to help to verify species modeling results. CDFW's additional comments regarding the assumptions that may be necessary in their ITP are noted.

2070-1688

Please refer to the response to submission SJM-2070, comment 1687. The Authority intends to use model output to develop a compensatory mitigation program to address impacts on state-listed and other listed species. Because of the number of species and resources affected, the Authority believes that modeling is the most effective tool to identify potential mitigation lands. The Authority also understands that mitigation lands must be acceptable to the regulatory agencies and that additional field surveys and assessments of potential mitigation lands will be necessary in the future to ensure that species habitat is present and that the site(s) provide suitable mitigation. Mitigation for multiple species at the same site may be appropriate in certain circumstance where the species have similar affinities. Stacking mitigation would only occur where appropriate and for federally or state-listed species, where there is agreement with the wildlife agencies.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1689

ImpactBIO#51 in the Draft EIR/EIS addresses direct and indirect impacts on protected lands and lands under conservation easement. The Authority understands that each of these lands and easements may have unique values. Any impacts on these lands from the proposed project were found to be significant. The Draft EIR/EIS therefore includes assigned BIO-MM#84 to offset impacts on conservation areas. The mitigation measure requires the Authority to consult with affected organizations and to replace the loss of conservation areas with lands that are commensurate with the land cover type and ecological function of the lands lost at ratio of 2:1 (protected:affected). The Authority believes that this mitigation will compensate for any direct or indirect impacts and any unique values that may be present on affected lands. Lastly, because there are multiple owners/easement holders affected by the project alternatives, the legal mechanism for impacts on affected lands would vary, but would be discussed and determined with each of the affected owners/easement holders. The public use values of CDFW lands are addressed in Impact PK#1, Temporary Changes from Noise, V bration, and Construction Emissions on Use and User Experience of Parks, Recreational Facilities, and Open Space Resources and Impact PK#5, Permanent Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of Parks, Recreation, and Open Space Resources in Section 3.15, Parks, Recreation, and Open Space. The analysis concludes that the impacts to these resources would be less than significant under CEQA.

2070-1690

The comment noted that direct and indirect impacts would result to the Los Banos Wildlife Area. Please refer to Section 3.15, Parks, Recreation, and Open Space, and Chapter 4, Section 4(f)/6(f) Evaluation, of the Draft EIR/EIS for the Authority's analysis of impacts to the Los Banos Wildlife Area. Impacts on private lands are not included in Section 3.15 or Chapter 4 of the Draft EIR/EIS because private lands are not considered to be parks or open space resources. Impacts on private lands are discussed in various other sections of the Draft EIR/EIS, such as Sections 3.7, Biological and Aquatic Resources; 3.12, Socioeconomics and Communities; and 3.14, Agricultural Farmland. Impacts on hunting and revenue are discussed in Section 3.12 of the Draft EIR/EIS.

2070-1691

Refer to Standard Response SJM-Response-ALT-1: Alternatives Selection and Evaluation Process.

The GEEC is located within the Los Banos Wildlife Area; this has been clarified in Table 3.15-2 in Section 3.15, Parks, Recreation, and Open Space, of the Final EIR/EIS. Therefore, the impacts described in Section 3.15 of the Draft EIR/EIS for the Los Banos Wildlife Area would be applicable to the GEEC. Construction- and operations-related impacts on the Los Banos Wildlife Area (and the GEEC) are fully disclosed and descr bed in Section 3.15 of the Draft EIR/EIS. Other alternatives and alignments were considered early in the HSR planning process but ultimately were eliminated from consideration, as explained in the Draft EIR/EIS Section 2.5, Alternatives Considered during Alternatives Screening Process.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1692

The project would be located in a tunnel under the UCCWA. No surface impacts or disturbance within the UCCWA are proposed or necessary to construct or operate the project. As described in the Draft EIR/EIS, the Authority prepared a WCA (Appendix C of Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS) that addressed the movement and permeability impacts of the project alternatives on wildlife, including deer and elk. Specific dedicated wildlife crossings were added to the project design using the WCA analysis to minimize effects on wildlife, including deer and elk. Regarding the potential effects on natural occurring springs within the UCCWA, Impact BIO#51 describes and acknowledges that construction of the tunnel could have temporary indirect impacts on the hydrology of groundwater-dependent surface water features, including those within the UCCWA and that any impacts on these features could temporarily reduce their habitat value and function. Consequently, the Authority has included BIO-MM#9 to address this potential impact. Using information from the aquatic resources delineation technical report and the National Hydrography Dataset, the project's impacts on springs, seeps, and streams in the Pacheco Pass subsection are qualitatively analyzed and descr bed in Impact HYD#10 Section 3.8, Hydrology and Water Resources. The analysis performed enabled the Authority to identify appropriate measures to minimize and mitigate impacts on seeps, springs, and streams from tunneling, including those resources that may not have been accounted in existing datasets (i.e., National Hydrography Dataset). Refer to HYD-IAMF#5 in Appendix 2-E and HYD-MM#1 in Section 3.8.7 for the proposed minimization and mitigation measures associated with tunneling.

Chapter 4, Section 4f/6f in the Draft EIR/EIS provides a detailed analysis of Cottonwood Creek Wildlife Area and a preliminary de minimis use assessment. Because the project's use of Cottonwood Creek Wildlife Area is de minimis, a Section 4(f) alternatives analysis is not warranted. Other CDFW lands are analyzed in Section 3.15, Parks, Recreation, and Open Space.

2070-1693

The at-grade rail at the listed locations would be surrounded by an 8-foot fence. Based on publications by various transportation ecologists, including Clevenger and Huijser (2011), Huijser et al. (2015), Arizona Game and Fish Department (2011), and FHWA (2011, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS), an 8-foot-tall fence would exclude deer and elk. Since deer and elk will be excluded, they will not be able to access the rail, and jump outs will not be required to let animals out. Therefore, there is no need for a 15-foot-tall fence or jump outs in these regions.

2070-1694

The Authority acknowledges in the Draft EIR/EIS that potential direct and indirect impacts on conservation easements, including Mud Slough, would occur under all alternatives. The Draft EIR/EIS is consistent with CDFW's comments and finds that this impact would be significant. Consequently, the Authority has included BIO-MM#84, which would require the Authority to offset the loss of lands and values to conservation easements.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1695

As descr bed in the Draft EIR/EIS, the Authority prepared a WCA (Appendix C of Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS) to assess connectivity impacts on avian, terrestrial, and aquatic species. The proposed project alternatives include several design features, including elevated sections and dedicated wildlife undercrossings, which would minimize impacts on this important region. Additionally, the Final EIR/EIS includes several mitigation measures designed to further avoid, minimize, and mitigate effects on the GEA. These mitigation measures include BIO-MM#77a, which further defines the specific guidelines and design features for wildlife crossings to facilitate their use by wildlife, BIO-MM#77b, which outlines monitoring and adaptive management of wildlife crossings, and BIO-MM#80, which addresses noise, visual, and train strike impacts on wildlife movement, including the incorporation of noise/visual barriers within the GEA. With respect to the consideration of an alternative that would avoid the GEA, the Authority notes that they have conducted extensive alternatives analyses. Table 2-3 in the Chapter 2, Alternatives of the Draft EIR/EIS summarizes the alternatives considered for each of the subsections include the Central Valley Subsection where the GEA occurs. Alternatives considered include a route in the north end of the GEA, south of the GEA, and a tunnel under the GEA. Each of these alternatives was screened and eliminated from further consideration for various reasons as noted in Table 2-3. Additionally, Appendix 2-I to the Draft EIR/EIS provides more information on the alternatives considered during the screening process.

2070-1696

The Pacific Flyway is a general term describing the north-south migratory route for birds in western North America. Along the Pacific Flyway, there are many key rest stops or "stopover locations" where birds of many species gather to feed and regain strength before continuing. Specific boundaries of the Pacific Flyway are not defined or available and therefore the Authority analyzed effects on known major stopover locations and congregation locations for migratory birds that intersect the project extent. For the purposes of the analysis, these were identified as the GEA and Upper Pajaro River IBAs as identified by Audubon. Clarification of this approach has been added to the Biological Conditions discussion in Section 3.7, Biological Resources of the Final EIR/EIS. Regarding the length of the project alignment that would been closed, the Authority believes that CDFW is referring to the specific and enforceable commitments outlined in BIO-MM#80 in the Draft EIR/EIS, which requires the authority to address impacts within the GEA from noise, visual disturbance, and train strike. BIO-MM#80 requires the Authority to completely enclose the train and OCS within an area centered on Mud Slough, which is within the Audubon GEA IBA, and to construct barriers at least 17 feet high within a portion of the GEA near the Volta Wildlife Area. These design requirements included as mitigation, also have specific performance criteria related to noise and minimum requirements for noise attenuation. Together, The Authority believes these measures will also completely avoid bird str ke where they are constructed, because they do not allow a bird to enter and be struck by a moving train, or they do not allow a bird to fly into the path of a moving train, and thus monitoring to determine the effectiveness of the features in avoiding bird strike is not necessary.

2070-1697

Refer to Standard Response SJM-Response-BIO-4: Grasslands Ecological Area Boundary.

Response to Submission 2070 (Julie Vance, California Department of Fish and Wildlife, June 23, 2020) - Continued

2070-1698

Refer to Standard Response SJM-Response-BIO-6: Noise Impacts on Wildlife.

Operational impacts of noise and v bration are addressed in Impacts BIO#44 and BIO#45, with reference to a more detailed evaluation in the WCA (Appendix C of the Biological and Aquatic Resources Technical Report [Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS]). Additionally, Impacts BIO#44 and BIO#45 were revised in the Final EIR/EIS to provide additionalmore information regarding effects on all species groups, including fish. The analysis identifies a variety of impacts, including disturbance of waterfowl and other birds, as well as mammals. The analysis does not find support for commenter's assertion of nest abandonment or abandonment of a species' historical range. Similarly, CDFW's assertion of impacts on Swainson's hawk nests along Henry Miller Road is speculative, and disregards the existing high levels of noise and activity associated with vehicle traffic along Henry Miller Road and is not supported by the existing information. However, overall, the EIR/EIS finds that wildlife impacts of noise and activity are significant, and mitigation is required. Those mitigation requirements are focused on IBAs (Upper Pajaro River and GEA) and other areas important for wildlife movement (specifically mountain lion and other mammals). Noise impacts are addressed through additional mitigation in the Final EIR/EIS under BIO-MM#80, which requires noise barriers in several specific locations. Impacts of vibration are found to be less than significant, and the analysis cites a variety of studies in evidence.

2070-1699

The Authority disagrees with CDFW's statement that certain pre-construction surveys are not equivalent to protocol-level surveys and may not serve to conclusively determine that an area is unoccupied by the species. Pre-construction surveys can be used to assist with minimization measures, such as species relocation, but are not intended as conclusive presence/absence surveys. However, where a published survey protocol exists, it has been incorporated into the mitigation measures for the project. For example, BIO-MM#7 requires surveys for plants to be conducted "consistent with Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018c) and Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (USFWS 2000)" (Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS). Thus, surveys for state listed plants are required to be conducted according to CDFW's protocols. These protocols descr be the appropriate conditions or time of year, as well as other conditions that must be present for the surveys to be considered complete and valid. There are numerous other mitigation measures in the EIR/EIS that provide for protocol-level surveys prior to construction. The Authority agrees with CDFW's statement that the alternative approach to protocol-level surveys is to assume presence of the species in all suitable habitat. The Authority adopted existing and developed new habitat suitability models to assist with that approach. Consequently, CDFW's comment has already been addressed in the Draft EIR/EIS and no changes to the Final EIR/EIS are necessary.

2070-1700

Thank you. The Authority is compliant with Public Resources Code Section 21003 subd. (e).

2070-1701

Comment noted. Thank you.

Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020)

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION PLANNING
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Making Conservation a California Way of Life.

June 23, 2020

RE: Draft Environmental Impact Report/ Environmental Impact Statement for the San Jose to Merced High-Speed Rail extension.
SCH # 2009022083

Mr. Mark A. McLaughlin
California High-Speed Rail Authority
770 L Street, Suite 620 MS-1
Sacramento, CA 95814

San Jose to Merced Project Section of the California High-Speed Rail (HSR) - Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS)

Dear Mr. McLaughlin:

Thank you for providing the California Department of Transportation (Caltrans) an opportunity to review and provide comments on the Draft Environmental Impact Report/Draft Environmental Impact Statement (DEIR/DEIS) for San Jose to Merced High-Speed Rail extension (Project) proposed by California High-Speed Rail Authority (Authority). This Project would provide High-Speed Rail (HSR) service between the downtown San Jose Diridon Station and a station in downtown Merced, with a Gilroy station either in downtown Gilroy or east of Gilroy. The Project section would allow trains in the San Francisco Bay Area to transition smoothly via the Central Valley Wye to and from the Central Valley portion of the HSR system that runs north to Merced and south to Fresno and Southern California.

Specific Comments:

1690-1027

1. Caltrans supports the downtown Gilroy HSR stop with the existing Amtrak station to provide a seamless connection to Amtrak and the Monterey County Rail Extension. This extension would accommodate both business and recreational trips to and from the San Francisco Bay Area and the greater Monterey Peninsula.

1690-1028

1690-1029

1690-1030

1690-1031

1690-1032

1690-1033

2. Caltrans requests that the Authority continue to work closely with Caltrans Districts 4 and 5 and the Valley Transportation Authority (VTA) to ensure State Route (SR) 152 realignment and SR-25 Expressways conversion projects are consistent.

3. The San Luis and Delta Mendota Water Authority, in collaboration with the California Department of Water Resources and the Bureau of Reclamation, seeks to evaluate increasing storage capacity in the San Luis Reservoir. The proposed Water Project would provide a reliable water supply for south-of-delta contractors dependent on the San Luis Reservoir. The increased storage capacity would be achieved by an additional 10-foot raise of the B.F. Sisk Dam embankment across the entire dam crest above the level proposed for dam safety purposes. Work will take place in and around SR-152 and oversight projects in Caltrans District 10. This is an opportunity for the Authority and Caltrans to communicate, collaborate and coordinate proposed construction activities with the San Luis and Delta Mendota Water Authority, California Department of Water Resources and the Bureau of Reclamation.

4. Section S.5.2.1, page S.15, "Common Design Features": Please specify which leg is proposed to be removed from the existing at-grade intersection.

5. Section S.8.1, page S-21, HSR Benefits, paragraph 2: Regarding the following statement, "An HSR trip would use one-third of the energy of a similar trip by airline travel on a similar trip (Bay Area Council of Economic Institute 2008)." Please provide clarification for the energy savings mentioned in the above statement are per person or per travel mode.

6. Section 2.6.2.5, page S.102, Alternative 2, and Section 2.6.2.7, S.123, Alternative 4: Alternative 2 states the highway structures at Luchessa Avenue and US-101 will be reconstructed. Alternative 4 states the HSR would pass under US-101 while the existing structures would remain in place. Please explain in detail how the existing US-101 structures can remain in place for Alternative 4 and accommodate the HSR.

7. Section 2.6.2.4, page 2.85, "State Highway or Local Roadway Modifications": Please provide additional details on proposed modifications to allow for deconstruction traffic on SR-152. Are the

Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020) - Continued

1690-1033

proposed SR-152 construction modifications referred to in Appendix 2-A, page 2.A.18 are permanent or temporary? Please explain.

1690-1034

8. Please ensure the following regional lane projects on US-101 and SR-87 have been evaluated in the background analysis:

   a. Metropolitan Transportation Commission (MTC) RTPID 17-07-0075 US-101 express lanes from Whipple Rd. to Cochrane Rd.

   b. MTC RTPID 17-07-0082 SR-87 express lanes from I-880 to SR-85.

Bicycle and Pedestrian

1690-1035

9. Please explain the methodology and rationale used to identify bicycle and pedestrian crossings that would be closed as a result of this Project. Please ensure there are no unnecessary barriers as well as clear and appropriate bicycle signage. The two-mile maximum distance referenced in the summary is not suitable for this context. Please provide the methodology and reference document that was used for the two-mile maximum distance.

Section 4(f)

1690-1036

10. Please ensure completion of Section 4(f) analysis and consultation for all identified 4(f) resources and assessed potential adverse effects of these resources stemming from this Project, including Pacheco State Park and the related historical resources. Please consult the Caltrans' Standard Environmental Resources (SER) Chapter 20, Section 4(f), additional information is provided at the following weblink: https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-20-section-4f.

    For specific details on how Section 4(f) relates to Section 106 cultural resources, please refer to SER Chapter 2, subsection 2.4.8, Page 2:38, "Section 4(f) as it relates to Section 106" at the following weblink: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/f0004154-ch2-a11y.pdf.

Scenic Highway

1690-1037

11. Section 3.16.5.11, SR-152 is an eligible state scenic highway in Santa Clara County from postmile (PM) 22.100 to PM 35.161 and an officially designated state scenic highway in Merced County from PM 0.000 to PM 13.900. The planned Project is to coincide with SR-152 from Carliucci Road to the junction of SR-152 and SR-156, making the Project visible from the eligible state scenic highway segment.

    The Project should follow the Corridor Protection Program for SR-152. For further questions, please contact Keith Suzuki, Caltrans District 4 Scenic Highway Coordinator, at (510) 286-5938 or keith.suzuki@dot.ca.gov.

Cultural

1690-1038

12. For further information on how Caltrans complies with Section 106, please see SER Chapter 2, Section 2.3, Page 2:12."Section 106 Procedures under the 106 PA" refer to the following weblink: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/f0004154-ch2-a11y.pdf

1690-1039

13. This DEIR/DEIS should include a Tribal Cultural Resources (TCRs) assessment for the potential effects and related mitigation measures. Caltrans encourages including an assessment for TCRs, based on Section XVII Tribal Cultural Resources of CEQA Appendix G, to capture potential significant impacts and appropriate mitigation efforts for potential impacts to TCRs.

1690-1040

14. Summary, page S-56, "Historic Built Resources," and Page S-104, "Historic Built Resources": Please explain the following inconsistency for the total number of historic built resources in Alternatives 1 and 2. Page S-56 states Alternative 1 has seven, and Alternative 2 has two Historic built resources that will be adversely affected. These statements contradict the statements on page S-104, which states Alternative 1 has eight, and Alternative 2 has nine Historic built resources to be adversely affected.

1690-1041

15. Section 3.17.6.1, page 3.17-25, "Description of Predicted Archaeological Sites and Archaeological Sensitivity ": Please clearly state the "two information sources" used for capturing land use and archaeological data in identifying historical archaeological sensitive areas.

Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020) - Continued

1690-1042

16. Section 3.17.6.2, page 3.17-26, "Historic Built Resources": The survey addresses properties that turned 50 at the time of the survey's initiation (i.e., pre-1967). However, the treatment of properties that have turned or will turn 50 between 2017 and the completion of the Project has not been adequately discussed. Caltrans requests information on whether historical built resources will be handled as a whole or on a case-by-case basis.

1690-1043

17. Section 3.17.7.2, page. 3.17-55, "Unknown Possible Resource": Please indicate the "Unknown Possible Resource." Please clearly explain if the reported cultural resource is captured in a California Historical Resources Information System (CHRIS) Northwest Information Center records search or otherwise.

Hazard Waste

1690-1044

18. Please conduct a detailed site investigation of the project area soil proposed for excavation for contaminants of concern that may be encountered during construction, such as Aerially Deposited Lead (ADL) and other metals, naturally occurring asbestos, hydrocarbons, pesticides, and herbicides. Additional information can be found at the following weblink: https://dot.ca.gov/programs/environmental-analysis/hazardous-waste

    If hazardous waste is found adjacent or in the Caltrans Right of Way (R/W), appropriate action and activities will need to be incorporated into the Plans, Specifications, and Estimates (PS&E) packages for any mitigation work required by Caltrans.

1690-1045

Right of Way

19. Based on the evaluation of the Project's DEIR/DEIS, Caltrans will require the following documents:
    a. A Joint Use Agreements (JUA) for facilities within the Caltrans operating R/W at the following weblink: https://dot.ca.gov/-/media/dot-media/programs/right-of-way/documents/rw-manual/january-2020-rw-manual-a11y.pdf;

    b. Refer to Chapter 13 of the Caltrans R/W Manual, Transfer of Jurisdiction (TOJ) for a property that is declared excess to the

1690-1045

operating R/W at the following weblink: https://dot.ca.gov/-/media/dot-media/programs/right-of-way/documents/rw-manual/january-2020-rw-manual-a11y.pdf;

    c. Refer to Chapter 8 of the Caltrans R/W Manual, Encroachment Permits for all work in Caltrans R/W at the following weblink: https://dot.ca.gov/programs/traffic-operations/ep

Traffic Operations

1690-1046

20. The Project should assess the potential impacts to the following interchanges:

    - I-280/Bird Avenue
    - SR-87 (Guadalupe Parkway)/West Julian-East St. James Street
    - SR-87 (Guadalupe Parkway)/West Santa Clara Street
    - SR-87 (Guadalupe Parkway)/Park Avenue
    - I-880/The Alameda
    - I-880/Coleman Avenue

1690-1047

The transportation analysis should include ramps for the analyzed freeway segments in all alternatives for each of the identified interchanges. The Project's traffic ramp analysis for potential impacts should assess the additional traffic added to the on-ramps and the mainline operations. A good faith effort in analyzing the possible effects of queue spillover from on-ramps to local streets, and off-ramps for queue spillback from local streets to the freeway mainline.

1690-1048

The transportation analysis should determine if adequate storage capacity for the turning movement at the identified interchanges freeway off-ramps intersections to assess the potential queue spillback to the freeway (i.e., mainline). The analysis should include on-ramp storage capacity evaluations to avoid on-ramp queue spillback on local streets. The transportation analysis should consist of projected trips generated "with and without" the Project to determine if additional vehicle trips generated will require potential mitigation for the identified interchanges freeway segments and the associated local streets intersections.

1690-1049

21. Chapter 3, Section 3.2.6.2, Page, 3.2-13, "Freeways": The following comments are based on the following statement criteria, "...the LOS was determined using the traffic density, as shown in Table 3.2-7. Then, for

Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020) - Continued

1690-1049

freeway segments with LOS E or F (only), the difference in the V/C ratio between the No Project conditions and plus Project conditions was calculated. An adverse effect under NEPA was deemed to occur if the Project would cause the V/C ratio to increase by 0.04 (4 percent) or more."

Based on the above statement criteria, the analysis should assess transportation impacts from rerouted traffic due to "Permanent Road Closures and Relocations" on the State Highway System (SHS). If a freeway section is impacted as identified based on the criteria from Chapter 3, Section 3.2.6.2 , Page. 3.2-13, mitigation may be required due to degraded freeway operations or volume to capacity (v/c) ratio.

1690-1050

22. The Project should mitigate for potential impacts on the SHS or contribute a fair share for mitigation based on nexus and proportionality.

Structures Maintenance and Investigation

Please note the following comments will not replace Caltrans' on-going feedback provided during routine meetings between Caltrans Bridges and the Authority.

1690-1051

23. Please send Caltrans Structures plans, modifications, calculations, etc. when an existing bridge is planned to be modified, or the Authority does work near an existing bridge. The Caltrans Structures contact for this is Kevin Flora and can be reached at (916) 227-8036 or kevin.flora@dot.ca.gov.

1690-1052

24. For any planned bridge or tunnel that passes over or under a public road:
    a. The Agency must apply for a bridge name and number from Caltrans.

    b. Please design bridges and tunnels using Caltrans adopted and latest modified American Association of State Highway and Transportation Officials (ASSHTO)codes to prevent load capacity restrictions.

    c. To ensure quality control during construction, please reference Caltrans bridge standard specifications at the following weblink:

https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications.

d. Please indicate and print procedure on the plans to submit approved pre-construction and as-built plans to Caltrans Headquarters Structures Maintenance.

e. Caltrans requests to review bridge plans to ensure these plans comply with Caltrans standard practice, the scope of service, and alignment and geometrics. Please contact the Caltrans Local Development office for assistance and to set up a review. Please find more information at the following weblink:

https://dot.ca.gov/programs/engineering-services/manuals/bridge-constr-records-proc-manual-vol1

https://dot.ca.gov/programs/engineering-services/manuals/bridge-constr-records-proc-manual-vol2

f. The Authority can obtain existing bridge plans from Caltrans Headquarters Structures Maintenance and Investigations. Please contact Kevin Flora at (916) 227-8036 or kevin.flora@dot.ca.gov

g. The Authority can add any bridge to the national bridge inventory. Please consult the following handout located at the following weblink: https://dot.ca.gov/SearchResults?q=REQUEST+TO+ADD+STRUCTURE+TO+THE+NATIONAL+INVENTORY. Please contact Kevin Flora, Caltrans Headquarters structures at (916) 227-8036 or kevin.flora@dot.ca.gov for assistance and questions.

General Comments

1690-1053

Transportation Management Plan

A Transportation Management Plan (TMP) should be prepared with Caltrans input to outline the process of minimizing project-related traffic impacts and delays associated with various activities and are not limited to the following: logistics related to staging and storage of construction equipment, workers and

Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020) - Continued

1690-1053

materials, prescriptive vegetation control and prescribed burns adjacent to proposed SHS areas throughout the State. The Project would provide a framework for the implementation of traffic control strategies and the timely distribution of traffic-related information to emergency services and the local citizens and businesses throughout the life of the Project.

The TMP is an approach for alleviating or minimizing work-related traffic delays by the effective application of traditional traffic handling practices that may include an innovative combination of various strategies. These strategies include public awareness campaigns, motorist information, incident management, construction methods, demand management, and alternate route planning. Depending on the complexity of the work or magnitude of anticipated traffic impacts, a TMP may provide lane requirement charts, Standard Special Provisions (SSPs) for maintaining traffic. The schedule and staging of logistics for workers, equipment, materials, and activities are a requirement to communicate effectively, plan, and execute coordination and implementation efforts for these activities in work zone areas.

For more information on Caltrans Transportation Management Plan Guidelines refer to this weblink: https://dot.ca.gov/programs/traffic-operations/tmp

1690-1054

Encroachment Permit

- Any staging or work in Caltrans' R/W will require an encroachment permit.
- Any work to occur in Caltrans' R/W, including temporary shoulder or lane closures, requires a Caltrans encroachment permit. Any temporary constructed access will be needed to be removed upon completion. Also, the installation of permanent signs, as department policy, is not permitted within Caltrans' R/W.
- It is important to note that any advertising structure visible to the National Highway System (NHS), is subject to the provisions of the California Outdoor Advertising Act outlined in Business and Professions Code Section 5200 et seq. Any advertising structure that displays off-premise commercial copy visible from the NHS will require a permit from the Office of Outdoor Advertising (ODA). Any advertising structure that only advertises goods and services available on-premise will not require a permit from ODA, provided it adheres to the provisions of Business and Professions Code Section 5272 and 5274 and California Code of

1690-1054

Regulations 2243 and 2246. Each of the proposed advertising structures should refrain from operating in any of the conditions outlined in Business and Professions Code Section 5403. For questions related to the ODA permit application process please contact Kenneth Parmelee at (916) 651-9327 or at kenneth.parmelee@dot.ca.gov.

- Caltrans requests the Authority to engage with Caltrans District Traffic Operations and Permits staff for interaction regarding any encroachment permit, impacts to the SHS and its travelers, traffic control measures or other mitigation measures, and other requirements such as tree trimming and removal procedures. Appendix K (2018 update) of the Caltrans Encroachment Permit Manual has specific provisions for tree trimming and tree removal in Caltrans R/W. For more information concerning Encroachment Permits are at the following weblink: https://dot.ca.gov/programs/traffic-operations/ep/ep-manual
- To apply for an encroachment permit, please complete and submit an encroachment permit application, environmental documentation, and five sets of plans indicating Caltrans R/W to the appropriate Caltrans District:

  For Merced County, Caltrans District 10:
  Francisco Rodriguez, P.E.
  Acting District Permits Engineer
  California Department of Transportation
  District 10, Encroachment Permits
  1976 East Charter Way
  Stockton, CA 95205
  (209) 948-7891
  Francisco_J_Rodriguez@dot.ca.gov

  For San Benito County, Caltrans District 5:
  Mr. Peter Hendrix
  California Department of Transportation
  D5, Office of Permits
  50 Higuera Street
  San Luis Obispo, CA 93401
  (805) 549-3152
  peter.hendrix@dot.ca.gov

Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020) - Continued

For Santa Clara County, Caltrans District 4:
Mr. Amjad Naseer
California Department of Transportation
District 4, Office of Permits
111 Grand Avenue, 6th Floor MS 5E
P. O. Box 23660
Oakland, CA 94623-0660
(510) 286-4423
Amjad.Naseer@dot.ca.gov

Please continue to keep Caltrans informed of this Project and any future developments that could potentially impact state transportation facilities. Should the Authority have any questions regarding this letter, please contact Steve Kent at (916) 653 – 8677 or stephen.kent@dot.ca.gov.

Sincerely,

CHRISTIAN BUSHONG
Branch Chief, Local Development-Intergovernmental Review
Headquarters

Attachment

c: Scott Morgan Chief Deputy Director,
State Clearinghouse Director, State Clearinghouse
Caltrans District 10 Transportation Planning
Caltrans District 5 Transportation Planning
Caltrans District 4 Transportation Planning

Response to Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020)

1690-1027

Refer to Standard Response SJM-Response-ALT-1: Alternatives Selection and Evaluation Process, SJM-Response-GEN-1: Opposition and Comments on the Merits of the Project.

The comment supports a Downtown Gilroy Station.

1690-1028

During Detailed Design that will occur post-ROD, the Authority will coordinate with Caltrans and VTA to achieve consistency among the projects.

1690-1029

This comment requests that the Authority and Caltrans communicate, collaborate, and coordinate proposed construction activities with the SLDMWA, DWR, and Reclamation. The Authority will continue to engage jurisdictions and stakeholders through the design process, construction, and operation of the project.

1690-1030

The elimination of one leg of an existing at-grade intersection was part of an outdated, draft design and is not reflected in Volume 3, Preliminary Engineering for Project Design Record, of the Draft EIR/EIS. The language referenced in the comment has been removed from the Final EIR/EIS.

1690-1031

The energy savings mentioned in Section S.8.1, HSR Benefits, of the Draft EIR/EIS are energy savings per trip made by each travel mode.

1690-1032

The Authority included Volume 3, Preliminary Engineering for Project Design Record, in the Final EIR/EIS. The US 101 crossing south of Luchessa Avenue for Alternative 4 is shown in Book 4A, Sheet TT-D4023. At this location, the HSR tracks are at the same elevation as the existing UPRR tracks, which currently run underneath US 101. There is sufficient vertical and horizontal clearance underneath US 101 for both HSR and UPRR. Crash walls have been included between the tracks and the US 101 support columns. Crash wall details are shown on Sheet ST-Y0002 in the General Information sheets.

1690-1033

State Highway or Local Roadway Modifications in Section 2.6.2.4, Alternative 1, descr bes project elements within the San Jose Diridon Station Approach Subsection. There are no modifications to SR 152 in the San Jose Diridon Station Approach Subsection. Additional description has been added to the Pacheco Pass Subsection description of State Highway or Local Roadway Modifications to clarify that the following modifications would be made to SR 152: road widening, additional turn out and transition lane on westbound SR 152, additional left turn lane and transition lane on eastbound SR 152. Additional lanes provide queueing space for vehicles going from SR 152 to the West portal of Tunnel 2 and a TPSS site. These modifications would permanently provide access to HSR facilities.

1690-1034

The comment noted that the Draft EIR/EIS should include two regional lane projects within the technical transportation analysis (Metropolitan Transportation Commission RTPID 17-07-0075 US-101 express lanes from Whipple Road to Cochrane Road and Metropolitan Transportation Commission RTPID 17-07-0082 SR-87 express lanes from 1-880 to SR-85). Please refer to Section 3.2.4.3, Methods for Impact Analysis (subsection Travel Demand Forecasts and Calculations of Vehicle Miles of Travel), of the Draft EIR/EIS for a description of the travel demand modeling tool and assumptions. Both of the infrastructure improvement projects referenced in the comment were incorporated into the Draft EIR/EIS' travel demand forecasts.

Response to Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020) - Continued

1690-1035

The comment noted that the Draft EIR/EIS identifies that the project would permanently close some bicycle and pedestrian crossings. Please refer to Table 3.2-14 in Section 3.2, Transportation, of the Draft EIR/EIS for a delineation of the roadway closures and modifications associated with each of the four alternatives. Construction of the various alternatives would involve the closure and/or modification of a number of roadways that also serve bicycle and pedestrian traffic. Where roadway crossings would be closed or modified, alternative crossings would be provided for bicycle and pedestrian travel, with appropriate signage. As identified in Impact TR#19 of the Final EIR/EIS, the project alternatives were found to have a less-than-significant impact on nonmotorized travel. None of the project alternatives were found to have significant adverse impacts related to unnecessary barriers or inadequate signage. The comment also noted a 2-mile maximum distance relative to the topic; it is unclear what distance or measurement is being referenced. Please refer to Table 3.2-1 in Section 3.2 of the Draft EIR/EIS for a description of the nonmotorized study area, which includes infrastructure for pedestrian and bicycle transportation that could be affected by project construction, as well as existing and planned pedestrian and bicycle facilities within 500 feet of the project footprint.

1690-1036

Please refer to Chapter 4, Section 4(f)/6(f) Evaluation, which documents the identification of Section 4(f) protected resources and analysis of impacts to such resources. The Authority notes that Pacheco State Park is located entirely outside the Area of Potential Effects (APE); the HASR details the delineation of the APE and identification of NRHP-listed and -eligible historic properties within the APE. Because Pacheco State Park is outside the APE, no resources within the state park are analyzed for potential effects under Section 106 or potential uses under Section 4(f). The Authority appreciates the references to the Caltrans SER.

1690-1037

Please see Section 3.16.6.3 where SR152 is included in the analysis as a designated State Scenic Highway. SR 152 is a designated State Scenic Highway in Merced County from I-5 west to the Santa Clara County Line. SR 152 is eligible as a State Scenic Highway in the RSA from the Merced County Line west to near the SR 152 / 156 junction. The HSR project would be visible from SR 152 on the west side of Pacheco Pass. East of the Pacheco Pass, a view of the HSR corridor from SR 152 may be possible from the far distance where SR 152 crosses the I-5 corridor. Travelers on SR 152 would have a very low exposure to views of HSR views to travelers on SR 152 at this point is very low, as the HSR corridor would be 5 to 6 miles north, and views are limited as SR 152 passes under I-5, limiting viewing opportunities. The HSR project would be vis ble from SR 152 on the west side of Pacheco Pass. West of Pacheco Pass, the HSR would be adjacent to SR 152 for approximately 5 miles. Key Visual Points (KVPs) 28and 30 (Figures 3.16-44 and 3.16-46 in Section 3.16, Aesthetics and Visual Quality, of the Draft EIR/EIS) show the HSR project from points along SR 152.The discussion of Impact AVQ#12 in Section 3.16.6.2, Impacts on Visual Quality, including Scenic Vistas, of the Draft EIR/EIS outlines the IAMFs and mitigation measures that would be employed in conjunction with the HSR project. These measures would support the Corridor Protection Program, presented in Section IV of the Caltrans Scenic Highway Guidelines, which describes the corridor protection program for elig ble state highways. While it is outside the jurisdiction of the HSR project to perform elements 1, 2, and 3 of the program, which are the responsibility of the local jurisdictions. The HSR project will follow Element 4, earthmoving, landscaping/re-vegetation and Element 5, guiding the design and appearance of structures.

1690-1038

Comment noted. Thank you.

1690-1039

Thank you for your comment. As stated in Section 3.17.4.3, Native American Outreach and Consultation, AB 52 does not apply to this project because the Notice of Preparation was issued prior to July 1, 2015; therefore, a Tribal Cultural Resources Assessment will not be performed. The Authority stands behind the approach and methodology used to identify cultural resources in this EIR/EIS.

Response to Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020) - Continued

1690-1040

To address this comment, the Authority has revised the counts of adversely affected properties under Alternative 1 and Alternative 2 in Table S-8, so that it is consistent with the counts in Table S-3.

1690-1041

To address this comment, the Authority has revised the text on Page 3.17-22 to name the two information centers referenced for the records search and text on Page 3.17-25 to include the two sources referenced for the historical archaeological sensitivity study. This information can also be found with additional detail provided in the ASR.

1690-1042

Refer to Standard Response SJM-Response-CUL-1: Baseline for Identification of Historic Properties.

1690-1043

This resource was included in the CHRIS records search results as a mapped location with no associated description; this resource is listed in Table 3.17-3, which contains those archaeological resources identified in the CHRIS records search. Please refer to the ASR, Section 7.1.5, for additional information on this resource received from the Northwest Information Center.

1690-1044

The comment noted that the Draft EIR/EIS does not include a detailed site investigation of the project area soil proposed for excavation for contaminants of concern. Please refer to Draft EIR/EIS Section 3.10, Hazardous Materials and Waste, which contains an analysis of aerially deposited lead (Impact HMW#8) and naturally occurring asbestos (Impact HMW#9). Pesticides and herbicides in soil from current or historical agricultural uses are descr bed in Draft EIR/EIS Section 3.10.5.4, Pesticides in Soil from Current or Historical Agricultural Uses. For the analysis of potential environmental concern (PEC) sites, the analysis used a database search of a 0.25-mile buffer on either side of the project footprint. Ground-disturbing activities during project construction have the potential to disturb in-situ contamination on or near identified PEC sites. Phase I and Phase II ESAs would be conducted during the right-of-way acquisition phase (HMW-IAMF#1) to assess the potential for disturbance of contaminated sites. Provisions in the CMP would call for stopping construction activities if undocumented contamination or fill material is encountered (HMW-IAMF#4). By limiting soil disturbance, migration of and exposure to contaminants would be constrained to the immediate vicinity of the exposed surface. Engineering controls (HMW-IAMF#3) would minimize the migration of and exposure to the contaminants until local agencies have been contacted and a plan for further assessment and remediation put in place before construction activities would resume. These project features would minimize the potential exposure to contaminants from known and undocumented PEC sites.

1690-1045

The comment notes that Caltrans will require various documents including Joint Use Agreements for facilities within the Caltrans operating right-of-way, a Transfer of Jurisdiction under certain circumstances, and encroachment permits. These agreements are anticipated to be required. Encroachment permits were included in Table 2-18. Joint Use Agreements and Transfers of Jurisdiction have been added to Table 2-18 in the Final EIR/EIS. The facilities requiring Joint Use Agreements, Transfers of Jurisdiction, or encroachment permits will be determined during Detailed Design Post-ROD. The Authority will comply with all requirements pertaining to the Caltrans right-of-way.

Response to Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020) - Continued

1690-1046

The comment noted that the Draft EIR/EIS should assess the project's potential impacts on a number of interchanges in the City of San Jose. Please refer to Table 3.2-1 in Section 3.2, Transportation, of the Draft EIR/EIS for a summary of how transportation facilities were selected for evaluation. Freeway segments that would serve 100 or more project-generated trips in either the AM or PM peak hour and intersections of roadways classified as a collector or above that would be physically modified by the project or would serve 50 or more project trips in either the AM or PM peak hour are considered to be affected by the project. The ramp terminal intersections at the I-880/The Alameda, SR 87/West Julian–East St. James Street, I-280/Bird Avenue, SR 87/West Santa Clara Street, I-880/Coleman Avenue, and SR 87/Park Avenue interchanges were found to meet these criteria and were assessed in the Draft EIR/EIS. Please refer to Figures 2 through 53 of Appendix 3.2-A, Transportation Data on Roadways, Freeways, and Intersections (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), for a summary of the LOS evaluations at these and other locations.

1690-1047

The comment noted that the Draft EIR/EIS should assess the project's potential impacts on ramps and ramp queuing for the analyzed freeway segments. Please refer to Table 3.2-1 in Section 3.2, Transportation, of the Draft EIR/EIS for a summary of how transportation facilities were selected for evaluation. Freeway segments that would serve 100 or more project-generated trips in either the AM or PM peak hour and intersections of roadways classified as a collector or above that would be physically modified by the project or would serve 50 or more project trips in either the AM or PM peak hour are considered to be affected by the project. All ramp terminal intersections that satisfied the Resource Study Area screening criteria were included in the analysis. Please refer to Figures 2 through 53 of Appendix 3.2-A, Transportation Data on Roadways, Freeways, and Intersections (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), for a summary of the LOS evaluations at these and other locations. While queues were not specifically reported as part of the Draft EIR/EIS, intersection LOS were. Significant NEPA effects on the studied intersections were identified if the project was found to substantially degrade conditions within LOS E or F. Mitigation measures are proposed for identified adverse NEPA effects. As part of the intersection LOS analysis, queues are calculated and factored into the results. Extensive queues in excess of available storage are not normally expected within intersection LOS A through D wherein good to moderate traffic conditions prevail. The identified adverse effects and mitigation measures within LOS E and F capture those locations wherein the project would be expected to negatively affect locations with excessive queues.

Response to Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020) - Continued

1690-1048

The comment noted that the Draft EIR/EIS should assess the project's potential impacts on storage capacity and queuing at freeway ramp intersections. While queues were not specifically reported as part of the Draft EIR/EIS, intersection LOS were. Please refer to Figures 2 through 53 of Appendix 3.2-A, Transportation Data on Roadways, Freeways, and Intersections (located in Volume 2, Technical Appendices, of the Draft EIR/EIS), for a summary of the LOS evaluations at all potentially affected freeway ramp terminal intersections. Significant NEPA effects on the studied intersections were identified if the project was found to substantially degrade conditions within LOS E or F. Mitigation measures are proposed for identified adverse NEPA effects. As part of the intersection LOS analysis, queues are calculated and factored into the results. Extensive queues in excess of available storage are not normally expected within intersection LOS A through D wherein good to moderate traffic conditions prevail. The identified adverse effects and mitigation measures within LOS E and F capture those locations wherein the project would be expected to negatively affect locations with excessive queues. The comment also noted that the Draft EIR/EIS should assess conditions with and without traffic associated with the project. Please refer to page 3.2-12 of the Draft EIR/EIS for a summary of the scenarios evaluated within the study, which include assessments with and without project-generated traffic.

1690-1049

The comment stated the freeway analysis methodology and significance criteria used in the Draft EIR/EIS. The comment also noted that the Draft EIR/EIS should assess rerouted traffic associated with permanent road closures and relocations in accordance with those criteria and mitigate identified impacts as necessary. Please refer to Impact TR#3 on page 3.2-50 of the Draft EIR/EIS. The Draft EIR/EIS fully assesses the potential effects of rerouted traffic associated with permanent road closures and relocations in accordance with the specified methodology and significance criteria.

1690-1050

Refer to Standard Response SJM-Response-TR-1: Site-Specific Mitigation for Traffic Impacts.

The comment stated that the Draft EIR/EIS should identify mitigation for potential impacts on the state highway system or contribute a fair share for mitigation based on proportionality. As discussed in Section 3.2, Transportation, Alternatives 1, 2 and 3 would affect traffic delay/congestion on US 101 due to the narrowing of Monterey Road in South San Jose, but Alternative 4 would not have adverse effects on US 101.

In concept, addressing Alternative 1, 2 and 3 effects on US 101 would require the project to make a fair share contr bution towards mobility improvements in the affected section of the highway corridor. In order to address the delay/congestion traffic effects, increased freeway capacity would be required. Widening of the freeway and adding new freeway capacity would likely result in a substantial increase in VMT. As descr bed in the revised Section 3.2, the Authority is not intending to include mitigation measures for traffic delay/congestion if they would substantially increase VMT; as such, this measure is not proposed. Please refer to Appendix 3.2-A for further information regarding why this improvement is not being proposed by the project.

1690-1051

The comment is noted. Thank you for providing the appropriate contact information. The Authority will provide additional structural information for coordination as part of Detailed Design Post-ROD.

1690-1052

The comment is noted. Thank you for the information.The Authority will apply for bridge names and numbers as appropriate. The design of bridges and tunnels will follow current AASHTO codes as well as Caltrans standard specifications for bridges. The Authority meets and exceeds AASHTO with CA Amendments using Caltrans seismic design criteria version 2.0, with seismic design category "Recovery", which exceeds "Ordinary".

Response to Submission 1690 (Stephen Kent, California Department of Transportation, June 23, 2020) - Continued

1690-1053

The comment noted that the Draft EIR/EIS should identify the need for the preparation of a Transportation Management Plan to minimize impacts and disruptions during the construction phase of the project. Please refer to TR-IAMF#2 in Section 3.2, Transportation, of the Draft EIR/EIS, the full text of which can be located in Appendix 2-E, Project Impact Avoidance and Minimization Features Analysis (located in Volume 2, Technical Appendices, of the Draft EIR/EIS). This project impact avoidance and minimization feature details the preparation of a Construction Traffic Management Plan as requested by the comment. It is anticipated that the contractor would coordinate with Caltrans and other affected public agencies in the preparation and implementation of the Construction Traffic Management Plan. If vegetation control or prescribed burns are implemented adjacent to or within Caltrans right-of-way, Caltrans would be notified and consulted.

1690-1054

The comment is noted. Thank you for the information. Encroachment permits are anticipated and included in Section 2.12, Permits, of the Draft EIR/EIS. The Authority will determine which facilities will need encroachment permits as part of Detailed Design Post-ROD.

Submission 1359 (Erik Frost, California Geological Survey, June 8, 2020)

California Department of Conservation
California Geological Survey

Gavin Newsom, Governor
David Shabazian, Director

June 8 2020

Mark A. McLoughlin
California High-Speed Rail Authority
770 L Street Suite 620 MS-1
Sacramento CA 95814

Dear Mr. McLoughlin:

The California Geological Survey (CGS) has received the Notice of Preparation for the Draft Environmental Impact Report/Environmental Impact Statement for the California High-Speed Rail (HSR) San Jose to Merced Project Section (SCH# 2009022083). Staff from the CGS Seismic Hazards and Mineral Resources programs reviewed proposed locations of the rail line related structures permanent easements and right-of-way in relation to geologic hazards seismic hazards and mineral resources. Spatial data and background technical reports were provided by the High-Speed Rail Authority (hereafter referred to as the Authority) and all four project alternatives were considered in the review.

CGS provides the following comments for consideration:

1359-112

1. Geologic Hazards
The Authority identifies numerous geologic hazards in the Geology Soils and Seismicity Technical Report dated September 2019. This report adequately assesses the general distribution of these hazards and identifies a range of potential mitigation options that the design-build contractor should consider pending site-specific investigations. CGS notes that the adequacy of these site-specific investigations and mitigation measures cannot be evaluated at this time.

1359-113

2. Seismic Hazards
The Authority identifies primary seismic hazards of surface fault rupture and ground shaking and secondary seismic hazards of liquefaction and earthquake-induced landslides in the Geology Soils and Seismicity Technical Report dated September 2019. This report adequately assesses the project's general exposure to the hazards of ground shaking liquefaction and earthquake-induced landsliding and identifies a range of potential mitigation options that the design-build contractor should consider pending site-specific investigations. As noted

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1359-113

above the adequacy of these site-specific investigations and mitigation measures cannot be evaluated at this time.

1359-114

The primary seismic hazard of surface fault rupture is addressed in a series of background reports. Lettis Consultants International (LCI) produced three fault evaluation reports dated April 2017 that explain the process for screening fault hazard (Figure 1) and document the known properties of faults that cross or are within 1 650 feet (500 meters) of the project. The hazard of each fault is then classified in a separate report prepare by the Seismic Specialist Team – Fault Displacement (SST-FD) dated July 2017. The LCI reports indicate that faults classified as either Class A Hazardous or Class B Hazardous would then be subject to a fault displacement hazard analysis

The fault evaluation reports by LCI adequately characterize faults in the project area. However CGS notes the SST-FD report classifies the Monte Vista-Shannon fault as nonhazardous which does not appear to be consistent with the Authority's screening process (Figure 1) considering the data presented in the fault evaluation report. LCI concluded the Monte Vista-Shannon fault is an active fault with a slip rate of less than 1 mm/yr and that additional work is warranted to confirm or disconfirm mapping that shows the fault as potentially intersecting the project. **CGS recommends that a nonhazardous" classification for the Monte Vista-Shannon fault should be supported by additional work as specified by LCI.** Alternatively a conservative approach would be to classify the fault as Class B Hazardous consistent with the Authority's screening process.

1359-115

CGS also notes that in the Geology Soils and Seismicity Technical Report dated September 2019 the Authority states that all HSR components will be designed for the effects of earthquakes including potential bending moments shear forces and displacements resulting from surface fault rupture (p. 5-46). However none of the reports submitted to date include any fault displacement hazard analyses. As such CGS cannot comment on whether the primary seismic hazard of surface fault rupture has been adequately assessed.

1359-116

3. Mineral Resources
CGS provides objective economic-geologic expertise to assist in the protection and development of mineral resources through the land-use planning process. This effort is mandated by the Surface Mining and Reclamation Act of 1975 (SMARA). The primary products are mineral land classification maps and reports. Local agencies are required to use the classification information when developing land-use plans and making land-use decisions.

Submission 1359 (Erik Frost, California Geological Survey, June 8, 2020) - Continued

1359-116

When determining if a proposed project is within a Mineral Resource Zone (MRZ) CGS refers the Authority to its published mineral land classification reports. Lands classified as MRZ-2 indicate a high likelihood that significant mineral deposits (construction aggregate) are present. Areas within an MRZ-2 that have land use(s) considered to be compatible with mining are identified as Sectors. The HSR project section is included in Special Report 146 Part II (CGS 1987) Special Report 146 Part IV (CGS 1989) Open File Report 96-03 (CGS 1996) Open File Report 99-01 (CGS 1999) and Open File Report 99-08 (CGS 1999).

In addition to the reports prepared by CGS the State Mining and Geology Board (SMGB) can designate Sectors it deems as land containing mineral deposits of statewide or regional significance through their Designation Reports. The proposed project is included in the Designation Report No. 7 prepared by the SMGB in 1987.

CGS finds that this project section of the HSR is on lands classified MRZ-2 and designated as containing aggregate deposits of regional significance in an area along the Pacheco Pass east of Gilroy (Figure 2). The designated area contains about 19 million tons of concrete grade aggregate resources. The proposed project is a land-use incompatible with mining.

CGS recommends that the EIR be revised to accurately reflect the location of all lands classified MRZ-2 and designated by the SMGB within the proposed project section, and describe the potential impacts, or lack thereof, upon mineral resources.

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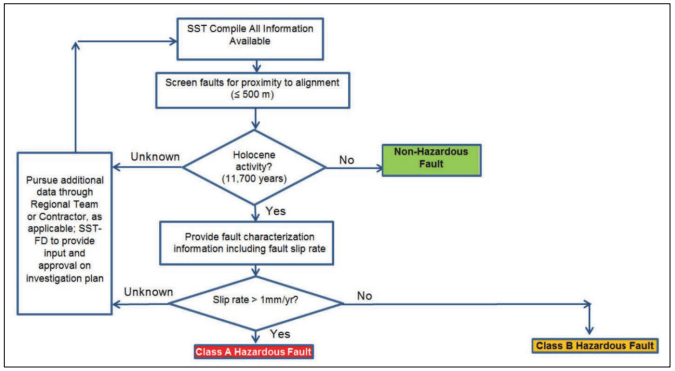

Figure 1. The Authority's flow chart documenting the fault screening process.

Submission 1359 (Erik Frost, California Geological Survey, June 8, 2020) - Continued

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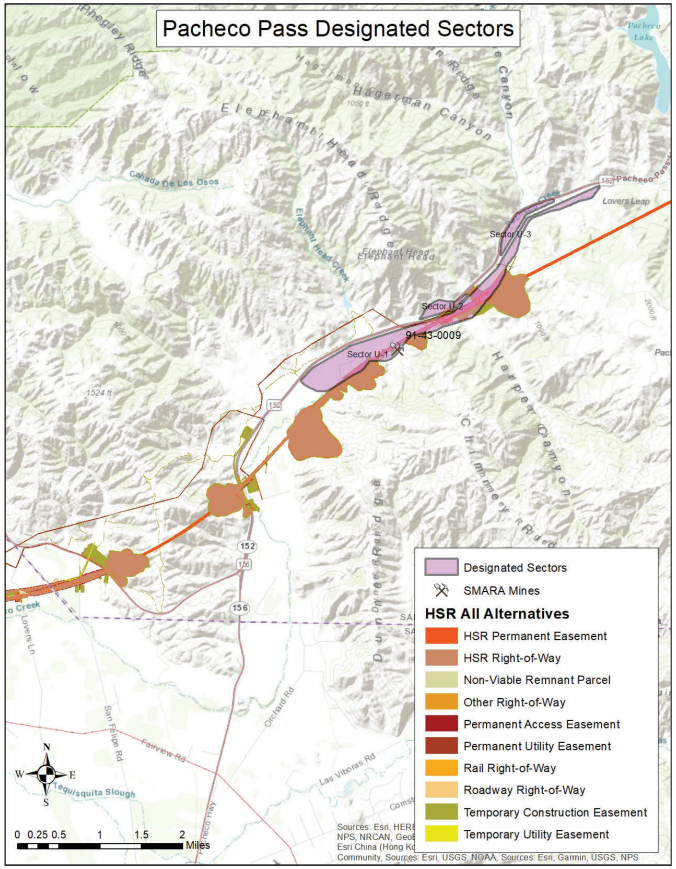

Figure 2. Lands classified as MRZ-2 in the Pacheco Pass area.

Page 5 of 5

Response to Submission 1359 (Erik Frost, California Geological Survey, June 8, 2020)

1359-112

Thank you for your comment and acknowledgement of the adequacy of the Geology, Soils, and Seismicity Technical Report dated September 2019 (Authority 2019a, as cited in Section 3.9, Geology, Soils, Seismicity and Paleontological Resources, of the Draft EIR/EIS) based on your review. The Authority understands that CGS has not evaluated the site-specific investigations and mitigation measures at this time and will continue to coordinate with the agency as site-specific investigations occur prior to construction.

1359-113

Please see response to submission SJM-1359, comment 112. The Authority understands that CGS has not evaluated the site-specific investigations and mitigation measures at this time and will continue to coordinate with the agency as site-specific investigations occur prior to construction.

1359-114

Thank you for your comment; Section 3.9, Geology, Soils, Seismicity and Paleontological Resources, of the Draft EIR/EIS only includes Class A faults. The Authority acknowledges that the Geology, Soils, and Seismicity Technical Report dated September 2019 (Authority 2019a, as cited in Section 3.9, Geology, Soils, Seismicity and Paleontological Resources, of the Draft EIR/EIS) incorrectly classifies the Monte Vista–Shannon fault zone; it should have been identified as Class B consistent with SST-FD 2017 (as cited in Section 3.9 of the Draft EIR/EIS). The content of this technical report will not be updated as the environmental review process continues.

1359-115

The comment noted that the Draft EIR/EIS does not include fault displacement hazard analyses. Please refer to Section 3.9.5.3, Primary Seismic Hazards, of the Draft EIR/EIS, which states: “Faults that intersect the alignment at known or postulated locations were screened by the project’s Seismic Specialists Team-Fault Displacement (SST-FD) and determined to be Class A Hazardous, Class B Hazardous, or Non-Hazardous faults (SST-FD 2017). The project crosses Class A Hazardous faults such as the Calaveras and Ortigalita in the Morgan Hill and Gilroy and Pacheco Pass Subsections, respectively (Figure 3.9-8).” An analysis of the environmental consequences of surface fault rupture during construction and operation is provided in Section 3.9.6.2, Geology, Soils, and Seismicity, of the Draft EIR/EIS, under Impact GEO#9 and Impact GEO#12. All HSR components, including tunnels, would be designed for the impacts of earthquakes, including bending moments, shear forces, and displacements resulting from surface fault rupture (GEO-IAMF#7).
In addition, Fault Evaluation Reports were prepared for the San Jose Approach to Pacheco Pass Subsection, Pacheco Pass Subsection, and San Joaquin Valley to Central Valley Wye Subsection by Lettis Consultants International, Inc. in April 2017 for the project, as described in the Geology, Soils, and Seismicity Technical Report (Authority 2019a, as cited in Section 3.9 of the Draft EIR/EIS).

1359-116

To address this comment, the Final EIR/EIS Section 3.9.5.5, Geologic Resources, has been revised to acknowledge lands classified as MRZ-2. The revision also provides the quantity of aggregate and percentage of the statewide available tonnage that could have reduced access. However, because the project only reduces potential access to less than 1% of the state’s aggregate resources and there are no active mineral resource recovery sites mapped within the geologic hazards RSA, project construction would not result in significant loss of availability of a locally important mineral resource recovery site. As a result, this resource was dismissed from further consideration.

Submission 2074 (Felix Ko, California Public Utilities Commission, July 23, 2020)

STATE OF CALIFORNIA Gavin Newsom, Governor

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102

July 23, 2020

Mark McLoughlin
California High Speed Rail Authority
770 L Street, Suite 620 MS-1
Sacramento, CA 95814

Re: Draft Environmental Impact Report (DEIR)
San Jose to Merced High-Speed Train Project DEIR/EIS
SCH# 2009022083

Dear Mr McLoughlin:

The California Public Utilities Commission's (Commission) Rail Crossing Engineering Branch (RCEB) is taking this opportunity to address the California High-Speed Rail Authority's (CHSRA) Draft Environmental Impact Report/Environmental Impact Statement (DEIR) for the San Jose to Merced High Speed Train (HST) project RCEB staff offers the following comments

2074-3550

Commission Requirements and Policy

The Commission has jurisdiction over the safety of highway-rail crossings (crossings) in California The Commission has exclusive power over the design, alteration, and closure of crossings, pursuant to Public Utilities Code Section 1201 et al Based on Commission Rules of Practice and Procedure, Rule 3 9, an application to the Commission is required to construct a railroad across a public road The HST project is subject to a number of other rules and regulations involving the Commission The design criteria of the proposed project will need to comply with the California Manual on Uniform Traffic Control Devices (MUTCD) and Commission General Orders (GO's) The following GO's, among others, may be applicable:

- GO 26-D (regulations governing clearances on railroads and street railroads with reference to side and overhead structures, parallel tracks, crossing of public roads, highways and streets)
- GO 72-B (rules governing the construction and maintenance of crossings al grade of railroads with public streets, roads and highways)
- GO 75-D (regulations governing standards for warning devices for at-grade highway-rail crossings)
- GO 88-B (rules for altering public highway-rail crossings)
- GO 95 (rules for overhead electric Line construction)

2074-3550

- GO 176 (Rules for Overhead 25 kV Railroad Electrification Systems for a High-Speed Rail System)

Specific Project Comments

2074-3551

- RCEB recommends the entire High Speed Rail corridor be grade separated with no at-grade highway-rail crossings Grade separated crossings provide a greater level of safety, for both the roadway users as well as railroad employees, than at-grade highway-rail crossings

2074-3552

- Union Pacific Railroad (UP) owns much of the rail corridor in the project area UP concurrence is required for all modifications

2074-3553

- High Speed Rail platforms within the station are required to comply with GO 26-D clearance requirements

2074-3554

- RCEB recommends all pedestrian underpasses have a minimum vertical clearance of 10 feet

2074-3555

- Please send updated details on the intrusion protection system and how it functions at at-grade crossings RCEB is unclear how any type of system can prevent pedestrians from entering the proposed at-grade rail crossings as trains approach The combination of very high train speeds, potential for second trains traveling through crossings, and pedestrian impatience is a safety concern to RCEB

2074-3556

- Alternative 4 At-Grade Crossing General Concerns:
  - There have been 30 train incidents along the corridor between San Jose and Gilroy since March 2014 Adding high speed trains traveling at 110 mph at-grade along this corridor will likely lead to detrimental impacts to safety

2074-3557

  - Caltrain's proposed electrified train detection system potentially leads to longer gate down times for at-grade crossings Longer gate down times commonly lead to motorist and pedestrian frustration resulting in questionable behavior including, but not limited to, gate drive-around, bypassing lowered gates, and rushing through the crossing to beat a train

2074-3558

  - An increased volume of trains along the rail corridor due to electrification will lead to increased train horn noise for Alternative 4 The train engineers will begin sounding the train horns earlier on approach to rail crossings due to the much higher proposed train speeds to comply with FRA train horn requirements, resulting in much more noise pollution throughout the rail corridor RCEB does not support quiet zones and believes train horns provide a substantial rail crossing safety benefit

2074-3559

  - RCEB requests additional details on the intrusion protection system and its application at at-grade rail crossings

2074-3560

  - Structures for proposed grade separated High Speed Rail tracks adjacent to rail crossings, which will remain at-grade, can cause visibility issues to the

Submission 2074 (Felix Ko, California Public Utilities Commission, July 23, 2020) - Continued

automatic warning devices Such designs will need to ensure motorists maintain proper visibility of railroad automatic warning devices

2074-3560

- Proposed 4 quad gate systems are required to comply with GO 75-D, including vehicle detection within the crossing

2074-3561

- Many of the at-grade crossings adjacent to Monterey Road have steep approaches which can lead to long vehicles high centering on the tracks The grade must be reduced for at-grade designs

2074-3562

- Commission Standard 9 automatic pedestrian gates would be required on all sidewalk approaches The conceptual at-grade crossing designs in Appendix 2-A only include swing gates and do not include Commission Standard 9 automatic pedestrian gates on the sidewalk approaches Complete pedestrian treatment includes Commission Standard 9 automatic pedestrian gates, emergency EXIT swing gates, and channelization The text descriptions in Appendix 2-A do state Commission Standard 9 automatic pedestrian gates are proposed but the conceptual plans do not match

2074-3563

- The rail corridor travels adjacent to Monterey Road between San Jose and Gilroy The close proximity leads to motorists queuing onto the tracks regularly Required mitigation measures would include:
  - Advance railroad preemption with gate down detection circuit, supervised circuit, and advance pedestrian clearance phase
  - Pre-signals Installing pre-signals likely eliminates right turn on red movements over the railroad crossings The location of the pre-signals may conflict with proposed locations of exit gates in a 4 quadrant gate system

2074-3564

- RCEB recommends pedestrian approaches travel over the tracks at a 90 degree angle Many of the existing at-grade rail crossings on this corridor have sidewalks skewed as they travel over the tracks This condition results in a longer distance for pedestrians to travel over the tracks and can lead to wheelchair wheels getting stuck in the tracks

2074-3565

- Adjacent driveways and frontage roads to at-grade crossings can cause queues onto the tracks RCEB recommends all nearby driveways and frontage roads be closed

2074-3566

- Comments at specific rail crossings:
  - The Auzerais Ave, San Jose crossing has adjacent driveways in the northwest and northeast quadrants Both driveways must be closed

2074-3567

  - The West Virginia St, San Jose crossing has an adjacent driveway in the northeast quadrant There is a cut out in the raised concrete median to allow access to this driveway, which can cause queuing RCEB recommends the median cutout be removed by filling the median in

2074-3568

  - The Skyway Dr, San Jose crossing has a bus stop in the southwest quadrant Buses which stop at the crossing obstruct visibility of the railroad automatic warning devices The crossing does not currently comply with American Railway Engineering and Maintenance of Way Association (AREMA) guidelines of having visible set a flashing light signals from each approach lane A Commission Standard 9-A in the southwest quadrant would be required Overhead utilities may conflict with the installation of the new warning device and should be relocated Limited right of way in the southwest quadrant makes installing a Commission Standard 9-A and complete pedestrian treatments challenging

2074-3569

  - The Branham Lane, San Jose crossing has high motorist traffic RCEB recommends this crossing be grade separated under all scenarios

2074-3570

  - Fox Lane private crossing is used by school children to access properties on the west side of the tracks School buses stop on Monterey Road to load and unload the school children While the Commission applauds the decision to close this crossing as it has had multiple incidents in the past 15 years, CHSRA must take great care on the details of closing the crossing RCEB recommends vandal resistant fencing be installed and CHSRA work with the school district to relocate the bus stop

2074-3571

  - The Live Oak, San Jose crossing has a high volume of truck traffic which may lead to queuing on the tracks

2074-3572

  - The Tilton Ave, Morgan Hill crossing provides access to a residential area and a high school Modification of the crossing must consider school traffic

2074-3573

  - The Main Ave, Morgan Hill crossing has a nearby intersection to the west with Depot St which can lead to queuing onto the tracks RCEB recommends Depot St be closed at the intersection with a Cul-de-Sac

2074-3574

  - The San Pedro Ave, Morgan Hill crossing has an adjacent driveways in the northwest and southwest quadrants which may cause queuing onto the tracks The driveways must be closed as part of the project

2074-3575

  - The Tennant Ave, Morgan Hill crossing does not currently comply with AREMA guidelines of having visible set a flashing light signals from each approach lane A Commission Standard 9-A for eastbound traffic would be required Overhead utilities may conflict with the installation of the new warning device and should be relocated

2074-3576

  - The San Martin Ave, San Martin crossing has an adjacent intersection with Depot St to the east which can lead to queuing onto the tracks RCEB recommends access to Depot St be closed at the intersection or the intersection be signalized with advance railroad preemption

2074-3577

  - The Church Ave, Unincorporated Santa Clara crossing has a STOP control at Monterey Rd, which leads to queuing on the tracks The Church Ave and Monterey Rd intersection would be required to be signalized with advance railroad preemption

2074-3578

Mark McLoughlin
July 23, 2020
Page 4

Submission 2074 (Felix Ko, California Public Utilities Commission, July 23, 2020) - Continued

- 2074-3579 The Masten Ave, Unincorporated Santa Clara crossing has a small storage space which leads to queuing on the tracks by large trucks RCEB recommends a pre-signal be installed at the crossing
- 2074-3580 The Rucker Ave, Unincorporated Santa Clara crossing has a STOP control at Monterey Rd, which leads to queuing on the tracks The Rucker Ave and Monterey Rd intersection would be required to be signalized with advance railroad preemption
- 2074-3581 The Buena Vista Ave, Unincorporated Santa Clara crossing has a STOP control at Monterey Rd, which leads to queuing on the tracks The Buena Vista Ave and Monterey Rd intersection would be required to be signalized with advance railroad preemption
- 2074-3582 The Leavesley Rd, Gilroy crossing has pre-signals which are not activated RCEB recommends a far side pre-signal be installed in the northwest quadrant and the pre-signal reactivated There is little room for a far side pre-signal, Commission Standard 9-E EXIT gate, sidewalk, Commission Standard 9 automatic pedestrian gates, and EXIT swing gate in the northwest quadrant The southwest quadrant requires additional space to install a Commission Standard 9 automatic pedestrian gates, and EXIT swing gate Motorists traveling north on Monterey Rd and turning right onto Leavesley Rd often stop on the tracks mistakenly believing there is a merge and they are required to yield to Leavesley Rd traffic RCEB recommends bollards be placed between the northbound Monterey Rd right turn pocket and Leavesley Rd in the southeast quadrant to improve right turn movements through the crossing
- 2074-3583 The IOOF Ave, Gilroy crossing is next to a middle school Modification of the crossing must consider school traffic
- 2074-3584 The Lewis St, Gilroy crossing has an adjacent driveway in the northwest quadrant and a frontage road in the southwest quadrant Both the driveway and frontage road must be closed
- 2074-3585 The Martin St, Gilroy crossing has a frontage road in the northwest quadrant The frontage road must be closed
- 2074-3586 The 6th St, Gilroy crossing has adjacent driveways in the northwest and southwest quadrants Both driveways must be closed
- 2074-3587 The 10th St, Gilroy crossing does not currently comply with AREMA guidelines of having visible set a flashing light signals from each approach lane RCEB would require a Commission Standard 9-A for westbound traffic be installed 10th St provides access to Highway 101 and has heavy traffic
- 2074-3588 The Luchessa Ave, Gilroy crossing has an intersection with Automall Pkwy within 200 feet to the east RCEB recommends advance railroad preemption be installed according to California MUTCD guidelines

- 2074-3589 The Bloomfield Ave, Unincorporated Santa Clara County crossing is adjacent to a STOP controlled intersection with Bolsa Rd RCEB recommends advance railroad preemption be installed according to California MUTCD guidelines

2074-3590 The comments above are a cursory review of the at-grade crossings and should not be construed as a complete review or with RCEB concurring with alternative 4 with at-grade high speed rail crossings RCEB continues to recommend the entire high speed rail corridor be grade separated with no at-grade rail crossings as that configuration provides the largest safety considerations to the public

2074-3591 The Commission is the responsible agency under CEQA section 15381 with regard to this project As such, we greatly appreciate and thank you for the opportunity to work with the CHSRA to improve public safety as it relates to crossings in the San Jose to Merced segment of the HST system in California We request that RCEB be kept informed of all developments associated with the HST project Meetings should be arranged with the Commission's RCEB staff to discuss relevant safety issues and conduct diagnostic reviews of any proposed and impacted crossing locations along the proposed alignment in the San Jose to Merced HST project

If you have any questions please contact Felix Ko via email at felix ko@cpuc ca gov

Sincerely,

Felix Ko
Senior Utilities Engineer
California Public Utilities Commission
Rail Safety Division
Rail Crossings and Engineering Branch

Response to Submission 2074 (Felix Ko, California Public Utilities Commission, July 23, 2020)

2074-3550

Volume 3, Preliminary Engineering for Project Design Record, was developed in compliance Commission GOs, as appropriate for preliminary design. Design criteria for the Selected Alternative will comply with all relevant engineering standards, including MUTCD and Commission GOs. The Authority will coordinate with CPUC during Detailed Design Post-ROD and submit the design as required by CPUC application procedures.

2074-3551

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

RCEB's recommendation for grade separations is noted. The Authority will coordinate with CPUC during Detailed Design Post-ROD and submit the design as required by CPUC application procedures. HSR is committed to collaborative planning and shared implementation of grade separations with local and regional agencies.

2074-3552

Since the PCJPB and UPRR own the railroads in which the HSR project would be constructed (in part), the Authority will acquire property and/or easements from PCJPB and UPRR. HSR will coordinate operations, design, and construction with the property owners and other rail operators in the corridor. The Authority looks forward to working with the PCJPB and UPRR in the development and implementation of additional phases of the project.

2074-3553

The comment states that HSR platforms are required to comply with GO 26-D clearance requirements. Detailed Design Post-ROD will conform to all requirements for clearance at HSR platforms based on the vehicle design. Trains with a vehicle floor height of more than 4 feet may require a CPUC waiver.

2074-3554

All proposed pedestrian undercrossings in Volume 3, Preliminary Engineering for Project Design Record, have a minimum vertical clearance of 10 feet.

2074-3555

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

The HSR guideway and grade crossings will comply with federal and state requirements for 110-mph passenger rail operations. The maximum train speed of 110 mph in the blended guideway under Alternative 4 would be enabled by continuous access-restriction fencing; four-quadrant gates, roadway lane channels, and railroad trespass deterrents at all public road grade crossings; and fully integrated communications and controls for train operations, grade crossings, and roadway traffic.

The Authority met with RCEB staff on August 24, 2020 to discuss HSR ATC, grade crossing modernization, intrusion detection, and deterrence features. The Authority will continue to coordinate with the CPUC during Detailed Design Post-ROD and will submit the project design as required by the CPUC application procedures. The Authority is committed to collaborative planning with the CPUC regarding public safety concerns for at-grade rail crossings.

2074-3556

Please refer to the response to submission SJM-2074, comment 3555.

2074-3557

Please refer to the response to submission SJM-2074, comment 3555.

Response to Submission 2074 (Felix Ko, California Public Utilities Commission, July 23, 2020) - Continued

2074-3558

RCEB's support for maintaining train horns is noted. Trains sound the warning horns approaching at-grade crossings because it is required by FRA as a safety precaution. They are required to sound horns for a minimum of 15 seconds and a maximum of 20 seconds in advance of at-grade crossings. Appendix 3.4-A, Noise and Vibration Technical Report, contains additional information about train horns. There would be more horn noise under Alternative 4 compared to Alternatives 1, 2, and 3. NV-MM#3 identifies noise barriers as a potential mitigation measure to avoid severe noise impacts from project operations. Appendix 3.4-B, Noise and V bration Mitigation Guidelines, has more information about the use of noise barriers. If noise barriers are not proposed for receptors with severe noise impacts, building sound insulation improvements would be considered.

Establishing Quiet Zones is a measure that cannot be implemented by the Authority and would need to be undertaken by local communities. The project includes the installation of four-quadrant gates at all at-grade crossings currently without them, which would help cities to implement Quiet Zones, should they choose to do so. Cities are not required to implement Quiet Zones in conjunction with Alternative 4.

2074-3559

Please refer to the response to submission SJM-2074, comment 3555.

2074-3560

Thank you for your comment. This level of engineering detail will be refined in coordination with CPUC as part of Detailed Design Post-ROD.

2074-3561

Please refer to Draft EIR/EIS Volume 3, Preliminary Engineering for Project Design Record, Sheet GE-R0001, for four-quadrant gate applications at each at-grade intersection. Vehicle detector loops are included at each application. Volume 3 was developed in compliance with the California Public Utility Commission General Orders (GOs), as appropriate for preliminary design. Final design of the Selected Alternative will comply with all relevant engineering standards, including GOs.

2074-3562

Grading would be done at at-grade intersections to ensure that long vehicles would not high center on the tracks. Volume 3, Preliminary Engineering for Project Design Record, of the Draft EIR/EIS includes a Temporary Construction Easement to allow for regrading and paving of intersections. Grading plans are not included in Volume 3, however they would be developed as part of Detailed Design Post-ROD and will ensure safe use of at-grade crossings by long vehicles.

2074-3563

Detailed Design Post-ROD will conform to all requirements for at-grade crossing designs, including pedestrian safety features.

2074-3564

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Please refer to Draft EIR/EIS Volume 3, Preliminary Engineering for Project Design Record, Sheet GE-R0001, for at-grade crossing applications a teach at-grade intersection. Vehicle detector loops and stop bars are included in each application to prevent queuing onto the tracks. Advance railroad preemption with gate-down detection circuit, supervised circuit, advance pedestrian clearance phase, and pre-signals will be evaluated as part of Detailed Design Post-ROD.

2074-3565

Thank you for your comment on sidewa k crossings at the at-grade intersections. The level of engineering presented in Volume 3, Preliminary Engineering for Project Design Record, of the Draft EIR/EIS is preliminary. This engineering detail will be refined in coordination with the CPUC as part of Detailed Design that will occur Post-ROD.

2074-3566

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. This level of engineering detail will be refined in coordination with CPUC as part of Detailed Design Post-ROD.

Response to Submission 2074 (Felix Ko, California Public Utilities Commission, July 23, 2020) - Continued

2074-3567

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application A at Auzerais Avenue will be done in coordination with CPUC as part of Detailed Design Post-ROD.

2074-3568

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application A at West Virginia Street will be done in coordination with CPUC as part of Detailed Design Post-ROD.

2074-3569

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application D at Skyway Drive, including use of Commission Standard 9-A signals, will be done in coordination with CPUC as part of Detailed Design Post-ROD and addressed as part of a GO-88 review. Design of the Selected Alternative will comply with all relevant engineering standards.

2074-3570

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations.

Comment noted.

2074-3571

Section 3.11, Safety and Security, of this EIR/EIS analyzes security issues during both construction and operation of HSR. The Authority will conduct a hazard analysis as a feature of the project (SS-IAMF#3), which will address right-of-way fencing, intrusion detection, and security lighting. Alternative access for school busses and children will be coordinated with the school district during Detailed Design Post-ROD.

2074-3572

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Volume 3, Preliminary Engineering for Project Design Record, of the Draft EIR/EIS includes additional traffic loops and stop bars to prevent queuing on tracks. Refinements to Application C2 at Live Oak Avenue will be done in coordination with CPUC as part of Detailed Design Post-ROD.

2074-3573

School traffic was considered in the transportation analysis and taken into account during the design of this crossing.

2074-3574

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application A will be done in coordination with CPUC as part of Detailed Design Post-ROD and addressed as part of a GO-88 review.

2074-3575

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application A will be done in coordination with CPUC as part of Detailed Design Post-ROD and addressed as part of a GO-88 review.

2074-3576

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application A, including Commission Standard 9-A signals, will be done in coordination with CPUC as part of Detailed Design Post-ROD. Design of the Selected Alternative will comply with all relevant engineering standards.

Response to Submission 2074 (Felix Ko, California Public Utilities Commission, July 23, 2020) - Continued

2074-3577

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application B will be done in coordination with CPUC as part of Detailed Design Post-ROD and addressed as part of a GO-88 review.

2074-3578

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Application C2 includes additional traffic loops, stop bars, and additional traffic signals, to prevent queuing on tracks. Refinements to Application C2 will be done in coordination with CPUC as part of Detailed Design Post-ROD.

2074-3579

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Application C1 includes additional traffic loops and stop bars to prevent queuing on tracks. Refinements to Application C1 will be done in coordination with CPUC as part of Detailed Design Post-ROD.

2074-3580

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Application C2 includes additional traffic loops, stop bars, and additional traffic signals, to prevent queuing on tracks. Refinements to Application C2 will be done in coordination with CPUC as part of Detailed Design Post-ROD.

2074-3581

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Application C2 includes additional traffic loops, stop bars, and additional traffic signals, to prevent queuing on tracks. Refinements to Application C2 will be done in coordination with CPUC as part of Detailed Design Post-ROD.

2074-3582

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Refinements to Application C1, including the locations of bollards, pre-signals, Commission Standard 9-E EXIT gates, sidewa ks, Commission Standard 9 automatic pedestrian gates, and EXIT swing gates, will be done in coordination with CPUC as part of Detailed Design Post-ROD. Design of the Selected Alternative will comply with all relevant engineering standards.

2074-3583

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

School traffic was considered in the transportation analysis and taken into account during the design of this crossing.

2074-3584

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application A will be done in coordination with CPUC as part of Detailed Design Post-ROD and addressed as part of a GO-88 review.

2074-3585

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application A will be done in coordination with CPUC as part of Detailed Design Post-ROD and addressed as part of a GO-88 review.

Response to Submission 2074 (Felix Ko, California Public Utilities Commission, July 23, 2020) - Continued

2074-3586

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application A will be done in coordination with CPUC as part of Detailed Design Post-ROD and addressed as part of a GO-88 review.

2074-3587

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to ApplicationA1, including Commission Standard 9-A signals, will be done in coordination with CPUC as part of Detailed Design Post-ROD. Design of the Selected Alternative will comply with all relevant engineering standards.

2074-3588

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application A1 will be done in coordination with CPUC as part of Detailed Design Post-ROD and addressed as part of a GO-88 review.

2074-3589

Refer to Standard Response SJM-Response-SS-1: At-Grade Crossing Safety.

Thank you for your comment. Refinements to Application A will be done in coordination with CPUC as part of Detailed Design Post-ROD and addressed as part of a GO-88 review.

2074-3590

Refer to Standard Response SJM-Response-GS-1: Requests for Grade Separations, SJM-Response-SS-1: At-Grade Crossing Safety.

Comment noted. HSR is committed to collaborative planning and shared implementation of grade separations with local and regional agencies.

2074-3591

The Authority appreciates the CPUC's comments on the Draft EIR/EIS. The Authority is committed to ongoing coordination with CPUC in subsequent stages of design refinement and completion and will submit design information as required by CPUC application(s) for approval. The Authority appreciates RCEB staff time on August 24, 2020 to discuss HSR ATC, grade crossing modernization, intrusion detection and deterrence features.

22 STATE AGENCY COMMENTS Part 2)

Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021)

San Jose - Merced - RECORD #2135 DETAIL	
Status	Unread
Record Date	6/10/2021
Submission Date	6/9/2021
Interest As	State Agency
First Name	Primavera
Last Name	Parker
Attachments	California High-Speed Rail Project, San Jose to Merced Section, RDE R SDEIS, SCH No. 2009022083.pdf (10 mb)

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

June 9, 2021

Serge Stanich
Director of Environmental Services
California High-Speed Rail Authority
770 L Street, Suite 620 MS1
Sacramento, California 95814

Subject: California High-Speed Rail Project, San Jose to Merced Section (Project) Revised Draft Environmental Impact Report/Supplemental Draft Environmental Impact Study (RDEIR/SDEIS) SCH No. 2009022083

Dear Mr. Stanich:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a RDEIR/SDEIS from the California High-Speed Rail Authority (Authority) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] CDFW previously commented on related environmental documents as stated in our comment letter for the Draft EIR/EIS (DEIR/EIS) for the San Jose to Merced Section on June 23, 2020.

Following the Authority's publication of the DEIR/EIS in April 2020, the Authority learned that the California Fish and Game Commission published a notice of findings, on May 1, 2020, to designate the Sou hern California/Central Coast population (evolutionarily significant unit) of mountain lion (*Puma concolor*) as a candidate species under the California Endangered Species Act (CESA). Additionally, the monarch butterfly (*Danaus plexippus*) became a candidate for listing under the federal Endangered Species Act (FESA) on December 15, 2020. These listing actions led to the Authority to revise the DEIR/EIS for analysis of impacts to mountain lion and monarch butterfly, as well as including additional mi igation measures for impacts to wildlife resulting from noise and lighting during construction and during Project operation.

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 Fish and Game Code.

[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.

Conserving California's Wildlife Since 1870

Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

CDFW ROLE

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

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects hat 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.), related authorization as provided by the Fish and Game Code will be required.

PROJECT DESCRIPTION SUMMARY

Proponent: California High-Speed Rail Authority (Authority)

2135-6332

Objective: The approximately 90-mile, San Jose to Central Valley Wye Project (Project) of the 145-mile-long Project Section (San Jose to Merced Section (SJ-M)) comprises mostly of dedicated High-Speed Rail (HSR) system infrastructure, HSR station locations at San Jose Diridon and Gilroy, a maintenance of way facility (MOWF) either south or southeast of Gilroy, and a maintenance of way siding (MOWS) west of Turner Island Road in the Central Valley. HSR stations at San Jose Diridon and Gilroy would provide links with regional and local mass transit services as well as connectivity to the Santa Clara County and Central Valley highway network. The Project comprises the following five subsec ions: 1) San Jose Diridon Station Approach—Extends approximately 6 miles from north of San Jose Diridon Station at Scott Boulevard in Santa Clara to West Alma Avenue in San Jose. This subsection includes the San Jose Diridon Station. 2) Monterey Corridor—Extends approximately 9 miles from West Alma Avenue to Bernal Way in the community of South San Jose. This subsection is entirely within the city of San Jose. 3) Morgan Hill and Gilroy—Extends approximately 30 miles from Bernal Way in the community of South San Jose to Casa de Fruta Parkway/State Route (SR) 152 in Santa Clara County. 4) Pacheco Pass—Extends approximately 25 miles from Casa de Fruta Parkway/SR 152 to east of Interstate (I-) 5 in unincorporated Merced County. 5) San Joaquin Valley—Extends approximately 20 miles from I-5 to Carlucci Road in unincorporated Merced County.

2135-6333

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There are four end-to-end Project alternatives (Alternative 1 to 4), including stations. The Authority's Preferred Alternative under National Environmental Policy Act (NEPA), which serves as the proposed Project for CEQA, is Alternative 4. It includes two stations (San Jose Diridon and Downtown Gilroy), MOWF, MOWS, two tunnels and attraction power facilities.

Location: The Proposed San Jose to Merced Project Section is located in Santa Clara, San Benito, and Merced Counties near the cities of Santa Clara, San Jose, Morgan Hill, Gilroy, and Los Banos. The Project extends from Scott Boulevard in Santa Clara County (lat/long 37° 21' 48.996 "N/121° 57' 36"W) to Carlucci Road in Merced County (lat/long 37° 5' 28.716"N/120° 40' 15.6"W). The nearest major state highways are SR 33, SR 85, SR 87, SR 89, SR 152 165, U.S. Highways 10, I-5, I-280, and I-880.

Timeframe: Unspecified.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the Authority in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Comments and recommendations that were previously provided in the June 23, 2020 comment letter for the DEIR/EIS remain the same and will not be restated in this letter with the exception of some editorial comments. Additional editorial comments or other suggestions may also be included to improve the document.

Currently, the RDEIR/SDEIS indicates that the Project's impacts would be less than significant with the implementation of mitiga ion measures described in the RDEIR/SDEIS. However, as currently drafted, it is unclear whether the mitigation measures described will be enforceable or sufficient in reducing impacts to a level that is less than significant. CDFW is concerned regarding the adequacy of mitigation measures for special-status species including, but not limited to: the State Candidate Species for listing as threatened, Southern California/Central Coast evolutionarily significant unit (ESU) mountain lion (*Puma concolor*) and the U.S. Fish and Wildlife Service (USFWS) candidate for listing monarch butterfly (*Danaus plexippus plexippus*).

I. Mitigation Measure or Alternative and Related Impact Shortcoming

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

COMMENT 1: Mountain Lion (ML) Issue: The Project alignment transects the Southern California/Central Coast ESU. The RDEIR/SDEIS acknowledges that mountain lion have the potential to occur within or near the Project. The Central Coast North (CC-N) genetic subpopulation falls within the alignment and the Central Coast-

Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6333

Central (CC-C) subpopulation is adjacent to the SJ-M alignment. The SJ-M alignment is where there are existing mountain lion connectivity problems where two ESUs meet. However, he RDEIR/SDEIS (Section 3.7) lacks Project impact analysis of the genetically distinct subpopulations of the Southern California/Central Coast ESU (CC-N and CC-C) and the source of genetics they contribute to each other. The CC-N subpopulation will be the most impacted by this Project and already requires genetic enhancement; the CC-N- effective subpopulation size is **17** and the estimated adult subpopulation size is **33-66**. The impacts to gene flow for the species is the larger concern when contrasted with individual take. Isolation of subpopulations limits the genetic exchange of populations at risk of local extinction through genetic and environmental factors preventing the recolonization of suitable habitats following local extirpation, ultimately putting the species at risk of extinction. An effective way to reduce these impacts is avoidance of take and reduction of population impacts with Project design features such as increased wildlife crossing opportunities in the critical area of the Diablo Range to the Santa Cruz Mountains and he connecting Coyote Valley which would allow movement for the CC-N into the CC-C subpopulation areas to allow for genetic exchange along with habitat protections/land conservation easements (CE) for areas on either ends of wildlife crossings.

The RDEIR/SDEIS does not address the Project related impacts of poten ially worsening gene flow disruption between these subpopulations, nor does it address how impacts to the population genetic source would impact the subpopulations. CDFW recommends Section 3.7 be revised to contain specific analysis on the mountain lion Southern California/Central Coast ESU (CC-N and CC-C genetic subpopulations) impacts to dispersal and genetic exchange between populations, including issues of

2135-6334

connectivity and fragmentation of habitat adjacent to the Project. CDFW also recommends the RDEIR/SDEIS be revised to include robust feasible avoidance, minimization, and mitigation measures to reduce impacts to less than significant to these isolated subpopulations by providing connectivity for CC-N and CC-C subpopulations. CDFW recommends referencing the attached map (Attachment 1) to further analyze the impacts of gene flow disruption between the CC-N and CC-C subpopulations, to identify areas that provide permeability, and areas to conserve to facilitate movement between the subpopulations.

Highway 101 is a significant barrier for mountain lion movement between the CC-N and CC-C subpopulations and the Project will very likely further compound this issue absent conservation strategies to ensure mountain lion movement opportunities. Opportuni ies for the Project to enhance other nearby areas and facilitate, design, and fund movement opportunities and wildlife corridor repairs or enhancement should be pursued as mitiga ion strategies.

2135-6335

Specific impacts: The Project as proposed (construction and operation and maintenance) will impact the Southern California/Central Coast mountain lion ESU by potentially severing the source of genetics and impeding movement between he CC-N and CC-C subpopulations. The Project has the potential to cause impacts during construction and operation by increasing human presence, traffic, noise, vibration, air

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pollutants and dust, artificial lighting, habitat removal, severing access to or impacting habitat resources (e.g. springs and streams, dens site, impacts to prey-base, etc.), causing disruption during breeding cycles, impacting den selection, forcing animals into movement paths and areas that could increase their vulnerability to vehicle strikes, and significantly and permanently reducing and eliminating existing wildlife movement corridors necessary for gene flow.

Evidence impact would be significant: The mountain lion is a specially protected mammal in the State (Fish and G. Code, § 4800). In addition, on April 21, 2020, the California Fish and Game Commission accepted a petition to list an ESU of mountain lion in southern and central coastal California as threatened under CESA (CDFW 2020a). As a CESA-candidate species, the mountain lion in southern and central coastal California is granted full protection of a threatened species under CESA.

CDFW finds that the Project would continue to have significant impacts because mitiga ion as proposed in the RDEIR/SDEIS would not result in adequate and successful mitigation for the unavoidable direct and indirect, permanent, or temporal losses, of genetic connectivity between subpopulations of mountain lion.

This area is essential for the viability of the CC-N subpopulation, particularly the Santa Cruz mountains, which is experiencing restricted gene flow. Greater landscape permeability would promote gene flow among distinct subpopulations. The CC-C subpopulation provides essential gene flow to the CC-N subpopulation which is critically important for their long-term viability. The CC-C subpopulation is vulnerable to habitat loss from additional development pressure necessitating improving habitat connectivity to facilitate gene flow between adjacent areas though permanently protected lands (e.g., conserved hrough a conservation easement (CE)) and managed in perpetuity (Dellinger et al., 2020). The CC-C region could have major effects on connectivity and population genetics in the adjacent mountain lion populations if further constrained.

The CC-N population has low genetic diversity, and the CC-C population has relatively intermediate levels. Gene flow through maintenance of existing occupied habitat within improved and additional wildlife corridors will promote long term persistence of isolated subpopulations (Gustafason et al. 2019). It is important that the CC-N subpopulation remain connected to adjacent mountain lion populations via suitable habitat and unobstructed sizeable movement corridors. Decreased and impeded connectivity in this area would quickly increase the decline in genetic diversity of mountain lions in southern and central parts of the State (Dellinger et al., 2020). Permanently conserving and restoring habitat connectivity and corridors is essential for mitigating impacts to mountain lions.

In the *SR 152 Pacheco Pass Permeability and Pacheco Creek Wildlife Connectivity Study Mountain Lion Report 2018-2020* (Pathways for Wildlife 2020) noted the detection of mountain lion using Pacheco Creek multiple times and the SR 152 bridge undercrossing at least once. The Pacheco Creek and the Pacheco Creek Reserve facilitates movement between the CC-N and CC-C subpopulations. The Santa Clara

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Valley Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP) recognizes Pacheco Creek as an important linkage and is an area included in the biological goals and objectives, reserve system design, and long-term monitoring for the NCCP/HCP.

Mountain lions will use caves and other natural cavities, thickets in brush, and timber for cover and denning. Mountain lions require extensive areas of riparian vegetation and brushy stages of various habitats, with interspersions of irregular terrain, rocky outcrops, and tree/brush edges. These habitat types are throughout the Project area. Mountain lions are active yearlong (mostly nocturnal and crepuscular). The home range for males are a minimum of 40 km² (15 mi²) and female home ranges usually are 8-32 km² (3-12 mi²). The main diet for mountain lion is deer (CWHR). Deer migration corridors will also be impeded by the Project. Mountain lions have a wide-ranging nature and large territories, as well as the need for dispersal (especially of young males). In order to maintain genetic diversity, large blocks of permanently conserved habitat and unobstructed and sizable safe travel corridors between them are essential for long term population persistence and stability (Vickers, 2014). Thermal characteristics cause mountain lions to select north-facing slopes at high elevations, with more vegetation and cooler temperatures in the summer and south-facing slopes wi h little snow cover in winter. These habitats were also strongly correlated with the density and distribution of deer. Den sites are preferentially located in nearly impenetrable vegetation areas and mountain lion feed on cached prey primarily after sunset and often rested long distances from the cache site during the day (Pierce and Bleich 2003). Cutting off or restricting access to these habitats will reduce opportunities for genetic exchange, foraging, and fecundity.

2135-6336

Recommended Potentially Feasible Mitigation Measure(s):
Because the RDEIR/SDEIS identifies the potential for mountain lion to occur within the Project footprint, CDFW recommends conducting the following evaluation of the Project, updating the RDEIR/SDEIS to include the following measures, and that these measures be made conditions of approval for the Project. CDFW recommends quantitative and enforceable measures that will reduce the impacts to less than significant levels.

Recommended Mitigation Measure 1: ML Habitat Assessment
CDFW recommends that a qualified biologist conduct a habitat assessment and suitable habitat mapping of individual Project areas in advance of Project implementation, to determine if the Project area or its vicinity contains suitable habitat as well as caves and other natural cavities and thickets of brush and timber which provide cover and are used for denning. Mapping should also include the following: the Project area with identified wildlife linkages within the ESU subpopulations, identified Project undercrossing, overcrossing, tunnels, viaducts, and designated wildlife crossing locations and adjacent habitat to assist with development and implementation of avoidance, minimization, and mitiga ion measures.

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Recommended Mitigation Measure 2: ML Wildlife Crossing Monitoring
CDFW recommends that the Authority devise and implement a Mountain Lion Crossing Monitoring Plan. CDFW recommends the Authority consult with CDFW during the drafting of the Monitoring Plan and obtain approval of the Plan prior to Project implementation. CDFW recommends that the proposed Mitigation Measure #77a Design Wildlife Crossings to Facilitate Wildlife Movement, include a design that establishes specific criteria for monitoring the performance of the crossings (viaducts, undercrossing, overcrossings) for routine and ongoing use by mountain lion and its prey. The monitoring plan should be contingent with action-based monitoring performance objectives and be adaptive. Goals of the monitoring plan should at a minimum include: 1) to provide data to assist in designing crossings and inform placement for future HSR segments in Nor hern California (San Jose to Merced and San Francisco to San Jose); 2) conduct long-term population monitoring for use by the mountain lion subpopulations; 3) track progress of use; and 4) evaluate overall effectiveness of the crossings.

2135-6338

Recommended Mitigation Measure 3: ML-Avoidance-Buffer for Corridor Areas
CDFW recommends that during construction, movement corridors such as drainages and riparian areas maintain a ¼ mile buffer to minimize impacts to mountain lion movement through these areas.

2135-6339

Recommended Mitigation Measure 4: ML-No Night Work in Corridor Areas
To minimize impacts to movement of mountain lion during construction, CDFW recommends that no night work occur in or immediately adjacent to drainages and riparian areas of the Project.

2135-6340

Recommended Mitigation Measure 5: ML-Avoidance Use of Rodenticides
CDFW discourages the use of rodenticides and second-generation anticoagulant rodenticides due to their harmful effects on the ecosystem and wildlife. CDFW recommends the Authority include a mitigation measure prohibiting the use of such materials during construction and operation and maintenance of the HSR.

2135-6341

Recommended Mitigation Measure 6: ML-Provide Dedicated Wildlife Crossings
CDFW recommends that dedicated wildlife crossings for mountain lion and deer be a "required" design feature in the final design of the Project.

2135-6342

Recommended Mitigation Measure 7: ML-Take Authorization
There should be no net loss of suitable habitat for mountain lions. CDFW recommends that the Authority identify opportunities for the Project to enhance nearby areas and movement opportunities including wildlife corridor restoration or enhancement as potential mitigation strategies. Since the RDEIR/SDEIS assumes wildlife movement and corridor impacts, and the concomitant inherent loss of gene flow cannot be avoided between the subpopulations, we recommend that the Authority ensure some level of permanent conservation is present in the areas that are known to currently provide connectivity. CDFW recommends improving habitat connectivity (e.g., wildlife road-

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crossing structures) to facilitate unimpeded wildlife movement and gene flow between adjacent areas. CDFW recommends the replacement habitat be located adjacent to the Project and Wildlife Linkage and Corridor, as depicted in Attachment 1.

The Authority should consult and collaborate with CDFW to conserve areas beneficial to the Southern California/Central Coast ESU and the CC-N and CC-C subpopulations that may improve and maintain connectivity. The mi igation lands should be protected in perpetuity under a CE held by a non-profit conservation organization or other appropriate entity that has been approved by CDFW to hold and manage mitigation lands.

In the event that a mountain lion or den is detected during surveys, consultation with CDFW is warranted to discuss how to implement the Project and avoid take. If avoidance is not feasible, acquisition of an Incidental Take Permit (ITP), pursuant to Fish & Game Code section 2081 subdivision (b) prior to any ground-disturbing activities would be warranted in order to comply with CESA.

2135-6343

COMMENT 2: Monarch Butterfly (MB)

Issue: The Project falls within the monarch butterfly spring and summer breading area (Pelton 2016). Project related activities have he potential to impact monarch butterfly. It is unclear how implementation of BIO-MM#14 and BIO-MM#86 would avoid and minimize impacts from construction to monarch butterflies. Without appropriate avoidance and minimization measures for the species mentioned above, potential significant impacts associated with the Project's milkweed removal activities include, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of eggs and/or larvae, and direct mortality of individual monarch butterflies.

Specific impact: The document lacks analysis on how operations and maintenance (O&M) activities such as vegetation removal adjacent to the HSR would remove and degrade habitat and host plants, or how train strike could injure/kill monarch butterflies. CDFW recommends addressing the following O&M impacts: dust impacts to the host plants (*Asclepia ssp*., milkweed) and nectar producing flowers during construction and operation.

Evidence impact would be significant: The availability of milkweed is essential to monarch butterfly reproduction and survival; reduction in milkweed is cited as a key driver in monarch butterfly decline (USFWS 2020). Habitat loss and fragmentation is among the primary threats to the population (USFWS 2020). During the breeding season monarch butterflies lay their eggs on the milkweed host. Monarchs also need milkweed for both oviposition and larval feeding and nectar producing habitat (USFWS 2020). Project activities have the potential to significantly impact the species by reducing possible nectar producing plants and milkweed host plant for breeding. Habitat where monarch butterflies are found may be subject to insecticide use and these impacts are primarily influenced by the extent to which monarch butterflies are exposed to insecticides throughout their range (USFWS 2020).

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Recommended Potentially Feasible Mitigation Measure(s)
To evaluate potential impacts of the Project to special-status species, CDFW recommends conduc ing the following assessment of the Project area, including the following mitigation measures, and requiring them as conditions of approval for the Project.

Recommended Mitigation Measure 8: MB Habitat Assessment
CDFW recommends that a qualified biologist conduct a habitat assessment, well in advance of Project implementation, to determine if the Project area or its immediate vicinity contain habitat suitable to support life stages of the monarch butterfly.

2135-6345

Recommended Mitigation Measure 9: MB Surveys
If suitable habitat is present, CDFW recommends assessing presence of monarch butterflies (eggs and larvae) and native milkweed by conducting surveys following recommended protocols or protocol-equivalents.

2135-6346

Recommended Mitigation Measure 10: MB Take Avoidance
CDFW recommends that all milkweed be avoided if ground-disturbing activities will occur during the overwintering period (October through February) by a minimum of 50 feet to avoid potentially significant impacts, and to avoid insecticide use within the Project area during construction and operation. Detection of a special-status species within or in the vicinity of the Project area warrants consultation with CDFW and USFWS to discuss how to implement ground-disturbing activities and avoid take. Potential minimization measures include restoring and enhancing native milkweed and nectar resources via seed mix mixes approved by CDFW and USFWS, and removal of non-native milkweed.

2135-6347

COMMENT 3: Section 3.7.5.3 Methods for Impact Analysis-Wildlife Movement Page 2

This section states that the following report was a reference in Section 5.2 of the Wildlife Connectivity Assessment (WCA) of the DEIR/EIS: *Wildlife Permeability and Hazards across Highway 152 Pacheco Pass: Establishing a Baseline to Inform Infrastructure and Restoration* (Pathways for Wildlife 2020). It should be noted that the WCA was released with the DEIR/EIS and the Pathways for Wildlife 2020 report was not included as a reference. This study was not referenced in analyzing wildlife permeability of Pacheco Pass in the WCA.

2135-6348

COMMENT 4: Section 3.7.6.2 Biological Conditions-Special Status Species Pages 4-5

This section states, "The petition highlighted that al hough low effective population size alone is cause for conservation concern, habitat loss and fragmentation due to roads and development have led to extreme levels of isolation and high mortality rates." It is unclear how the RDEIR/SDEIS addresses the subpopulation isolation due to

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fragmentation; CDFW recommends addressing the CC-N and CC-C subpopulation impacts caused by the Project.

2135-6349

COMMENT 5: Section 3.7.6.2 Biological Conditions-Wildlife Movement Pages 5-7

This section states, **"**The project extent crosses several wildlife corridors of regional importance. Although corridors occur in all subsections, those in he Santa Clara Valley (specifically, the Coyote Valley) and San Joaquin Valley Grasslands Ecological Area (GEA) have been identified by the CDFW and local stakeholders as particularly important to wildlife movement and habitat connec ivity at he regional and state scale." It should be noted that the western Pacheco Pass subsection (Pacheco Creek) has not been included as a wildlife movement corridor despite this area being identified as a concern of the local stakeholders and CDFW. CDFW recommends including the Pacheco Pass subsec ion as an important wildlife corridor.

This section also states, "Where moderate or high potential effects were identified, recommendations to facilitate wildlife movement were made in the WCA and were subsequently incorporated into the proposed project to the extent feasible.[3]" The footnote for his statement states, "[3]The WCA, Section 7.2.2, noted hat additional dedicated wildlife underpasses, not included in the project design, should be considered in the eastern Pacheco Pass area near Casa de Fruta."

It should be noted that the modeling results in the WCA indicate that the pre-existing conditions of permeability and after construction of the Project as being the same. It is unclear how such a conclusion was reached by the modeling. In particular, the Pacheco Creek area where this location provides wildlife movement and the current Project design would have an embankment constructed on the western portals in the western section of Pacheco Pass; this would be a barrier and would not provide permeability. CDFW recommends the Authority include the facilitation of wildlife movement in the Pacheco Pass area for large target species such as mountain lion and Tule elk (*Cervus elaphus nannodes*).

2135-6350

Comment 6: Table 3.7-1 Direct Impacts on Special-Status Wildlife Species Habitat by Project Alternative (acres) Page 8

CDFW recommends that this table describe how direct, indirect, permanent, and temporary impact acreages were calculated for each species and specifically for mountain lion and monarch butterfly. CDFW also recommends the footnote for the table include the definitions for high-priority foraging and dispersal habitat and low-priority foraging and dispersal habitat.

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COMMENT 7: Section 3.7.7.2 Constructional Impacts-Impact BIO#26a: Loss of Breeding, Foraging, and Dispersal Habitat for and Direct Mortality or Disturbance of Mountain Lion Page 10

This section states, "The primary impact would be the loss or disturbance of breeding habitat, including the potential to kill cubs if they are present in the area at the time of construction. The impacts on breeding habitat are nearly identical among alternatives because the majority of breeding habitat occurs in the Pacheco Pass Subsection, and all alternatives are identical in this subsection." CDFW is concerned that this is not the primary impact of the Project to mountain lion but rather the lack of connectivity impacting gene flow between the CC-N and CC-C subpopulations.

2135-6352

Comment 8: Impact BIO#26a: Loss of Breeding, Foraging, and Dispersal Habitat for Direct Mortality or Disturbance of Mountain Lion:

This section states, "Construction-related ground disturbance (e.g., grading, excavation) and vehicle traffic may injure or kill mountain lions, including cubs, by crushing occupied dens or colliding wi h moving lions." It should be noted that injury or killing of mountain lions including cubs is take and in order to comply wi h CESA, will require from CDFW acquisition of an ITP, section 2081 subdivision (b).

2135-6353

COMMENT 9: 3.7.7.7 Wildlife Movement -Construction Impacts-Impact BIO#42: Temporary Disruption of Wildlife and Wildlife Movement Pages 13-14

This section states, "With respect to mountain lion, impacts on movement during construction are expected to be significant, with potential temporary disruptions to genetic flow between subpopulations." It should be noted that temporary disruptions from construction activities can last up to 5 years or more. CDFW recommends spatial and temporal disruption to gene flow between the two subpopulations and impacts to wildlife during the construction period be addressed.

2135-6354

COMMENT 10: 3.7.7.7 Wildlife Movement -Construction Impacts-Impact BIO#43: Permanent Impacts on Wildlife Movement Page 14-16

This section states, "Changes to the project design (primarily the placement of viaduct sections and dedicated wildlife crossings) would provide for wildlife movement across the alignment in Coyote Valley, the Soap Lake floodplain, most of Pacheco Pass, and the Central Valley; barriers to movement would remain on the west slope of Pacheco Pass where the rail alignment parallel to Pacheco Creek would be placed on a series of continuous cut-and-fill slopes."

CDFW recommends that the Authority provide wildlife movement across the alignment in the area of the Pacheco Reserve/Pacheco Creek and CDFW is unclear as to why the Authority left out impacts and project design elements to provide wildlife movement for this area. This location also provides connectivity and habitat for Tule elk, tricolored blackbird (*Agelaius tricolor*), bald eagle (*Haliaeetus leucocephalus*), California tiger

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salamander (*Ambystoma californiense*), foothill yellow-legged frog (*Rana boylii*), California red-legged frog (*Rana draytonii*), and spawning South Central Coast steelhead (*Oncorhynchus mykiss*).

2135-6355

COMMENT 11: 3.7.7.7 Wildlife Movement Operations Impacts-Impact BIO#44: Intermittent Noise Disturbance of Wildlife Using Corridors during Operations Pages 16-17

"These effects are moderated because the [San Joaquin kit] fox is most active between midnight and 6 a.m., when operations on the HSR alignment would be limited to intermittent, slower-speed maintenance vehicles." It is unclear what the frequency of intermittent operations will be, and this should be quantified. Further, it should be noted that this statement is in conflict with Appendix 3.7-E Noise Analysis on Terrestrial Species and Appendix 3.7-F Supplemental Light Analysis on Terrestrial Species, as the Appendices indicates 24-hour operation of the train. Mountain lions are active not only during the midnight hours; they are also active through the day, par icularly the crepuscular periods, and can be disturbed by noises at all times of the night and day. CDFW recommends the analysis of "intermittent" maintenance activities impacts on mountain lion.

2135-6356

COMMENT 12: 3.7.7.7 Wildlife Movement Operations Impacts-Impact BIO#46: Intermittent Visual Disturbance of Wildlife Using Corridors during Operations Pages 18-19

CDFW recommends including an impact analysis that address visual obstruction to mountain lions, as well as the mountain lion prey base. Visual obstruction for these species would include design features such as: Intrusion Protec ion Barrier (IPB), sound barrier walls, embankment, and Mechanically Stabilized Earth (MSE) walls.

2135-6357

COMMENT 13: 3.7.7.7 Wildlife Movement Operations Impacts-Impact BIO#47: Intermittent and Permanent Lighting Disturbance of Wildlife and Wildlife Using Corridors during Operations Pages 19-20

This section states, "The Authority has incorporated BIO-IAMF#12 into project design to avoid and minimize impacts from operational lighting sources by several methods, including using appropriate shielding to reduce horizontal or skyward illumination and avoiding the use of high-intensity lights (e.g., sodium vapor, quartz, and halogen). Additionally, BIO-IAMF#12 specifies that no lighting be installed under viaduct and bridge structures in riparian habitat areas." These measures are recommendations and not requirements, and therefore not enforceable. Because these IAMFs lack measurable, quantifiable actions and enforceability to minimize, avoid, or mitigate impacts on wildlife movement during project operation and CDFW recommends that the measure be changed to an enforceable condition of approval.

This section states, "Continuous sources of operations ligh ing would have little potential to affect wildlife, including mountain lion, because lighting would be directed toward the

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site and is predominantly of a fairly low intensity (approximately 5 lux for security lighting and approximately 20 to 50 lux at stations and the MOWF)." It is unclear if these lighting intensities have been documented to cause little effect to wildlife; CDFW recommends further analysis.

2135-6358

COMMENT 14: 3.7.7.7 Wildlife Movement Operations Impacts-Impact BIO#48: Mortality Resulting from Train Strike during Operations Page 20

This section states, "Although the entire track alignment would be fenced with an 8-foot chain-link fence, except under Alterna ive 4 where there are breaks in the fencing for road crossings, it is possible that terrestrial species could enter the alignment and be struck by a moving train." CDFW is concerned that having the entire track fenced further impacts the mobility of wildlife through the alignment. We recommend clarification on how these temporary disruptions of wildlife movement would impact the gene flow between CC-N and CC-C subpopulations of mountain lion. CDFW recommends analysis of mountain lion movement and/or their prey-base and impacts to their foraging opportunities. Potential effects could result in additional stressors during breeding cycles, effects of den selection, and force animals into movement paths/areas hat could increase their vulnerability to vehicle strikes. We recommend evaluating the known locations of wildlife vehicle strikes and addressing the cumulative impact of he addition of the HSR.

2135-6359

Comment 15: Section 3.7.8 BIO-MM#1: Prepare and Implement a Restoration and Revegetation Plan Pages 21-22

This section states, "Restoration ac ivities may include, but not be limited to: grading landform contours to approximate pre-disturbance conditions, stockpiling and spreading topsoil, removing invasive plant species, revegetating disturbed areas with native plant species (including host plants for butterflies), and using certified weed-free straw and mulch." The RDEIR/SDEIS is unclear on what specifically will be done (disposal offsite or used on-site) with such large quantities of excess soils from the cut of slopes and tunneling material. CDFW recommends providing information in the RDEIR/SDEIS that describes the ultimate placement of all the excavated spoil material.

2135-6360

Comment 16: Section 3.7.8 BIO-MM#14: Avoid Direct Impacts on Bay Checkerspot and Monarch Butterfly Host Plants Page 22

It is unclear in BIO-MM#14 who is responsible to determine if the habitat is suitable and the timing of surveys. In addition, this measure lacks a survey methodology and it is also unclear how and when presence is assumed. CDFW also recommends using monarch conservation measures from Xerces Society (2015) BMPs for Pollinators in Rangelands for minimization measures for monarch butterfly. For additional applicable conservation measures that can minimize impacts to monarch butterflies, please see the 2020 Nationwide Candidate Conservation Agreement for Monarch Butterfly on Energy and Transportation

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Lands(https://www.fws.gov/savethemonarch/pdfs/Final_CCAA_040720_Fully%20Executed.pdf).

2135-6361

Comment 17: Section 3.7.8 BIO-MM#70: Prepare and Implement an Annual Vegetation Control Plan (VCP) Page 22

"To the extent feasible and consistent with the Caltrans (2014) Maintenance Manual requirements, the Au hority would also include pollinator conservation measures in he VCP from the Xerces Society *Best Management Practices for Pollinators on Western Rangelands* (Xerces Society 2018), conservation measures in the *Nationwide Candidate Conservation Agreement for Monarch Butterfly on Energy and Transportation Lands* (Cardno 2020), or other applicable sources." This measure defers mitigation and is not enforceable. If it is not feasible CDFW recommends the Authority propose something that would be feasible, quantifiable, and enforceable to implement.

2135-6362

Comment 18: Section 3.7.8 BIO-MM#76: Minimize Impacts on Wildlife Movement during Construction Page 22-23

This section states, "Where an existing underpass or culvert must be closed or obstructed, a temporary crossing structure or an alternative movement corridor would be created." To determine if BIO-MM#76 minimizes impacts, CDFW recommends describing how and where would alternative movement corridors would be created.

2135-6363

This section states, "Construction would be timed to minimize impacts on movement by providing at least one crossing feature in a region. For example, to minimize impacts on wildlife using the Fisher Creek culvert, construction at Fisher Creek would not commence until the construction of the Tulare Swale undercrossing is complete." It should be noted construction occurring at crossings in adjacent regions within the segment could have potential impacts to mountain lion movement.

2135-6364

This section, as well as in Appendix 3.7-E Noise Analysis on Terrestrial Species and Appendix 3.7-F Supplemental Light Analysis on Terrestrial Species also states, "Lighting will use the minimum levels approved by OSHA (29 C.F.R. § 1926.56) for general construction (i.e., 5 foot-candles or 54 lux). Additionally, the plan will include instruc ions to minimize the direction of construction vehicle headlights toward off-site locations and using low beams or turning off headlights when safety considerations permit." It should be noted the minimum levels of lighting approved by OSHA are minimums established for humans. It is unclear how these levels correlate to wildlife and if the levels are appropriate to reduce impacts to mountain lion.

2135-6365

"To the extent feasible, the plan will require minimizing the dura ion of lighting by using methods other than lighting to ensure security of the construction site during hours it is not in use. To avoid impeding movement of aquatic species, the Authority would employ the use of vibratory (rather than impact) pile driving for work in or within 200 feet of waterbodies that provide habitat for steelhead or giant garter snake, where feasible." This measure is not enforceable if it is only implemented if feasible. CDFW

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recommends the Authority propose quantifiable and enforceable measures to reduce impacts.

2135-6366

"Additionally, the Authority would establish wildlife-friendly fencing at soil stabilization areas and tunnel portals where a large right-of-way would be required." It is unclear if the soil stabilizing areas would require MSE wall. It is also unclear if these areas with wildlife friendly fence will function in providing wildlife movement. CDFW recommends clarification to determine if the measure would minimize impacts as intended. This section lists various attributes of wildlife-friendly fence. It should be noted that these attributes benefit cat le and grazing animals and it is unclear what the benefit would be for special status species, mountain lions and their prey. The proposed fence described is permeable and will result in wildlife/mountain lion potentially entering areas that are planned to exclude wildlife from entering.

2135-6367

Comment 19: Section 3.7.8 BIO-MM#77a: Design Wildlife Crossings to Facilitate Wildlife Movement Page 23-25

This section states the following, "To the extent feasible, the Authority would design all wildlife crossings created specifically for terrestrial species consistent with the guidelines and recommendations in the WCA (Authority 2020a: Appendix C)." It should be noted that recommenda ions of this measure are not enforceable design requirements for wildlife crossings. CDFW advises that these be required guidelines and not recommendations. CDFW also recommends that the creation of new crossing structures incorporate land-overcrossings to facilitate movement of mountain lion and other large mammals. CDFW recommends that these be required crossing features and provide the crossing design requirements for openness factor and clear line of sight from end to end (entrance to exit) distances. Crossing designs and locations should not result into pushing animals to small areas adjacent to highways subject to vehicle strikes. CDFW has concerns with what the proposed locations for wildlife crossings connect to. CDFW recommends that crossing location entrance/exits be co-located with habitat areas that will be immediately encountered or adjacent and further, these habitat areas be perpetually conserved and protected (e.g. through recordation of a CE) to maintain effective movement corridors to sustain functional habitat for mountain lions.

2135-6368

CDFW recommends the Authority coordinate with the Santa Clara Valley Habitat Agency (SCVHA), California Department of Transportation (Caltrans), and CDFW in their effort in conducting a regional connectivity study of SR 152 wildlife crossing study (Pacheco Pass), to obtain roadkill data, inventoried culvert and bridges identified to be improved for connectivity and to ensure that these locations are not further impaired by the Project and correspond with improvements of crossing locations of the Project. This coordination would also help prevent conflicts with the implemented goals of the SCVHA Local Assistance Grant, which is a State funded grant.

2135-6369

"The guidelines and recommendations include the following features:"

- "Funnel fencing would be designed to benefit the greatest number of movement guilds feasible."

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- "Wildlife crossing width and height would be maximized and length minimized to the extent feasible."
- "Consideration of habitat modification and/or habitat restoration at crossings to facilitate cover for crossing animals."

To the "extent feasible" and "consideration" are not requirements and therefore not enforceable measures. CDFW recommends that the specifics that pertain to establishing wildlife crossings for mountain lion be included in this measure. In addition to funnel fencing, the habitat modification and restoration should provide needed cover and strata for wildlife approaching the crossing and should include construction of wildlife trails to attract carnivores and deer to the crossing structures.

2135-6370

"Because land use and other factors could change prior to construction of the project, the Authority would work with agency and stakeholder partners—CDFW, USFWS, [National Marine Fisheries Service] NMFS, the [Santa Clara Valley Open Space Authority] SCVOSA, SCVHA, Peninsula Open Space Trust, and The Nature Conservancy—to validate and optimize wildlife crossing locations at the 75 to 90 percent design phase." It is unclear if validation of locations needs the "approval" from these stakeholder partners or if it simply a notification. It should also be noted the Grasslands Water District (GWD) is missing from he listed stakeholders and CDFW recommends including GWD to the list of stakeholders.

2135-6371

"The Authority would plan and prioritize species and wetland and natural community (e.g., sycamore alluvial wetland) mitigation land acquisition in coordination with the agencies and stakeholders listed above—at or near wildlife crossing entrances to minimize future development and maintain the natural and rural land cover types surrounding wildlife crossing entrances and exits." It is unclear when the plan and prioritization would take place and when mitigation land would be acquired to ensure the function of the wildlife crossings. CDFW recommends not deferring this mitigation action.

2135-6372

"Further, the Authority would prepare a Wildlife Crossing Design, Inspection, and Maintenance Plan. The Wildlife Crossing Design, Inspection, and Maintenance Plan would be developed in coordination with wildlife agencies—CDFW, USFWS, and NMFS—and local wildlife movement stakeholders (e.g., SCVOSA, SCVHA, Peninsula Open Space Trust, and The Nature Conservancy)." It is unclear how and when this would be prepared. CDFW recommends the Authority provide a plan that is enforceable and ensures that final approval come from the wildlife agencies.

2135-6373

Comment 20: Section 3.7.8 BIO-MM#77b: Monitoring and Adaptive Management of Wildlife Crossings Page 25

This section states the following, "The Authority would develop a monitoring and adaptive management plan to monitor the effectiveness and use of crossing designs." It is unclear when this plan will be developed and who is responsible for implementing this plan.

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2135-6374

"Including modifications to design features, if feasible, such as cover and substrate; use of new technologies to attract animals to the crossing; fencing; adjacent land management changes, if feasible; or other measures that may be determined to be feasible in the future. The monitoring and adaptive management plan would be developed in coordination with wildlife agency staff and local wildlife movement stakeholders such as the SCVHA, the SCVOSA, The Nature Conservancy, and the Peninsula Open Space Trust." It should be noted that this language is not enforceable, CDFW again recommends the Authority provide a plan that is approved by the wildlife agencies.

2135-6375

Comment 21: Section 3.7.8 BIO-MM#80: Minimize Permanent Intermittent Noise, Visual, and Train Strike Impacts on Wildlife Movement

This section states the following, "To this purpose, the Authority would build opaque noise/visual barriers to cover or obscure some or all of the train, including the [Overhead Contact System] OCS, if feasible, at the following loca ions**:** In the GEA IBA near Volta, between Stations B4550+00 and B4630+00 (all alternatives)".

2135-6376

Comment 22: Section 3.7.8 BIO-MM#81: Minimize Permanent Intermittent Impacts on Terrestrial Species Wildlife Movement

This section states, "These features include he following, which are specified in detail in the WCA (Authority 2020a: Appendix C). Jump out exit features that allow large mammals such as deer or mountain lion to exit the fenced right-of-way would be placed near at-grade road crossings in Coyote Valley at the following station numbers: B688, B691, B703, B730, B759, B761, B822, B823, B862, B863, B902, B935, B971, and B972." CDFW recommends the eastern and western Pacheco Pass areas include jump-outs as a requirement to facilitate movement for mountain lion and other large mammals. CDFW further recommends including and requiring jump out exit features for elk and deer in areas of Upper Cottonwood Wildlife Area and San Luis Reservoir Wildlife Area and jump outs for deer from Volta Wildlife Area through Mud Slough CE.

2135-6377

Comment 23: Section 3.7.8 BIO-MM#87: Conduct Pre-Construction Surveys and Implement Avoidance and Minimization Measures for Mountain Lion Dens Pages 28-29

"Prior to any ground-disturbing activity, regardless of the time of year, the Project Biologist would conduct pre-construction surveys for known or potential mountain lion dens within suitable habitat located within the work area and within 1,970 feet of the work area, where access is permitted." It is unclear how areas not accessible to the Project would be surveyed and it is unclear what is considered suitable habitat components.

2135-6378

"The Project Biologist will use location-specific survey methods to identify known and potential dens. The survey method will consider topography, vegetation density, safety, and other factors. Surveys will be conducted by a qualified biologist (i.e., a biologist

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2135-6378 with demonstrated experience in mountain lion biology, identification, and survey techniques) and may involve the establishment of camera stations, scent stations, pedestrian surveys (looking for tracks, caches, etc.), the use of scent detection dogs, or other appropriate me hods. Survey methods used will be designed to avoid the disturbance of known or potential dens to the extent feasible." CDFW is concerned with the overall practicability of this approach. It should be noted that dens can be very difficult to detect even for mountain lion experts. Another possible approach to be incorporated into detection surveys is camera station surveys.

2135-6379 "If known, or potential, mountain lion dens are identified or observed during pre-construction surveys, mountain lion dens will be assumed to have kittens present until the Project Biologist can document that they are not present and/or that the den is not being used." CDFW recommends additional information be included in the measure on how dens will be checked to see that dens are no longer occupied without disturbing the adult female and kittens.

2135-6380 "However, ground disturbance would be limited to those days between October 1 and January 31 within 1,970 feet of known or potential dens to the extent feasible." If it is not feasible to work within the proposed work window, CDFW recommends including another option to minimize and avoid impacts. Buffer establishment should be implemented every time a den is detected with kittens. If such a discovery is made, then project activities in the defined buffer area would need to halt for 2 months and a re-survey conducted to determine if the female has abandoned the den and relocated the kittens. Also recommended is immediate consultation with CDFW upon detection of an active den. Mountain lions will den throughout the year so a proposed work window may not be an effective minimization measure. CDFW recommends the reference to a work window to reduce impacts to mountain lions be removed from the document.

2135-6381 **Comment 24: Section 3.7.8 BIO-MM#88: Provide Compensatory Mitigation for Impacts on Mountain Lion Habitat Page 29**

The Authority has proposed to provide compensatory mitigation for impacts to mountain lion breeding and foraging habitats. The RDEIR/SDEIS indicates that each alternative for the Project has approximately 2,597.4 to 2,851.5 acres of permanent impacts and 944.8 to 1,192 9 acres of temporary impacts to breeding and foraging and high and low priority foraging and dispersal habitats. CDFW believes the proposed ratios of 2:1 for permanent impacts on breeding/foraging habitat and high priority foraging and dispersal habitat; and 1:1 for low priority foraging and dispersal habitat do not sufficiently account for loss of habitat and is not well supported based on the RDEIR/SDEIS analysis of the impacts, which was a coarse level spatial modeling exercise. Overall, the analysis of direct, indirect, permanent, and temporal impacts appears to be underestimated, including the impact to loss of gene flow between subpopulations and impacts to ESUs due to the loss of connec ivity. Therefore, it is unclear whether the proposed 2:1 mitiga ion to impacts ratio is sufficient to reduce impacts to less than significant levels.

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2135-6382 **Comment 25: Section 3.7.8 BIO-MM#89: Minimize the Impacts of Operational Lighting on Wildlife Species Page 29**

This section and Appendix 3.7-E Noise Analysis on Terrestrial Species and Appendix 3.7-F Supplemental Light Analysis on Terrestrial Species states the following: "Outdoor lighting at operational facilities would be consistent with minimum OSHA requirements established by 29 C.F.R. Section 1926.56 when the facilities are in use." It should be noted that the OSHA requirements are for humans not wildlife.

2135-6383 "To the extent feasible, the Authority would minimize the duration of lighting at operational facilities by using methods other than lighting (e.g., remote monitoring systems) to ensure security of facilities during nighttime hours when they are not in use. Train headlights would use the minimum standard allowed by the FRA under 49 C.F.R. Section 229.125 (a single headlight of at least 200,000 candelas). It is unclear why Coyote Valley is the only area that this measure addresses ALAN (Artificial Light at Night) exposure impacts.

2135-6384 **Comment 26: Section 3.7.8 Table 3.7-3 Comparison of Project Alternative Impacts for Biological and Aquatic Resources (acres) Page 30**

Missing from Impact BIO# 26a, Impact BIO#32, Impact BIO#42, Impact BIO#43, are mountain lion ESU impacts of gene flow between the CC-N and CC-C.

2135-6385 **Comment 27: Section 3.7.9.6 Wildlife Movement Pages 36-37**

"With respect to mountain lion, the inclusion of dedicated crossings and viaducts in the project design are expected to facilitate the continued genetic flow between subpopulations; however, some uncertainty exists around this conclusion because the movement of mountain lions and thresholds for movement are not well understood. Consequently, impacts causing disruptions to genetic flow between subpopulations are possible." This statement infers no changes to project design and overcrossings and viaducts would be examined or put into place. There is a lack of analysis in the RDEIR/SDEIS regarding what a design change or low functioning design features would mean to the CC-N subpopulation.

2135-6386 **Comment 28: Section 3.7.10 CEQA Significance Conclusions Impact BIO#26a: Loss of Breeding, Foraging, and Dispersal Habitat for and Direct Mortality or Disturbance of Mountain Lion Page 42**

"BIO-MM#87 would minimize direct impacts on individual mountain lions during construction by identifying and avoiding occupied mountain lion dens within the project footprint. BIO-MM#88 identifies minimum compensatory mitigation requirements for mountain lion that would be included in the CMP developed under BIO-MM#10." CDFW is concerned MM#87 is not an effective and adequate methodology to detect mountain lion and dens due to the low likelihood of detection and MM#88 is not adequate

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2135-6386

compensation and would not sufficiently offset impacts to breeding, foraging, dispersal, gene flow, and direct mortality likely as a result of the Project.

2135-6387

Comment 29: Section 3.19.6.6 Cumulative Impacts-Biological and Aquatic Resources-Wildlife Movement Page 2

"The project would contribute to these gene flow issues, especially between the CC-C and CC-N subpopulations within the ESU. The Authority would implement mi igation that includes avoiding and minimizing temporary impacts on wildlife movement (BIO-MM#76), modifying project design to accommodate wildlife movement (BIOMM#77a and BIO-MM#78), monitoring the success and providing adaptive management for crossings (BIO-MM#77b), and protecting land in the Santa Cruz to Gabilan Wildlife Linkage or the Soap Lake 10-year floodplain (BIO-MM#79)." It should be noted that the Pacheco Creek is not included in the area to which movement to allow gene flow is addressed and should be incorporated.

2135-6388

Comment 30: Section 3.19.6.6 Cumulative Impacts-Biological and Aquatic Resources-CEQA Conclusion Wildlife Movement Page 3

"While mitigation measures are proposed to reduce these impacts, there would still be substantial interference with wildlife movement. The project specific impacts would combine with those related to construction of other planned projects such hat there would be a new cumulative impact on wildlife movement. There is no additional feasible mitiga ion." If the mitigation measures cannot reduce impacts to less than significant for mountain lion, what will the Authority do to ensure impacts are minimized to the greatest extent feasible? CDFW recommends including a CEQA significance conclusion for impacts to the mountain lion ESUs and the corresponding genetic impacts.

2135-6389

Comment 31: APPENDIX 3.7-A: SPECIAL-STATUS SPECIES SUBJECT TO PROJECT IMPACTS-Table 2 Special-Status Wildlife Species Potentially Subject to Project Impacts Page 2

CDFW recommends that the table include CC-N and CC-C populations of the mountain lion ESU.

2135-6390

Comment 32: APPENDIX 3.7-D: SUPPLEMENTAL SPECIES HABITAT MODEL DESCRIPTIONS-Mountain lion (*Puma concolor*); Candidate under the CESA (Southern California/Central Coast Evolutionarily Significant Unit) Pages 5-7

"Breeding and Foraging Habitat —Potentially suitable breeding and foraging habitat in the regional study area meets the following criteria (Figure 3.7-D-2) and High-Priority Foraging and Dispersal Habitat—High-priority foraging and dispersal habitat in the regional study area meets the following criteria (Figure 3.7-D-2)." It is unclear how and by whom these criteria are set for high and low priorities. The current range referenced for modeling was Zeiner et al. 1990; this is not he most current literature reference. CDFW recommends referencing Dellinger et al. 2020.

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2135-6391

Comment 33: APPENDIX 3.7-D: SUPPLEMENTAL SPECIES HABITAT MODEL DESCRIPTIONS-Mountain lion (*Puma concolor*); Candidate under the CESA (Southern California/Central Coast Evolutionarily Significant Unit) Figure 3.7-D-2 Coastal Mountain Lion Habitat Page 9

Figure 3.7-D-2 is missing the CC-N and CC-C ESUs and does not depict areas of connectivity. CDFW has provided Attachment 1 for the Authority to reference mapping of he subpopulation loca ions.

2135-6392

Comment 34: APPENDIX 3.7-E: SUPPLEMENTAL NOISE ANALYSIS ON TERRESTRIAL WILDLIFE SPECIES-2 NOISE EXPOSURE IN THE STUDY AREA Page 3

"It is assumed that a typical train would be 660 feet long and that approximately 176 trains would pass any given point in any given 24-hour period, with up to 148 trains between 7 a.m. and 10 p.m. and up to 28 trains between 10 p.m. and 7 a m. A train moving past a given point would take 2.05 seconds to pass at a speed of 220 mph or 4.10 seconds at 110 mph; thus, maximum noise levels would be experienced for 5.8 minutes per day along parts of the alignment where trains were moving 220 mph or 11.6 minutes per day where trains were moving 110 mph". This statement indicates that there is an operating train 24 hours of the day and therefore that noise impacts are not intermittent. CDFW recommends conducting a revised analysis of non-intermittent noise and light impacts to wildlife be completed.

2135-6393

"Noise barriers protecting sensitive human receptors are predominantly located in urban areas, where they offer little benefit for wildlife." It is unclear if new receptors will be located and used for wildlife and if the noise barriers would reduce impacts to mountain lion movements in the areas. CDFW recommends further analysis.

2135-6394

Comment 35: APPENDIX 3.7-E: SUPPLEMENTAL NOISE ANALYSIS ON TERRESTRIAL WILDLIFE SPECIES-3 MAMMALIAN WILDLIFE RESPONSES TO NOISE Pages 8-9

"...recent camera trapping efforts at bridges along SR 152 by Pathways for Wildlife (2020) found that within the twelve month monitoring period, multiple species including deer (*Odocoileus hemionus*), American badger (*Taxidea taxus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), gray fox (*Urocyon cinereoargenteus*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and opossum (*Didelphis virginiana*) were recorded consistently traveling under each of the three bridges. Based on this evidence, it is clear that despite the presence of existing noise sources in the form of major highways, both common and sensitive wildlife do successfully use exis ing passage routes in the study area." It should be noted that this information reinforces the need for connectivity of wildlife crossings in this area for these species.

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2135-6395

Comment 36: APPENDIX 3.7-E: SUPPLEMENTAL NOISE ANALYSIS ON TERRESTRIAL WILDLIFE SPECIES- 4.1 San Joaquin Kit Fox

"Poten ial noise impacts on kit foxes were assessed by USFWS (2009) in its biological opinion for the Merced to Fresno Project Section of the HSR system. It determined that "noise disturbance from operation of the HST will not occur during nocturnal activities of San Joaquin kit fox in areas adjacent to the alignment from 12:00 a.m. through 6:00 a.m." and that "it is likely that San Joaquin kit fox will become quickly adapted to the increased noise disturbance generated by operation of the HST3." In summary, there would be a considerable potential for operational noise to affect foraging and alignment crossing by San Joaquin kit fox, and measures to minimize those effects are discussed below." It should be noted that citing biological opinion determination for a different regional segment is not an adequate comparison. The Merced to Fresno biological opinion did not account for 24-hour train operation. As a result, the referenced biological opinion is not applicable to the Project analyzed by the RDEIR/SDEIS.

2135-6396

Comment 37: APPENDIX 3.7-E: SUPPLEMENTAL NOISE ANALYSIS ON TERRESTRIAL WILDLIFE SPECIES- 4.3 Mountain Lion

"There is a high potential that train noise would affect mountain lion foraging effectiveness and that it would add to the existing barriers represented by SR 152 in deterring mountain lions from crossing the valley through this area." These conclusions on noise should be applied to corridor movement for mountain lion.

2135-6397

Comment 38: APPENDIX 3.7-E: SUPPLEMENTAL NOISE ANALYSIS ON TERRESTRIAL WILDLIFE SPECIES- Figure 3 Proposed Noise Barrier near Upper Pacheco Creek Page 18

CDFW is concerned that there are no proposed dedicated wildlife crossings for the Pacheco Creek area.

2135-6398

Comment 39: APPENDIX 3.7-E: SUPPLEMENTAL NOISE ANALYSIS ON TERRESTRIAL WILDLIFE SPECIES- Figure 4 Proposed Noise Barrier near California Aqueduct Page 19

It should be noted that Figure 4 of the proposed noise barrier near the California Aqueduct illustrates he Project (the alignment being at grade, trenched, noise/light barrier, designated wildlife crossing) on property that is protected under a CE. CDFW is concerned over impacts occurring on a CE and recommends a specific analysis of these impacts.

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2135-6399

Comment 40: APPENDIX 3.7-F: SUPPLEMENTAL ARTIFICIAL LIGHT ANALYSIS ON TERRESTRIAL WILDLIFE SPECIES Page 1

Section 1.1 states, "BIO-MM#51: Nighttime light disturbance would be reduced in and adjacent to suitable habitat where known California condor roosting habitat occurs at Lover's Leap south of State Route 152. Nighttime lighting would be focused, shielded, and directed away from the nighttime roost site. The project biologist would be on site during nighttime light use to determine the lighting risk to condors and to implement lighting avoidance measures (e.g., lighting shields) if necessary." It is unclear what determines implementation of this measure, and aspects of the measure are not requirements and therefore not enforceable.

2135-6400

Comment 41: APPENDIX 3.7-F: SUPPLEMENTAL ARTIFICIAL LIGHT ANALYSIS ON TERRESTRIAL WILDLIFE SPECIES 1.4.5 Dusky-Footed Woodrat and Fresno Kangaroo Rat Page 10

"In the Pacheco Pass Subsection, construction lighting would be limited to tunnel portals, and, in the Central Valley, construction lighting would be avoided." It is unclear if nighttime lighting would be prohibited during construction in the Pacheco Pass and Central Valley subsections. CDFW recommends analyzing impacts of construction lighting in these two subsections.

2135-6401

Comment 42: APPENDIX 3.7-F: SUPPLEMENTAL ARTIFICIAL LIGHT ANALYSIS ON TERRESTRIAL WILDLIFE SPECIES 1.5 Measures to Reduce Effects Page 12

"The following additional measures are recommended to further reduce lighting impacts within the areas identified in Table 1." The measures proposed to reduce lighting impacts are recommendations and not requirements. CDFW recommends proposing measures that are feasible, measurable, and enforceable.

II. Editorial Comments and/or Suggestions

2135-6402

Wildlife Corridor Movement: The RDEIR/SDEIS asserts, "Wildlife would be able to cross he alignment between at-grade segments where the HSR would be elevated on a viaduct or an underground tunnel." This statement assumes that the viaduct locations will remain in place; however, as with other HSR segments currently under construction, these viaduct locations could later be redesigned to be fenced at-grade and impermeable to wildlife. CDFW advises that a stronger design criterion should be developed and included into the RDEIR/SDEIS to ensure that areas of planned viaduct cannot later be changed to less permeable features by the Design-Build contractor.

2135-6403

As CDFW has discussed during early consultation and in previous comment letters to the Authority, the single biggest potential biological impact arising from construction of the HSR project is the impact on regional movements of wildlife and connections between habitats. The HSR has the poten ial to disrupt wildlife movement corridors that are already hindered with existing obstacles, create long stretches of impediments, and further narrow areas of low or compromised permeability, many of which are already

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threatening the continued viability of several species. Construction of access-controlled rail lines may create additional barriers to the movement of wildlife, thereby cutting them off from important food, shelter, and breeding areas. Resulting isolation of subpopulations limits the exchange of genetic material and puts populations at risk of local extirpation through genetic and environmental factors. Barriers can prevent the re-colonization of suitable habitat following natural population expansions, ultimately putting the species at risk of extinction.

The construction and operation of the HSR will severely inhibit north-south as well as east-west wildlife movement along the San Jose to Merced segment. While the Authority suggests it will examine the feasibility of implementing a variety of wildlife passages to aid animal movement along both sides of the rail alignment, it is unclear where and at what intervals these will be placed. This is a concern, especially considering recent design changes in the Fresno to Bakersfield segment of the Project where originally designed elevated structures were changed to an at-grade design and elevated structures over waterways were significantly reduced in leng h, narrowing the available space for open wildlife passage.

2135-6404

In addition, CDFW is concerned that any changes in crossing design or location due to significant build changes with the alignment during the interim between environmental review and 80 to 90 percent (%) engineering, creates delays and impediments to ensuring functional permeability for all focal species. This could limit the ability of species such as SJKF, Tule elk, and mountain lion to move unhindered throughout their historic range. A recent 2021 master's thesis by California State University, Fresno student, Abigal Dziegiel, analyzed CDFW's 2015-2019 Tule elk tracking collar data and identified current home ranges within the Pacheco Pass area along SR 152. Work by James Thorne and others from the University of California, Davis, in 2002 and 2006, tracking data from mountain lion and Tule elk research, and work associated with the Santa Clara Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP), have specifically iden ified 17 corridors in Santa Clara County of significant importance. Therefore, crossing locations and design are advised to be provided and fully disclosed in the CEQA document so that CDFW can analyze the potential effectiveness of maintaining these known wildlife corridors.

2135-6405

Elevated railways are cri ical in areas where the movement of wildlife is already reduced due to existing and/or proposed geographic transportation infrastructure and structural barriers such as those that exist in western Merced County near the intersections of SR 152, SR 33 and I-5.

Potential future design changes that could result in reduced wildlife permeability and increased wildlife impacts need to either be considered in the RDEIR/SDEIS, or somehow precluded from occurring at the construction phase. An elevated or below ground rail design could reduce the impacts that the HSR system would have on animal movement and migration, by allowing wildlife to pass unimpeded underneath or over the top of the entire length of the railway while providing access-controlled tracks. Elevated or below ground railways would be more effective in facilitating animal movement than

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2135-6405

the proposed wildlife underpasses and overpasses, which are not always effective or have untested efficacy for most taxa. Because wildlife would be more likely to move underneath an elevated rail, or over a below ground rail, as opposed to using a tunnel or vegetated overpass, CDFW advises the at-grade embankment described in the RDEIR/SDEIS be thoroughly analyzed as a barrier to movement, gene flow, reproductive success, loss of colonization opportunities, and to discuss this in the context of frequency, design, and location of planned wildlife crossings.

2135-6406

CDFW recommends considering the following for design features for dedicated wildlife crossings: minimize lengths (entry to exit) of dedicated wildlife crossings for certain species guilds and/or incorporate designs (grates, shelving, terracing, etc.) that still allow light penetration, maximize heights of crossings or add bridges for larger species guilds, provide natural cover types to encourage use, incorporate bench designs to allow use of the crossings during flooding, and provide smaller animal escape within or adjacent to the dedicated wildlife crossings.

2135-6407

If wildlife passage structures will be used instead of elevated or below ground rail, CDFW continues to recommend that an extensive evaluation be conducted before final wildlife passage locations are selected to determine the appropriate and most effective locations and number and types of such wildlife passage structures. As was recommended in previous correspondence, methods to determine best locations of wildlife passage structures or avoidance should include things such as: 1) track station surveys; 2) ditch and canal crossing surveys; 3) monitoring trails with infrared or Trailmaster cameras; and 4) geographic information system (GIS) habitat modeling to identify likely wildlife travel corridors and anthropogenic barriers (such as highways, canals, reservoirs) at the landscape level. In addition, wildlife habitat passage structures, such as underpasses, overpasses, elevating or placing below grade the alignment and tunnels, may not be suitable for all species and locations and would need to be evaluated carefully. Dedicated wildlife crossing structures should ensure permeability, be evaluated on a species-specific basis, and be required to meet specific minimum dimensions for increased probability of wildlife utilizing these structures.

2135-6408

Specific care should be afforded to ensure that any wildlife crossing structure design incorporates generous openness and clear line of sight from entry to exit to maximize detection of the crossing by species at the time of encounter and to ensure use. Currently, the DEIR/EIS does not provide specific dimensions listed for the openness, what constitutes a "slight grade of approaches to prevent flooding", and the number of crossings that would ensure permeability for such a long linear feature. Without these specifics and other relevant assumptions, it is not possible to determine if the effectiveness of this mitigation measure will reduce the level of significance. CDFW recommends that wildlife crossing locations, configurations, and demonstrated efficacy for target species use (e.g., mountain lion, tule elk, SJKF, etc.) be a requirement of the final design.

2135-6409

Finally, the RDEIR/SDEIS does not analyze the impact of design elements, such as the IPBs and Access Restriction (AR) fencing, in terms of impacts to wildlife corridor movements and/or the reduction of effectiveness of wildlife crossings compounded by

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the additional fencing infrastructure. The RDEIR/SDEIS includes informa ion that the at-grade segments of the project would be entirely fenced or walled and thereby eliminate adverse interac ions with wildlife, including direct strikes. While this may be true in some instances at he individual or localized level, the total length and linear nature of the project's fencing/walls, along with other projects in the area, may cause site-specific and cumulative impacts involving species habitat fragmentation and impediments to wildlife movement. CDFW agrees that inclusion of proper placement and design of the dedicated wildlife crossings will be a very important component of the environmental planning process for the Project. CDFW also agrees that wildlife movement areas (open connectivity) are also important for plant species.

It is paramount that the final appropriate and effective design features, dimensions, and locations for elevated rail, viaduct, tunnel, and wildlife crossings through Pacheco Pass and Central Valley remain as minimum criteria and not a design-build option to reduce dimensions or alter locations without approval from the wildlife agencies to ensure connectivity of gene flow for the mountain lion subpopulations (CC-C and CC-N).

2135-6410

Use of Modeling for Impact Analysis
CDFW has previously expressed its concern with using coarse-level predictive models for the impact analysis without having site-specific surveys to supplement the modeling effort. We are concerned that the lack of current, site-specific information to accurately quantify the magnitude of impact to CESA-listed species may cause delays in the impact of the taking analyses necessary for CESA and issuance of an ITP. CDFW is also concerned how the modeled output is proposed to be used for areas where there are no occurrence data. As a reminder, CNDDB captures voluntarily reported detections only; areas without records should not be treated as areas where species do not occur. Our primary concerns with using modeling without site-specific protocol surveys to assess and quantify impacts for purposes of CESA include the following:

- Modeling alone may not capture the full extent of species occurrences and habitat suitability due to data sources, timing of surveys, limited access to significant portions of the alignments, and the inherent accuracy issues associated with using regionally-based data to determine site-specific impacts without a reliable verification method (e.g., protocol surveys). Using predictive modeling only to evaluate species presence/absence and to quantify project-specific impacts (acreages) could miss marginal or atypical habitat usage, especially by highly mobile species, and impose a risk of unauthorized take. In addition, some areas not ranked as suitable have not been surveyed recently or have never been surveyed.

2135-6411

- Due to the stochasticity and cryptic nature of some species, it is very difficult to accurately “detect” species and determine mitigation requirements using modeling. Some species are unpredictable due to variables the modeling may not or cannot adequately capture, habitat requirements that are constantly evolving over time or space and/or have distributions that can be analyzed statistically but not be predicted precisely. For example, opportunistic species

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2135-6411

can have dynamic ranges and use areas not ranked at all by the model based on its current parameters.

2135-6412

- As an estimation of reality, the current model includes a defined range of species and conditions (using the rules selected) based on a snapshot of time and may not accurately capture use by all species when impacts occur and/or translate down to the site-specific (e.g., footprint) level. Modeling alone can provide a statistically significant underrepresentation of habitats potentially occupied by State-listed species. For example, some listed plants may only occur at specific times of the year under certain conditions and only be adequately evaluated with protocol surveys within the project footprint at the appropriate time. Likewise, some State fully-protected bird species not known to nest or breed in the project area (e.g., white-tailed kite, peregrine falcon and bald eagle) could be transient to the area at certain times of the year.

2135-6413

It should be noted that the WCA is not an adequate analysis of the genetic landscape. The landscape connectivity/permeability vs. the genetic connectivity. Habitat quality landscape does not capture the movement through the Project for the CC-C subpopulation of mountain lions who breed and pass on genes to o her subpopulations. The WCA (Appendix 3.7A of the RDEIR/SDEIS) modeling limitations pose issues and assumptions that are problematic in addressing the genetic permeability of mountain lion. Permeability Analysis Results for American badger, bobcat, mountain lion, deer, Tule elk, and bay checkerspot butterfly (*Euphydryas editha bayensis*) does not indicate changes in existing permeability to post-permeability once the Project is complete.

2135-6414

CDFW continues to emphasize that although the current modeling can be a helpful tool for the Authority’s own preliminary evaluation, as well as for compensatory mitigation planning, it will not be a substitute for our analysis when it comes to CESA permitting. CDFW will need to conclude whether or not listed species will be impacted by the project. If predictive modeling is used in lieu of biological surveys by the Authority, CDFW’s ITP related analysis we will need to err on the side of assuming presence in the Project footprint where suitable habitat is present.

2135-6415

Department Owned and Managed Lands

To date, CDFW has not been provided a comprehensive analysis of impacts to CDFW-owned land and therefore cannot agree at this time with the Authority’s assumption that a Section 4(f) is warranted. CDFW is advising the Au hority to formulate other feasible alternatives that avoid these lands because CDFW cannot agree that a Section 4(f) is a reasonable supposition in planning the HSR alignment.

2135-6416

The Secretary of Transportation may approve a project requiring the use of publicly owned land of a wildlife and waterfowl refuge ***only*** if there is no prudent and feasible alternative to using that land; and the project includes ***all*** possible planning to minimize harm to the wildlife and waterfowl refuges from the use. “Use” includes substantial impacts to wildlife resources due to close proximity of a transportation project

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2135-6416

(Department of Transportation Act 49 U.S.C. Section 303, formerly Section 4[f]). All four alternatives considered, and the Project alignment will have significant impacts to State owned wildlife areas.

CDFW Wildlife Areas are acquired for the protection and enhancement of habitat for a wide variety of species and are open to the public for wildlife viewing, hiking, hunting, fishing, and nature tours. The construction and operation of HSR within or near CDFW lands could severely limit the wildlife and public use values of these lands as well as alter the way these lands are managed by CDFW. Most Wildlife Areas depend on visitor fees for operation, maintenance and management. CDFW has concerns that the HSR may negatively impact the number of visitors to Wildlife Areas resulting in reduced revenues; thereby reducing or eliminating the future enhancement of public recreational opportunities and wildlife habitat provided by these areas. The consequence of this may prevent youth from future hunt participation on these CDFW owned lands and impact recruitment of youth into the sport of hunting impacting the CDFW Recruitment, Retention and Reactivation Action Plan initiative. There would be diminished funding to CDFW's Wildlife Program and the operating budget for CDFW during construction (up to a 5-year period or more) of the HSR Project and on-going fiscal impacts once the HSR Project is complete.

Specific CDFW-owned lands that are adjacent to, bisected by, or occur within 1 mile of the San Jose to Merced alignment include Cottonwood Creek Wildlife Area (Upper and Lower), San Luis Reservoir Wildlife Area, O'Neill Forebay Wildlife Area, Volta Wildlife Area, Los Banos Wildlife Area, Grasslands Wildlife Area, and Cañada de los Osos Ecological Reserve.

2135-6417

Another concern of CDFW is the Grassland Environmental Educational Center (GEEC). The GEEC is visited by local area school children for educational outreach and enrichment and in some cases is the only outdoors educational experience in their area. The annual average number of visitors are 6,317. The alignment alternatives are within 1,000 feet of the GEEC, thus the value and experience to its visitors will be impacted during construction and long-term operation and maintenance of the HSR. All four alternatives proposed in the DEIR/EIS will have the same impact to the GEEC; CDFW advises consideration of another alignment or alternative.

2135-6418

Moreover, this section lacks analysis of indirect impacts to conservation plans and CEs. The alignment will go through the Mud Slough CE (CDFW is grantee) and other CE lands purchased for conservation of SJKF and other special-status species by the State of California and other entities. The impacts to the perpetual conservation values set forth in CEs were not evaluated and analyzed. CDFW is concerned that the potential impacts of the HSR Project will impact the biological values, he continued management, and potentially violate the conditions of the Mud Slough CE. The CE has terms of conditions that preserve the natural character and maintain in perpetuity the habitat values set forth in the required site-specific management plan for waterfowl habitat value and/or waterfowl use. CDFW recommends this be analyzed and included in the RDEIR/SDEIS, including the legal mechanism that the Authority would utilize to

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2135-6418

condemn or otherwise impact lands permanently conserved by the State of California. As indicated previously during early consultation, CDFW recommends that an alternative location for that portion of the Project alignment be identified to avoid impacts to permanently conserved lands and the associated legal implications.

Federally Listed Species: CDFW recommends consulting with the USFWS on potential impacts to federally listed species including, but not limited to, monarch butterfly. Take under the Federal Endangered Species Act (FESA) is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nes ing. Consultation with the USFWS in order to comply with FESA is advised well in advance of any ground-disturbing activi ies.

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 CNDDB. The CNDDB field survey form can be found at: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be 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 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).

CDFW appreciates the opportunity to comment on the Project to assist the Authority in identifying and mitigating the Project's impacts on biological resources.

Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

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). Please see the enclosed Mitigation Monitoring (MMRP) table which corresponds with recommended mitigation measures in this comment letter. If you have any questions, please contact Ms. Primavera Parker, Senior Environmental Scientist (Specialist), at the address provided on this letterhead, by telephone at (559) 320-6666, or by e-mail at Primavera.Parker@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Julie A. Vance
Regional Manager

Attachment 1- Mountain Lion ESU Subpopulation Mapping
Attachment 2- MMRP

ec: See Page Thirty-One

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CDFW Region 4: Ferranti, Stafford, Tomlinson, Allen, Parker
CDFW Region 3: Craig Weightman, Brenda Blinn

Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

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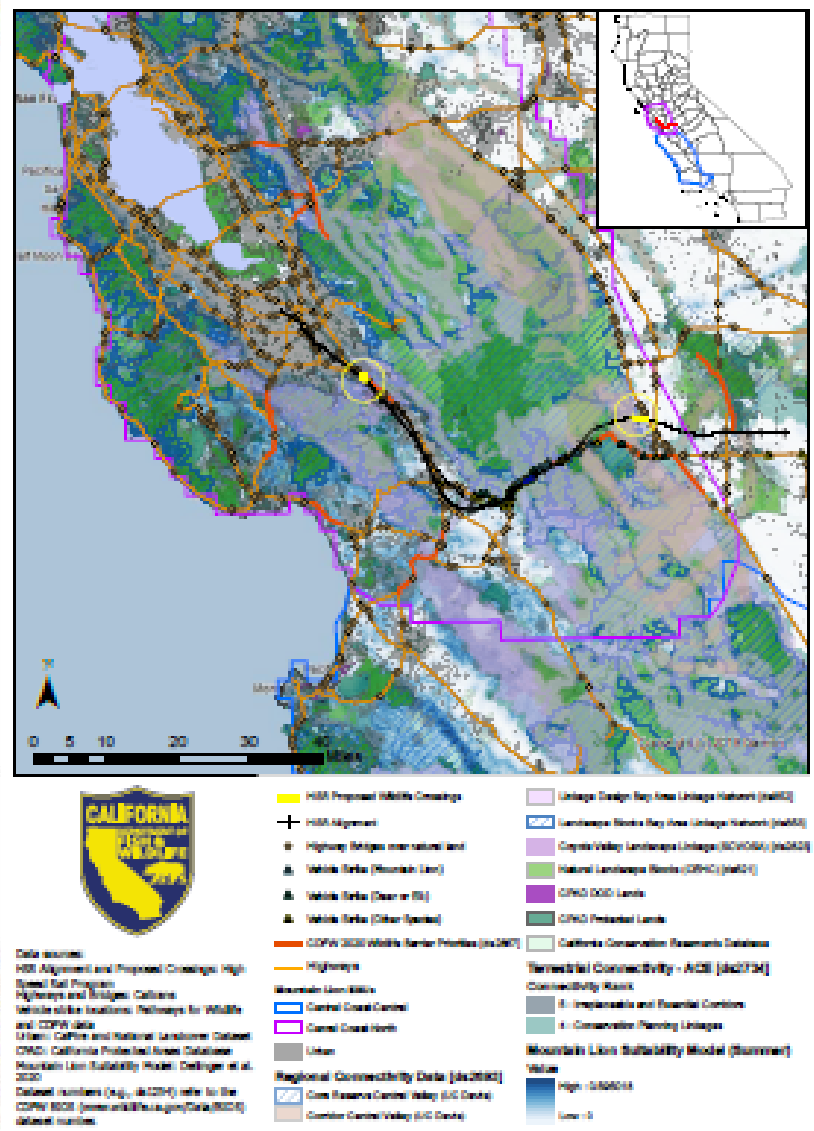

Attachment 2

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

PROJECT: California High-Speed Rail Project (San Jose to Merced Section)

SCH No.: 2009022083 (Revised DEIR/Supplemental DEIS)

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
Mitigation Measure 1: ML Habitat Assessment	
Mitigation Measure 2: ML Wildlife Crossing Monitoring	
Mitigation Measure 3: ML Avoidance-Buffer for Corridor Areas	
Mitigation Measure 4: ML No Night Work in Corridor Areas	
Mitigation Measure 5: ML Avoidance Use of Rodenticides	
Mitigation Measure 6: ML Provide Dedicated Wildlife Crossings	
Mitigation Measure 8: MB Habitat Assessment	
Mitigation Measure 9: MB Surveys	
During Construction	
Mitigation Measure 2: ML Wildlife Crossing Monitoring	
Mitigation Measure 3: ML Avoidance-Buffer for Corridor Areas	
Mitigation Measure 4: ML No Night Work in Corridor Areas	
Mitigation Measure 5: ML Avoidance Use of Rodenticides	
Mitigation Measure 6: ML Provide Dedicated Wildlife Crossings MB Take Avoidance	
Mitigation Measure 7: ML Take Authorization	
Mitigation Measure 10: MB Take Avoidance	

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021)

2135-6332

The Authority appreciates the CDFW's comments on the Revised/Supplemental Draft EIR/EIS. In subsequent individual comments, the CDFW provided specific suggestions regarding special-status species, other biological resources, and permitting considerations as well as recommended revisions to specific mitigation measures or additional mitigation measures to avoid, minimize, or mitigate effects. Each of the CDFW's specific comments are addressed in responses to their subsequent comments. With respect to the CDFW's comments regarding mitigation measures being enforceable and sufficient, the Authority's mitigation measures are effective and enforceable. Ultimately, the contract with the design-build contractor and the associated implementing manual would ensure common interpretation of the mitigation requirements so that they are fully and effectively implemented. Additionally, as noted in Table 2-18 of the Draft EIR/EIS, the Authority expects that numerous state and federal permits would also be required to construct the project. Each of these permits would also have implementation and reporting requirements, including requirements under a Section 2081 ITP and a Section 1600 et seq. Streambed Alteration Agreement with CDFW. Consequently, the Authority notes that there are multiple levels of enforcement and accountability related to the implementation of mitigation measures.

2135-6333

The CDFW summarizes the status of the genetic subpopulations of the mountain lion and asserts that the Revised/Supplemental Draft EIR/EIS does not assess impacts to gene flow and subsequent population impacts resulting from the proposed project. The Authority disagrees and notes that Section 3.7.6.2, Biological Conditions, in the Revised/Supplemental Draft EIR/EIS summarizes the current subpopulations of the mountain lion potentially affected by the project, including effective population sizes and factors affecting the viability of those populations, such as genetic isolation from barriers to movement and high mortality rates. Consequently, because the project occurs at the boundary between the subpopulations and may introduce a significant barrier to movement of mountain lions, the Revised/Supplemental Draft EIR/EIS discloses that a significant impact on mountain lions may occur as a result of the project. Impact BIO#43 in the Revised/Supplemental Draft EIR/EIS concludes that "impacts causing disruptions to genetic flow between subpopulations are possible and are considered potentially significant."

2135-6334

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

The commenter recommends revisions to include additional mitigation addressing genetic connectivity/wildlife movement. Standard Response SJM-Response-BIO-8 addresses this commenter's suggestions (as well as other commenters' suggestions for additional mitigation). With respect to the map provided by CDFW (identified as Attachment 1 to the comment letter), the Authority has reviewed and evaluated the information on the map, especially the mountain lion suitability model (summer), but also other information regarding vehicle strikes with mountain lions and other species. Based on our review, the Authority believes the mountain lion suitability model is substantially similar to the species model prepared specifically for the project. While different methods are used, the results (areas of suitable habitat for mountain lion) are substantially similar, and thus the methods used by the Authority are appropriate. With respect to the other information on the map (for example, vehicle strikes of mountain lion and other species), the Authority has reviewed that information as well and believes that it supports the overall mitigation strategy as outlined in the standard response.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6335

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

The CDFW summarizes and reiterates the issues surrounding movement between subpopulations and the genetic issues with the existing subpopulations. Please see response to submission SJM-2135, comment 6333, which describes how the Revised/Supplemental Draft EIR/EIS includes information regarding the mountain lion subpopulations and the genetic issues with those populations. The Revised/Supplemental Draft EIR/EIS Impacts BIO#26a, BIO#42, and BIO#43 conclude that the project has the potential to impact mountain lions and their habitat, as well as temporarily disrupt the movement of mountain lions during construction, as noted by CDFW. Additionally, as noted in response to submission SJM-2135, comment 6333, the Revised/Supplemental Draft EIR/EIS Impacts BIO#44, BIO#45, BIO#46, and BIO#47 conclude that the project has the potential to cause impacts on mountain lion during operations from a variety of mechanisms, including noise and lighting. In response to these impacts, the Authority has developed extensive mitigation to avoid, minimize, and mitigate impacts on mountain lion as well as overall wildlife movement. BIO-MM#77a would require the Authority to design wildlife crossings in coordination with local knowledgeable expert stakeholders in the region. BIO-MM#77b would require the Authority to monitor and adaptively manage the crossings to ensure they are functional for wildlife species of concern. BIO-MM#80 would minimize noise and visual impacts within the Pacheco Creek area by requiring the Authority to construct noise/visual barriers on a section of viaduct. BIO-MM#87 would minimize impacts on mountain lions during construction through the identification and avoidance of their dens. BIO-MM#88 would provide compensatory mitigation for the loss of mountain lion habitat from construction. BIO-MM#89 would minimize nighttime lighting impacts by requiring the use of the minimum amount of train headlighting allowed by the FRA. Lastly, regarding the commenter's notes regarding the facilitation of continued gene flow between mountain lion populations, the Authority developed additional mitigation included BIO-MM#79b in the Final EIR/EIS to address this concern.

Collectively, the Authority believes the mitigation provided in the Final EIR/EIS for potential construction and operational impacts on mountain lions is robust and supports the conclusions.

2135-6336

In this and subsequent comments, CDFW's comments focus on the procedures that would be used to identify suitable habitat, as well as measures that would be implemented to avoid, minimize, and mitigate impacts on mountain lion. The first suggested measure is a habitat assessment to assess potentially suitable habitat. Please refer to Section 3.7.5.3, Methods for Impact Analysis, of the Draft EIR/EIS for a description of the overall methods used to assess potentially suitable habitat for all special-status species. These methods include the development of a species habitat model (model parameters were provided in Appendix 3.7-D, Supplemental Species Habitat Model Descriptions, to the Revised/Supplemental Draft EIR/EIS) developed in consideration of CDFW and other regulatory agency comments. Because the model includes all potentially suitable habitat, regardless of any site-specific factors, the Authority believes that the models likely overestimate the amount of occupied habitat that occurs within the project footprint. Mitigation Measure BIO-MM#87 requires pre-construction surveys for mountain lion in all suitable habitat. Because surveys would include all potentially suitable habitats, the measure would have the same effect as an assessment of suitable habitat, or better.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6337

The CDFW recommends that the Authority devise and implement a Mountain Lion Crossing Monitoring Plan. The Authority notes that BIO-MM#77b, Monitoring and Adaptive Management of Wildlife Crossings, already includes the elements recommended by CDFW for all wildlife species, not just mountain lion. The Authority also notes that the measure requires development of the plan "in coordination with wildlife agency staff and local wildlife movement stakeholders." Consequently, the Authority believes that the mitigation measure already meets the recommendations made by CDFW.

The CDFW also provided additional recommendations related to BIO-MM#77a, Design Wildlife Crossings to Facilitate Wildlife Movement. Those recommendations include the establishment of specific criteria for monitoring the performance of the crossings (i.e., success criteria), as well as performance objectives and adaptive management and evaluation of the effectiveness of the crossings. The Authority notes that BIO-MM#77a already incorporates these components, and consequently believes that the mitigation measure already meets the overall recommendations made by CDFW.

With respect to CDFW's suggestion that the monitoring plan's goal would be to provide data to assist in designing crossings and inform placement for future HSR segments, the Authority agrees that information collected during monitoring will be useful for this purpose; however, this is not a goal of the monitoring itself and thus has not been included as part of the mitigation measure. Similarly, long-term monitoring for mountain lion, beyond determining the effectiveness of the crossings for mountain lions, is not a goal of the monitoring and has not been included as a part of the mitigation measure.

2135-6338

The Authority has evaluated CDFW's suggestion of a 0.25-mile buffer along movement corridors such as drainages and riparian areas and has determined that this measure is not feasible for the Authority to implement. The project must cross over and adjacent to numerous drainages and riparian areas, and avoidance of these areas is not feasible based on the project's engineering and design criteria. However, mitigation has been included to address these impacts, where appropriate. Please see Standard Response SJM-Response-BIO-8, which outlines the Authority's evaluation of mitigation options. As noted in the response, the Authority has included BIO-MM#76b in the Final EIR/EIS, which establishes corridors for wildlife movement during construction. However, as noted above, the Authority evaluated whether a 0.25-mile buffer could be established at drainages and riparian areas and determined that this was infeasible because project construction must occur within that distance to those areas. Additionally, the Authority notes that the Final EIR/EIS also includes other wildlife movement enhancement measures in the region, as outlined under new measure BIO-MM#79b.

2135-6339

The CDFW recommends a mitigation measure prohibiting nighttime work in corridor areas. The Authority notes that BIO-MM#76 already requires the Authority to avoid conducting ground-disturbing activities within known wildlife movement routes during nighttime hours, to the extent feasible. The Authority acknowledges that nighttime work may be required in some instances, and thus BIO-MM#76 also requires a site-specific nighttime lighting plan, if nighttime work is necessary, to minimize impacts on corridor areas and adjacent lands.

2135-6340

The CDFW recommends a new mitigation measure prohibiting the use of rodenticides and second-generation anticoagulant rodenticides. The Authority notes that construction and operations and maintenance activities may require the use of pesticides in some instances; however, the use of pesticides would be conducted in accordance with state and federal guidelines. The Authority also notes that a moratorium on the use of second-generation anticoagulant rodenticides is currently in place, effective January 1, 2021, under the California Ecosystems Protection Act, until the California Department of Pesticide Regulation determines they will have no significant adverse effect on non-target wildlife.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6341

The commenter requests that dedicated wildlife crossings should be a required design feature. The dedicated wildlife crossings in the project design are evaluated in the EIR/EIS as part of the proposed project and thus are required to be constructed. The crossings include dedicated crossings for a variety of focal species (including mountain lion and deer). However, the Authority also notes that the project is still early in the design phase and has therefore included mitigation to ensure the exact crossing locations and design specifics are completed with the project. BIO-MM#77a requires the Authority to include specific design features in the final design and to coordinate with CDFW and other local stakeholders to optimize the crossing locations and designs.

2135-6342

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

The CDFW recommends additional measures and considerations to ensure no net loss of suitable habitat for mountain lion, including wildlife corridor restoration or enhancement as potential mitigation strategies. The Authority has prepared a standard response that addresses commenter's suggestions for additional mitigation. The CDFW's remaining comments describe activities that CDFW notes would require an ITP under CESA, if take cannot be avoided. As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP would be made in coordination with CDFW at the time of the permit application.

2135-6343

The commenter is concerned about the efficacy of mitigation measures BIO-MM#14 and BIO-MM#86. BIO-MM#14 would avoid disturbing occupied milkweed patches in temporary work areas; permanent habitat loss cannot be avoided but would be offset by BIO-MM#86. BIO-MM#86 would minimize the effect permanent habitat loss would have on the overall population by contr buting to monarch conservation or restoration initiatives. Conservation or restoration actions can result in a net benefit to the species if the lost habitat is relatively degraded or of low quality and the conserved or restored habitat is of great value to the recovery of the species. Impact BIO#2b notes that the project would convert or destroy suitable habitat; create fugitive dust; and overall include activities that could directly or indirectly injure or kill larval or adult monarchs. The measures to minimize these effects are also described under Impact BIO#2b. Operational effects from herbicide application, train strike, and hydrological disruptions on host plants are discussed under Impact BIO#32. The measures to address those effects are also described in that location.

2135-6344

The CDFW suggests a measure to conduct a habitat assessment to assess potentially suitable habitat for monarch butterfly. Please refer to Section 3.7.5.3, Methods for Impact Analysis, of the Draft EIR/EIS for a description of the overall methods used to assess potentially suitable habitat for all special-status species. These methods include the development of a species habitat model (model parameters were provided in Appendix 3.7-D, Supplemental Species Habitat Model Descriptions, to the Revised/Supplemental Draft EIR/EIS) developed in consideration of CDFW and other regulatory agency comments. Because the model includes all potentially suitable habitat, regardless of any site-specific factors, the Authority believes that the models likely overestimate the amount of occupied habitat that occurs within the project footprint. Mitigation Measure BIO-MM#14 requires pre-construction surveys and avoidance for monarch butterfly in suitable habitat. Because surveys would include all potentially suitable habitats, the measure would have the same effect as an assessment of suitable habitat, or better.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6345

Please see response to submission SJM-2135, comment 6344. Mitigation Measure BIO-MM#14 already requires surveys to determine the presence of monarch butterflies as well as their host plants prior to construction. As CDFW is aware, there are currently no published protocols for monarch butterfly; however, the Authority notes that BIO-MM#14 would use a similar survey procedure to another listed butterfly in the region, the Bay checkerspot.

2135-6346

The CDFW recommends the avoidance of milkweed (host plants for the monarch butterfly) if ground-disturbing activities will occur during the overwintering period (identified by CDFW as October–February). The Authority refers the CDFW to the species model description in Appendix 3.7-D, Supplemental Species Habitat Model Descriptions, to the Revised/Supplemental Draft EIR/EIS for information regarding the overwintering and migratory habitats and ecology for monarch butterflies. As summarized there, overwintering sites for monarch butterflies in California are located immediately adjacent to the Pacific Ocean (within approximately 1 mile of the ocean). No overwintering sites are located within the project site because the project area is much farther than 1 mile from the coast. Furthermore, native milkweed plants serve as habitat for the monarch butterfly only during the migratory season, and they are herbaceous perennials that die back to the ground at the end of each growing season. Consequently, a measure to avoid milkweed during the overwintering period is not necessary or appropriate. The CDFW also recommends avoiding the use of insecticides during construction and operations. The Authority notes that insecticides are not proposed for widespread use; however, some use of pesticides (insecticides or herbicides) may be required to maintain the HSR right-of-way. As required under BIO-MM#70, pesticide applications would be conducted by certified pesticide applicators in accordance with all requirements of the California Department of Pesticide Regulations. The CDFW also recommends consultation with CDFW and USFWS whenever a special-status species is detected within or in the vicinity of the project. The Authority does not believe it is feasible to consult with the CDFW and USFWS every time a special-status species is located. The Authority notes that there are numerous mitigation measures in the EIR/EIS that directly dictate the procedures to be taken if a special-status species is located within the project area. For example, and specific to monarch butterfly, BIO-MM#14 outlines the requirements to survey for and avoid monarch butterflies and their habitat (milkweed host plants) if located within impact areas. Lastly, the CDFW recommends additional measures for monarch butterfly focusing on restoring and enhancing habitat. The Authority notes that in response to this comment and other similar comments, BIO-MM#86 has been modified in the Final EIR/EIS to also provide for contributions to monarch conservation and/or restoration initiatives in the project region.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6347

The citation noted by the commenter was not included in the WCA (Appendix C to Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS) but was added to the Revised/Supplemental Draft EIR/EIS because it had relevance to the mountain lion analysis, which was revised to reflect the species becoming a candidate species under CESA. The introductory text to the list of references was revised to make clear that the reference is not from the WCA.

2135-6348

As descr bed in numerous other responses to comments, the Authority has descr bed and has clearly articulated the importance of the CC-N and CC-C subpopulations and the gene flow between them in the Revised/Supplemental Draft EIR/EIS. Please see response to submission SJM-2135, comments 6333 and 6335 for the primary response to this topic.

2135-6349

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

Section 3.7.6.2, Biological Conditions, was revised in the Final EIR/EIS to include western Pacheco Pass as an important wildlife corridor. Appendix F of the WCA (Appendix C to Authority 2020a, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS) shows a post-project impact for all species in the region of western Pacheco Pass. The Authority received numerous other comments regarding the facilitation of movement for mountain lion and other large species in the western portion of Pacheco Pass, as well as suggested mitigation measures. The Authority prepared a standard response that addresses those concerns.

2135-6350

The CDFW recommends that the Authority descr be how direct, indirect, permanent, and temporary impact acreages were calculated for each species. Section 3.7.5.3, Methods for Impact Analysis, of the Draft EIR/EIS describes the methods used to calculate impact acreages for direct construction impacts. A minor clarification was added to this section in the Revised/Supplemental Draft EIR/EIS to note that impacts on mountain lion and monarch were calculated using the same methods as used for all other special-status species. Additionally, as described in Section 3.7.5.3 of the Draft EIR/EIS, indirect construction impacts and direct intermittent/indirect intermittent operational impacts are descr bed qualitatively because of the difficulty in quantifying indirect impacts, especially due to future or far-removed factors. The definitions for the different habitat types descr bed in the species model are descr bed in Appendix 3.7-D, Supplemental Species Habitat Model Descriptions, to the Revised/Supplemental Draft EIR/EIS.

2135-6351

The CDFW notes that it considers the primary impact on mountain lion to be potential impacts affecting gene flow between subpopulations. The Authority notes that Impact BIO#26 is focused on habitat impacts from construction, while Impacts BIO#42 through BIO#47 are focused on the potential impacts of the proposed project focused on wildlife movement. The statement in Impact BIO#26a quoted by CDFW has been revised and refocused to state “The primary habitat impact would be the loss or disturbance of breeding habitat, including the potential to kill cubs if they are present in the area at the time of construction.” The Authority notes that the approach used in the EIR/EIS, focusing one impact discussion on impacts on habitat and an in-depth discussion of wildlife movement impacts in six different impacts, supports CDFW’s suggestion that the potential impact on wildlife movement is the primary impact of the project on mountain lion. Lastly, regarding impacts on gene flow, please see responses to submission SJM-2135, comments 6333 and 6335 for more discussion regarding this topic.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6352

The CDFW notes that the injury or killing of a mountain lion would require the acquisition of an ITP pursuant to Fish and Game Code Section 2081(b). As noted in Table 2-18 of the Draft EIR/EIS, an ITP under Section 2081 of the California Fish and Game Code is expected to be required for the project, and the Authority has obtained take permits for other HSR project sections. The determination of which species and activities would be covered by the Section 2081 ITP would be made in coordination with CDFW at the time of the permit application.

2135-6353

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

The Authority notes that the Revised/Supplemental Draft EIR/EIS Impact BIO#42 does address the spatial and temporal disruption of mountain lion movement in the region. The Authority has clarified further in the Final EIR/EIS that those spatial and temporal disruptions can also result in an overall disruption of gene flow between subpopulations.

2135-6354

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

The commenter is concerned about the sufficiency of the Revised/Supplemental Draft EIR/EIS impact analysis and project design elements regarding wildlife movement in the Pacheco Reserve/Pacheco Creek area. As noted in the Standard Response SJM-Response-BIO-8, the Authority has adequately analyzed these issues.

2135-6355

Table 2-14 in Chapter 2, Alternatives, of the Draft EIR/EIS presents a summary of daily operations, including the number of daytime trains and the number of proposed nighttime trains. The number of nighttime trains proposed has not changed in the Revised/Supplemental Draft EIR/EIS. Timing for operation of revenue trains during nighttime hours has been clarified in Section 2, Table 2-14 of the Final EIR/EIS to note that no revenue trains would operate between midnight and 6am. The statement in Appendix 3.7-E, Supplemental Noise Analysis on Terrestrial Wildlife Species, of the Revised/Supplemental Draft EIR/EIS regarding “24 hr operation of the train”, noted by the commenter, was just a way to summarize the number of trains that pass any given point in a particular day. 24-hour operation of the project is not proposed, as noted and clarified above. Regarding intermittent maintenance activities, Section 2.1.1.1 of the Draft EIR/EIS describes maintenance of the track and right of way and notes that trains for those maintenance activities would operate between midnight and 5am, however trips would be infrequent, passing over any given section of track once in the night. As noted by the commenter, the analysis in Appendix 3.7-E already considered this limited maintenance activity and found that it would not result in a substantial effect on wildlife movement, including the mountain lion.

2135-6356

The CDFW recommends that the EIR/EIS include an analysis of visual obstructions to mountain lions and their prey base Additional information regarding potential “visual obstructions” and their effects on mountain lions and their prey base has been added to the Final EIR/EIS as suggested by CDFW.The information does not change the findings or conclusions of the EIR/EIS.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6357

The CDFW asserts that BIO-IAMF#12, a design measure associated with minimizing impacts from lighting, is a recommendation and not a requirement. The Authority disagrees. IAMFs are design features that are part of the proposed project and as such are enforceable because they stipulate how the project will be implemented. BIO-IAMF#12 includes specific design standards that must be met. For example, BIO-IAMF#12 requires the Authority to avoid installing lighting under viaduct sections over riparian areas, and therefore the project design cannot contain lighting under a viaduct if it is located over a riparian area. Additionally, IAMFs are included in the Mitigation Monitoring and Enforcement Plan for the project and thus must be implemented. With respect to the analysis of lighting impacts on wildlife, Appendix 3.7-F, Supplemental Artificial Light Analysis on Terrestrial Wildlife Species, to the Revised/Supplemental Draft EIR/EIS presents the analysis and sources used to complete the analysis. The CDFW has not suggested or provided additional sources to consider, and thus the Authority finds the existing analysis is sufficient.

2135-6358

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

The commenter requests clarification on how the project would affect wildlife movement and specifically how it may affect gene flow between CC-C and CC-N subpopulations of mountain lion. Standard Response SJM-Response-BIO-8 addresses the cumulative impacts and genetic connectivity impacts from the project and the mitigation approach included in the Final EIR/EIS. Regarding vehicle strikes, the Authority has reviewed the locations of known vehicle strikes and believes that this information further supports the mitigation approach being used by the Authority in the Final EIR/EIS—specifically, by addressing wildlife movement in the region through improvements that would reduce the potential for wildlife vehicle strikes (i.e., dedicated wildlife overcrossing and other improvements in the region). This information has been added to the Final EIR/EIS in Section 3.7.6.2, Biological Conditions. Please also note that the alignment is only fenced for at-grade or embankment sections and that wildlife can freely move underneath viaduct sections.

2135-6359

The CDFW recommends providing information on the placement of excavated spoil material from tunnels. Section 2.11.3.3, Tunnels, of the Draft EIR/EIS describes the quantity of tunnel spoils and how they would be used: “Tunnel spoils would be temporarily stockpiled at the tunnel portal and, depending on geotechnical properties, distributed along the alignment and reused for embankment fill or nonstructural fill.”

2135-6360

As noted in BIO-MM#14, the Project Biologist would conduct the survey and thus would be respons ble for determining if larval host plants are present and if the habitat is suitable. Additional description regarding how presence may be assumed has been added to the measure in the Final EIR/EIS.

Additionally, CDFW recommends the use of other conservation measures from the Xerces Society “BMPs for Pollinators in Rangelands.” The Authority notes that BIO-MM#70 in the Revised/Supplemental Draft EIR/EIS already requires the use of this guidance in the Annual Vegetation Control Plan.

2135-6361

The CDFW recommends including additional guidance regarding monarch butterfly habitat management. The Authority notes that all the guidance documents cited by CDFW are already noted and required in BIO-MM#70. The guidance within those documents related to pollinator management would be included in the Annual Vegetation Control Plan required under BIO-MM#70. The CDFW also appears to assert that this measure is deferred and is not enforceable. The Authority strongly disagrees with this assertion. The measure clearly outlines the guidance that would be followed, and, as a mitigation measure, it would be required to be implemented and tracked by the Authority and its contractors during construction and operations.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6362

The CDFW recommends describing how and where alternative movement corridors would be created. As CDFW is aware, the HSR project's final designs are not yet available and thus the level of detail suggested by CDFW is also not available. However, the Authority has provided the crossing location at Fisher Creek and the nearby Tule Swale crossing as examples in Volume 3, Preliminary Engineering for Project Design Record, of the Draft EIR/EIS to illustrate the way the measure would work. For example, for Alternative 4, the information on those crossings is located in Book 4A at approximate stationing B705+00. Additionally, the Authority notes that all crossings (temporary or permanent) would be designed to meet the requirements outlined in BIO-MM#77a (Design Wildlife Crossings to Facilitate Wildlife Movement).

2135-6363

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.
Comment noted. The Revised/Supplemental Draft EIR/EIS and responses to numerous other comments provided by CDFW describe the impacts on mountain lion movement associated with the project. However, the Authority has also evaluated comments received on the Revised/Supplemental Draft EIR/EIS and has evaluated and included additional mitigation where warranted and feasible in response to comments to reduce and offset effects on wildlife movement. As noted by CDFW, construction would be timed to minimize impacts on wildlife movement. As a further commitment to avoid and minimize this impact, the Authority has also included a new mitigation measure in the Final EIR/EIS, BIO-MM#76b, which includes the additional establishment and consideration of wildlife movement areas during construction within the western Pacheco Pass region, an area CDFW notes is critical for mountain lion movement. Consequently, the Authority finds that with careful construction timing and this additional mitigation measure, impacts on mountain lion can be mitigated to less than significant at the project level.

2135-6364

Comment noted. The analysis in Appendix 3.7-E, Supplemental Noise Analysis on Terrestrial Wildlife Species, of the Revised/Supplemental Draft EIR/EIS is based on the best available information and the sources cited in the analysis. CDFW does not provide additional information or citations that could be used to complete additional analysis. Consequently, the Authority finds that the existing analysis is sufficient and based on the best available science.

2135-6365

The Authority notes that Mitigation Measure BIO-MM#76a in the Final EIR/EIS (BIO-MM#76 in the Draft EIR/EIS) is effective to minimize lighting impacts of construction on wildlife movement, because it includes provisions for the type, brightness, and directionality of lighting. However, for additional clarity for implementation, the Authority has revised BIO-MM#76a in the Final EIR/EIS to remove the language regarding feasibility. With respect to the use of vibratory pile driving methods near waterbodies for steelhead or giant garter snake, the Authority has removed the term “where feasible” from BIO-MM#76a in the Final EIR/EIS. V bratory methods will be used.

2135-6366

The commenter asserts that wildlife-friendly fencing described under BIO-MM#76a is unclear and inquires whether mechanically stabilized earth (MSE) wall would also be required. The Authority notes that the mitigation measure does not require MSE wall, and it is not proposed for soil stabilization areas. The intent of the mitigation measure is to maintain soil stabilization areas as permeable for wildlife movement. The commenter appears to agree that the proposed fencing would be permeable. As noted previously, the HSR right-of-way immediately adjacent to the tracks would be fenced to exclude wildlife from entering. The permeable soil stabilization fencing would be located a significant distance from the HSR right-of-way fencing in most instances. Consequently, the Authority does not believe there is any conflict, and wildlife will be excluded from the HSR alignment.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6367

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

The CDFW asserts that the requirements of BIO-MM#77a are not enforceable design requirements for wildlife crossings. The Authority strongly disagrees with the assertion that BIO-MM#77a does not provide enforceable design requirements and notes that the measure provides a clear list of the design guidelines that would be included in wildlife crossings. The Authority notes that we have evaluated the mitigation approach for mountain lion and other wildlife movement as described in our standard response. Consequently, the Authority has modified and expanded the mitigation approach for wildlife movement as noted in the standard response. The CDFW also cites concerns with respect to lands adjacent to proposed wildlife crossing locations and recommends that crossing locations be conserved and protected. The Authority notes that BIO-MM#77a already includes measures to address this concern. This measure requires the Authority, in coordination with CDFW and wildlife movement stakeholders in the region, to optimize wildlife crossings. As noted in the measure, the adjustment of locations would be made to orient crossings most advantageously to protected and natural lands. Additionally, as noted in the measure, the Authority would plan and prioritize species and wetland and natural community mitigation land acquisitions at or near wildlife crossing entrances to facilitate the use of crossings. Collectively, the Authority believes that BIO-MM#77a already implements the suggestions made by CDFW.

2135-6368

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

The CDFW recommends coordination with the SCVHA, Caltrans, and CDFW regarding the regional connectivity of SR 152 wildlife crossing study. The Authority notes that we have been in close coordination with the SCVHA and Pathways for Wildlife for several years and most recently prior to and after the public release of the Revised/Supplemental Draft EIR/EIS. The Authority also notes that we have evaluated the mitigation approach for mountain lion and other wildlife movement as descr bed in our Standard Response SJM-Response-BIO-8. Consequently, the Authority has modified and expanded the mitigation approach for wildlife movement as noted in the standard response.

2135-6369

The Authority is committed to designing wildlife crossings based on the best available science and based on input from knowledgeable stakeholders in the region and has worked for several years to do so. As further evidence of our commitment, the Authority has modified BIO-MM#77a in the Final EIR/EIS to strengthen the measure by removing the text noted by CDFW as problematic. With respect to funnel fencing (i.e., directional fencing), we have also modified BIO-MM#77a to make the use of directional fencing more clear. Lastly, with respect to CDFW's suggestion to include the construction of wildlife trails, the Authority notes that the measure already requires "consideration of habitat modification and/or habitat restoration at crossings to facilitate cover for crossing animals." The Authority notes that this measure may include the construction of wildlife trails, if appropriate and feas ble at specific locations.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6370

The commitment noted by CDFW is a commitment to work with the stakeholders to validate and optimize wildlife crossing locations. The term “work with” does not imply nor does it mean that the Authority would simply “notify” the stakeholders; instead, it is a commitment to continue the productive working relationship that has been in place for several years with these stakeholders. With respect to including GWD in the list of stakeholders, the Authority notes that the vast majority of wildlife movement concerns are located outside of the Grasslands Ecological Area because of significant commitments by the Authority to construct long sections of viaduct in that region, which would facilitate wildlife movement by design. Consequently, while we value the working relationship with GWD, the measure is focused on those stakeholders located where additional validation and optimization of crossings would be important.

2135-6371

As CDFW is aware, the process and timing for land acquisition is lengthy and requires input and approvals from several agencies, not to mention significant planning efforts. As noted in other responses, the final design of the project is not yet complete and therefore the exact location of wildlife crossings is not known. However, the measures noted by CDFW in BIO-MM#77a are not deferred because they are associated with specific timing requirements relative to construction of the project (i.e., “at the 75 to 90% design phase”), as well as performance standards for when, how much, and where mitigation must occur. The Authority will implement land acquisition as close to the 75% to 90% design phase as possible.

2135-6372

The commenter notes that final approval and timing of the wildlife crossing design, inspection, and maintenance plan is unclear and must come from the wildlife agencies. The timing of the plan is clear relative to the design phase of the project; it would be completed at the 75% to 90% design phase and in coordination with local wildlife stakeholders. The final approvals of the wildlife crossing design, inspection, and maintenance plan would be made by the Authority to ensure that the plan is consistent with all applicable design standards for the train and ensures the safety and security of passengers. However, the Authority notes that BIO-MM#77a requires the Authority to work with numerous knowledgeable partners to develop the plan, including CDFW.

2135-6373

The Authority has clarified the language in BIO-MM#77b in the Final EIR/EIS to specify that the monitoring plan would be prepared prior to construction. The Authority would be responsible for implementing the plan; however, monitoring and other components may be implemented under agreements with local wildlife stakeholders, if appropriate.

2135-6374

Please see response to submission SJM-2135, comment 6372, which describes the Authority’s requirements to consult with numerous knowledgeable entities in the region, including CDFW. With respect to the enforceability of BIO-MM#77b, the Authority disagrees with commenter's assertions and further notes that the measure has been revised in the Final EIR/EIS to include specific success criteria to ensure that the monitoring and adaptive management plan will be effective in monitoring the performance of crossing designs. The Authority also notes that CDFW has regulatory authority under Section 2081 and Section 1600 et seq. of the California Fish and Game Code. The Authority has worked with CDFW to obtain these authorizations for other project sections and anticipates working with CDFW to obtain the required authorizations for the San Jose to Merced Project Section and therefore notes that CDFW also maintains the ability to enforce permit requirements.

2135-6375

The commenter quotes a specific section of the Revised/Supplemental Draft EIR/EIS but does not make a specific comment on the Revised/Supplemental Draft EIR/EIS.

2135-6376

The at-grade rail at the listed locations would be surrounded by an 8-foot fence. Based on publications by various transportation ecologists, as cited in Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS, an 8-foot-tall fence would exclude deer, elk, and mountain lions. Since they would be excluded, they would not be able to access the rail, and jump outs would not be required to let animals out. Therefore, there is no need for jump outs in these regions.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6377

Potentially suitable habitat was identified through the use of a species habitat model, as descr bed in the Revised/Supplemental Draft EIR/EIS in Appendix 3.7-D, Supplemental Species Habitat Model Descriptions. The Authority anticipates having access to most areas near the project but acknowledges that not all areas may be access ble. As noted in BIO-MM#87, a variety of survey methods may be used, including methods that do not require direct access to an area (i.e., camera stations).

2135-6378

The CDFW notes concerns with the practicability of conducting surveys for mountain lions and their dens. The Authority acknowledges that BIO-MM#87 may be challenging to implement, considering the elusive nature of the mountain lion. However, the Authority also finds that no other feasible measures or protocols exist to help to minimize potential impacts on mountain lion dens. CDFW also suggests the use of camera stations to help detect mountain lions. The Authority notes that BIO-MM#87 already notes that the use of camera stations would be a survey method considered.

2135-6379

The CDFW recommends additional description of how mountain lion dens will be checked to see that dens are no longer occupied without disturbing the adult female and kittens. The Authority acknowledges that it will be challenging to determine whether dens are active but that there are no established protocols or methods for making the determination, and therefore a more specific description cannot be added to the measure at this time. The specific methods used would be determined by the Project Biologist, who may contact local experts as appropriate.

2135-6380

The CDFW has misinterpreted the measure. A buffer of at least 1,970 feet would be implemented every time a den is detected with kittens. Halting all construction for 2 months is not feas ble and therefore cannot be implemented. The Authority has reconsidered the work window text within BIO-MM#87, and, although intended to further minimize potential effects, we have removed it from the measure in the Final EIR/EIS as requested by CDFW.

2135-6381

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.
Please also see the response to submission SJM-2134, comment 6245, which discusses mitigation ratios for mountain lions and the overall approach for mountain lion mitigation to maintain genetic connectivity in the region.

2135-6382

Comment noted. The Authority notes that it is required to meet basic safety and security requirements for lighting under OSHA requirements.

2135-6383

The CDFW states that it is unclear why mitigation to reduce the potential impacts from train headlights is limited to areas within Coyote Valley. Additional mitigation in the form of noise/visual barriers would be required in other locations, which will obscure and mask train headlight impacts. Mitigation Measure BIO-MM#80 outlines where those noise/visual barriers would be required. Consequently, minimizing headlights in locations outside of Coyote Valley would not be required.

2135-6384

As noted in other responses to CDFW comments, the Authority acknowledges that the project may affect the gene flow between subpopulations of mountain lion, as discussed under individual impacts. Clarification has been added to the comparison summary table in the Final EIR/EIS to also note that potential impacts on gene flow may occur.

2135-6385

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6386

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.
Please see the response to submission SJM-2131, comment 6256, which discusses the approach and methodology for pre-construction surveys for mountain lion dens including the revisions to BIO-MM#87. The Authority finds that, although the survey measure may be difficult to implement, it represents the best chance of finding and protecting mountain lion dens during construction. See also Standard Response BIO-8 with respect to impacts on movement and gene flow.

2135-6387

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.
Measures to ensure wildlife movement opportunities are maintained and improved in the Pacheco Creek area have been incorporated into the Final EIR/EIS. Please see Standard Response BIO-8 for a discussion of mitigation for temporary and permanent impacts to movement, including movement in the vicinity of Pacheco Creek Reserve.

2135-6388

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

2135-6389

Table 2 in Appendix 3.7-A, Special-Status Species Subject to Project Impacts, of the Revised/Supplemental Draft EIR/EIS, appropriately refers to the entire mountain lion ESU, which by definition includes the CC-N and CC-C subpopulations.

2135-6390

The commenter notes that the habitat range and criteria are not clear and suggest an additional reference. The criteria for high- and low-priority habitats for the modeling is based on the literature referenced in Appendix 3.7-D, Supplemental Species Habitat Model Descriptions, of the Revised/Supplemental Draft EIR/EIS. The Authority has reviewed the mapping and information cited by CDFW. The information in that more recent literature would not change the range of mountain lion modeled for the proposed project because the range is substantially similar to that already used in the analysis in Appendix 3.7-D.

2135-6391

The Authority reviewed the mapping and information provided by the CDFW; It does not change the range of mountain lion relative to the proposed project. Figure 3.7-D-2 has been revised in the Final EIR/EIS to depict the CC-N and CC-C ESUs. This revision does not change the findings or conclusions of the EIR/EIS because the CC-N and CC-C ESUs were fully descr bed and considered in the Revised/Supplemental Draft EIR/EIS.

2135-6392

Please see response to submission SJM-2135, comment 6355, which clarifies operation of trains as well as intermittent maintenance trains. There are no non-intermittent noise or light impacts and therefore no additional analysis, as suggested by the commenter, is required.

2135-6393

BIO-MM#80 in the Revised/Supplemental Draft EIR/EIS identifies the locations of new noise barriers to reduce or eliminate noise effects on wildlife, including mountain lion, with specific stationing identified in Coyote Valley, upper Pacheco Creek, and at the crossing of the California Aqueduct. BIO-MM#80 requires the use of a noise barrier design with a minimum height of 17 feet and which can be demonstrated to reduce noise by a minimum of 10 dBA to reduce impacts. Further analysis is not necessary.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6394

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

2135-6395

Please see Submission SJM-2135, comment 6355, which clarifies operation of trains as well as the number of intermittent maintenance trains. 24-hour train operation is not proposed. Consequently, the Authority finds the information from the biological opinion for the Merced to Fresno Project Section very relevant because it is a very similar project with similar potential impacts. 24-hour train operation is not proposed for this project section as stated in the comment; therefore, this project section does not differ significantly operationally from the Merced to Fresno Project Section.

2135-6396

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

The conclusions of the supplemental noise analysis on mountain lion were applied to the impact analysis and subsequent mitigation approach in the Revised/Supplemental Draft EIR/EIS. With respect to additional noise impacts, the Authority has included changes to BIO-MM#80 in the Revised/Supplemental Draft EIR/EIS, which require the Authority to construct additional noise barriers, including within the western Pacheco Pass area as noted by CDFW. Additionally, the Authority notes that we have reconsidered the mitigation approach based on comments received on the Revised/Supplemental Draft EIR/EIS, as outlined in the standard response.

2135-6397

BIO-MM#78 in the Draft EIR/EIS requires the establishment of dedicated wildlife crossings in the Pacheco Creek Area. This measure was not revised for the Revised/Supplemental Draft EIR/EIS, and therefore, the text of that measure was not included in that document. However, it is still a mitigation measure identified for the project and is included in the Final EIR/EIS.

2135-6398

The Authority notes that a small portion of the project footprint overlaps with a conservation easement near the California Aqueduct named the Sequoia Riverlands Trust Conservation Easement. The Final EIR/EIS, Impact BIO#51, Table 3.7-22, includes additional information and clarification regarding the potential impacts on the conservation easement in this area. This additional information does not change the conclusions of the impact analysis or the mitigation measures related to impacts on conservation easements.

2135-6399

As stated in the language of BIO-MM#51, the measure is implemented “in and adjacent to suitable habitat where known California condor roosting habitat occurs at Lover’s Leap south of State Route 152.” As with all mitigation measures identified for the project, all provisions listed within the measure are required, and the Authority would include all mitigation measures within its Mitigation Monitoring and Enforcement Plan as requirements within design-build contracts.

2135-6400

Construction lighting would be limited to tunnel portals in the Pacheco Pass area and would be avoided in the Central Valley, as descr bed in Appendix 3.7-F, Supplemental Artificial Light Analysis on Terrestrial Wildlife Species, of the Revised/Supplemental Draft EIR/EIS. The analysis takes into account these restrictions on construction lighting. Please see Chapter 2, Alternatives, in the Final EIR/EIS for more information regarding nighttime lighting use during construction.

2135-6401

Please refer to Section 3.7, Biological and Aquatic Resources, of the Draft EIR/EIS, Section 3.7.9 Mitigation Measures, for the full description of the applicable mitigation measures, including BIO-MM#15, BIO-MM#51, BIO-MM#76, and BIO-MM#77a addressing ALAN. The applicable mitigation measures are not described in Appendix 3.7-F, Supplemental Artificial Light Analysis on Terrestrial Wildlife Species, of the Revised/Supplemental Draft EIR/EIS, which includes only the additional supplemental analysis of ALAN impacts.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6402

Please see response to submission SJM-2070, comment 1677 on the Draft EIR/EIS.

2135-6403

Please see response to submission SJM-2070, comment 1678 on the Draft EIR/EIS.

2135-6404

Please see response to submission SJM-2070, comment 1679 on the Draft EIR/EIS.

2135-6405

Please see responses to submission SJM-2070, comments 1680 and 1681 on the Draft EIR/EIS.

2135-6406

Please see response to submission SJM-2070, comment 1682 on the Draft EIR/EIS.

2135-6407

Please see response to submission SJM-2070, comment 1683 on the Draft EIR/EIS.

2135-6408

Please see response to submission SJM-2070, comment 1685 from the Draft EIR/EIS.

2135-6409

Please see response to submission SJM-2070, comment 1685 from the Draft EIR/EIS, which addresses CDFW's assertions regarding IPBs and access-restriction fencing.

2135-6410

Please see response to submission SJM-2070, comment 1687 on the Draft EIR/EIS regarding the Authority's approach to using predictive modeling.

2135-6411

Please see response to submission SJM-2070, comment 1687 from the Draft EIR/EIS.

2135-6412

Please see response to submission SJM-2070, comment 1687 from the Draft EIR/EIS.

2135-6413

Refer to Standard Response SJM-Response-BIO-8: Impact on Wildlife Movement in the Western Pacheco Pass Region.

The WCA analyzed wildlife movement for different movement guilds (including aerial fauna such as the Bay checkerspot). While genetic connectivity was not specifically addressed in the WCA, the importance of genetic connectivity was discussed and addressed in the Revised/Supplemental Draft EIR/EIS. The Final EIR/EIS addresses this issue further through additional mitigation. Lastly, the Authority disagrees that the WCA does not indicate post-project permeability for the different wildlife movement guilds/species representatives. In fact, the WCA does indicate changes in existing permeability from the current condition to the proposed project with mitigation (dedicated wildlife crossings).

2135-6414

Please see response to submission SJM-2070, comment 1687 from the Draft EIR/EIS regarding the Authority's approach to using predictive modeling.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6415

The comment asserts that to date CDFW has not been provided a comprehensive analysis of impacts on CDFW's properties under Section 4(f). Please refer to Table 4-3 in Section 4.5.1, Parks, Recreation, and Wildlife and Waterfowl Refuges, of the Final EIR/EIS for the CDFW-owned properties that are included in this analysis. In addition, please see Sections 4.6.1.30, Cottonwood Creek Wildlife Area (Resource #45), 4.6.1.31, Volta Wildlife Area Use Assessment (Resource #48), 4.6.1.32, Los Banos Wildlife Area Use Assessment (Resource #49), in the Final EIR/EIS for the Section 4(f) use assessments. These use assessments fully evaluate the potential effects on Cottonwood Creek Wildlife Area, Volta Wildlife Area, and Los Banos Wildlife Area by examining the potential for permanent use, temporary occupancy, and constructive use. Conclusions for these resources are no use, no constructive use, and no constructive use, respectively. Because no permanent use or TCE would be required and no changes in access would occur, the San Luis Reservoir Recreation Area was not included in the Section 4(f) use assessment in the Final EIR/EIS.

2135-6416

As indicated in response to submission SJM-2070, comment 1689 on the Draft EIR/EIS, the public use values of CDFW lands are addressed in Impact PK#1, Temporary Changes from Noise, Vibration, and Construction Emissions on Use and User Experience of Parks, Recreational Facilities, and Open Space Resources, and Impact PK#5, Permanent Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of Parks, Recreation, and Open Space Resources, in Section 3.15, Parks, Recreation, and Open Space. The analysis concludes that the impacts on these resources would be less than significant under CEQA. Economic effects are not a consideration under Section4(f) and are not discussed in Chapter 4, Section 4(f)/6(f) Evaluation, of the Final EIR/EIS; however, economic effects are discussed in Section 3.12, Socioeconomics and Communities, of the Draft EIR/EIS. As indicated in Section 3.15, of the EIR/EIS, some aspects of the project would diminish the user experience but would not preclude visitors from going to the referenced areas. As such, the analysis does not address diminished funding related to reduced visitor numbers.

2135-6417

The Grassland Environmental Education Center and Van Atta Interpretative Marsh Trail were added to Section 3.15.5, Affected Environment, of the Final EIR/EIS as features within Los Banos Wildlife Area. Impacts on Los Banos Wildlife Area are identified in Section 3.15, Parks, Recreation, and Open Space, in the Final EIR/EIS. The addition of this information in the Final EIR/EIS does not change the CEQA conclusion for Impact PK#7, which is less than significant after implementation of mitigation measures NV-MM#3: Implement Proposed California High-Speed Rail Project Noise Mitigation Guidelines, NV-MM#4: Support Potential Implementation of Quiet Zones by Local Jurisdictions, NV-MM#8: Project Vibration Mitigation Measures, and BIO-MM#80: Minimize Permanent Intermittent Noise, Visual, and Train Strike Impacts on Wildlife Movement. With regard to the Section 4(f) conclusion for Los Banos Wildlife Area, a no constructive use determination was identified for Los Banos Wildlife Area. Section 4(f) requires the selection of an alternative that avoids the use of Section 4(f) properties if that alternative is deemed feasible and prudent. Although the project alternatives analysis process considered multiple criteria, the screening emphasized the project objective to maximize the use of existing transportation corridors and available rights-of-way to the extent feas ble; the result of this effort was the carrying forward of the north-south alignment alternatives that follow the existing Caltrain and UPRR rail corridor. The project alternatives evaluation process resulted in the conclusion that, in accordance with 49 U.S.C. Section 303(c), there was no feasible and prudent HSR alternative within the study area.

With regard to the CEQA analysis of alternatives, a reasonable range of feasible alternatives was analyzed in the Draft EIR/EIS, including options for the San Joaquin Valley Subsection portion of the alignment. Factors taken into consideration included aquatic resources, wildlife, and state park resources. As identified in Table 2-3 in Chapter 2, Alternatives, of the Draft EIR/EIS, options to go around the GEA (i.e., GEA North/Merced and South of GEA) were withdrawn. Several vertical design options were also considered by the Authority for the San Joaquin Valley Subsection during preliminary engineering.

Response to Submission 2135 (Primavera Parker, California Department of Fish and Wildlife, June 9, 2021) - Continued

2135-6418

The commenter asserts that the analysis of impacts on conservation plans and conservation easements is incomplete. The Authority recognizes the perpetual conservation values established by these properties and has included mitigation in the Draft and Final EIR/EIS acknowledging these factors. BIO-MM#84b requires the Authority to replace the permanent loss of these areas "commensurate with the land cover type and ecological function of the lands lost." The Authority also recognizes that the ecological functions that are lost or impacted will vary by the individual conservation easement. Consequently, under BIO-MM#84b, the Authority is also required to consult with affected organizations, including agencies of the State of California, to select appropriate replacement lands. See also response to submission SJM-2125, comment 6276, which addresses the alternatives analysis in the San Joaquin Valley Subsection, including Mud Slough.

Submission 2136 (J.P. Martinho, Department of California Highway Patrol, June 10, 2021)

San Jose - Merced - RECORD #2136 DETAIL	
Status	Unread
Record Date	6/13/2021
Submission Date	6/10/2021
Interest As	State Agency
First Name	J P.
Last Name	Martinho
Attachments	2009022083_CHP Comment.pdf (278 kb)

State of California—Transportation Agency GAVIN NEWSOM, Governor

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL
706 West Pacheco Boulevard
Los Banos, CA 93635
(209) 826-3811
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)

May 10, 2021

File No.: 461.15230

State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

Regarding SCH #2009022083

2136-6240

The Los Banos Area of the California Highway Patrol received the "Notice of Completion & Environmental Document" for the California High-Speed Rail Project: San Jose to Merced Project Section for the State Clearinghouse, SCH #2009022083. After review, there are concerns with the potential impact this project could have on traffic congestion.

The concerns relate to the construction section in Merced County, involving Interstate 5, State Route 33, McCabe Road, and Henry Miller Road. These roads will potentially have construction and roadway improvements at several intersections and throughout the roadways themselves. These potential construction and roadway improvements could cause traffic congestion, increased travel times, heavy truck traffic, and response times to calls for service. This project could have a negative impact on our operations due to the increased traffic congestion and construction, which could necessitate the need for additional traffic control measures to mitigate the potential increase in traffic hazards and collisions.

If you have any questions regarding these concerns, please contact me at (209)826-3811.

Sincerely,

J. P. MARTINHO, Lieutenant
Commander
Los Banos Area

cc: Central Division

Safety, Service, and Security *An Internationally Accredited Agency*

Response to Submission 2136 (J.P. Martinho, Department of California Highway Patrol, June 10, 2021)

2136-6240

The comment notes that construction activities, both roadway modifications and construction vehicles, could negatively affect traffic congestion and California Highway Patrol response times on roadways in Merced County, particularly Interstate 5, State Route 33, McCabe Road, and Henry Miller Road. Please refer to Impact S&S#1 Temporary Impacts on Emergency Access and Response Times from Temporary Roadway and Highway Closures, Relocations, and Modifications and Impact S&S#2 Temporary Impacts on Emergency Access and Response Times from Construction Vehicles of the Draft EIR/EIS for a discussion of the project's temporary impacts during construction on emergency vehicle response times. Within Merced County, these impacts were found to be less than significant as the project incorporates features that would minimize delays and inadequate response times through coordination with local jurisdictions and procedures for implementing or maintaining emergency vehicle access during construction. The project also incorporates features that include effective measures to control and manage construction vehicle traffic through implementation of construction plans, standard construction practices, designated construction truck routes, and restrictions on construction hours. Please refer to Final EIR/EIS Appendix 2-E for a description of the IAMFs that have been incorporated into project design and have been analyzed as part of the project alternatives. These include SS-IAMF#1: Construction Safety Transportation Management Plan, TR-IAMF#1: Protection of Public Roadways during Construction, TR-IAMF#2: Construction Transportation Plan, TR-IAMF#6: Restriction on Construction Hours, and TR-IAMF#7: Construction Truck Routes.

Please refer to Impact TR#1 Temporary Congestion/Delay Consequences on Major Roadways, Freeways, and Intersections from Temporary Road Closures, Relocations, and Modifications and Impact TR#2 Temporary Congestion/Delay Consequences on Major Roadways, Freeways, and Intersections from Construction Vehicles of the Final EIR/EIS for a discussion of the project's temporary impacts during construction on automobile delay. These impacts were found to be less than significant under CEQA as increases in automobile delay are not considered to be significant environmental effects. As descr bed above, the project incorporates features that include actions to control and manage construction vehicle traffic through implementation of traffic control plans for each affected location prior to beginning construction activities, which would include efforts to minimize effects on major roadways from construction vehicle traffic through signage to alert drivers, traffic control methods, construction traffic routes, and

2136-6240

alternative access and detour provisions. In addition, construction worker trips and material deliveries would be limited to off-peak hours for roadway and freeway traffic.